

# BUZÇELİK

TERMİK CİHAZLAR SANAYİ



TECHNICAL  
COMPETENCE



RAPIDITY



QUALITY

**Kalitenin zamana karşı zaferi...**  
*The triumph of quality against time...*



**2018**  
**ÜRÜN KATALOĞU**  
**PRODUCT CATALOGUE**

Kalitenin zamana karşı zaferi...

The triumph of quality against time...

# HAKKIMIZDA

## About us

Buzçelik, 1982 yılında Konya'da kurulmuştur. Sanayi tipi buzdolabı imalatı ile başladığı faaliyetlerini günümüze kadar gelen süreçte kanatlı borulu ısı eşanjörleri üzerine yoğunlaştırmıştır. Mevcut tesis ve makine parkuru, sahip olduğu tecrübe ve bilgi birikimi ile; Ticari ve Endüstriyel Tıp Hava Soğutmalı Kondenselerler, Oda Soğutucular, Kuru Soğutucular, Vitrin Soğutucular, Yağ Soğutucular, Sulu/Buharlı Hava Isıtıcı ve Soğutucu Bataryalar ve özel bataryalar olarak üretim faaliyetlerini devam ettirmektedir. Ürünlerin kapasiteleri sürekli güncellenen Unilab Coils batarya tasarım programı ile hesaplanmakta ve bataryalar uygulama koşulları dikkate alınarak tasarlanmaktadır.

Buzçelik ürünleri TSE ISO 9001:2008 Kalite Yönetim Sistemi belgesi ve Kalite Uygunluk Belgesi ile sertifikalandırılmış olup Avrupa Yeni Yaklaşım Direktifleri doğrultusunda CE işaretlemesi ile müşterilerimizin kullanımına sunulmaktadır.

Buzçelik, müşteri odaklı bir yaklaşımı esas alarak, araştırma ve geliştirme faaliyetleri ile üretim proseslerini ve ürünlerini sürekli geliştirmeyi, topluma ve çevreye duyarlı yenilikçi ürün ve hizmetleri uygun fiyat ve kalitede, tam zamanında üretmeyi ve sektöründe bir dünya lideri olmayı kalite politikası haline getirmiştir.

Buzçelik was established in Konya. They have intensified their activities which they started with industrial type fridge production on winged, piped heat exchanger during the process up till today.

They have been carried out their production activities as Commercial and Industrial Type Air Cooled Condensers, Unit Air Coolers, Dry Coolers, Gravity and Forced Air Coolers for Shop Windows, Oil Coolers, Water/Steam Air Heaters&Coolers and specific coils with their existing facility and machine park and experience and information background they have already had.

The capacities of the products are calculated via Unilab Coils design software with its latest upgrade version and also designed by taking the coils' application conditions into consideration.

The Buzçelik Products have been produced with TSE ISO 9001:2008 Quality Management System and certificated with TSE Quality Compliance Certificate and offered to the use of our customers with CE marking in accordance with the European New Approach Directives.

Taking a customer-focused approach as a basis, Buzçelik has made the production processes and products develop constantly with the research and development activities, produce the innovative product and services which are sensitive to the society and environment at reasonable prices and quality and just-in time and be a world leader in their sector a quality policy.

**BUZÇELİK**  
TERMİK CİHAZLAR SANAYİ

06-23

**TİCARİ TİP  
KONDENSER**

Commercial Type Air  
Cooled Condensers



**MKK**

12

Bakır Boru / Copper Tube : 3/8"  
Kalıp / Geometry : 32 mm x 28 mm

**MKL**

14

Bakır Boru / Copper Tube : 3/8"  
Kalıp / Geometry : 25 mm x 22 mm

**KK**

16

Bakır Boru / Copper Tube : 3/8"  
Kalıp / Geometry : 32 mm x 28 mm

**KL**

20

Bakır Boru / Copper Tube : 3/8"  
Kalıp / Geometry : 25 mm x 22 mm

24-47

**ENDÜSTRİYEL  
KONDENSER**

Industrial Condensers



**UK**

30

Bakır Boru / Copper Tube : 3/8"  
Kalıp / Geometry : 32 mm x 28 mm  
Hatve / Fin Spacing : 2,1 mm - 2,5 mm

**UY**

36

Bakır Boru / Copper Tube : 1/2"  
Kalıp / Geometry : 32 mm x 28 mm  
Hatve / Fin Spacing : 2,1 mm - 2,5 mm

**VUK**

44

Bakır Boru / Copper Tube : 3/8"  
Kalıp / Geometry : 32 mm x 28 mm  
Hatve / Fin Spacing : 2,1 mm - 2,5 mm

**VUY**

46

Bakır Boru / Copper Tube : 1/2"  
Kalıp / Geometry : 32 mm x 28 mm  
Hatve / Fin Spacing : 2,1 mm - 2,5 mm

48-65

**KONDENSER  
ÜNİTELERİ**

Condensing Units



**BZBOX**

54

Bakır Boru / Copper Tube : 3/8"  
Kalıp / Geometry : 25 mm x 22 mm

**SHBOX**

56

Bakır Boru / Copper Tube : 3/8"  
Kalıp / Geometry : 25 mm x 22 mm

**EBOX**

58

Bakır Boru / Copper Tube : 3/8"  
Kalıp / Geometry : 32 mm x 28 mm

**MTBOX**

60

Bakır Boru / Copper Tube : 3/8"  
Kalıp / Geometry : 25 mm x 22 mm

**KUK**

62

Bakır Boru / Copper Tube : 3/8"  
Kalıp / Geometry : 32 mm x 28 mm

**KUY**

64

Bakır Boru / Copper Tube : 1/2"  
Kalıp / Geometry : 32 mm x 28 mm

66-113

**STANDART ODA  
SOĞUTUCULARI**

Standard Room Refrigerators



**KSD-KSA**

72

Bakır Boru / Copper Tube : 3/8"  
Kalıp / Geometry : 32 mm x 28 mm  
Hatve / Fin Spacing : 4 mm - 6 mm

**MSD-MSA  
MSS-MSO**

76

Bakır Boru / Copper Tube : 1/2"  
Kalıp / Geometry : 40 mm x 35 mm  
Hatve / Fin Spacing : 4 mm - 10 mm

**NSS-NSO**

90

Bakır Boru / Copper Tube : 5/8"  
Kalıp / Geometry : 40 mm x 35 mm  
Hatve / Fin Spacing : 8 mm - 10 mm

**OSA-OSS  
OSO**

96

Bakır Boru / Copper Tube : 1/2"  
Kalıp / Geometry : 55 mm x 48 mm  
Hatve / Fin Spacing : 6 mm - 10 mm

**PSA-PSS  
PSO**

106

Bakır Boru / Copper Tube : 5/8"  
Kalıp / Geometry : 55 mm x 48 mm  
Hatve / Fin Spacing : 6 mm - 10 mm

114-133

## TAVAN TİPİ SOĞUTUCULAR

Ceiling Type Coolers



**KTD-KTA** 120

Bakır Boru / Copper Tube : 3/8"  
Kalıp / Geometry : 32 mm x 28 mm

**MTA-MTS** 122

Bakır Boru / Copper Tube : 1/2"  
Kalıp / Geometry : 40 mm x 35 mm

**KCD** 124

Bakır Boru / Copper Tube : 3/8"  
Kalıp / Geometry : 32 mm x 28 mm

**KCA** 126

Bakır Boru / Copper Tube : 3/8"  
Kalıp / Geometry : 32 mm x 28 mm

**MCA** 128

Bakır Boru / Copper Tube : 1/2"  
Kalıp / Geometry : 40 mm x 35 mm

**MCS** 130

Bakır Boru / Copper Tube : 1/2"  
Kalıp / Geometry : 40 mm x 35 mm

**FTD-FTA** 132

Bakır Boru / Copper Tube : 3/8"  
Kalıp / Geometry : 32 mm x 28 mm

134-151

## ŞOK DONDURUCULAR

Blast Freezers



**FNO/FNN S** 140

Bakır Boru / Copper Tube : 5/8"  
Kalıp / Geometry : 40 mm x 35 mm

**FNO/FNN SS** 142

Bakır Boru / Copper Tube : 5/8"  
Kalıp / Geometry : 40 mm x 35 mm

**FNO/FNN T** 144

Bakır Boru / Copper Tube : 5/8"  
Kalıp / Geometry : 40 mm x 35 mm

**FPO/FPN S** 146

Bakır Boru / Copper Tube : 5/8"  
Kalıp / Geometry : 55 mm x 48 mm

**FPO/FPN SS** 148

Bakır Boru / Copper Tube : 5/8"  
Kalıp / Geometry : 55 mm x 48 mm

**FPO/FPN T** 150

Bakır Boru / Copper Tube : 5/8"  
Kalıp / Geometry : 55 mm x 48 mm

152-153

## ISI APAREYLERİ

Air Heater Units



**ISI APAREYLERİ** 152

154-175

## VİTRİN SOĞUTUCULARI

Gravity Coolers



**BES** 156

Bakır Boru / Copper Tube : 3/8"  
Kalıp / Geometry : 32 mm x 28 mm  
Hatve / Fin Spacing : 6 mm

**KKTD  
KKCA-KKCD** 158

Bakır Boru / Copper Tube : 3/8"  
Kalıp / Geometry : 32 mm x 28 mm  
Hatve / Fin Spacing : 4 mm - 6 mm

**LVY** 159

Bakır Boru / Copper Tube : 3/8"  
Kalıp / Geometry : 25 mm x 22 mm  
Hatve / Fin Spacing : 4 mm

**SÜTLÜK** 160

Forced Air Gravity Coolers

**REYON** 165

Two Rows Gravity Coolers

**ANKASTRE** 168

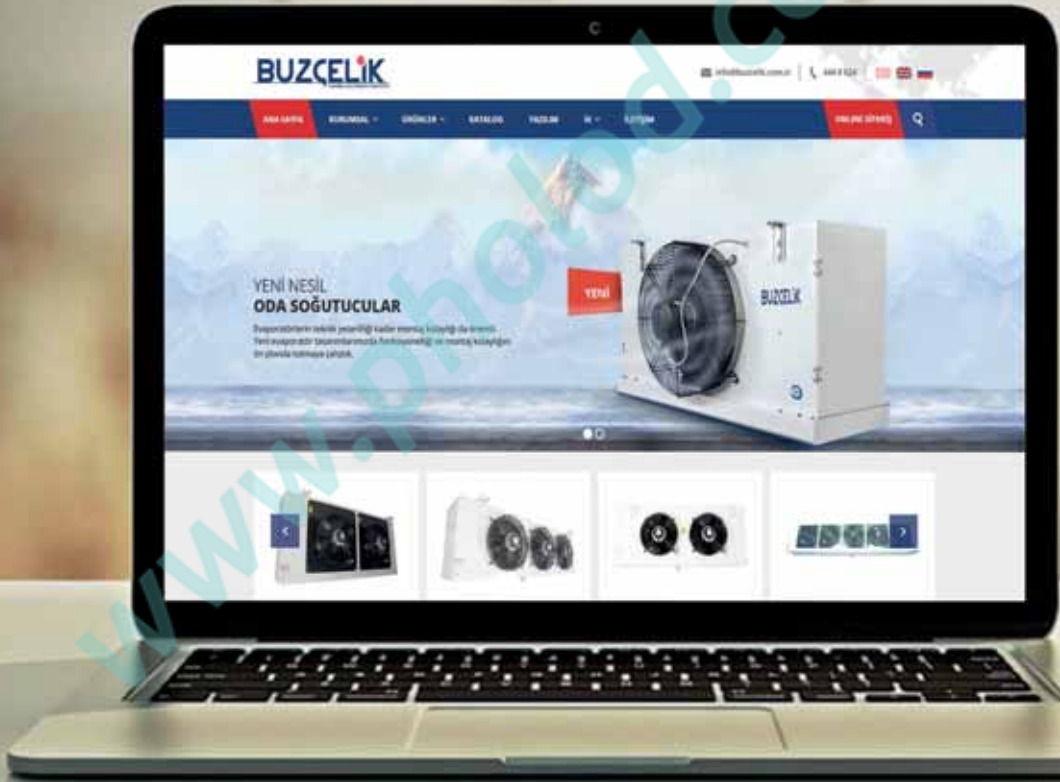
One Rows Gravity Coolers

**YAN** 171

One Row Side Gravity Coolers

# BUZÇELİK

TERMİK CİHAZLAR SANAYİ



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VISIT

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# PRODUCT SELECTION SOFTWARE



PRODUCT SELECTION SOFTWARE

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*The triumph of quality against time...*



# TİCARİ TİP KONDENSERLER

COMMERCIAL TYPE CONDENSERS

		Sayfa / Page
<b>MKK</b>	<i>Bakır Boru / Copper Tube : 3/8"</i> <i>Kalıp / Geometry : 32 mm x 28 mm</i>	<b>12</b>
<b>MKL</b>	<i>Bakır Boru / Copper Tube : 3/8"</i> <i>Kalıp / Geometry : 25 mm x 22 mm</i>	<b>14</b>
<b>KK</b>	<i>Bakır Boru / Copper Tube : 3/8"</i> <i>Kalıp / Geometry : 32 mm x 28 mm</i>	<b>16</b>
<b>KL</b>	<i>Bakır Boru / Copper Tube : 3/8"</i> <i>Kalıp / Geometry : 25 mm x 22 mm</i>	<b>20</b>

**CALL  
CENTER 444 0 624**  
[www.buzcelik.com.tr](http://www.buzcelik.com.tr)

BUZÇELİK katalogdaki değerleri haber vermeden deęiřtirme hakkını saklı tutar.

*BUZÇELİK reserves the right to make modifications in the catalog at any time without prior notice.*



## BATARYA

- Ø3/8" bakır boru.
- V-tipi alüminyum lamel.
- Lamel aralıkları 2,1-2,5 mm tasarlanmıştır.
- Giriş - çıkış kolektör malzemesi bakırdır.
- Standart ürünler için izin verilen en yüksek çalışma basıncı Ps=21 Bar.
- Şaşırtmalı boru dizilimi.
- Bataryalarda R404A, R407F, R507C, R22, R134A soğutucu gazlarla çalışmaya uygun tasarım.
- Opsiyonel olarak 1,8mm ile 4mm aralığında farklı hatveler seçeneği.

## Coil

- Ø3/8" copper tube.
- "V" type aluminum fins.
- The finned coils are designed with aluminum fins spaced at 2,1 or 2,5 mm, crimped onto copper tubes.
- Header inlet and outlet tube connections made of copper.
- maximum operating pressure 21 bar for standard products.
- Staggered copper tubes.
- The coil circuits are designed for refrigerants R404A, R407F, R507C, R22, R134A.
- Different fin spacing can be selected as an option for 1,8mm to 4mm.

## KASETLEME

- Galvaniz çelik üzerine elektrostatik RAL 9016 boyalıdır.
- Galvanizli çelik ya da alüminyum levha.
- Fan bölmeleri sac levhalar ile birbirinden ayrılmış ve duran fanların ters dönüş etkisi önlenmiştir.

## Casing

- Electrostatic powder coated RAL 9016 galvanized steel.
- Galvanized steel or aluminum.
- Each fan chamber is separated by internal baffle plates to prevent induced wind milling of off-cycle fans.

## FAN

- Ø200-Ø250-Ø300-Ø350-Ø400-Ø450-Ø500 mm / 230V-50Hz-Monofaze / 900, 1200, 1400 d/d fanlar.
- Opsiyonel seçimler Buzçelik Teknik Uzmanı tarafından teyit edilmektedir.
- Standart veya düşük ses seviyeli bakım gerektirmeyen fan seçeneği.
- İsteğe bağlı AC ya da EC fan motor seçenekleri.
- Koruma sınıfı IP54, fan konstrüksiyonu izolasyon malzeme sınıfı F.
- Opsiyonel olarak seçilebilir fan aksesuar çeşitleri (FlowGrid gürültü düşürücüler vb.)
- Çalışma aralığı -40°C/+50°C'dir.

## Fans

- Ø200-Ø250-Ø300-Ø350-Ø400-Ø450-Ø500 mm / 230V-50Hz-Monofaze / 900, 1200, 1400 d/d fans.
- Selections should be confirmed by your Buzçelik Technical Specialist.
- Standard or low noise level are available.
- Different kinds of motors available as optional. (EC or AC)
- Motor protection IP54 insulation class F.
- Different kinds of accessories available as optional. (FlowGrid etc.)
- Working conditions -40°C/+50°C.

## KAPASİTE

- Nominal kapasiteler  $\Delta T=15^{\circ}\text{C}$  koşulunda R404A gaza göre Eurovent EN 328 standartları dikkate alınarak verilmiştir.

## Capacity

- The nominal capacities calculated according to Eurovent EN328 standards that refer to  $\Delta T=15^{\circ}\text{C}$  condition and are valid for R404A.

## SEÇENEKLER

- Farklı dış kabin rengi,
- Farklı boru et kalınlığı ve hatve,
- Monofaze 220V 1~ 50Hz, Trifaze 400V 3~ 50Hz fan seçeneği.
- Katalogda belirtilmeyen özel ürünler için lütfen satış departmanı ile iletişime geçin.

## Options

- Different casing color.
- Other tube wall thicknesses and fin spacing on request.
- Mono phase 220V 1~ 50Hz fan or three phase 400V 3~ 50Hz fan.
- Please keep in touch with our sales department about your special needs that are not mentioned in the catalogue.

## NOT

- Montaj, Bakım - Taşıma ve Kaldırma detayları için kullanım Kılavuzuna başvurunuz.

## Options

- Please read "Installation, Operation and Maintenance Instructions" for mounting and maintenance.

## AKSESUAR

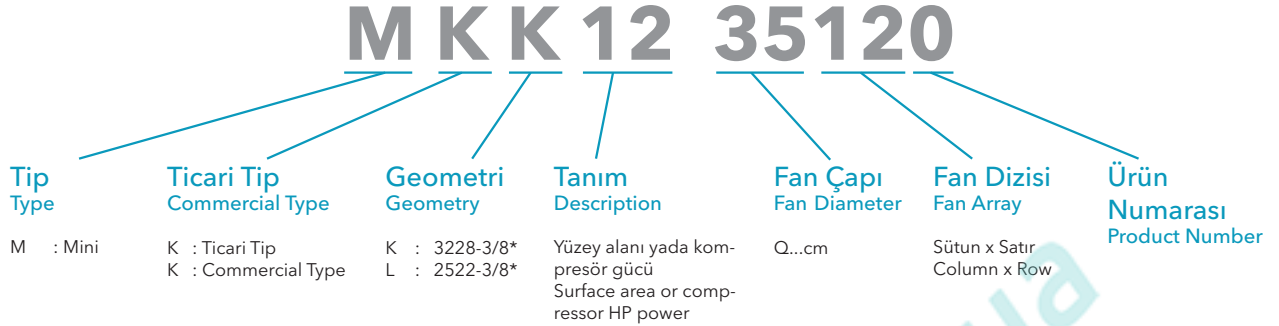
- Alüminyum veya paslanmaz çelik kabin,
- Epoxy boya,

## Accessories

- Casing made of aluminum or stainless steel.
- Epoxy resin coated aluminum fins.

Options As Listed Are Available On Request For Assistance Please Contact Buzçelik Branch

## ADLANDIRMA CLASIFICACION



## KAPASİTE STANDARTLARI CAPACITY STANDARD

Akışkan	: R404A
Hava Giriş Sıcaklığı (Tai)	: 25°C
Kondenzasyon Sıcaklığı (Tc)	: 40°C
$\Delta T = Tc - Tai$	: 40°C - 25°C = 15°C
Rakım	: 0m

**KONDENSER SEÇİMİ**  
Nominal condenser kapasitesi aşağıdaki formüller vasıtası ile hesaplanabilir.

**Formül 1**  
 $Q_{nk} = [(Q+N) \times f_2 \times f_3 \times f_5] / (f_4 \times f_6)$   
Q<sub>nk</sub> : Nominal kondenser kapasitesi  
Q : Kompresörün soğutma kapasitesi  
N : Kompresör motorunun çektiği güç  
Q ve N kompresör kataloglarından bulunabilir.  
Detaylı bilginin olmadığı durumlarda Formül 2 uygulanır.

**Formül 2**  
 $Q_{nk} = [Q \times f_1 \times f_2 \times f_3 \times f_5] / (f_4 \times f_6)$

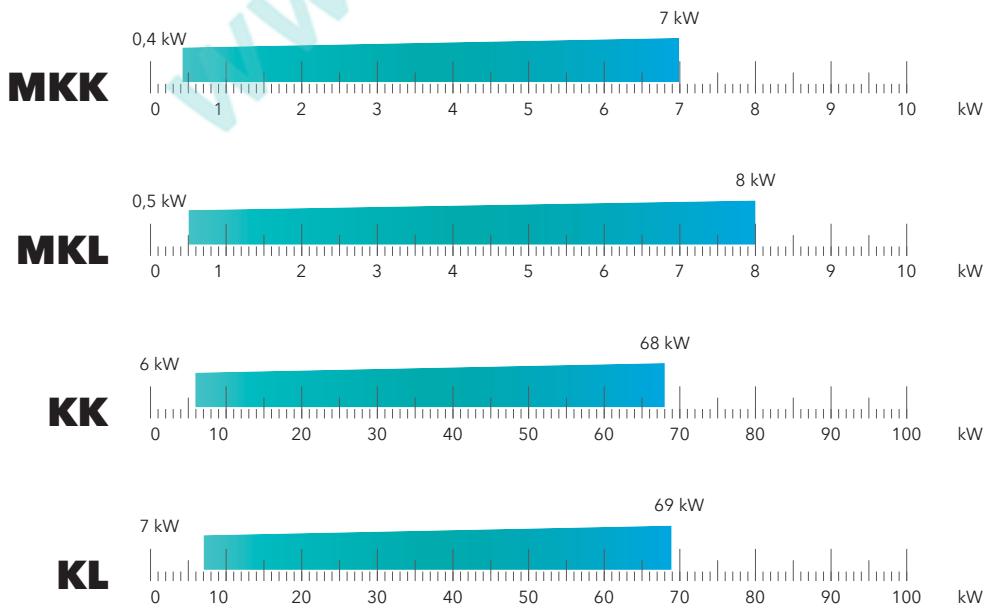
Refrigerant	: R404A
Air Inlet Temperature (Tai)	: 25°C
Condensation Temperature (Tc)	: 40°C
$\Delta T = Tc - Tai$	: 40°C - 25°C = 15°C
Altitude	: 0m

**KONDENSER SELECTION**  
Nominal condenser capacity can be calculated by using formulas below.

**Formül 1**  
 $Q_{nk} = [(Q+N) \times f_2 \times f_3 \times f_5] / (f_4 \times f_6)$   
Q<sub>nk</sub> : Nominal condenser capacity  
Q : Refrigerating capacity of compressor  
N : Absorbed compressor power  
These data can be obtained from the compressor catalogues. If absorbed compressor power is unknown, please use Formula 2.

**Formül 2**  
 $Q_{nk} = [Q \times f_1 \times f_2 \times f_3 \times f_5] / (f_4 \times f_6)$

## ÜRÜN KAPASİTE ARALIĞI CAPACITY RANGE



**(f<sub>1</sub>) FAKTÖRÜ / (f<sub>1</sub>) FACTOR**

Açık Kompresör / Open Compressors							
Evaporasyon Sıcaklığı Evaporation Temperature	Kondenzasyon Sıcaklığı / Condensation Temperature °C						
°C	30	35	40	45	50	55	60
-35	1,36	1,41	1,44	-	-	-	-
-30	1,31	1,36	1,40	1,44	-	-	-
-25	1,27	1,32	1,36	1,41	1,45	-	-
-20	1,24	1,28	1,31	1,35	1,39	1,44	-
-15	1,20	1,24	1,27	1,31	1,35	1,39	1,44
-10	1,18	1,21	1,24	1,27	1,31	1,35	1,40
-5	1,15	1,18	1,21	1,24	1,27	1,31	1,36
0	1,13	1,15	1,18	1,21	1,24	1,27	1,31
5	1,10	1,13	1,15	1,18	1,21	1,24	1,28
10	1,08	1,11	1,13	1,15	1,17	1,21	1,24

Hermetik ve Yarı-Hermetik Kompresör Hermetic and Semi-Hermetic Compressors							
Evaporasyon Sıcaklığı Evaporation Temperature °C	Kondenzasyon Sıcaklığı Condensation Temperature °C						
	30	35	40	45	50	55	60
-40	1,64	1,69	1,76	1,86	2,03	-	-
-35	1,56	1,61	1,66	1,73	1,83	-	-
-30	1,48	1,53	1,57	1,62	1,69	-	-
-25	1,42	1,46	1,5	1,54	1,6	1,68	-
-20	1,37	1,4	1,44	1,48	1,53	1,6	-
-15	1,32	1,35	1,38	1,43	1,48	1,53	1,58
-10	1,28	1,31	1,34	1,37	1,42	1,46	1,52
-5	1,23	1,26	1,29	1,33	1,37	1,41	1,45
0	1,2	1,22	1,25	1,28	1,32	1,36	1,39
5	1,16	1,19	1,21	1,24	1,28	1,31	1,34
10	1,13	1,15	1,18	1,21	1,23	1,26	1,29

**(f<sub>2</sub>) FAKTÖRÜ / (f<sub>2</sub>) Factor = 15/T1**
**(f<sub>3</sub>) FAKTÖRÜ / (f<sub>3</sub>) Factor**

Hava Giriş Sıcaklığı Faktörü / Air Inlet Temperature Factor								
T(°C)	15	20	25	30	35	40	45	50
f <sub>3</sub>	0,97	0,98	1	1,02	1,04	1,06	1,08	1,1

**(f<sub>4</sub>) FAKTÖRÜ / (f<sub>4</sub>) FACTOR**

Soğutucu Akışkan Faktörü / Refrigerant Factor					
R	R134A	R22	R404A/R507	R407A	R407C
f <sub>4</sub>	0,93	0,96	1	0,83	0,87

(f<sub>5</sub>) FAKTÖRÜ / (f<sub>5</sub>) FACTOR

Rakım Faktörü / Altitude Factor							
H (m)	0	500	1000	1500	2000	2500	3000
f <sub>5</sub>	1	1,04	1,07	1,11	1,16	1,21	1,25

(f<sub>6</sub>) FAKTÖRÜ / (f<sub>6</sub>) FACTOR

Lamel Malzemesi	Alüminyum	Kaplı Alüminyum	Bakır
Fin Material	Aluminum	Coated Aluminum	Copper
f <sub>6</sub>	1	0,97	1,03

Tablo-4 Lamel Malzemesi için Düzeltme Faktörleri

Table-4 Fin Material Correction Factors

Lamel Malzemesi	Alüminyum	Kaplı Alüminyum	Bakır
Fin Material	Aluminum	Coated Aluminum	Copper
K <sub>3</sub>	1	0,97	1,03

KONDENSER ÜNİTESİ SEÇİMİ

Nominal kondenser kapasitesi aşağıdaki formüller vasıtasıyla hesaplanabilir.

Formül 1

$$Q_{nk} = [(Q+N) \times f_2 \times f_3 \times f_5] / (f_4 \times f_6)$$

Q<sub>nk</sub> : Nominal kondenser kapasitesi

Q : Kompresörün soğutma kapasitesi

N : Kompresör motorunun çektiği güç

Q ve N kompresör kataloglarından bulunabilir.

Detaylı bilginin olmadığı durumlarda Formül 2 uygulanır.

Formül 2

$$Q_{nk} = [Q \times f_1 \times f_2 \times f_3 \times f_5] / (f_4 \times f_6)$$

CONDENSING UNIT SELECTION

Nominal condenser capacity can be calculated by using formulas below.

Formula 1

$$Q_{nk} = [(Q+N) \times f_2 \times f_3 \times f_5] / (f_4 \times f_6)$$

Q<sub>nk</sub> : Nominal condenser capacity

Q : Refrigerating capacity of compressor

N : Absorbed compressor power

These data can be obtained from the compressor catalogues.

If absorbed compressor power is unknown, please use Formula 2.

Formula 2

$$Q_{nk} = [Q \times f_1 \times f_2 \times f_3 \times f_5] / (f_4 \times f_6)$$

ÖRNEK SEÇİM / SELECTION EXAMPLE	
Kompresörün soğutma kapasitesi / Refrigerating Capacity of Compressor	: 11581.Watt/h
Kompresör Motorunun Çektiği Güç / Absorbed Compressor Power	: 4615.Watt/h
Kompresör Tipi / Compressor type	: Semi-Hermetic
Evaporasyon Sıcaklığı / Evaporation Temperature	: -10°C
Hava Giriş Sıcaklığı / Air Inlet Temperature	: +30°C
Kondenzasyon Sıcaklığı / Condensation Temperature	: +40°C
Rakım / Altitude	: 1000m
Soğutucu Akışkan / Refrigerant	: R404A
Lamel Malzemesi / Fin Material	: Aluminum
f <sub>2</sub> =1,5 / f <sub>3</sub> = 1,02 / f <sub>4</sub> =1 / f <sub>5</sub> =1,07 / f <sub>6</sub> =1	: 26514.Watt/h
Seçilen Kondenser / Selected Condenser	: KK84 45212

## TİCARİ TİP KONDENSER

Commercial Type Air Cooled Condensers

### TEKNİK BİLGİLER

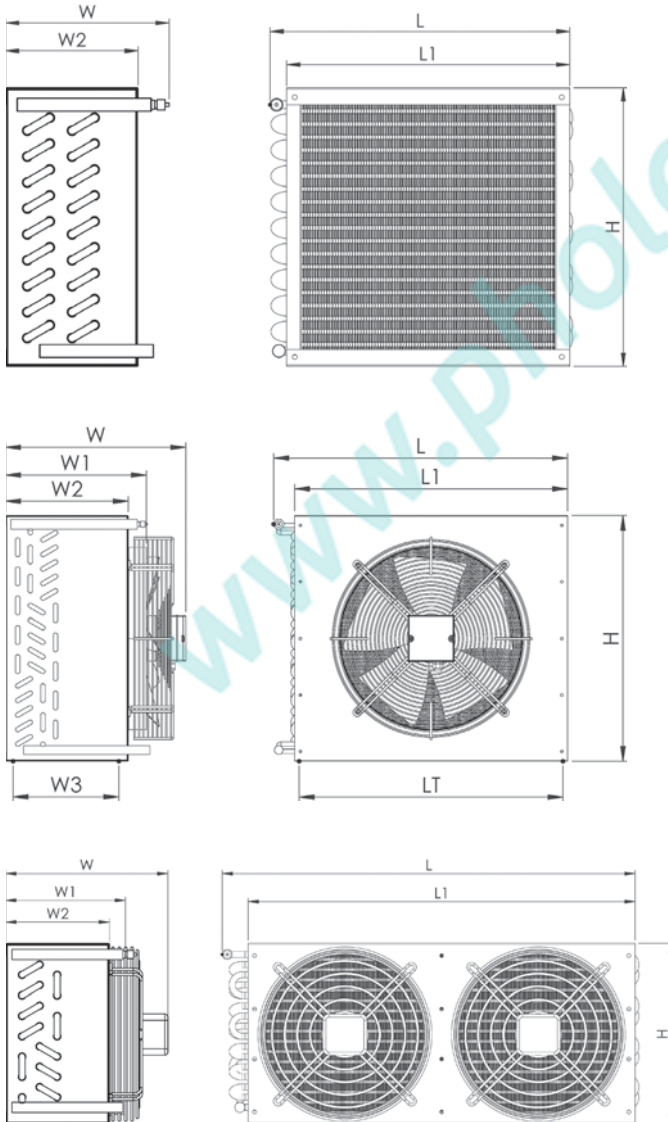
Technical Information

**Bakır Boru / Copper Tube** : 3/8"

**Kalıp / Geometry** : 32 mm x 28 mm

Belirtilen fiyatlara fan dahil değildir.  
Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.



All prices are given without fans.  
Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.



# MKK

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 32 mm x 28 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite Capacity	Fanlar Fans			
				Adet Qty	Çap Diameter	Hava Debisi Air Flow	
	(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(n)	(Ømm)	(m <sup>3</sup> /h)	
MKK 1/5	1,31	0,20	400	-	200	400	
MKK 1/4	1,98	0,20	610		200	420	
MKK 1/3	2,50	0,30	960		250	690	
MKK 1/2	3,75	0,50	1.340		250	620	
MKK 3/4	4,99	0,60	1.650		250	600	
MKK 1HP	6,25	0,80	2.920		300	1.290	
MKK 1/5 20110	1,31	0,20	400	1x 	200	400	
MKK 1/4 20111	1,98	0,20	610		200	420	
MKK 1/3 25112	2,50	0,30	960		250	690	
MKK 1/2 25113	3,75	0,50	1.340		250	620	
MKK 3/4 25114	4,99	0,60	1.650		250	600	
MKK 5 30112	5,42	0,65	2.411		300	1.113	
MKK 1HP 30115	6,25	0,80	2.660		300	1.290	
MKK 7,5 30117	7,78	0,70	2.742		300	1.500	
MKK 8,5 30118	8,45	0,90	2.981		300	1.420	
MKK 10 30119	10,14	1,10	3.478		300	1.546	
MKK 12 35120	12,04	1,40	5.300		350	2.161	
MKK 14 35121	13,94	1,60	5.954		350	2.355	
MKK 16 35122	15,76	1,60	6.310		350	2.306	
MKK 1/3 20212	3,23	0,40	1.210		2x 	200	750
MKK 1/2 20213	4,79	0,50	1.570			200	720
MKK 3/4 20214	4,85	0,60	1.720			200	730
MKK 1HP 20215	6,47	0,70	2.060			200	700
MKK 7,5 25217	7,44	0,80	2.770			250	1.300
MKK 8,5 25218	8,45	0,80	2.920			250	1.250
MKK 10 25210	10,56	1,10	3.390			250	1.310
MKK 12 25212	11,44	1,20	3.570			250	1.350
MKK 14 30214	13,73	1,50	6.280			300	3.180
MKK 16 30216	15,83	2,00	6.770			300	2.990

Model Model	Boyutlar / Dimensions						Bağlantılar / Connections	
	L	H	W	L1	W1	W2	Giriş / Input	Çıkış / Output
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(mm)	(mm)
MKK 1/5	29	23	13	26	-	11,5	3/8	3/8
MKK 1/4	32	30	13	29	-	11,5	3/8	3/8
MKK 1/3	38	30	13	35,5	-	11,5	3/8	3/8
MKK 1/2	38	30	14	35,5	-	12,5	3/8	3/8
MKK 3/4	38	30	18	35,5	-	16,5	3/8	3/8
MKK 1HP	38	35	18	35,5	-	16,5	3/8	3/8
MKK 1/5 20110	29	23	22	26	15	16,5	3/8	3/8
MKK 1/4 20111	32	30	22	29	15	16,5	3/8	3/8
MKK 1/3 25112	38	30	22	35,5	15	12,5	3/8	3/8
MKK 1/2 25113	38	30	23	35,5	16	12,5	3/8	3/8
MKK 3/4 25114	38	30	27	35,5	20	16,5	3/8	3/8
MKK 5 30112	38	35	27	35,5	20	16,5	3/8	3/8
MKK 1HP 30115	38	35	27	35,5	20	16,5	3/8	3/8
MKK 7,5 30117	48	35	27	42	20	16,5	5/8	5/8
MKK 8,5 30118	48	35	30,5	42	22,5	19	5/8	5/8
MKK 10 30119	48	41	30,5	42	22,5	19	19	5/8
MKK 12 35120	56	41	33	50	26	22	19	5/8
MKK 14 35121	56	47	33	50	26	22	19	5/8
MKK 16 35122	56	47	33	50	26	22	19	5/8
MKK 1/3 20212	57	23	22	54	15	12,5	3/8	3/8
MKK 1/2 20213	57	23	23	54	16	12,5	3/8	3/8
MKK 3/4 20214	57	23	23	54	16	12,5	3/8	3/8
MKK 1HP 20215	57	23	27	54	20	16,5	3/8	3/8
MKK 7,5 25217	67	30	27	61,5	20	16,5	5/8	5/8
MKK 8,5 25218	67	30	27	61,5	20	16,5	5/8	5/8
MKK 10 25210	67	35	27	61,5	20	16,5	19	5/8
MKK 12 25212	76	35	27	70,5	20	16,5	19	5/8
MKK 14 30214	77	41	27	71,5	20	16,5	19	5/8
MKK 16 30216	77	41	28	71,5	21	17,5	22	19

## TİCARİ TİP KONDENSER

Commercial Type Air Cooled Condensers

### TEKNİK BİLGİLER

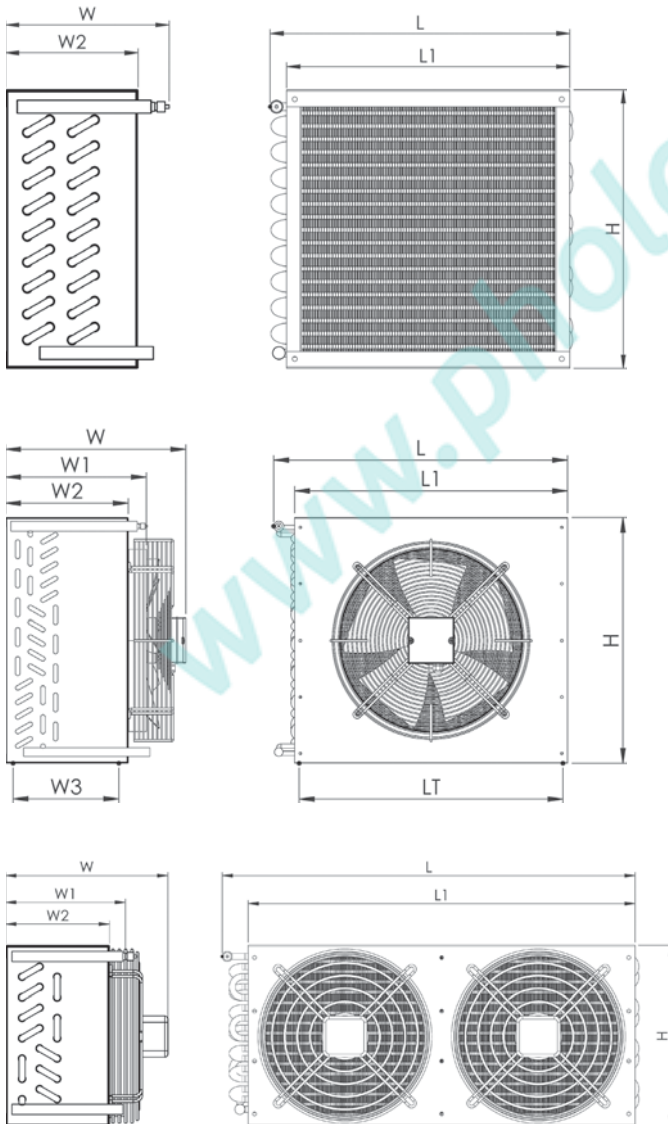
Technical Information

**Bakır Boru / Copper Tube** : 3/8"

**Kalıp / Geometry** : 25 mm x 22 mm

Belirtilen fiyatlara fan dahil değildir.  
Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.



All prices are given without fans.  
Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.



MKL

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 25 mm x 22 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite Capacity	Fanlar / Fans			
				Adet Qty	Çap Diameter	Hava Debisi Air Flow	
	(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(n)	(Ømm)	(m <sup>3</sup> /h)	
MKL 1/5	1,24	0,20	530	-	200	380	
MKL 1/4	1,60	0,30	650		200	400	
MKL 1/3	2,45	0,40	1.180		250	670	
MKL 1/2	3,68	0,60	1.560		250	610	
MKL 3/4	4,91	0,80	1.840		250	590	
MKL 1HP	5,80	1,00	3.080		300	1.230	
MKL 1/5 20110	1,24	0,20	530	1x 	200	380	
MKL 1/4 20111	1,60	0,30	650		200	400	
MKL 1/3 25112	2,45	0,40	1.180		250	670	
MKL 1/2 25113	3,68	0,60	1.560		250	610	
MKL 3/4 25114	4,91	0,80	1.840		250	590	
MKL 1HP 30115	5,80	1,00	2.775		300	1.230	
MKL 7,5 30117	7,47	1,20	3.358		300	1.300	
MKL 8,5 30118	8,66	1,20	3.515		300	1.250	
MKL 1/3 20212	2,59	0,50	1.280		2x 	200	750
MKL 1/2 20213	3,79	0,60	1.600			200	720
MKL 3/4 20214	3,88	0,70	1.750			200	720
MKL 1HP 20215	5,18	1,00	2.090	200		700	
MKL 7,525217	7,43	1,20	3.330	250		1.300	
MKL 8,5 25218	8,67	1,20	3.540	250		1.250	
MKL 10 25210	10,25	1,40	3.890	250		1.300	
MKL 12 25212	11,85	1,70	4.150	250		1.320	
MKL 14 30214	14,03	2,10	6.940	300		2.400	
MKL 16 30216	16,19	2,40	7.520	300		2.570	

Model Model	Boyutlar / Dimensions						Bağlantılar / Connections	
	L	H	W	L1	W1	W2	Giriş / Input	Çıkış / Output
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(mm)	(mm)
MKL 1/5	29	23	13	26	-	11,5	3/8	3/8
MKL 1/4	32	23	13	29	-	11,5	3/8	3/8
MKL 1/3	38	30	13	35,5	-	12,5	3/8	3/8
MKL 1/2	38	30	14	35,5	-	12,5	3/8	3/8
MKL 3/4	38	30	18	35,5	-	16,5	3/8	3/8
MKL 1HP	38	35	18	35,5	-	16,5	5/8	5/8
MKL 1/5 20110	29	23	22	26	15	11,5	3/8	3/8
MKL 1/4 20111	32	23	22	29	15	11,5	3/8	3/8
MKL 1/3 25112	38	30	22	35,5	15	12,5	3/8	3/8
MKL 1/2 25113	38	30	23	35,5	16	12,5	3/8	3/8
MKL 3/4 25114	38	30	27	35,5	20	16,5	3/8	3/8
MKL 1HP 30115	38	35	27	35,5	20	16,5	5/8	5/8
MKL 7,5 30117	48	35	27	42	20	16,5	5/8	5/8
MKL 8,5 30118	48	35	27	42	20	16,5	5/8	5/8
MKL 1/3 20212	57	23	22	54	15	12,5	3/8	3/8
MKL 1/2 20213	57	23	23	54	16	12,5	3/8	3/8
MKL 3/4 20214	57	23	23	54	16	12,5	3/8	3/8
MKL 1HP 20215	57	23	27	54	20	16,5	3/8	3/8
MKL 7,525217	67	30	27	61,5	20	16,5	5/8	5/8
MKL 8,5 25218	67	30	27	61,5	20	16,5	5/8	5/8
MKL 10 25210	67	35	27	61,5	20	16,5	19	5/8
MKL 12 25212	76	35	27	70,5	20	16,5	19	5/8
MKL 14 30214	77	35	27	71,5	20	16,5	19	5/8
MKL 16 30216	77	410	28	71,5	21	17,5	22	19

MKL



## TİCARİ TİP KONDENSER

Commercial Type Air Cooled Condensers

### TEKNİK BİLGİLER

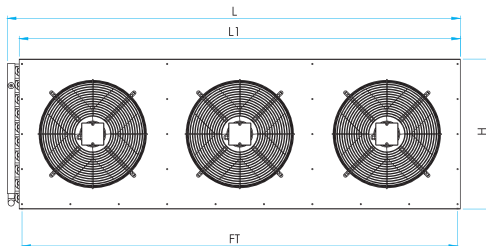
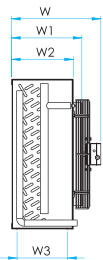
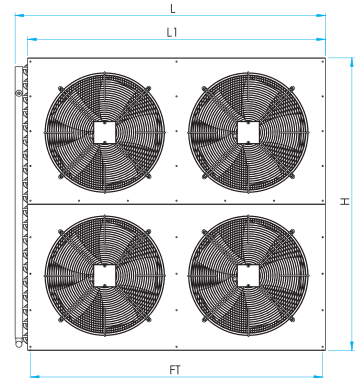
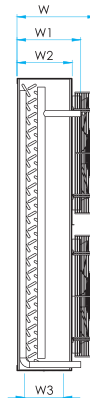
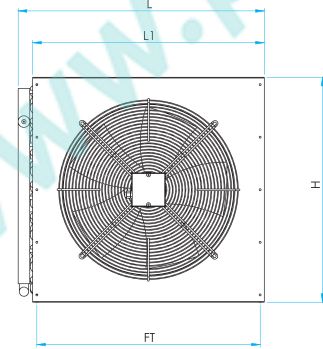
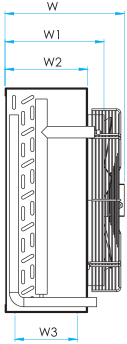
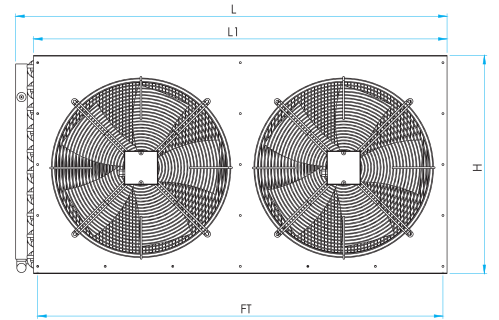
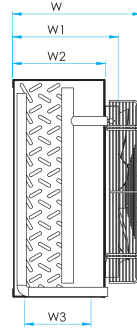
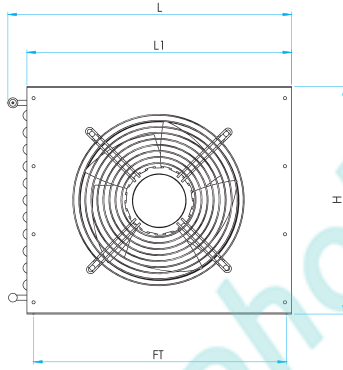
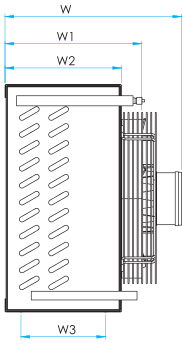
Technical Information

**Bakır Boru / Copper Tube** : 3/8"

**Kalıp / Geometry** : 32 mm x 28 mm

Belirtilen fiyatlara fan dahil değildir.  
Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.


All prices are given without fans.  
Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.



KK

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 32 mm x 28 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity $\Delta t = T_c - T_a = 15^\circ C$		Adet Qty	Fanlar / Fans		
			S 1/ 230V AC 50Hz 1400 rpm	L 1/ 230V AC 50Hz 900 rpm		Çap Diameter	S Hava Debisi Air Flow 1400 rpm	L Hava Debisi Air Flow 900 rpm
			(Watt)	(Watt)				
KK18 35111	18,01	1,6	6.575	4.956	1x 	350	2.625	1.702
KK24 35112	24,02	2,2	7.683	5.612		350	2.468	1.584
KK30 35113	30,02	2,7	8.221	5.800		350	2.333	1.479
KK18 40111	18,01	1,6	7.398	5.993		400	3.186	2.267
KK20 40112	19,37	2,1	7.653	6.081		400	2.987	2.106
KK24 40112	24,02	2,2	8.652	6.837		400	2.955	2.082
KK30 40113	30,02	2,7	9.316	7.048		400	2.778	1.898
KK27 40111	26,61	2,4	9.079	7.361		400	3.574	2.599
KK35 40112	35,48	3,2	10.759	8.523		400	3.407	2.460
KK44 40113	44,35	4,0	11.754	9.091		400	3.255	2.323
KK27 45111	26,61	2,4	10.495	9.051		450	4.523	3.560
KK31 45111	31,46	2,4	11.403	9.719		450	4.429	3.455
KK35 45112	35,48	3,2	12.498	10.438		450	4.256	3.261
KK42 45112	41,94	3,2	13.294	10.960		450	4.149	3.156
KK45 45113	44,35	4,0	13.706	11.186		450	4.034	3.044
KK27 50111	26,61	2,4	13.167	9.844		500	6.709	4.071
KK32 50111	31,46	2,4	14.325	10.558		500	6.487	3.922
KK36 50112	35,48	3,2	15.422	11.142		500	6.114	3.689
KK42 50112	41,94	3,2	16.436	-		500	5.872	-
KK45 50113	44,35	4,0	17.035	-		500	5.610	-


Model Model	Boyutlar / Dimensions								Bağlantılar / Connections	
	L	H	W	FT	L1	W1	W2	W3	Giriş / Input	Çıkış / Output
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(mm)	(mm)
KK18 35111	67	54	35	57,5	60	26	22	13,5	22	19
KK24 35112	67	54	35	57,5	60	26	22	13,5	22	19
KK30 35113	67	54	43	57,5	60	29	25	16,5	22	19
KK18 40111	67	54	35	57,5	60	26	22	13,5	22	19
KK20 40112	62	54	35	55,5	55	26	22	16,5	22	19
KK24 40112	67	54	35	57,5	60	26	22	13,5	22	19
KK30 40113	67	54	43	57,5	60	29	25	16,5	22	19
KK27 40111	79	68	35	67,5	70	26	22	13,5	22	19
KK35 40112	79	68	35	67,5	70	26	22	13,5	22	19
KK44 40113	79	68	43	67,5	70	29	25	16,5	22	19
KK27 45111	79	68	35	67,5	70	29	25	16,5	22	19
KK31 45111	79	68	35	67,5	70	29	25	16,5	22	19
KK35 45112	79	68	35	67,5	70	29	25	16,5	22	19
KK42 45112	79	68	35	67,5	70	29	25	16,5	22	19
KK45 45113	79	68	43	67,5	70	32	28	19,5	22	19
KK27 50111	79	68	35	67,5	70	29	25	16,5	22	19
KK32 50111	79	68	35	67,5	70	29	25	16,5	22	19
KK36 50112	79	68	35	67,5	70	29	25	16,5	22	19
KK42 50112	79	68	41	67,5	70	29	25	16,5	22	19
KK45 50113	79	68	41	67,5	70	32	28	19,5	22	19

## KK

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 32 mm x 28 mm

KK



Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity $\Delta t = T_c - T_a = 15^\circ C$		Adet Qty	Fanlar / Fans			
			S	L		Çap Diameter	S Hava Debisi Air Flow 1400 rpm	L Hava Debisi Air Flow 900 rpm	
			1/ 230V AC 50Hz 1400 rpm	1/ 230V AC 50Hz 900 rpm					(m <sup>2</sup> )
KK22 30211	22,11	2,00	7.138	6.224		300	2.708	2.200	
KK30 30212	29,48	2,60	8.254	9.826		300	2.522	1.940	
KK37 30213	36,84	3,40	8.830	-		300	2.368	-	
KK36 35211	36,02	3,20	13.150	9.912		350	5.250	3.404	
KK48 35212	48,04	4,40	15.366	11.224		350	4.936	3.168	
KK60 35213	60,04	5,40	16.442	11.600		350	4.666	2.958	
KK36 40211	36,02	3,20	14.796	11.986		400	6.372	4.534	
KK43 40211	42,59	3,20	14.837	12.014		400	6.366	4.534	
KK48 40212	48,04	4,40	17.304	13.674		400	5.910	4.164	
KK57 40212	56,79	4,40	18.853	14.737		400	5.910	4.164	
KK60 40213	60,04	5,40	18.632	14.096		400	5.556	3.796	
KK53 40211	53,22	4,80	18.158	14.722		400	7.148	5.198	
KK71 40212	70,96	6,40	21.518	17.046		400	6.814	4.920	
KK89 40213	88,70	8,00	23.508	18.182		400	6.510	4.646	
KK53 45211	53,22	4,80	20.990	18.102		450	9.046	7.120	
KK63 45211	62,92	4,80	22.806	19.438		450	8.858	6.910	
KK71 45212	70,96	6,40	24.996	20.876		450	8.512	6.522	
KK84 45212	83,88	6,40	26.588	21.920		450	8.298	6.312	
KK89 45213	88,70	8,00	27.412	22.372		450	8.068	6.088	
KK53 50211	53,22	4,80	26.334	19.688		500	13.418	8.142	
KK63 50211	62,92	4,80	28.650	21.116		500	12.974	7.844	
KK71 50212	70,96	6,40	30.844	22.284		500	12.228	7.378	
KK84 50212	83,88	6,40	32.872	-		500	11.744	-	
KK89 50213	88,70	8,00	34.070	-		500	11.220	-	

Model Model	Boyutlar / Dimensions								Bağlantılar / Connections	
	L	H	W	FT	L1	W1	W2	W3	Giriş / Input	Çıkış / Output
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(mm)	(mm)
KK22 30211	102	43	35	92,5	95	26	22	13,5	22	19
KK30 30212	102	43	35	92,5	95	26	22	13,5	22	19
KK37 30213	102	43	39	92,5	95	29	25	16,5	22	19
KK36 35211	122	54	35	112,5	115	26	22	13,5	22	19
KK48 35212	122	54	35	112,5	115	26	22	13,5	28	22
KK60 35213	122	54	39	112,5	115	29	25	16,5	28	22
KK36 40211	122	54	35	112,5	115	26	22	13,5	22	19
KK43 40211	122	54	35	112,5	115	26	22	13,5	22	19
KK48 40212	122	54	35	112,5	115	26	22	13,5	28	22
KK57 40212	122	54	35	112,5	115	26	22	13,5	28	22
KK60 40213	122	54	39	112,5	115	29	25	16,5	28	22
KK53 40211	144	68	35	132,5	135	26	22	13,5	28	22
KK71 40212	144	68	35	132,5	135	26	22	13,5	28	22
KK89 40213	144	68	39	132,5	135	29	25	16,5	28	22
KK53 45211	144	68	39	132,5	135	29	25	16,5	28	22
KK63 45211	144	68	39	132,5	135	29	25	16,5	28	22
KK71 45212	144	68	39	132,5	135	29	25	16,5	28	22
KK84 45212	144	68	39	132,5	135	29	25	16,5	28	22
KK89 45213	144	68	41	132,5	135	32	28	19,5	28	22
KK53 50211	144	68	39	132,5	135	29	25	16,5	28	22
KK63 50211	144	68	39	132,5	135	29	25	16,5	28	22
KK71 50212	144	68	39	132,5	135	29	25	16,5	28	22
KK84 50212	144	68	39	132,5	135	29	25	16,5	28	22
KK89 50213	144	68	41	132,5	135	32	28	19,5	28	22

KK

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 32 mm x 28 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity $\Delta t = T_c - T_a = 15^\circ C$		Adet Qty	Fanlar / Fans			
			S	L		Çap Diameter	S Hava Debisi Air Flow 1400 rpm	L Hava Debisi Air Flow 900 rpm	
			1/ 230V AC 50Hz 1400 rpm	1/ 230V AC 50Hz 900 rpm					(Watt)
KK80 40311	79,83	7,20	22.194	17.979	3x 	400	9.558	6.801	
KK106 40312	106,45	9,60	25.956	20.511		400	8.865	6.246	
KK133 40313	133,06	12,00	27.948	21.144		400	8.334	5.694	
KK80 45311	79,83	7,20	31.485	27.153		450	13.569	10.680	
KK94 45311	94,38	7,20	34.209	29.157		450	13.287	10.365	
KK106 45312	106,45	9,60	37.494	31.314		450	12.768	9.783	
KK126 45312	125,82	9,60	39.882	32.880		450	12.447	9.468	
KK133 45313	133,06	12,00	41.118	33.558		450	12.102	9.132	
KK80 50311	79,83	7,20	39.501	29.532		500	20.127	12.213	
KK94 50311	94,38	7,20	42.975	31.674		500	19.461	11.766	
KK106 50312	106,45	9,60	46.266	33.426		500	18.342	11.067	
KK126 50312	125,82	9,60	49.308	-		500	17.616	-	
KK133 50313	133,06	12,00	51.105	-		500	16.830	-	
KK106 40221	106,45	9,50	29.592	23.972		4x 	400	12.744	9.068
KK142 40222	141,93	12,80	34.608	27.348			400	11.820	8.328
KK177 40223	177,41	16,00	37.264	28.192			400	11.112	7.592
KK106 45221	106,45	9,50	41.980	36.204	450		18.092	14.240	
KK126 45221	125,84	9,50	45.612	38.876	450		17.716	13.820	
KK142 45222	141,93	12,80	49.992	41.752	450		17.024	13.044	
KK168 45222	167,76	12,80	53.176	43.840	450		16.596	12.624	
KK177 45223	177,41	16,00	54.824	44.744	450		16.136	12.176	
KK106 50221	106,45	9,50	52.668	39.376	500		26.836	16.284	
KK126 50221	125,84	9,50	57.300	42.232	500		25.948	15.688	
KK142 50222	141,93	12,80	61.688	44.568	500		24.456	14.756	
KK168 50222	167,76	12,80	65.744	-	500		23.488	-	
KK177 50223	177,41	16,00	68.140	-	500		22.440	-	

Model Model	Boyutlar / Dimensions								Bağlantılar / Connections	
	L	H	W	FT	L1	W1	W2	W3	Giriş / Input	Çıkış / Output
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(mm)	(mm)
KK80 40311	209	68	35	197,5	200	26	22	13,5	28	22
KK106 40312	209	68	35	197,5	200	26	22	13,5	28	22
KK133 40313	209	68	39	197,5	200	29	25	16,5	35	28
KK80 45311	209	68	39	197,5	200	29	25	16,5	28	22
KK94 45311	209	68	39	197,5	200	29	25	16,5	28	22
KK106 45312	209	68	39	197,5	200	29	25	16,5	28	22
KK126 45312	209	68	39	197,5	200	29	25	16,5	35	28
KK133 45313	209	68	41	197,5	200	32	28	19,5	35	28
KK80 50311	209	68	39	197,5	200	29	25	16,5	28	22
KK94 50311	209	68	39	197,5	200	29	25	16,5	28	22
KK106 50312	209	68	39	197,5	200	29	25	16,5	28	22
KK126 50312	209	68	39	197,5	200	29	25	16,5	35	28
KK133 50313	209	68	41	197,5	200	32	28	19,5	35	28
KK106 40221	142	133	35	132,5	135	26	22	13,5	35	28
KK142 40222	142	133	35	132,5	135	26	22	13,5	35	28
KK177 40223	142	133	39	132,5	135	29	25	16,5	42	35
KK106 45221	142	133	39	132,5	135	29	25	16,5	35	28
KK126 45221	142	133	39	132,5	135	29	25	16,5	35	28
KK142 45222	142	133	39	132,5	135	29	25	16,5	35	28
KK168 45222	142	133	39	132,5	135	29	25	16,5	42	35
KK177 45223	142	133	41	132,5	135	32	28	19,5	42	35
KK106 50221	142	133	39	132,5	135	29	25	16,5	35	28
KK126 50221	142	133	39	132,5	135	29	25	16,5	35	28
KK142 50222	142	133	39	132,5	135	29	25	16,5	35	28
KK168 50222	142	133	39	132,5	135	29	25	16,5	42	35
KK177 50223	142	133	41	132,5	135	32	28	19,5	42	35

## TİCARİ TİP KONDENSER

Commercial Type Air Cooled Condensers

### TEKNİK BİLGİLER

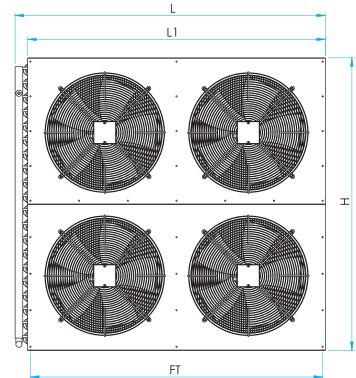
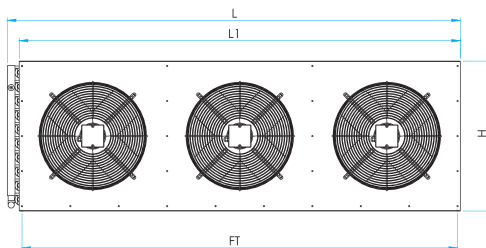
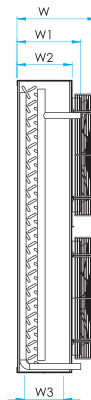
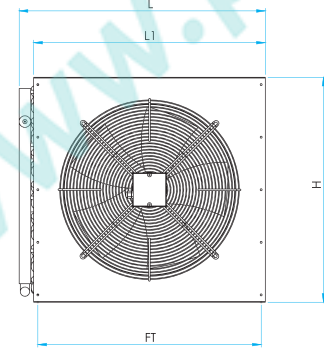
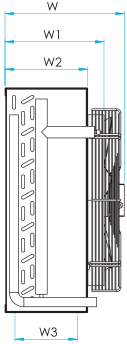
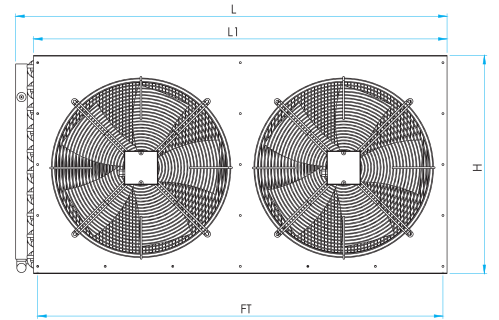
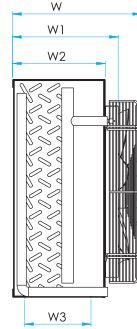
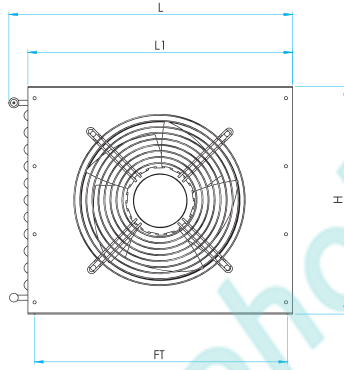
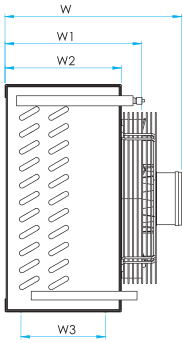
Technical Information

**Bakır Boru / Copper Tube** : 3/8"

**Kalıp / Geometry** : 25 mm x 22 mm

Belirtilen fiyatlara fan dahil değildir.  
Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.


All prices are given without fans.  
Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.



KL

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 25 mm x 22 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity $\Delta t = T_c - T_a = 15^\circ C$		Adet Qty	Fanlar / Fans		
			S	L		Çap Diameter	S Hava Debisi Air Flow 1400 rpm	L Hava Debisi Air Flow 900 rpm
			1/ 230V AC 50Hz 1400 rpm	1/ 230V AC 50Hz 900 rpm				
KL18 35112	17,86	2,70	7.431	5.301	1x 	350	2.403	1.526
KL22 35113	22,32	3,40	7.981	5.487		350	2.254	1.414
KL27 35114	26,79	4,00	8.283	5.595		350	2.119	1.327
KL13 40111	13,39	2,00	7.376	5.866		400	3.078	2.178
KL18 40112	17,86	2,70	8.390	6.372		400	2.854	1.946
KL22 40113	22,32	3,40	8.953	6.626		400	2.630	1.790
KL27 40114	26,79	4,00	9.144	6.829		400	2.415	1.682
KL21 40111	20,58	3,10	9.533	7.639		400	3.577	2.595
KL24 40111	24,21	3,10	10.290	8.212		400	3.514	2.547
KL27 40112	27,44	4,10	10.915	8.583		400	3.401	2.443
KL32 40112	32,28	4,10	11.509	8.959		400	3.325	2.379
KL34 40113	34,30	5,20	11.634	9.049		400	3.243	2.311
KL41 40114	41,16	6,20	12.155	9.228		400	3.104	2.202
KL21 45111	20,58	3,10	10.891	9.274		450	4.485	3.484
KL24 45111	24,21	3,10	11.796	9.898		450	4.387	3.367
KL27 45112	27,44	4,10	12.621	10.449		450	4.215	3.197
KL32 45112	32,28	4,10	13.392	10.886		450	4.108	3.097
KL34 45113	34,30	5,20	13.654	11.044		450	3.985	2.980
KL41 45114	41,16	6,20	14.313	11.231		450	3.780	2.781
KL21 50111	20,58	3,10	13.776	9.768		500	6.507	3.941
KL24 50111	24,21	3,10	14.899	10.461		500	6.284	3.801
KL27 50112	27,44	4,10	15.797	11.378		500	5.892	3.660
KL32 50112	32,28	4,10	16.695	11.903		500	5.636	3.510
KL34 50113	34,30	5,20	16.953	-		500	5.342	-
KL41 50114	41,16	6,20	17.310	-		500	4.877	-


Model Model	Boyutlar / Dimensions								Bağlantılar / Connections	
	L	H	W	FT	L1	W1	W2	W3	Giriş / Input	Çıkış / Output
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(mm)	(mm)
KL18 35112	67	54	35	57,5	60	26	22	13,5	22	19
KL22 35113	67	54	35	57,5	60	26	22	13,5	22	19
KL27 35114	67	54	39	57,5	60	29	25	16,5	22	19
KL13 40111	67	54	35	57,5	60	26	22	13,5	19	5/8
KL18 40112	67	54	35	57,5	60	26	22	13,5	22	19
KL22 40113	67	54	35	57,5	60	26	22	13,5	22	19
KL27 40114	67	54	39	57,5	60	29	25	16,5	22	19
KL21 40111	79	68	35	67,5	70	26	22	13,5	22	19
KL24 40111	79	68	35	67,5	70	26	22	13,5	22	19
KL27 40112	79	68	35	67,5	70	26	22	13,5	22	19
KL32 40112	79	68	35	67,5	70	26	22	13,5	22	19
KL34 40113	79	68	35	67,5	70	26	22	13,5	22	19
KL41 40114	79	68	39	67,5	70	29	25	16,5	22	19
KL21 45111	79	68	39	67,5	70	29	25	16,5	22	19
KL24 45111	79	68	39	67,5	70	29	25	16,5	22	19
KL27 45112	79	68	39	67,5	70	29	25	16,5	22	19
KL32 45112	79	68	39	67,5	70	29	25	16,5	22	19
KL34 45113	79	68	39	67,5	70	29	25	16,5	22	19
KL41 45114	79	68	41	67,5	70	32	28	19,5	22	19
KL21 50111	79	68	39	67,5	70	29	25	16,5	22	19
KL24 50111	79	68	39	67,5	70	29	25	16,5	22	19
KL27 50112	79	68	39	67,5	70	29	25	16,5	22	19
KL32 50112	79	68	39	67,5	70	29	25	16,5	22	19
KL34 50113	79	68	39	67,5	70	29	25	16,5	22	19
KL41 50114	79	68	41	67,5	70	32	28	19,5	22	19
KL18 30211	102	43	35	92,5	95	26	22	13,5	22	19

## KL

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 25 mm x 22 mm

KL



Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity $\Delta t = T_c - T_a = 15^\circ C$		Adet Qty	Fanlar / Fans		
			S	L		Çap Diameter	S Hava Debisi Air Flow 1400 rpm	L Hava Debisi Air Flow 900 rpm
			1/ 230V AC 50Hz 1400 rpm	1/ 230V AC 50Hz 900 rpm				
(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(n)	(Ømm)	(m <sup>3</sup> /h)	(m <sup>3</sup> /h)	
KL18 30211	17,52	2,60	7.382	5.864		300	2.403	1.526
KL23 30212	23,38	3,60	8.378	6.316		300	2.254	1.414
KL29 30213	29,22	4,40	8.844	-		300	2.119	-
KL27 35211	26,78	4,00	13.112	9.684		350	3.078	2.178
KL36 35212	35,72	5,40	14.862	10.602		350	4.806	3.052
KL45 35213	44,64	6,80	15.962	10.974		350	4.508	2.828
KL54 35214	53,58	8,00	16.566	11.190		350	4.238	2.654
KL27 40211	26,78	4,00	14.752	11.732		400	6.156	4.356
KL36 40212	35,72	5,40	16.780	12.744		400	5.708	3.892
KL45 40213	44,64	6,80	17.906	13.252		400	5.260	3.580
KL54 40214	53,58	8,00	18.288	13.658		400	4.830	3.364
KL41 40211	41,16	6,20	19.066	15.278		400	7.154	5.190
KL48 40211	48,42	6,20	20.580	16.424		400	7.028	5.094
KL55 40212	54,88	8,20	21.830	17.166		400	6.802	4.886
KL64 40212	64,56	8,20	23.018	17.918		400	6.650	4.758
KL69 40213	68,60	10,40	23.268	18.098		400	6.486	4.622
KL82 40214	82,32	12,40	24.310	18.456		400	6.208	4.404
KL41 45211	41,16	6,20	21.782	18.548		450	8.970	6.968
KL48 45211	48,42	6,20	23.592	19.796		450	8.774	6.734
KL55 45212	54,88	8,20	25.242	20.898		450	8.430	6.394
KL65 45212	64,56	8,20	26.784	21.772		450	8.216	6.194
KL69 45213	68,60	10,40	27.308	22.088		450	7.970	5.960
KL82 45214	82,32	12,40	28.626	22.462		450	7.560	5.562
KL41 50211	41,16	6,20	27.552	19.536		500	13.014	7.882
KL48 50211	48,42	6,20	29.798	20.922		500	12.568	7.602
KL55 50212	54,88	8,20	31.594	22.756		500	11.784	7.320
KL65 50212	64,56	8,20	33.390	23.806		500	11.272	7.020
KL69 50213	68,60	10,40	33.906	-		500	10.684	-
KL82 50214	82,32	12,40	34.620	-	500	9.754	-	

Model Model	Boyutlar / Dimensions								Bağlantılar / Connections	
	L	H	W	FT	L1	W1	W2	W3	Giriş / Input	Çıkış / Output
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(mm)	(mm)
KL18 30211	102	43	35	92,5	95	26	22	13,5	22	19
KL23 30212	102	43	35	92,5	95	26	22	13,5	22	19
KL29 30213	102	43	35	92,5	95	26	22	13,5	22	19
KL27 35211	122	54	35	112,5	115	26	22	13,5	22	19
KL36 35212	122	54	35	112,5	115	26	22	13,5	22	19
KL45 35213	122	54	35	112,5	115	26	22	13,5	28	22
KL54 35214	122	54	39	112,5	115	29	25	16,5	28	22
KL27 40211	122	54	35	112,5	115	26	22	13,5	22	19
KL36 40212	122	54	35	112,5	115	26	22	13,5	22	19
KL45 40213	122	54	35	112,5	115	26	22	13,5	28	22
KL54 40214	122	54	39	112,5	115	29	25	16,5	28	22
KL41 40211	144	68	35	132,5	135	26	22	13,5	22	19
KL48 40211	144	68	35	132,5	135	26	22	13,5	28	22
KL55 40212	144	68	35	132,5	135	26	22	13,5	28	22
KL64 40212	144	68	35	132,5	135	26	22	13,5	28	22
KL69 40213	144	68	35	132,5	135	26	22	13,5	28	22
KL82 40214	144	68	39	132,5	135	29	25	16,5	28	22
KL41 45211	144	68	39	132,5	135	29	25	16,5	22	19
KL48 45211	144	68	39	132,5	135	29	25	16,5	28	22
KL55 45212	144	68	39	132,5	135	29	25	16,5	28	22
KL65 45212	144	68	39	132,5	135	29	25	16,5	28	22
KL69 45213	144	68	39	132,5	135	29	25	16,5	28	22
KL82 45214	144	68	41	132,5	135	32	28	19,5	28	22
KL41 50211	144	68	39	132,5	135	29	25	16,5	22	19
KL48 50211	144	68	39	132,5	135	29	25	16,5	28	22
KL55 50212	144	68	39	132,5	135	29	25	16,5	28	22
KL65 50212	144	68	39	132,5	135	29	25	16,5	28	22
KL69 50213	144	68	39	132,5	135	29	25	16,5	28	22
KL82 50214	144	68	41	132,5	135	32	28	19,5	28	22

KL

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 25 mm x 22 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity $\Delta t = T_c - T_a = 15^\circ C$		Adet Qty	Fanlar / Fans		
			S	L		Çap Diameter	S Hava Debisi Air Flow 1400 rpm	L Hava Debisi Air Flow 900 rpm
			1/ 230V AC 50Hz 1400 rpm	1/ 230V AC 50Hz 900 rpm				
(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(n)	(Ømm)	(m <sup>3</sup> /h)	(m <sup>3</sup> /h)	
KL82 40312	82,32	12,30	25.170	19.116	3x 	400	8.562	5.838
KL103 40313	102,90	15,60	26.859	19.878		400	7.890	5.370
KL123 40314	123,48	18,60	27.432	20.487		400	7.245	5.046
KL82 45312	82,32	12,30	37.863	31.347		450	12.645	9.591
KL97 45312	96,84	12,30	40.176	32.658		450	12.324	9.291
KL103 45313	102,90	15,60	40.962	33.132		450	11.955	8.940
KL123 45314	123,48	18,60	42.939	33.693		450	11.340	8.343
KL82 50312	82,32	12,30	47.391	34.134		500	17.676	10.980
KL97 50312	96,84	12,30	50.085	35.709		500	16.908	10.530
KL103 50313	102,90	15,60	50.859	-		500	16.026	-
KL123 50314	123,48	18,60	51.930	-		500	14.631	-
KL110 40222	109,76	16,50	33.560	25.488		4x 	400	11.416
KL137 40223	137,20	20,80	35.812	26.504	400		10.520	7.160
KL165 40224	164,64	24,80	36.576	27.316	400		9.660	6.728
KL110 45222	109,76	16,50	50.484	41.796	450		16.860	12.788
KL129 45222	129,12	16,50	66.780	47.612	450		22.544	14.040
KL137 45223	137,20	20,80	54.616	44.176	450		15.940	11.920
KL165 45224	164,64	24,80	57.252	44.924	450		15.120	11.124
KL110 50222	109,76	16,50	63.188	45.512	500		23.568	14.640
KL129 50 222	129,12	16,50	66.780	47.612	500		22.544	14.040
KL137 50223	137,20	20,80	67.812	-	500		21.368	-
KL165 50224	164,64	24,80	69.240	-	500		19.508	-

Model Model	Boyutlar / Dimensions								Bağlantılar / Connections	
	L	H	W	FT	L1	W1	W2	W3	Giriş / Input	Çıkış / Output
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(mm)	(mm)
KL82 40312	209	68	35	197,5	200	26	22	13,5	28	22
KL103 40313	209	68	35	197,5	200	26	22	13,5	28	22
KL123 40314	209	68	39	197,5	200	29	25	16,5	35	28
KL82 45312	209	68	39	197,5	200	29	25	16,5	28	22
KL97 45312	209	68	39	197,5	200	29	25	16,5	28	22
KL103 45313	209	68	39	197,5	200	29	25	16,5	28	22
KL123 45314	209	68	41	197,5	200	32	28	19,5	35	28
KL82 50312	209	68	39	197,5	200	29	25	16,5	28	22
KL97 50312	209	68	39	197,5	200	29	25	16,5	28	22
KL103 50313	209	68	39	197,5	200	29	25	16,5	28	22
KL123 50314	209	68	41	197,5	200	32	28	19,5	35	22
KL110 40222	142	133	35	132,5	135	26	22	13,5	28	22
KL137 40223	142	133	35	132,5	135	26	22	13,5	35	28
KL165 40224	142	133	39	132,5	135	29	25	16,5	42	35
KL110 45222	142	133	39	132,5	135	29	25	16,5	28	22
KL129 45222	142	133	39	132,5	135	29	25	16,5	35	28
KL137 45223	142	133	39	132,5	135	29	25	16,5	35	28
KL165 45224	142	133	41	132,5	135	32	28	19,5	42	35
KL110 50222	142	133	39	132,5	135	29	25	16,5	88	76
KL129 50 222	142	133	39	132,5	135	29	25	16,5	35	28
KL137 50223	142	133	39	132,5	135	29	25	16,5	35	28
KL165 50224	142	133	41	132,5	135	32	28	19,5	42	35



*Kalitenin zamana karşı zaferi...*

*The triumph of quality against time...*



# ENDÜSTRİYEL KONDENSERLER

## INDUSTRIAL CONDENSERS

		Sayfa / Page
UK	<i>Bakır Boru / Copper Tube : 3/8"</i> <i>Kalıp / Geometry : 32 mm x 28 mm</i> <i>Hatve / Fin Spacing : 2,1 mm - 2,5 mm</i>	30
UY	<i>Bakır Boru / Copper Tube : 1/2"</i> <i>Kalıp / Geometry : 32 mm x 28 mm</i> <i>Hatve / Fin Spacing : 2,1 mm - 2,5 mm</i>	36
VUK	<i>Bakır Boru / Copper Tube : 3/8"</i> <i>Kalıp / Geometry : 32 mm x 28 mm</i> <i>Hatve / Fin Spacing : 2,1 mm - 2,5 mm</i>	44
VUY	<i>Bakır Boru / Copper Tube : 1/2"</i> <i>Kalıp / Geometry : 32 mm x 28 mm</i> <i>Hatve / Fin Spacing : 2,1 mm - 2,5 mm</i>	46

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BUZÇELİK katalogdaki değerleri haber vermeden değiştirme hakkını saklı tutar.

*BUZÇELİK reserves the right to make modifications in the catalog at any time without prior notice.*

## BATARYA

- Ø3/8", Ø1/2" bakır borulu.
- V-tipi alüminyum lamel.
- Lamel araları 2,1-2,5 mm tasarlanmıştır.
- Giriş - çıkış kolektör malzemesi bakırdır.
- Standart ürünler için izin verilen en yüksek çalışma basıncı Ps=21 Bar.
- Şaşırtmalı boru dizilimi.
- Bataryalarda R404A, R407F, R449A R507C, R22, R134A soğutucu gazlarla çalışmaya uygun tasarım.
- Opsiyonel olarak 1,8mm ile 4mm aralığında farklı hatveler seçeneği.

## Coil

- Ø3/8", Ø1/2" copper tube.
- "V" type aluminum fins.
- The finned coils are designed with aluminum fins spaced at 2,1 or 2,5 mm, crimped onto copper tubes.
- Header inlet and outlet tube connections made of copper.
- Maximum operating pressure 21 bar for standard products.
- Staggered copper tubes.
- The coil circuits are designed for refrigerants R404A, R407F, R449A, R507C, R22, R134A.
- Different fin spacing can be selected as an option for 1,8mm to 4mm.

## KASETLEME

- Galvaniz çelik üzerine elektrostatik RAL 7035 boyalıdır.
- Galvanizli çelik ya da alüminyum levha.
- Fan bölmeleri sac levhalar ile birbirinden ayrılmış ve duran fanların ters dönüş etkisi önlenmiştir.

## Casing

- Electrostatic powder coated RAL 7035 galvanized steel.
- Galvanized steel or aluminum.
- Each fan chamber is separated by internal baffle plates to prevent induced wind milling of off-cycle fans.

## FAN

- Ø500-Ø630-Ø800 mm / 230V-50Hz-Monofaze 800~1250d/d / 400V-50Hz-Trifaze 650~900d/d fanlar.
- Opsiyonel seçimler Buzçelik Teknik Uzmanı tarafından teyit edilmelidir.
- Standart veya düşük ses seviyeli bakım gerektirmeyen fan seçeneği.
- İsteğe bağlı AC ya da EC fan motor seçenekleri.
- Koruma sınıfı IP54, fan konstrüksiyonu izolasyon malzeme sınıfı F.
- Opsiyonel olarak seçilebilir fan aksesuar çeşitleri (AxiTop Difüzör, FlowGrid gürültü düşürücüler vb.)
- Çalışma aralığı -40°C/+50°C'dir.

## Fans

- Ø500-Ø630-Ø800 mm / 230V-50Hz-Monofaze 800~1250d/d / 400V-50Hz-Trifaze 650~900d/d fans.
- Selections should be confirmed by your Buzçelik Technical Specialist.
- Standard or low noise level are available.
- Different kinds of motors available as optional. (EC or AC)
- Motor protection IP54 insulation class F.
- Different kinds of accessories available as optional. (AxiTop Diffuser, FlowGrid etc.)
- Working conditions -40°C/+50°C.

## KAPASİTE

- Nominal kapasiteler  $\Delta T=15^\circ\text{C}$  koşulunda R404A gaza göre Eurovent EN 328 standartları dikkate alınarak verilmiştir.

## Capacity

- The nominal capacities calculated according to Eurovent EN328 standards that refer to  $\Delta T=15^\circ\text{C}$  condition and are valid for R404A.

## SEÇENEKLER

- Farklı dış kabin rengi,
- Farklı boru et kalınlığı ve hatve,
- Monofaze 220V 1~ 50Hz, Trifaze 400V 3~ 50Hz fan seçeneği.
- Katalogda belirtilmeyen özel ürünler için lütfen satış departmanı ile irtibata geçin.

## Options

- Different casing color.
- Other tube wall thicknesses and fin spacing on request.
- Mono phase 220V 1~ 50Hz fan or three phase 400V 3~ 50Hz fan.
- Please keep in touch with our sales department about your special needs that are not mentioned in the catalogue.

## NOT

- Montaj, Bakım - Taşıma ve Kaldırma detayları için kullanım Kılavuzuna başvurunuz.

## Options

- Please read "Installation, Operation and Maintenance Instructions" for mounting and maintenance.

## AKSESUAR

- Paslanmaz çelik kabin,
- Epoxy boya,

## Accessories

- Casing made of stainless steel.
- Epoxy resin coated aluminum fins.

Options As Listed Are Available On Request For Assistance Please Contact Buzçelik Branch

## ADLANDIRMA CLASIFICACION

# 80 U K 11 1 2,1

**Fan Çapı**  
Fan Diameter

Q...cm

**Tip**  
Type

U : Endüstriyel Tip  
U : Industrial Type

**Geometri**  
Geometry

K : 3228-3/8"  
Y : 3228-1/2"

**Fan Dizisi**  
Fan Array

Sütun x Satır  
Column x Row

**Ürün Numarası**  
Product Number

**Hatve Aralığı**  
Fin Space

## KAPASİTE STANDARTLARI

### CAPACITY STANDARD

Akışkan : R404A  
Hava Giriş Sıcaklığı (Tai) : 25°C  
Kondenzasyon Sıcaklığı (Tc) : 40°C  
 $\Delta T = Tc - Tai$  : 40°C - 25°C = 15°C  
Rakım : 0m

#### KONDENSER SEÇİMİ

Nominal kondenser kapasitesi aşağıdaki formüller vasıtasıyla hesaplanabilir.

##### Formül 1

$$Q_{nk} = [(Q+N) \times f_2 \times f_3 \times f_5] / (f_4 \times f_6)$$

Q<sub>nk</sub> : Nominal kondenser kapasitesi

Q : Kompresörün soğutma kapasitesi

N : Kompresör motorunun çektiği güç

Q ve N kompresör kataloglarından bulunabilir.

Detaylı bilginin olmadığı durumlarda Formül 2 uygulanır.

##### Formül 2

$$Q_{nk} = [Q \times f_1 \times f_2 \times f_3 \times f_5] / (f_4 \times f_6)$$

Refrigerant : R404A  
Air Inlet Temperature (Tai) : 25°C  
Condensation Temperature (Tc) : 40°C  
 $\Delta T = Tc - Tai$  : 40°C - 25°C = 15°C  
Altitude : 0m

#### KONDENSER SELECTION

Nominal condenser capacity can be calculated by using formulas below.

##### Formül 1

$$Q_{nk} = [(Q+N) \times f_2 \times f_3 \times f_5] / (f_4 \times f_6)$$

Q<sub>nk</sub> : Nominal condenser capacity

Q : Refrigerating capacity of compressor

N : Absorbed compressor power

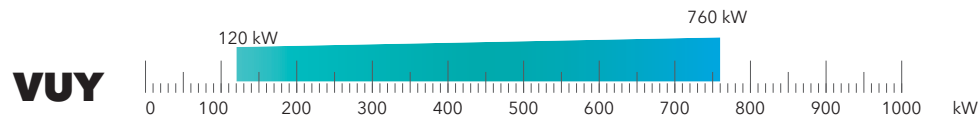
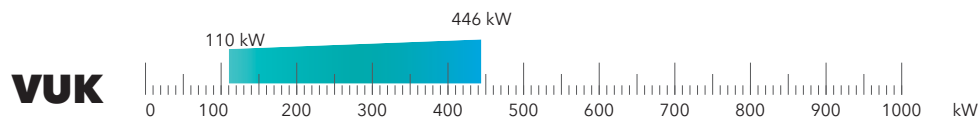
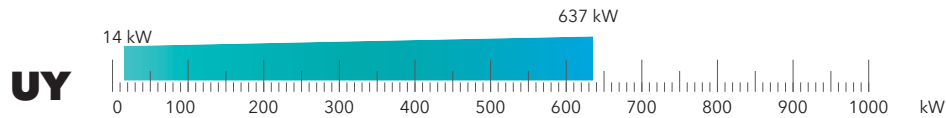
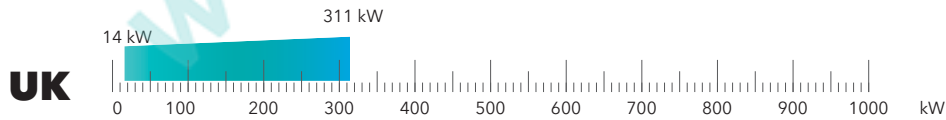
These data can be obtained from the compressor catalogues. If absorbed compressor power is unknown, please use Formula 2.

##### Formül 2

$$Q_{nk} = [Q \times f_1 \times f_2 \times f_3 \times f_5] / (f_4 \times f_6)$$

## ÜRÜN KAPASİTE ARALIĞI

### CAPACITY RANGE



**(f<sub>1</sub>) FAKTÖRÜ / (f<sub>1</sub>) FACTOR**

Açık Kompresör / Open Compressors							
Evaporasyon Sıcaklığı / Evaporation Temperature	Kondenzasyon Sıcaklığı / Condensation Temperature °C						
°C	30	35	40	45	50	55	60
-35	1,36	1,41	1,44	-	-	-	-
-30	1,31	1,36	1,40	1,44	-	-	-
-25	1,27	1,32	1,36	1,41	1,45	-	-
-20	1,24	1,28	1,31	1,35	1,39	1,44	-
-15	1,20	1,24	1,27	1,31	1,35	1,39	1,44
-10	1,18	1,21	1,24	1,27	1,31	1,35	1,40
-5	1,15	1,18	1,21	1,24	1,27	1,31	1,36
0	1,13	1,15	1,18	1,21	1,24	1,27	1,31
5	1,10	1,13	1,15	1,18	1,21	1,24	1,28
10	1,08	1,11	1,13	1,15	1,17	1,21	1,24

Hermetik ve Yarı-Hermetik Kompresör / Hermetic and Semi-Hermetic Compressors							
Evaporasyon Sıcaklığı / Evaporation Temperature °C	Kondenzasyon Sıcaklığı / Condensation Temperature °C						
	30	35	40	45	50	55	60
-40	1,64	1,69	1,76	1,86	2,03	-	-
-35	1,56	1,61	1,66	1,73	1,83	-	-
-30	1,48	1,53	1,57	1,62	1,69	-	-
-25	1,42	1,46	1,5	1,54	1,6	1,68	-
-20	1,37	1,4	1,44	1,48	1,53	1,6	-
-15	1,32	1,35	1,38	1,43	1,48	1,53	1,58
-10	1,28	1,31	1,34	1,37	1,42	1,46	1,52
-5	1,23	1,26	1,29	1,33	1,37	1,41	1,45
0	1,2	1,22	1,25	1,28	1,32	1,36	1,39
5	1,16	1,19	1,21	1,24	1,28	1,31	1,34
10	1,13	1,15	1,18	1,21	1,23	1,26	1,29

**(f<sub>2</sub>) FAKTÖRÜ / (f<sub>2</sub>) Factor = 15/T1**
**(f<sub>3</sub>) FAKTÖRÜ / (f<sub>3</sub>) Factor**

Hava Giriş Sıcaklığı Faktörü / Air Inlet Temperature Factor								
T(°C)	15	20	25	30	35	40	45	50
f <sub>3</sub>	0,97	0,98	1	1,02	1,04	1,06	1,08	1,1

**(f<sub>4</sub>) FAKTÖRÜ / (f<sub>4</sub>) FACTOR**

Soğutucu Akışkan Faktörü / Refrigerant Factor					
R	R134A	R22	R404A/R507	R407A	R407C
f <sub>4</sub>	0,93	0,96	1	0,83	0,87

(f<sub>5</sub>) FAKTÖRÜ / (f<sub>5</sub>) FACTOR

Rakım Faktörü / Altitude Factor							
H (m)	0	500	1000	1500	2000	2500	3000
f <sub>5</sub>	1	1,04	1,07	1,11	1,16	1,21	1,25

(f<sub>6</sub>) FAKTÖRÜ / (f<sub>6</sub>) FACTOR

Lamel Malzemesi	Alüminyum	Kaplı Alüminyum	Bakır
Fin Material	Aluminum	Coated Aluminum	Copper
f <sub>6</sub>	1	0,97	1,03

Tablo-4 Lamel Malzemesi için Düzeltme Faktörleri

Table-4 Fin Material Correction Factors

Lamel Malzemesi	Alüminyum	Kaplı Alüminyum	Bakır
Fin Material	Aluminum	Coated Aluminum	Copper
K <sub>3</sub>	1	0,97	1,03

KONDENSER ÜNİTESİ SEÇİMİ

Nominal kondenser kapasitesi aşağıdaki formüller vasıtası ile hesaplanabilir.

Formül 1

$$Q_{nk} = [(Q+N) \times f_2 \times f_3 \times f_5] / (f_4 \times f_6)$$

Q<sub>nk</sub> : Nominal kondenser kapasitesi

Q : Kompresörün soğutma kapasitesi

N : Kompresör motorunun çektiği güç

Q ve N kompresör kataloglarından bulunabilir.

Detaylı bilginin olmadığı durumlarda Formül 2 uygulanır.

Formül 2

$$Q_{nk} = [Q \times f_1 \times f_2 \times f_3 \times f_5] / (f_4 \times f_6)$$

CONDENSING UNIT SELECTION

Nominal condenser capacity can be calculated by using formulas below.

Formula 1

$$Q_{nk} = [(Q+N) \times f_2 \times f_3 \times f_5] / (f_4 \times f_6)$$

Q<sub>nk</sub> : Nominal condenser capacity

Q : Refrigerating capacity of compressor

N : Absorbed compressor power

These data can be obtained from the compressor catalogues.

If absorbed compressor power is unknown, please use Formula 2.

Formula 2

$$Q_{nk} = [Q \times f_1 \times f_2 \times f_3 \times f_5] / (f_4 \times f_6)$$

ÖRNEK SEÇİM / SELECTION EXAMPLE

Kompresörün soğutma kapasitesi / Refrigerating Capacity of Compressor	55.800.Watt/h
Kompresör Motorunun Çektiği Güç / Absorbed Compressor Power	17.200.Watt/h
Kompresör Tipi / Compressor type	Semi-Hermetic
Evaporasyon Sıcaklığı / Evaporation Temperature	-10°C
Hava Giriş Sıcaklığı / Air Inlet Temperature	+30°C
Kondenzasyon Sıcaklığı / Condensation Temperature	+40°C
Rakım / Altitude	1000m
Soğutucu Akışkan / Refrigerant	R404A
Lamel Malzemesi / Fin Material	Aluminum
f <sub>2</sub> =1,5 / f <sub>3</sub> = 1,02 / f <sub>4</sub> =1 / f <sub>5</sub> =1,07 / f <sub>6</sub> =1	119.500.Watt/h
Seçilen Kondenser / Selected Condenser	50UK322 2,5 (121 Kw)

## ENDÜSTRİYEL KONDENSER

Industrial Condensers

### TEKNİK BİLGİLER

Technical Information

UK

**Bakır Boru / Copper Tube** : 3/8"

**Kalıp / Geometry** : 32 mm x 28 mm

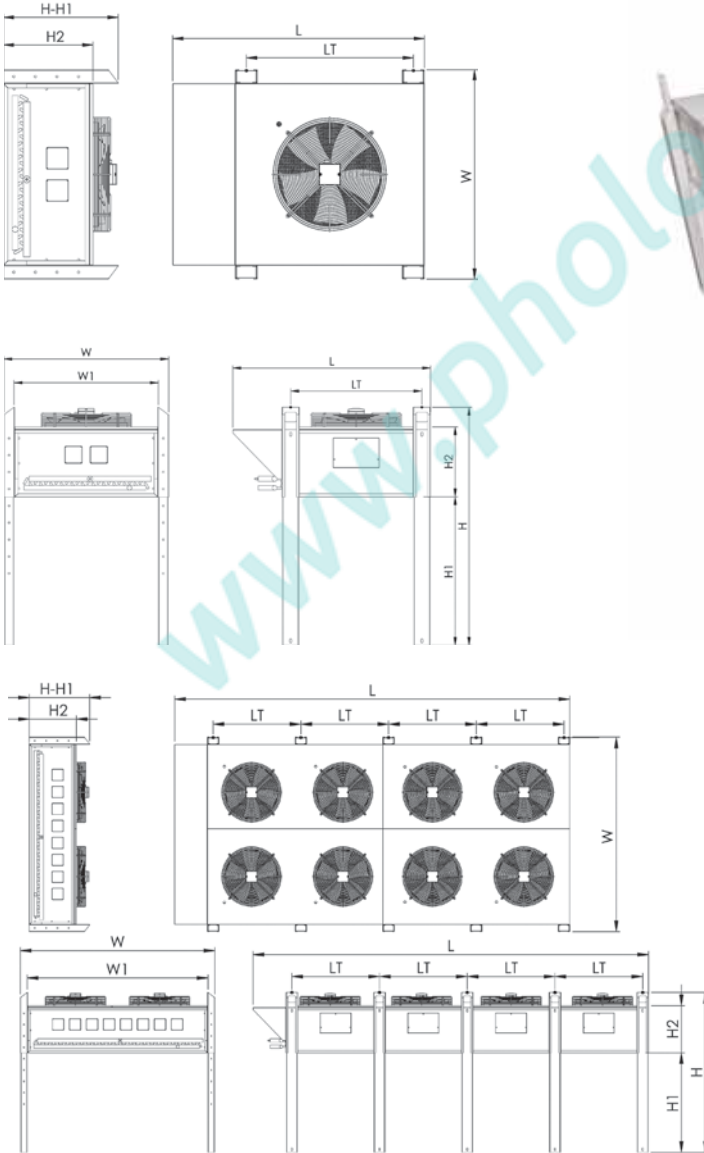
**Hatve / Fin Spacing** : 2,1 mm - 2,5 mm

Belirtilen fiyatlara fan dahil değildir.

Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

All prices are given without fans.

Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.






## 50 UK SERİSİ

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 32 mm x 28 mm

Hatve / Fin Spacing : 2,1 mm - 2,5 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity ( $\Delta t=15^{\circ}\text{C}$ )		Adet Qty	Fanlar / Fans		
			S Ø500mm 1/ 230V AC 50Hz 1400 rpm	L Ø500mm 1/ 230V AC 50Hz 900 rpm		Çap Diameter	S Hava Debisi Air Flow 1400 rpm	L Hava Debisi Air Flow 900 rpm
	(m <sup>2</sup> )	(dm <sup>3</sup> )	(kW)	(kW)	(n)	(ÅØmm)	(m <sup>3</sup> /h)	(m <sup>3</sup> /h)
50UK111 2,5	39,30	3,50	17	14	1x 	500	7.580	5.470
50UK112 2,5	52,41	4,70	20	16		500	7.190	5.170
50UK111 2,1	46,46	3,50	18	15		500	7.440	5.370
50UK112 2,1	61,95	4,70	21	17		500	7.020	5.030
50UK211 2,5	78,60	7,00	34	28	2x 	500	15.160	10.950
50UK121 2,5	78,60	7,00	34	28		500	15.160	10.950
50UK212 2,5	104,82	9,40	40	32		500	14.390	10.350
50UK122 2,5	104,82	9,40	40	32		500	14.390	10.350
50UK211 2,1	92,92	7,00	37	30		500	14.880	10.740
50UK121 2,1	92,92	7,00	37	30		500	14.880	10.740
50UK212 2,1	123,90	9,40	43	34		500	14.040	10.070
50UK122 2,1	123,90	9,40	43	34		500	14.040	10.070
50UK311 2,5	117,90	10,50	51	42	3x 	500	22.740	16.420
50UK312 2,5	157,23	14,10	60	49		500	21.580	15.520
50UK311 2,1	139,38	10,50	56	45		500	22.320	16.110
50UK312 2,1	185,85	14,10	64	51		500	21.060	15.110

Model Model	Boyutlar / Dimensions								Bağlantılar / Connections		
	L	H	W	LT	LC	H1	H2	W1	Adet / Qty	Giriş / Input	Çıkış / Output
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(ad)	(mm)	(mm)
50UK111 2,5	120	141	101	80	-	90	43	88	1	22	19
50UK112 2,5	120	141	101	80	-	90	43	88	1	22	19
50UK111 2,1	120	141	101	80	-	90	43	88	1	22	19
50UK112 2,1	120	141	101	80	-	90	43	88	1	22	19
50UK211 2,5	200	141	101	-	160	90	43	88	1	35	28
50UK121 2,5	120	141	178	80	-	90	43	165	1	35	28
50UK212 2,5	200	141	101	-	160	90	43	88	1	35	28
50UK122 2,5	120	141	178	80	-	90	43	165	1	35	28
50UK211 2,1	200	141	101	-	160	90	43	88	1	35	28
50UK121 2,1	120	141	178	80	-	90	43	165	1	35	28
50UK212 2,1	200	141	101	-	160	90	43	88	1	35	28
50UK122 2,1	120	141	178	80	-	90	43	165	1	35	28
50UK311 2,5	280	141	101	80	-	90	43	88	1	42	35
50UK312 2,5	280	141	101	80	-	90	43	88	1	42	35
50UK311 2,1	280	141	101	80	-	90	43	88	1	42	35
50UK312 2,1	280	141	101	80	-	90	43	88	1	42	35








## 50 UK SERİSİ

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 32 mm x 28 mm

Hatve / Fin Spacing : 2,1 mm - 2,5 mm

UK

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity ( $\Delta t=15^{\circ}\text{C}$ )		Adet Qty	Fanlar / Fans			
			S Ø500mm 1/ 230V AC 50Hz 1400 rpm	L Ø500mm 1/ 230V AC 50Hz 900 rpm		Çap Diameter	S Hava Debisi Air Flow 1400 rpm	L Hava Debisi Air Flow 900 rpm	
	(m <sup>2</sup> )	(dm <sup>3</sup> )	(kW)	(kW)	(n)	(ÅØmm)	(m <sup>3</sup> /h)	(m <sup>3</sup> /h)	
50UK411 2,5	157,20	14,00	68	56	4x 	500	30.320	21.900	
50UK412 2,5	209,64	18,80	81	65		500	28.780	20.700	
50UK221 2,5	157,20	14,00	68	56		500	30.320	21.900	
50UK222 2,5	209,64	18,80	81	65		500	28.780	20.700	
50UK411 2,1	185,84	14,00	74	61		6x 	500	29.760	21.480
50UK221 2,1	185,84	14,00	74	61			500	29.760	21.480
50UK412 2,1	247,80	18,80	86	69			500	28.080	20.140
50UK222 2,1	247,80	18,80	86	69			500	28.080	20.140
50UK321 2,5	235,80	21,00	103	84	8x 	500	45.480	32.850	
50UK322 2,5	314,46	28,20	121	98		500	43.170	31.050	
50UK321 2,1	278,76	21,00	112	90	8x 	500	44.650	32.230	
50UK322 2,1	371,70	28,20	128	102		500	42.120	30.220	
50UK421 2,5	314,40	28,00	137	112	8x 	500	60.640	43.800	
50UK422 2,5	419,28	37,60	162	131		500	57.560	41.400	
50UK421 2,1	371,68	28,00	148	122		500	59.530	42.970	
50UK422 2,1	495,60	37,60	172	138		500	56.160	40.290	




Model Model	Boyutlar / Dimensions								Bağlantılar / Connections		
	L	H	W	LT	LC	H1	H2	W1	Adet / Qty	Giriş / Input	Çıkış / Output
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(ad)	(mm)	(mm)
50UK411 2,5	360	141	101	80	-	90	43	88	1	42	35
50UK412 2,5	360	141	101	80	-	90	43	88	1	42	35
50UK221 2,5	200	141	178	-	160	90	43	165	1	42	35
50UK222 2,5	200	141	178	-	160	90	43	165	1	42	35
50UK411 2,1	360	141	101	80	-	90	43	88	1	42	35
50UK221 2,1	200	141	178	-	160	90	43	165	1	42	35
50UK412 2,1	360	141	101	80	-	90	43	88	1	42	35
50UK222 2,1	200	141	178	-	160	90	43	165	1	42	35
50UK321 2,5	280	141	178	80	-	90	43	165	2	54	42
50UK322 2,5	280	141	178	80	-	90	43	165	2	54	42
50UK321 2,1	280	141	178	80	-	90	43	165	2	54	42
50UK322 2,1	280	141	178	80	-	90	43	165	2	54	42
50UK421 2,5	360	141	178	80	-	90	43	165	2	66	54
50UK422 2,5	360	141	178	80	-	90	43	165	2	66	54
50UK421 2,1	360	141	178	80	-	90	43	165	2	66	54
50UK422 2,1	360	141	178	80	-	90	43	165	2	66	54

## 63 UK SERİSİ

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 32 mm x 28 mm

Hatve / Fin Spacing : 2,1 mm - 2,5 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity ( $\Delta t=15^{\circ}\text{C}$ )		Fanlar / Fans			
			S Ø630mm 1/230V AC 50Hz 880 rpm	L Ø630mm 3/ 400V AC 50Hz 620 rpm	Adet Qty	Çap Diameter	S Hava Debisi Air Flow 880 rpm	L Hava Debisi Air Flow 620 rpm
			(m <sup>2</sup> )	(dm <sup>3</sup> )				
63UK111 2,5	57,32	5,10	22	18	1x 	630	9.170	6.820
63UK112 2,5	76,42	6,90	26	21		630	8.680	6.410
63UK111 2,1	67,76	5,10	24	20		630	9.000	6.680
63UK112 2,1	90,34	6,90	27	22		630	8.460	6.230
63UK211 2,5	114,64	10,20	45	37	2x 	630	18.340	13.650
63UK121 2,5	114,64	10,20	45	37		630	18.340	13.650
63UK212 2,5	152,84	13,80	52	42		630	17.360	12.830
63UK122 2,5	152,84	13,80	52	42		630	17.360	12.830
63UK211 2,1	135,52	10,20	49	40		630	18.010	13.360
63UK121 2,1	135,52	10,20	49	40		630	18.010	13.360
63UK212 2,1	180,68	13,80	55	45		630	16.920	12.470
63UK122 2,1	180,68	13,80	55	45		630	16.920	12.470
63UK311 2,5	171,96	15,30	68	56	3x 	630	27.510	20.480
63UK312 2,5	229,26	20,70	79	64		630	26.040	19.240
63UK311 2,1	203,28	15,30	74	61		630	27.010	20.050
63UK312 2,1	271,02	20,70	83	67		630	25.380	18.700

Model Model	Boyutlar / Dimensions								Bağlantılar / Connections		
	L	H	W	LT	LC	H1	H2	W1	Adet Qty	Giriş Input	Çıkış Output
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)			
63UK111 2,5	140	141	114	100	-	90	43	101	1	22	19
63UK112 2,5	140	141	114	100	-	90	43	101	1	28	22
63UK111 2,1	140	141	114	100	-	90	43	101	1	22	19
63UK112 2,1	140	141	114	100	-	90	43	101	1	28	22
63UK211 2,5	240	141	114	-	200	90	43	101	1	35	28
63UK121 2,5	140	141	203	100	-	90	43	190	1	35	28
63UK212 2,5	240	141	114	-	200	90	43	101	1	35	28
63UK122 2,5	140	141	203	100	-	90	43	190	1	35	28
63UK211 2,1	240	141	114	-	200	90	43	101	1	35	28
63UK121 2,1	140	141	203	100	-	90	43	190	1	35	28
63UK212 2,1	240	141	114	-	200	90	43	101	1	35	28
63UK122 2,1	140	141	203	100	-	90	43	190	1	35	28
63UK311 2,5	340	141	114	100	-	90	43	101	1	42	35
63UK312 2,5	340	141	114	100	-	90	43	101	1	42	35
63UK311 2,1	340	141	114	100	-	90	43	101	1	42	35
63UK312 2,1	340	141	114	100	-	90	43	101	1	42	35




## 63 UK SERİSİ

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 32 mm x 28 mm

Hatve / Fin Spacing : 2,1 mm - 2,5 mm

UK

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity ( $\Delta t=15^{\circ}\text{C}$ )		Fanlar / Fans			
			S Ø630mm 1/230V AC 50Hz 880 rpm	L Ø630mm 3/ 400V AC 50Hz 620 rpm	Adet Qty	Çap Diameter	S Hava Debisi Air Flow 880 rpm	L Hava Debisi Air Flow 620 rpm
			(m <sup>2</sup> )	(dm <sup>3</sup> )	(kW)	(kW)	(n)	(Ømm)
63UK411 2,5	229,28	20,40	91	75	4x 	630	36.690	27.310
63UK221 2,5	229,28	20,40	91	75		630	36.690	27.310
63UK411 2,1	271,04	20,40	98	81		630	36.020	26.730
63UK221 2,1	271,04	20,40	98	81		630	36.020	26.730
63UK412 2,5	305,68	27,60	105	85		630	34.720	25.660
63UK222 2,5	305,68	27,60	105	85		630	34.720	25.660
63UK412 2,1	361,36	27,60	111	90		630	33.850	24.940
63UK222 2,1	361,36	27,60	111	90		630	33.850	24.940
63UK321 2,5	343,92	30,60	136	113	6x 	630	55.030	40.960
63UK321 2,1	406,56	30,60	148	122		630	54.030	40.100
63UK322 2,5	458,52	41,40	158	128		630	52.090	38.490
63UK322 2,1	542,04	41,40	167	135	8x 	630	50.770	37.410
63UK421 2,5	458,56	40,80	182	151		630	73.380	54.620
63UK421 2,1	542,08	40,80	197	163		630	72.040	53.470
63UK422 2,5	611,36	55,20	210	171		630	69.450	51.320
63UK422 2,1	722,72	55,20	222	180	630	67.700	49.880	







Model Model	Boyutlar / Dimensions								Bağlantılar / Connections		
	L	H	W	LT	LC	H1	H2	W1	Adet Qty	Giriş Input	Çıkış Output
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(ad)	(mm)	(mm)
63UK411 2,5	440	141	114	100	-	90	43	101	1	54	42
63UK221 2,5	240	141	203	-	200	90	43	190	1	54	42
63UK411 2,1	440	141	114	100	-	90	43	101	1	54	42
63UK221 2,1	240	141	203	-	200	90	43	190	1	54	42
63UK412 2,5	440	141	114	100	-	90	43	101	1	54	42
63UK222 2,5	240	141	203	-	200	90	43	190	1	54	42
63UK412 2,1	440	141	114	100	-	90	43	101	1	54	42
63UK222 2,1	240	141	203	-	200	90	43	190	1	54	42
63UK321 2,5	340	141	203	100	-	90	43	190	2	66	54
63UK321 2,1	340	141	203	100	-	90	43	190	2	66	54
63UK322 2,5	340	141	203	100	-	90	43	190	2	66	54
63UK322 2,1	340	141	203	100	-	90	43	190	2	66	54
63UK421 2,5	440	141	203	100	-	90	43	190	2	66	54
63UK421 2,1	440	141	203	100	-	90	43	190	2	66	54
63UK422 2,5	440	141	203	100	-	90	43	190	2	66	54
63UK422 2,1	440	141	203	100	-	90	43	190	2	66	54

## 80 UK SERİSİ

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 32 mm x 28 mm

Hatve / Fin Spacing : 2,1 mm - 2,5 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity ( $\Delta t=15^{\circ}\text{C}$ )		Fanlar / Fans			
			S Ø800mm 3/ 400V AC 50Hz 880 rpm	L Ø800mm 3/ 400V AC 50Hz 670 rpm	Adet Qty	Çap Diameter	S Hava Debisi Air Flow 880 rpm	L Hava Debisi Air Flow 670 rpm
			(m <sup>2</sup> )	(dm <sup>3</sup> )	(kW)	(kW)	(n)	(Åmm)
80UK111 2,5	83,52	7,50	40	35	1x 	800	19.980	15.330
80UK112 2,5	111,36	10,00	48	41		800	18.460	14.250
80UK111 2,1	98,73	7,50	44	38		800	19.450	14.950
80UK112 2,1	131,64	10,00	51	43	2x 	800	17.850	13.810
80UK211 2,5	167,04	15,00	81	70		800	39.970	30.670
80UK121 2,5	167,04	15,00	81	70		800	39.970	30.670
80UK212 2,5	222,72	20,00	97	82		800	36.930	28.500
80UK122 2,5	222,72	20,00	97	82		800	36.930	28.500
80UK211 2,1	197,46	15,00	89	76		800	38.910	29.910
80UK121 2,1	197,46	15,00	89	76		800	38.910	29.910
80UK212 2,1	263,28	20,00	103	87		800	35.710	27.620
80UK122 2,1	263,28	20,00	103	87	3x 	800	59.950	46.010
80UK311 2,5	250,56	22,50	122	105		800	55.400	42.750
80UK312 2,5	334,08	30,00	146	124		800	58.370	44.860
80UK311 2,1	296,19	22,50	134	114	4x 	800	53.560	41.430
80UK312 2,1	394,92	30,00	155	131		800	79.940	61.350
80UK221 2,5	334,08	30,00	163	140		800	73.860	57.000
80UK222 2,5	445,44	40,00	194	165	6x 	800	77.830	59.820
80UK221 2,1	394,92	30,00	178	152		800	71.420	55.240
80UK222 2,1	526,56	40,00	207	175		800	119.910	92.020
80UK321 2,5	501,12	45,00	245	211	6x 	800	110.800	85.500
80UK322 2,5	668,16	60,00	292	248		800	116.740	89.730
80UK321 2,1	592,38	45,00	268	229		800	107.130	82.860
80UK322 2,1	789,84	60,00	311	263				

Model Model	Boyutlar / Dimensions								Bağlantılar / Connections		
	L (cm)	H (cm)	W (cm)	LT (cm)	LC (cm)	H1 (cm)	H2 (cm)	W1 (cm)	Adet Qty (ad)	Giriş Input (mm)	Çıkış Output (mm)
80UK111 2,5	160	141	133	120	-	90	43	120	1	35	28
80UK112 2,5	160	141	133	120	-	90	43	120	1	35	28
80UK111 2,1	160	141	133	120	-	90	43	120	1	35	28
80UK112 2,1	160	141	133	120	-	90	43	120	1	35	28
80UK211 2,5	280	141	133	-	240	90	43	120	1	42	35
80UK121 2,5	160	141	242	120	-	90	43	229	1	35	28
80UK212 2,5	280	141	133	-	240	90	43	120	1	42	35
80UK122 2,5	160	141	242	120	-	90	43	229	1	35	28
80UK211 2,1	280	141	133	-	240	90	43	120	1	42	35
80UK121 2,1	160	141	242	120	-	90	43	229	1	35	28
80UK212 2,1	280	141	133	-	240	90	43	120	1	42	35
80UK122 2,1	160	141	242	120	-	90	43	229	1	35	28
80UK311 2,5	400	141	133	120	-	90	43	120	1	64	54
80UK312 2,5	400	141	133	120	-	90	43	120	1	64	54
80UK311 2,1	400	141	133	120	-	90	43	120	1	64	54
80UK312 2,1	400	141	133	120	-	90	43	120	1	64	54
80UK221 2,5	280	141	242	-	240	90	43	229	1	64	54
80UK222 2,5	280	141	242	-	240	90	43	229	1	64	54
80UK221 2,1	280	141	242	-	240	90	43	229	1	64	54
80UK222 2,1	280	141	242	-	240	90	43	229	1	64	54
80UK321 2,5	400	141	242	120	-	90	43	229	2	80	64
80UK322 2,5	400	141	242	120	-	90	43	229	2	80	64
80UK321 2,1	400	141	242	120	-	90	43	229	2	80	64
80UK322 2,1	400	141	242	120	-	90	43	229	2	80	64

## ENDÜSTRİYEL KONDENSER

Industrial Condensers

### TEKNİK BİLGİLER

Technical Information

**Bakır Boru / Copper Tube** : 1/2"

**Kalıp / Geometry** : 32 mm x 28 mm

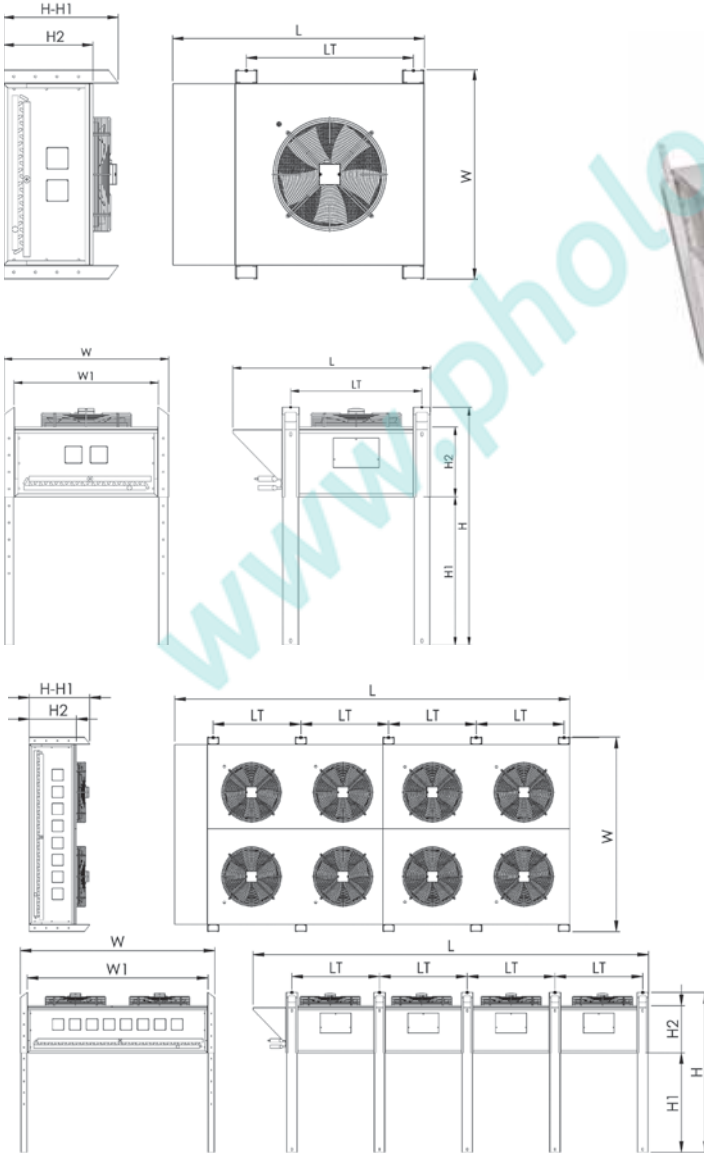
**Hatve / Fin Spacing** : 2,1 mm - 2,5 mm

Belirtilen fiyatlara fan dahil değildir.

Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

All prices are given without fans.

Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.






## 50 UY SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 32 mm x 28 mm

Hatve / Fin Spacing : 2,1 mm - 2,5 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity ( $\Delta t=15^{\circ}\text{C}$ )		Fanlar / Fans			
			S Ø500mm 1/ 230V AC 50Hz 1400 rpm	L Ø500mm 1/ 230V AC 50Hz 900 rpm	Adet Qty	Çap Diameter	S Hava Debisi Air Flow 1400 rpm	L Hava Debisi Air Flow 900 rpm
(m <sup>2</sup> )	(dm <sup>3</sup> )	(kW)	(kW)	(n)	(Å0mm)	(m <sup>3</sup> /h)	(m <sup>3</sup> /h)	Euro
50UY111 2,5	37,75	6,50	18	14	1x 	500	7.210	5.180
50UY112 2,5	50,33	8,70	21	16		500	6.700	4.810
50UY111 2,1	44,50	6,50	19	15		500	7.040	5.050
50UY112 2,1	59,33	8,70	22	17		500	6.480	4.660
50UY211 2,5	75,50	13,00	36	29	2x 	500	14.430	10.370
50UY121 2,5	75,50	13,00	36	29		500	14.430	10.370
50UY212 2,5	100,66	17,40	42	33		500	13.400	9.630
50UY122 2,5	100,66	17,40	42	33		500	13.400	9.630
50UY211 2,1	89,00	13,00	39	31		500	14.080	10.110
50UY121 2,1	89,00	13,00	39	31		500	14.080	10.110
50UY212 2,1	118,66	17,40	44	34		500	12.970	9.330
50UY122 2,1	118,66	17,40	44	34		500	12.970	9.330
50UY311 2,5	113,25	19,50	55	44	3x 	500	21.640	15.560
50UY312 2,5	150,99	26,10	63	50		500	20.100	14.450
50UY311 2,1	133,50	19,50	59	47		500	21.120	15.160
50UY312 2,1	177,99	26,10	66	52		500	19.460	14.000





Model Model	Boyutlar / Dimensions								Bağlantılar / Connections		
	L	H	W	LT	LC	H1	H2	W1	Adet Qty	Giriş Input	Çıkış Output
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(ad)	(mm)	(mm)
50UY111 2,5	120	141	101	80	-	90	43	88	1	22	19
50UY112 2,5	120	141	101	80	-	90	43	88	1	22	19
50UY111 2,1	120	141	101	80	-	90	43	88	1	22	19
50UY112 2,1	120	141	101	80	-	90	43	88	1	22	19
50UY211 2,5	200	141	101	-	160	90	43	88	1	35	28
50UY121 2,5	120	141	178	80	-	90	43	165	1	35	28
50UY212 2,5	200	141	101	-	160	90	43	88	1	35	28
50UY122 2,5	120	141	178	80	-	90	43	165	1	35	28
50UY211 2,1	200	141	101	-	160	90	43	88	1	35	28
50UY121 2,1	120	141	178	80	-	90	43	165	1	35	28
50UY212 2,1	200	141	101	-	160	90	43	88	1	35	28
50UY122 2,1	120	141	178	80	-	90	43	165	1	35	28
50UY311 2,5	280	141	101	80	-	90	43	88	1	42	35
50UY312 2,5	280	141	101	80	-	90	43	88	1	42	35
50UY311 2,1	280	141	101	80	-	90	43	88	1	42	35
50UY312 2,1	280	141	101	80	-	90	43	88	1	42	35

## 50 UY SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 32 mm x 28 mm

Hatve / Fin Spacing : 2,1 mm - 2,5 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity ( $\Delta t=15^{\circ}\text{C}$ )		Fanlar / Fans				
			S Ø500mm 1/ 230V AC 50Hz 1400 rpm	L Ø500mm 1/ 230V AC 50Hz 900 rpm	Adet Qty	Çap Diameter	S Hava Debisi Air Flow 1400 rpm	L Hava Debisi Air Flow 900 rpm	
(m <sup>2</sup> )	(dm <sup>2</sup> )	(kW)	(kW)	(n)	(Å0mm)	(m <sup>3</sup> /h)	(m <sup>3</sup> /h)	Euro	
50UY411 2,5	151,00	26,00	73	59	4x 	500	28.860	20.740	
50UY221 2,5	151,00	26,00	73	59		500	28.860	20.740	
50UY412 2,5	201,32	34,80	84	67		500	26.800	19.270	
50UY222 2,5	201,32	34,80	84	67		500	26.800	19.270	
50UY411 2,1	178,00	26,00	79	63		6x 	500	28.160	20.220
50UY221 2,1	178,00	26,00	79	63			500	28.160	20.220
50UY412 2,1	237,32	34,80	88	69			500	25.950	18.670
50UY222 2,1	237,32	34,80	88	69			500	25.950	18.670
50UY321 2,5	226,50	39,00	110	89	8x 	500	43.290	31.120	
50UY322 2,5	301,98	52,20	126	100		500	40.200	28.900	
50UY321 2,1	267,00	39,00	119	95		500	42.250	30.330	
50UY322 2,1	355,98	52,20	133	104	8x 	500	38.930	28.000	
50UY421 2,5	302,00	52,00	147	118		500	57.720	41.490	
50UY422 2,5	402,64	69,60	169	134		500	53.600	38.540	
50UY421 2,1	356,00	52,00	158	126		500	56.330	40.440	
50UY422 2,1	474,64	69,60	177	139	500	51.910	37.340		





Model Model	Boyutlar / Dimensions								Bağlantılar / Connections		
	L	H	W	LT	LC	H1	H2	W1	Adet Qty	Giriş Input	Çıkış Output
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(ad)	(mm)	(mm)
50UY411 2,5	360	141	101	80	-	90	43	88	1	42	35
50UY221 2,5	200	141	178	-	160	90	43	165	1	42	35
50UY412 2,5	360	141	101	80	-	90	43	88	1	42	35
50UY222 2,5	200	141	178	-	160	90	43	165	1	42	35
50UY411 2,1	360	141	101	80	-	90	43	88	1	42	35
50UY221 2,1	200	141	178	-	160	90	43	165	1	42	35
50UY412 2,1	360	141	101	80	-	90	43	88	1	42	35
50UY222 2,1	200	141	178	-	160	90	43	165	1	42	35
50UY321 2,5	280	141	178	80	-	90	43	165	2	54	42
50UY322 2,5	280	141	178	80	-	90	43	165	2	54	42
50UY321 2,1	280	141	178	80	-	90	43	165	2	54	42
50UY322 2,1	280	141	178	80	-	90	43	165	2	54	42
50UY421 2,5	360	141	178	80	-	90	43	165	2	64	54
50UY422 2,5	360	141	178	80	-	90	43	165	2	64	54
50UY421 2,1	360	141	178	80	-	90	43	165	2	64	54
50UY422 2,1	360	141	178	80	-	90	43	165	2	64	54

## 63 UY SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 32 mm x 28 mm

Hatve / Fin Spacing : 2,1 mm - 2,5 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity ( $\Delta t=15^{\circ}\text{C}$ )		Fanlar / Fans				
			S Ø630mm 1/230V AC 50Hz 880 rpm	L Ø630mm 3/ 400V AC 50Hz 620 rpm	Adet Qty	Çap Diameter	S Hava Debisi Air Flow 880 rpm	L Hava Debisi Air Flow 620 rpm	
			(m <sup>2</sup> )	(dm <sup>3</sup> )	(kW)	(kW)	(n)	(Å0mm)	(m <sup>3</sup> /h)
63UY111 2,5	55,05	9,50	23	19	1x	630	8.700	6.430	
63UY112 2,5	73,40	12,70	27	21		630	8.110	5.960	
63UY111 2,1	64,90	9,50	25	20		630	8.480	6.250	
63UY112 2,1	86,53	12,70	28	22		630	7.880	5.800	
63UY211 2,5	110,10	19,00	47	38	2x 	630	17.410	12.860	
63UY121 2,5	110,10	19,00	47	38		630	17.410	12.860	
63UY212 2,5	146,80	25,40	54	43		630	16.220	11.930	
63UY122 2,5	146,80	25,40	54	43		630	16.220	11.930	
63UY211 2,1	129,80	19,00	50	40		630	16.970	12.500	
63UY121 2,1	129,80	19,00	50	40		630	16.970	12.500	
63UY212 2,1	173,06	25,40	56	44		630	15.760	11.610	
63UY122 2,1	173,06	25,40	56	44		630	15.760	11.610	
63UY311 2,5	165,15	28,50	71	57		3x 	630	26.120	19.290
63UY312 2,5	220,20	38,10	81	64			630	24.340	17.900
63UY311 2,1	194,70	28,50	76	61	630		25.460	18.760	
63UY312 2,1	259,59	38,10	85	67	630	23.640	17.410		
63UY411 2,5	220,20	38,00	94	77	4x 	630	34.830	25.730	
63UY412 2,5	293,60	50,80	108	86		630	32.450	23.860	
63UY221 2,5	220,20	38,00	94	77		630	34.830	25.730	
63UY222 2,5	293,60	50,80	108	86		630	32.450	23.860	
63UY411 2,1	259,60	38,00	101	81		630	33.950	25.010	
63UY412 2,1	346,12	50,80	113	89		630	31.520	23.220	
63UY221 2,1	259,60	38,00	101	81		630	33.950	25.010	
63UY222 2,1	346,12	50,80	113	89		630	31.520	23.220	

Model Model	Boyutlar / Dimensions								Bağlantılar / Connections		
	L	H	W	LT	LC	H1	H2	W1	Adet Qty	Giriş Input	Çıkış Output
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(ad)	(mm)	(mm)
63UY111 2,5	140	141	114	100	-	90	43	101	1	28	22
63UY112 2,5	140	141	114	100	-	90	43	101	1	28	22
63UY111 2,1	140	141	114	100	-	90	43	101	1	28	22
63UY112 2,1	140	141	114	100	-	90	43	101	1	28	22
63UY211 2,5	240	141	114	-	200	90	43	101	1	35	28
63UY121 2,5	140	141	203	100	-	90	43	190	1	35	28
63UY212 2,5	240	141	114	-	200	90	43	101	1	35	28
63UY122 2,5	140	141	203	100	-	90	43	190	1	35	28
63UY211 2,1	240	141	114	-	200	90	43	101	1	35	28
63UY121 2,1	140	141	203	100	-	90	43	190	1	35	28
63UY212 2,1	240	141	114	-	200	90	43	101	1	35	28
63UY122 2,1	140	141	203	100	-	90	43	190	1	35	28
63UY311 2,5	340	141	114	100	-	90	43	101	1	42	35
63UY312 2,5	340	141	114	100	-	90	43	101	1	42	35
63UY311 2,1	340	141	114	100	-	90	43	101	1	42	35
63UY312 2,1	340	141	114	100	-	90	43	101	1	42	35
63UY411 2,5	440	141	114	100	-	90	43	101	1	54	42
63UY412 2,5	440	141	114	100	-	90	43	101	1	54	42
63UY221 2,5	240	141	203	-	200	90	43	190	1	54	42
63UY222 2,5	240	141	203	-	200	90	43	190	1	54	42
63UY411 2,1	440	141	114	100	-	90	43	101	1	54	42
63UY412 2,1	440	141	114	100	-	90	43	101	1	54	42
63UY221 2,1	240	141	203	-	200	90	43	190	1	54	42
63UY222 2,1	240	141	203	-	200	90	43	190	1	54	42







## 63 UY SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 32 mm x 28 mm

Hatve / Fin Spacing : 2,1 mm - 2,5 mm

UY

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity ( $\Delta t=15^{\circ}\text{C}$ )		Fanlar / Fans			
			S Ø630mm 1/230V AC 50Hz 880 rpm	L Ø630mm 3/ 400V AC 50Hz 620 rpm	Adet Qty	Çap Diameter	S Hava Debisi Air Flow 880 rpm	L Hava Debisi Air Flow 620 rpm
			(m <sup>2</sup> )	(dm <sup>3</sup> )	(kW)	(kW)	(n)	(ÅØmm)
63UY321 2,5	330,30	57,00	142	115	6x 	630	52.240	38.590
63UY322 2,5	440,40	76,20	162	129		630	48.680	35.800
63UY321 2,1	389,40	57,00	152	122		630	50.930	37.520
63UY322 2,1	519,18	76,20	170	134		630	47.290	34.830
63UY421 2,5	440,40	76,00	189	154	8x 	630	69.660	51.460
63UY422 2,5	587,20	101,60	217	173		630	64.910	47.730
63UY421 2,1	519,20	76,00	203	163		630	67.910	50.030
63UY422 2,1	692,24	101,60	227	179		630	63.050	46.440
63UY521 2,5	550,50	95,00	237	193	10x 	630	87.080	64.330
63UY522 2,5	734,00	127,00	271	216		630	81.140	59.670
63UY521 2,1	649,00	95,00	254	204		630	84.890	62.540
63UY522 2,1	865,30	127,00	284	224		630	78.820	58.060
63UY621 2,5	660,60	114,00	284	231	12x 	630	104.490	77.190
63UY622 2,5	880,80	152,40	325	259		630	97.360	71.600
63UY621 2,1	778,80	114,00	305	245		630	101.860	75.040
63UY622 2,1	1038,36	152,40	340	269		630	94.580	69.670




Model Model	Boyutlar / Dimensions								Bağlantılar / Connections		
	L	H	W	LT	LC	H1	H2	W1	Adet Qty	Giriş Input	Çıkış Output
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(ad)	(mm)	(mm)
63UY321 2,5	340	141	203	100	-	90	43	190	2	64	54
63UY322 2,5	340	141	203	100	-	90	43	190	2	64	54
63UY321 2,1	340	141	203	100	-	90	43	190	2	64	54
63UY322 2,1	340	141	203	100	-	90	43	190	2	64	54
63UY421 2,5	440	141	203	100	-	90	43	190	2	64	54
63UY422 2,5	440	141	203	100	-	90	43	190	2	64	54
63UY421 2,1	440	141	203	100	-	90	43	190	2	64	54
63UY422 2,1	440	141	203	100	-	90	43	190	2	64	54
63UY521 2,5	540	141	203	100	-	90	43	190	2	80	64
63UY522 2,5	540	141	203	100	-	90	43	190	2	80	64
63UY521 2,1	540	141	203	100	-	90	43	190	2	80	64
63UY522 2,1	540	141	203	100	-	90	43	190	2	80	64
63UY621 2,5	640	141	203	100	-	90	43	190	2	80	64
63UY622 2,5	640	141	203	100	-	90	43	190	2	80	64
63UY621 2,1	640	141	203	100	-	90	43	190	2	80	64
63UY622 2,1	640	141	203	100	-	90	43	190	2	80	64

## 80 UY SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 32 mm x 28 mm

Hatve / Fin Spacing : 2,1 mm - 2,5 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity ( $\Delta t=15^{\circ}\text{C}$ )		Fanlar / Fans			
			S Ø800mm 3/ 400V AC 50Hz 880 rpm	L Ø800mm 3/ 400V AC 50Hz 670 rpm	Adet Qty	Çap Diameter	S Hava Debisi Air Flow 880 rpm	L Hava Debisi Air Flow 670 rpm
			(kW)	(kW)				
80UY111 2,5	80,22	13,80	43	37	1x 	800	18.530	14.300
80UY112 2,5	106,95	18,50	50	42		800	16.900	13.040
80UY111 2,1	94,56	13,80	47	39		800	17.910	13.860
80UY112 2,1	126,09	18,50	53	44		800	16.270	12.550
80UY211 2,5	160,44	27,60	87	74	2x 	800	37.060	28.610
80UY121 2,5	160,44	27,60	87	74		800	37.060	28.610
80UY212 2,5	213,90	37,00	101	84		800	33.810	26.090
80UY122 2,5	213,90	37,00	101	84		800	33.810	26.090
80UY211 2,1	189,12	27,60	94	79		800	35.830	27.730
80UY121 2,1	189,12	27,60	94	79		800	35.830	27.730
80UY212 2,1	252,18	37,00	106	88		800	32.540	25.100
80UY122 2,1	252,18	37,00	106	88		800	32.540	25.100
80UY311 2,5	240,66	41,40	131	112	3x 	800	55.590	42.920
80UY312 2,5	320,85	55,50	151	127		800	50.710	39.140
80UY311 2,1	283,68	41,40	141	119		800	53.750	41.600
80UY312 2,1	378,27	55,50	159	132		800	48.810	37.650

Model Model	Boyutlar / Dimensions								Bağlantılar / Connections		
	L	H	W	LT	LC	H1	H2	W1	Adet Qty	Giriş Input	Çıkış Output
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(ad)	(mm)	(mm)
80UY111 2,5	160	141	133	120	-	90	43	120	1	35	28
80UY112 2,5	160	141	133	120	-	90	43	120	1	35	28
80UY111 2,1	160	141	133	120	-	90	43	120	1	35	28
80UY112 2,1	160	141	133	120	-	90	43	120	1	35	28
80UY211 2,5	280	141	133	-	240	90	43	120	1	54	42
80UY121 2,5	160	141	242	120	-	90	43	229	1	54	42
80UY212 2,5	280	141	133	-	240	90	43	120	1	54	42
80UY122 2,5	160	141	242	120	-	90	43	229	1	54	42
80UY211 2,1	280	141	133	-	240	90	43	120	1	54	42
80UY121 2,1	160	141	242	120	-	90	43	229	1	54	42
80UY212 2,1	280	141	133	-	240	90	43	120	1	54	42
80UY122 2,1	160	141	242	120	-	90	43	229	1	54	42
80UY311 2,5	400	141	133	120	-	90	43	120	1	64	54
80UY312 2,5	400	141	133	120	-	90	43	120	1	64	54
80UY311 2,1	400	141	133	120	-	90	43	120	1	64	54
80UY312 2,1	400	141	133	120	-	90	43	120	1	64	54



## 80 UY SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 32 mm x 28 mm

Hatve / Fin Spacing : 2,1 mm - 2,5 mm

UY

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity ( $\Delta t=15^{\circ}\text{C}$ )		Fanlar / Fans			
			S Ø800mm 3/ 400V AC 50Hz 880 rpm	L Ø800mm 3/ 400V AC 50Hz 670	Adet Qty	Çap Diameter	S Hava Debisi Air Flow 880 rpm	L Hava Debisi Air Flow 670 rpm
	(m <sup>2</sup> )	(dm <sup>3</sup> )	(kW)	(kW)	(n)	(Ømm)	(m <sup>3</sup> /h)	(m <sup>3</sup> /h)
80UY411 2,5	320,88	55,20	175	149	4x 	800	74.120	57.220
80UY221 2,5	320,88	55,20	175	149		800	74.120	57.220
80UY412 2,5	427,80	74,00	202	169		800	67.620	52.190
80UY222 2,5	427,80	74,00	202	169		800	67.620	52.190
80UY411 2,1	378,24	55,20	189	159		800	71.670	55.470
80UY221 2,1	378,24	55,20	189	159		800	71.670	55.470
80UY412 2,1	504,36	74,00	212	176		800	65.090	50.200
80UY222 2,1	504,36	74,00	212	176		800	65.090	50.200
80UY321 2,5	481,32	82,80	263	224	6x 	800	111.180	85.840
80UY322 2,5	641,70	111,00	303	254		800	101.430	78.280
80UY321 2,1	567,36	82,80	283	239		800	107.500	83.200
80UY322 2,1	756,54	111,00	318	265		800	97.630	75.310




Model Model	Boyutlar / Dimensions								Bağlantılar / Connections		
	L	H	W	LT	LC	H1	H2	W1	Adet Qty	Giriş Input	Çıkış Output
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(ad)	(mm)	(mm)
80UY411 2,5	520	141	133	120	-	90	43	120	1	64	54
80UY221 2,5	280	141	242	-	240	90	43	229	1	64	54
80UY412 2,5	520	141	133	120	-	90	43	120	1	64	54
80UY222 2,5	280	141	242	-	240	90	43	229	1	64	54
80UY411 2,1	520	141	133	120	-	90	43	120	1	64	54
80UY221 2,1	280	141	242	-	240	90	43	229	1	64	54
80UY412 2,1	520	141	133	120	-	90	43	120	1	64	54
80UY222 2,1	280	141	242	-	240	90	43	229	1	64	54
80UY321 2,5	400	141	242	120	-	90	43	229	2	80	64
80UY322 2,5	400	141	242	120	-	90	43	229	2	80	64
80UY321 2,1	400	141	242	120	-	90	43	229	2	80	64
80UY322 2,1	400	141	242	120	-	90	43	229	2	80	64

## 80 UY SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 32 mm x 28 mm

Hatve / Fin Spacing : 2,1 mm - 2,5 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity ( $\Delta t=15^{\circ}\text{C}$ )		Fanlar / Fans			
			S Ø800mm 3/ 400V AC 50Hz 880 rpm	L Ø800mm 3/ 400V AC 50Hz 670	Adet Qty	Çap Diameter	S Hava Debisi Air Flow 880 rpm	L Hava Debisi Air Flow 670 rpm
			(kW)	(kW)				
80UY421 2,5	641,76	110,40	351	299	8x 	800	148.240	114.450
80UY422 2,5	855,60	148,00	404	338		800	135.240	104.380
80UY421 2,1	756,48	110,40	378	319		800	143.340	110.940
80UY422 2,1	1008,72	148,00	424	353		800	130.180	100.410
80UY521 2,5	802,20	138,00	439	374	10x 	800	185.300	143.070
80UY522 2,5	1069,50	185,00	505	423		800	169.060	130.480
80UY521 2,1	945,60	138,00	472	399		800	179.180	138.680
80UY522 2,1	1260,90	185,00	531	441		800	162.730	125.520
80UY621 2,5	962,64	165,60	527	448	12x 	800	222.360	171.680
80UY622 2,5	1283,40	222,00	606	508		800	202.870	156.570
80UY621 2,1	1134,72	165,60	567	479		800	215.010	166.410
80UY622 2,1	1513,08	222,00	637	530		800	195.270	150.620

Model Model	Boyutlar / Dimensions								Bağlantılar / Connections		
	L	H	W	LT	LC	H1	H2	W1	Adet Qty	Giriş Input	Çıkış Output
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(ad)	(mm)	(mm)
80UY421 2,5	520	141	242	120	-	90	43	229	2	108	80
80UY422 2,5	520	141	242	120	-	90	43	229	2	108	80
80UY421 2,1	520	141	242	120	-	90	43	229	2	108	80
80UY422 2,1	520	141	242	120	-	90	43	229	2	108	80
80UY521 2,5	640	141	242	120	-	90	43	229	2	120	108
80UY522 2,5	640	141	242	120	-	90	43	229	2	120	108
80UY521 2,1	640	141	242	120	-	90	43	229	2	120	108
80UY522 2,1	640	141	242	120	-	90	43	229	2	120	108
80UY621 2,5	760	141	242	120	-	90	43	229	2	120	108
80UY622 2,5	760	141	242	120	-	90	43	229	2	120	108
80UY621 2,1	760	141	242	120	-	90	43	229	2	120	108
80UY622 2,1	760	141	242	120	-	90	43	229	2	120	108

## ENDÜSTRİYEL KONDENSER

Industrial Condensers

### TEKNİK BİLGİLER

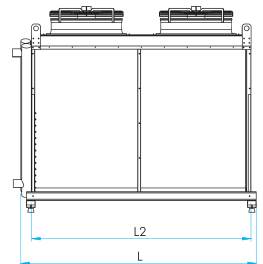
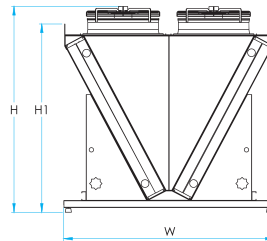
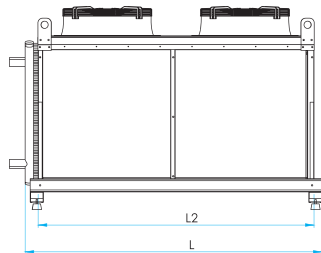
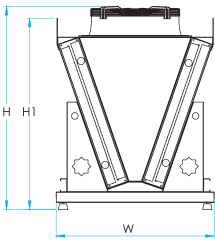
Technical Information

VUK

<b>Bakır Boru / Copper Tube</b>	: 3/8"
<b>Kalıp / Geometry</b>	: 32 mm x 28 mm
<b>Hatve / Fin Spacing</b>	: 2,1 mm - 2,5 mm

Belirtilen fiyatlara fan dahil değildir.  
Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

All prices are given without fans.  
Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.



## 63 VUK SERİSİ

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 32 mm x 28 mm

Hatve / Fin Spacing : 2,1 mm - 2,5 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity $\Delta t = T_c - T_a = 15^\circ C$		Fanlar / Fans			
			S Ø630mm 3/400V AC 50Hz 1320 rpm	L Ø630mm 3/400V AC 50Hz 620 rpm	Adet Qty	Çap Diameter	S Hava Debisi Air Flow 1320 rpm	L Hava Debisi Air Flow 620 rpm
			(kW)	(kW)			(n)	(Ømm)
63VUK211	329,10	25,00	110	74	2	630	38.736	20.310
63VUK212	438,82	33,20	130	82			630	38.156
63VUK311	493,65	37,50	170	112	3	630	58.104	30.240
63VUK312	658,23	49,80	194	126			630	57.234
63VUK412	877,64	66,60	259	163	4	630	76.312	39.634

Model Model	Boyutlar / Dimensions					Bağlantılar / Connections	
	L	H	W	L2	H1	Giriş Input	Çıkış Output
	(cm)	(cm)	(cm)	(cm)	(cm)	(mm/")	(mm/")
63VUK211	235	157	120	208.5	145	42	35
63VUK212	235	157	120	208.5	145	54	42
63VUK311	335	157	120	308.5	145	54	42
63VUK312	335	157	120	308.5	145	64	54
63VUK412	435	157	120	408.5	145	80	64

## 80 VUK SERİSİ

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity $\Delta t = T_c - T_a = 15^\circ C$		Fanlar / Fans			
			S Ø800mm 1/230V AC 50Hz 880 rpm	L Ø800mm 3/400V AC 50Hz 670 rpm	Adet Qty	Çap Diameter	S Hava Debisi Air Flow 880 rpm	L Hava Debisi Air Flow 670 rpm
			(kW)	(kW)			(n)	(Ømm)
80VUK211	492,32	35,20	152	-	2	800	46.888	-
80VUK212	657,58	49,20	171	-			800	45.708
80VUK311	738,48	52,80	238	-	3	800	66.128	-
80VUK312	986,36	74,20	243	-			800	64.258
80VUK411	1315,16	98,60	350	-	4	800	91.332	-
80VUK221	704,06	53,40	252	-			800	89.728
80VUK222	938,76	71,40	301	-	6	800	69.184	-
80VUK321	1056,10	80,00	390	-			800	120.860
80VUK322	1408,14	106,80	446	-	800	118.498	-	

Model Model	Boyutlar / Dimensions					Bağlantılar / Connections	
	L	H	W	L2	H1	Giriş Input	Çıkış Output
	(cm)	(cm)	(cm)	(cm)	(cm)	(mm/")	(mm/")
80VUK211	275	192	120	248.5	172	64	54
80VUK212	275	192	120	248.5	172	64	54
80VUK311	395	192	120	368.5	172	64	54
80VUK312	395	192	120	368.5	172	80	64
80VUK411	515	192	120	488.5	172	80	64
80VUK221	275	235	240	248.5	214	80	64
80VUK222	275	235	240	248.5	214	80	64
80VUK321	395	235	240	368.5	214	80	64
80VUK322	395	235	240	368.5	214	105	80

## ENDÜSTRİYEL KONDENSER

Industrial Condensers

### TEKNİK BİLGİLER

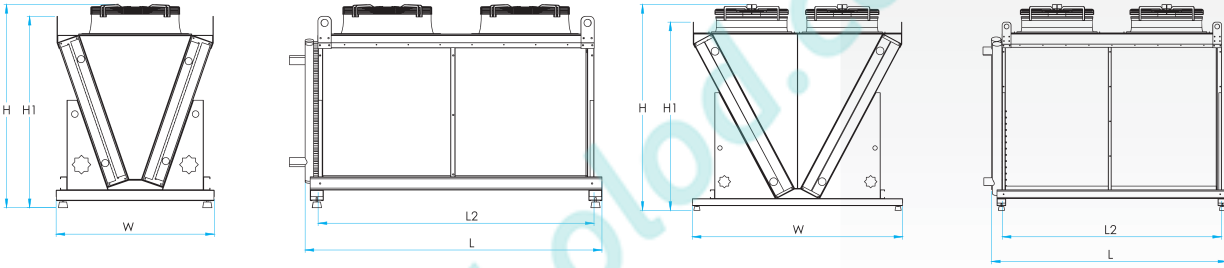
Technical Information

VUY

**Bakır Boru / Copper Tube** : 1/2"  
**Kalıp / Geometry** : 32 mm x 28 mm  
**Hatve / Fin Spacing** : 2,1 mm - 2,5 mm

Belirtilen fiyatlara fan dahil değildir.  
 Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

All prices are given without fans.  
 Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.



### 63 VUY SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 32 mm x 28 mm

Hatve / Fin Spacing : 2,1 mm - 2,5 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity $\Delta t = T_c - T_a = 15^\circ C$		Adet Qty	Fanlar / Fans			Fiyat Price
			S Ø630mm 3/400V AC 50Hz 1320 rpm	L Ø630mm 3/400V AC 50Hz 620 rpm		Çap Diameter	S Hava Debisi Air Flow 1320 rpm	L Hava Debisi Air Flow 620 rpm	
63VUY211	311,64	46,20	120	78	2	630	38.188	19.869	€ 4.475
63VUY212	415,64	61,60	135	85		630	37.358	19.417	€ 5.435
63VUY311	467,46	46,20	179	115	3	630	57.282	29.232	€ 6.346
63VUY312	628,52	92,20	202	124		630	56.037	28.952	€ 8.008
63VUY411	630,44	92,40	239	154	4	630	76.376	39.736	€ 8.400
63VUY412	838,02	123,20	269	169		630	74.716	38.834	€ 10.268

Model Model	Boyutlar / Dimensions					Bağlantılar / Connections	
	L	H	W	L2	H1	Giriş Input	Çıkış Output
63VUY211	235	157	120	208,5	145	54	42
63VUY212	235	157	120	208,5	145	54	42
63VUY311	335	157	120	308,5	145	54	42
63VUY312	335	157	120	308,5	145	64	54
63VUY411	435	157	120	408,5	145	64	54
63VUY412	435	157	120	408,5	145	64	54

## 80 VUY SERİSİ

Model Model	Yüze Area	Boru Hacmi Tube Volume	Kapasite / Capacity $\Delta t=T_c-T_a=15^\circ\text{C}$		Fanlar / Fans			
			S Ø630mm 3/400V AC 50Hz 1320 rpm	L Ø630mm 3/400V AC 50Hz 620 rpm	Adet Qty	Çap Diameter	S Hava Debisi Air Flow 1320 rpm	L Hava Debisi Air Flow 620 rpm
			(kW)	(kW)				
80VUY211	466,12	65,20	163	-	2	800	45.496	-
80VUY212	621,48	86,80	181	-			800	43.978
80VUY311	669,16	97,80	241	-	3	800	66.325	-
80VUY312	934,52	136,80	275	-			800	65.789
80VUY411	932,22	143,20	325	-	4	800	90.995	-
80VUY412	1246,02	182,40	367	-			800	87.872
80VUY511	1165,28	162,80	406	-	5	800	110.569	-
80VUY512	1557,54	228,00	446	-			800	109.865
80VUY221	666,74	95,60	289	-	4	800	85.340	-
80VUY222	890,02	130,02	305	-			800	82.304
80VUY321	1010,28	146,60	437	-	6	800	121.586	-
80VUY322	1335,04	195,40	467	-			800	120.862
80VUY421	1335,04	204,40	578	-	8	800	170.682	-
80VUY422	1780,04	260,06	609	-			800	164.604
80VUY521	1668,78	244,02	727	-	10	800	210.682	-
80VUY522	2225,06	352,80	760	-			800	204.689

Model Model	Boyutlar / Dimensions					Bağlantılar / Connections	
	L	H	W	L2	H1	Giriş Input	Çıkış Output
	(cm)	(cm)	(cm)	(cm)	(cm)	(mm/")	(mm/")
80VUY211	275	192	120	248,5	172	54	42
80VUY212	275	192	120	248,5	172	64	54
80VUY311	395	192	120	368,5	172	64	54
80VUY312	395	192	120	368,5	172	80	64
80VUY411	515	192	120	488,5	172	105	80
80VUY412	515	192	120	488,5	172	105	80
80VUY511	635	192	120	608,5	172	105	80
80VUY512	635	192	120	608,5	172	105	105
80VUY221	275	235	240	248,5	214	80	64
80VUY222	275	235	240	248,5	214	105	80
80VUY321	395	235	240	368,5	214	105	80
80VUY322	395	235	240	368,5	214	105	80
80VUY421	515	235	240	488,5	214	105	105
80VUY422	515	235	240	488,5	214	105	105
80VUY521	635	235	240	608,5	214	105	105
80VUY522	635	235	240	608,5	214	105	105



*Kalitenin zamana karşı zaferi...*  
*The triumph of quality against time...*

# KONDENSER ÜNİTELERİ

## CONDENSING UNITS WITHOUT COMPRESSOR

		Sayfa / Page
<b>BZBOX</b>	<i>Bakır Boru / Copper Tube : 3/8"</i> <i>Kalıp / Geometry : 25 mm x 22 mm</i>	<b>54</b>
<b>SHBOX</b>	<i>Bakır Boru / Copper Tube : 3/8"</i> <i>Kalıp / Geometry : 25 mm x 22 mm</i>	<b>56</b>
<b>EBOX</b>	<i>Bakır Boru / Copper Tube : 3/8"</i> <i>Kalıp / Geometry : 32 mm x 28 mm</i>	<b>58</b>
<b>MTBOX</b>	<i>Bakır Boru / Copper Tube : 3/8"</i> <i>Kalıp / Geometry : 25 mm x 22 mm</i>	<b>60</b>
<b>KUK</b>	<i>Bakır Boru / Copper Tube : 3/8"</i> <i>Kalıp / Geometry : 32 mm x 28 mm</i>	<b>62</b>
<b>KUY</b>	<i>Bakır Boru / Copper Tube : 1/2"</i> <i>Kalıp / Geometry : 32 mm x 28 mm</i>	<b>64</b>

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BUZÇELİK katalogdaki değerleri haber vermeden deęiřtirme hakkını saklı tutar.

*BUZÇELİK reserves the right to make modifications in the catalog at any time without prior notice.*

## GENEL

- BZBOX, SHBOX, CCK, CCL, KUK, KUY kondenser üniteleri 6 ana seriden oluşmaktadır.
- Tüm iklimlendirme ve soğutma uygulamalarında kullanılmak üzere, dış ortam koşullarında montaj ve çalışmaya uygun olacak şekilde, (S) Standart ses seviyeli ve (L) Düşük ses seviyeli tiplerde imal edilirler.

## BATARYA

- Ø3/8" (UK) ve Ø1/2" (UY) bakır borular.
- V-tipi alüminyum lamel.
- Lamel araları 2,1-2,5 mm tasarlanmıştır.
- Giriş - çıkış kolektör çalizesi bakırdır.
- İzin verilen en yüksek çalışma basıncı Ps=21 Bar.
- Şaşırtmalı boru dizilimi.
- Bataryalarda R404A, R507C, R22, R134A soğutucu gazlarla çalışmaya uygun tasarımlar.
- Pozitif basınçla sevk.

## KASETLEME

- Kondenser üniteleri kendini taşıyıcı bir konstrüksiyona sahiptir ve monte edileceği zemine ilave bir konstrüksiyona ihtiyaç duymadan yerleştirilebilir. Kasetleme malzemesi olarak UV ve korozyon koruması sağlayan elektrostatik toz boya kaplı galvanizli çelik kullanılır. (Standart renk RAL 7035 veya RAL 9016)

## FAN

- Ø300-Ø350-Ø400-Ø450-Ø500-Ø630-Ø800 mm / 230V-50Hz-Monofaze 800 - 1450 d/d veya 400V-50Hz Trifaze 650, 900 d/d fanlar.
- Opsiyonel seçimler Buzçelik Teknik Uzmanı tarafından teyit edilmelidir.
- Standart veya düşük ses seviyeli bakım gerektirmeyen fan seçeneği.
- İsteğe bağlı AC ya da EC fan motor seçenekleri.
- Koruma sınıfı IP54, fan konstrüksiyonu izolasyon malzeme sınıfı F.
- Opsiyonel olarak seçilebilir fan aksesuar çeşitleri (FlowGrid gürültü düşürücüler vb.)
- Çalışma aralığı -40°C/+50°C'dir.

## KAPASİTE

- Nominal kapasiteler  $\Delta T=15^{\circ}\text{C}$  koşulunda R404A gaza göre Eurovent EN 328 standartları dikkate alınarak verilmiştir.

## SEÇENEKLER

- Farklı dış kabin rengi.
- Monofaze 220V 1~ 50Hz, Trifaze 400V 3~ 50Hz fan seçeneği.
- Kondenser üniteleri kompresörsüz imal edilirler.
- Opsiyonel olarak likit depolu veya elektrik panolu yapılırlar. Korozyif atmosferlerde çalışma durumunda epoksi, hidrofilik kaplı alüminyum kanatlar ve komple epoksi kaplı batarya opsiyonel olarak kullanılır. Kataloğda belirtilmeyen özel ürünler için lütfen satış departmanı ile irtibata geçin.

## NOT

- Montaj, Bakım - Taşıma ve Kaldırma detayları için kullanım Kılavuzuna başvurunuz.

## General

- BZBOX, SHBOX, CCK, CCL, KUK, KUY Condenser Unit models are designed in 6 main series.
- It's also ideal for long lasting outdoor installation of all applications in refrigeration and air conditioning. Besides, it has 2 different noise levels of (S) Standart and (L) Low Noise

## Coil

- Ø3/8" (UK) and Ø1/2" (UY) copper tubes.
- V-type aluminium fins.
- The finned coils are designed with aluminium fins spaced at 2,1 or 2,5 mm, crimped onto copper tubes.
- Header inlet and outlet tube connections made of copper.
- Maximum operating pressure 21 bar.
- Staggered copper tubes.
- The coil circuits are designed for refrigerants R404A, R507C, R22, R134A.
- Delivering under positive pressure.

## Casing

- Condenser units with their own support system do not require extra mounting equipment for placing. Electrostatically powder painted galvanized steel, which provides excellent UV and corrosion protection, is used for casing. (Standart RAL 7035 or RAL 9016)

## Fans

- Ø300-Ø350-Ø400-Ø450-Ø500-Ø630-Ø800 mm / 230V-50Hz-Monofaze 800 - 1450 rpm/min. or 400V-50Hz-Trifaze 650, 900 rpm/min. fans.
- Selections should be confirmed by your Buzçelik Technical Specialist.
- Standard or low noise level are available.
- Different kinds of motors available as optional. (EC or AC)
- Motor protection IP54 insulation class F.
- Different kinds of accessories available as optional. (FlowGrid etc.)
- Working conditions -40°C/+50°C.

## Capacity

- The nominal capacities calculated according to Eurovent EN328 standards that refer to  $\Delta T=15^{\circ}\text{C}$  condition and are valid for R404A.

## Options

- Different casing color.
- Mono phase 220V 1~ 50Hz fan or three phase 400V 3~ 50Hz fan.
- Condenser units are manufactured without compressors.
- As optional condenser units can be manufactured with liquid receiver or electric boards. Other materials are available as optional against corrosive atmosphere conditions: Epoxy, hydrophilic coated aluminum fins or complete epoxy coated coil is optional. Please keep in touch with our sales department about your special needs that are not mentioned in the catalogue.

## Options

- Please read "Installation, Operation and Maintenance Instructions" for mounting and maintenance.

Options As Listed Are Available On Request For Assistance Please Contact Buzçelik Branch

## ADLANDIRMA CLASIFICACION

# 80 KUK 311 2,1

**Fan Çapı**  
Fan Diameter

Q...cm

**Ticari Tip**  
Commercial Type

BZBOX / SHBOX : 2522-3/8"  
EBOX : 3228-3/8"  
MTBOX : 2522-3/8"  
KUK / KUY : 3228-3/8" - 3228-1/2"

**Fan Dizisi**  
Fan Array

Sütun x Satır  
Column x Row

**Ürün Numarası**  
Product Number

**Hatve Aralığı**  
Fin Space

## KAPASİTE STANDARTLARI

### CAPACITY STANDARD

Akışkan : R404A  
Hava Giriş Sıcaklığı (Tai) : 25°C  
Kondenzasyon Sıcaklığı (Tc) : 40°C  
 $\Delta T = Tc - Tai$  : 40°C - 25°C = 15°C  
Rakım : 0m

#### KONDENSER SEÇİMİ

Nominal condenser kapasitesi aşağıdaki formüller vasıtası ile hesaplanabilir.

##### Formül 1

$$Q_{nk} = [(Q+N) \times f_2 \times f_3 \times f_5] / (f_4 \times f_6)$$

Q<sub>nk</sub> : Nominal kondenser kapasitesi

Q : Kompresörün soğutma kapasitesi

N : Kompresör motorunun çektiği güç

Q ve N kompresör kataloglarından bulunabilir.

Detaylı bilginin olmadığı durumlarda Formül 2 uygulanır.

##### Formül 2

$$Q_{nk} = [Q \times f_1 \times f_2 \times f_3 \times f_5] / (f_4 \times f_6)$$

Refrigerant : R404A  
Air Inlet Temperature (Tai) : 25°C  
Condensation Temperature (Tc) : 40°C  
 $\Delta T = Tc - Tai$  : 40°C - 25°C = 15°C  
Altitude : 0m

#### KONDENSER SELECTION

Nominal condenser capacity can be calculated by using formulas below.

##### Formül 1

$$Q_{nk} = [(Q+N) \times f_2 \times f_3 \times f_5] / (f_4 \times f_6)$$

Q<sub>nk</sub> : Nominal condenser capacity

Q : Refrigerating capacity of compressor

N : Absorbed compressor power

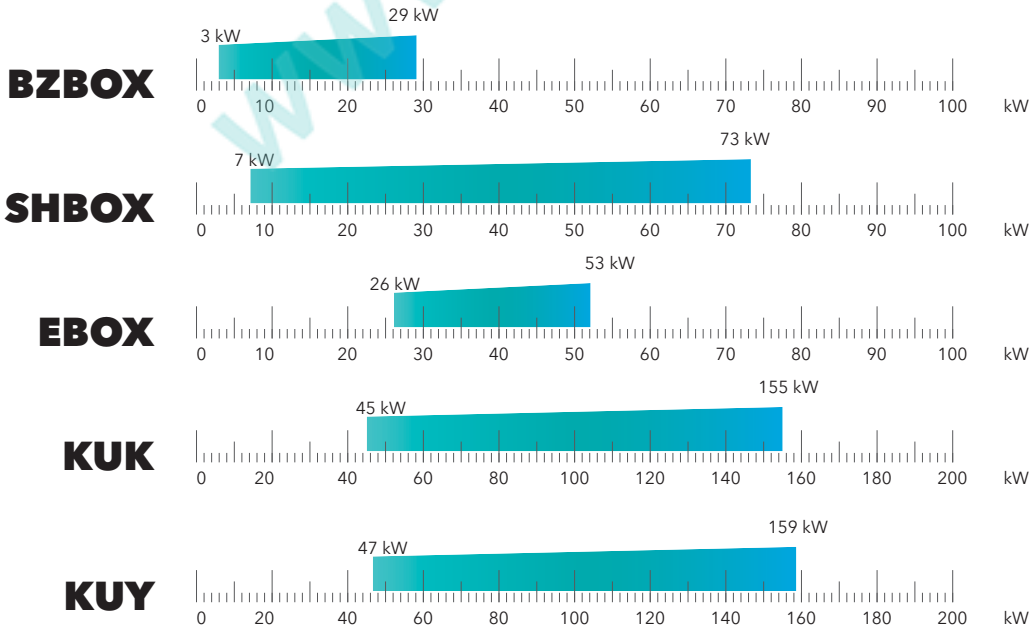
These data can be obtained from the compressor catalogues. If absorbed compressor power is unknown, please use Formula 2.

##### Formül 2

$$Q_{nk} = [Q \times f_1 \times f_2 \times f_3 \times f_5] / (f_4 \times f_6)$$

## ÜRÜN KAPASİTE ARALIĞI

### CAPACITY RANGE



**(f<sub>1</sub>) FAKTÖRÜ / (f<sub>1</sub>) FACTOR**

Açık Kompresör / Open Compressors							
Evaporasyon Sıcaklığı / Evaporation Temperature	Kondenzasyon Sıcaklığı / Condensation Temperature °C						
°C	30	35	40	45	50	55	60
-35	1,36	1,41	1,44	-	-	-	-
-30	1,31	1,36	1,40	1,44	-	-	-
-25	1,27	1,32	1,36	1,41	1,45	-	-
-20	1,24	1,28	1,31	1,35	1,39	1,44	-
-15	1,20	1,24	1,27	1,31	1,35	1,39	1,44
-10	1,18	1,21	1,24	1,27	1,31	1,35	1,40
-5	1,15	1,18	1,21	1,24	1,27	1,31	1,36
0	1,13	1,15	1,18	1,21	1,24	1,27	1,31
5	1,10	1,13	1,15	1,18	1,21	1,24	1,28
10	1,08	1,11	1,13	1,15	1,17	1,21	1,24

Hermetik ve Yarı-Hermetik Kompresör / Hermetic and Semi-Hermetic Compressors							
Evaporasyon Sıcaklığı / Evaporation Temperature °C	Kondenzasyon Sıcaklığı / Condensation Temperature °C						
°C	30	35	40	45	50	55	60
-40	1,64	1,69	1,76	1,86	2,03	-	-
-35	1,56	1,61	1,66	1,73	1,83	-	-
-30	1,48	1,53	1,57	1,62	1,69	-	-
-25	1,42	1,46	1,5	1,54	1,6	1,68	-
-20	1,37	1,4	1,44	1,48	1,53	1,6	-
-15	1,32	1,35	1,38	1,43	1,48	1,53	1,58
-10	1,28	1,31	1,34	1,37	1,42	1,46	1,52
-5	1,23	1,26	1,29	1,33	1,37	1,41	1,45
0	1,2	1,22	1,25	1,28	1,32	1,36	1,39
5	1,16	1,19	1,21	1,24	1,28	1,31	1,34
10	1,13	1,15	1,18	1,21	1,23	1,26	1,29

**(f<sub>2</sub>) FAKTÖRÜ / (f<sub>2</sub>) Factor = 15/T1**
**(f<sub>3</sub>) FAKTÖRÜ / (f<sub>3</sub>) Factor**

Hava Giriş Sıcaklığı Faktörü / Air Inlet Temperature Factor								
T(°C)	15	20	25	30	35	40	45	50
f <sub>3</sub>	0,97	0,98	1	1,02	1,04	1,06	1,08	1,1

**(f<sub>4</sub>) FAKTÖRÜ / (f<sub>4</sub>) FACTOR**

Soğutucu Akışkan Faktörü / Refrigerant Factor					
R	R134A	R22	R404A/R507	R407A	R407C
f <sub>4</sub>	0,93	0,96	1	0,83	0,87

(f<sub>5</sub>) FAKTÖRÜ / (f<sub>5</sub>) FACTOR

Rakım Faktörü / Altitude Factor							
H (m)	0	500	1000	1500	2000	2500	3000
f <sub>5</sub>	1	1,04	1,07	1,11	1,16	1,21	1,25

(f<sub>6</sub>) FAKTÖRÜ / (f<sub>6</sub>) FACTOR

Lamel Malzemesi	Alüminyum	Kaplı Alüminyum	Bakır
Fin Material	Aluminum	Coated Aluminum	Copper
f <sub>6</sub>	1	0,97	1,03

Tablo-4 Lamel Malzemesi için Düzeltme Faktörleri

Table-4 Fin Material Correction Factors

Lamel Malzemesi	Alüminyum	Kaplı Alüminyum	Bakır
Fin Material	Aluminum	Coated Alumnium	Copper
K <sub>3</sub>	1	0,97	1,03

KONDENSER ÜNİTESİ SEÇİMİ

Nominal kondenser kapasitesi aşağıdaki formüller vasıtası ile hesaplanabilir.

Formül 1

$$Q_{nk} = [(Q+N) \times f_2 \times f_3 \times f_5] / (f_4 \times f_6)$$

Q<sub>nk</sub> : Nominal kondenser kapasitesi

Q : Kompresörün soğutma kapasitesi

N : Kompresör motorunun çektiği güç

Q ve N kompresör kataloglarından bulunabilir.

Detaylı bilginin olmadığı durumlarda Formül 2 uygulanır.

Formül 2

$$Q_{nk} = [Q \times f_1 \times f_2 \times f_3 \times f_5] / (f_4 \times f_6)$$

CONDENSING UNIT SELECTION

Nominal condenser capacity can be calculated by using formulas below.

Formula 1

$$Q_{nk} = [(Q+N) \times f_2 \times f_3 \times f_5] / (f_4 \times f_6)$$

Q<sub>nk</sub> : Nominal condenser capacity

Q : Refrigerating capacity of compressor

N : Absorbed compressor power

These data can be obtained from the compressor catalogues.

If absorbed compressor power is unknown, please use Formula 2.

Formula 2

$$Q_{nk} = [Q \times f_1 \times f_2 \times f_3 \times f_5] / (f_4 \times f_6)$$

ÖRNEK SEÇİM / SELECTION EXAMPLE	
Kompresörün Soğutma Kapasitesi / Refrigerating Capacity of Compressor	: 55.800 W
Kompresör Motorunun Çektiği Güç / Absorbed Compressor Power	: 17.200 W
Kompresör Tipi / Compressor Type	: Semi-Hermetic
Evaporasyon Sıcaklığı / Evaporation Temperature	: -10°C
Hava Giriş Sıcaklığı / Air Inlet Temperature	: +30°C
Kondenzasyon Sıcaklığı / Condensation Temperature	: +40°C
Rakım / Altitude	: 1000m
Soğutucu Akışkan / Refrigerant	: R404A
Lamel Malzemesi / Fin Material	: Aluminium
f <sub>2</sub> =1,5 / f <sub>3</sub> = 1,02 / f <sub>4</sub> =1 / f <sub>5</sub> =1,07 / f <sub>6</sub> =1	: 119.500 W
Seçilen Kondenser / Selected Condenser	: 80KUK311 2,5

## KONDENSER ÜNİTELERİ

Condensing Units Without Compressor

### TEKNİK BİLGİLER

Technical Information

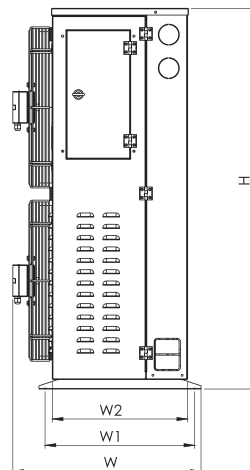
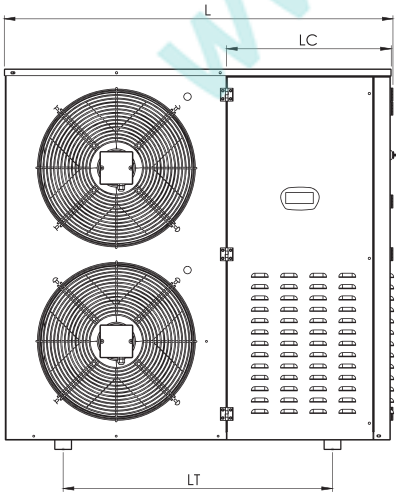
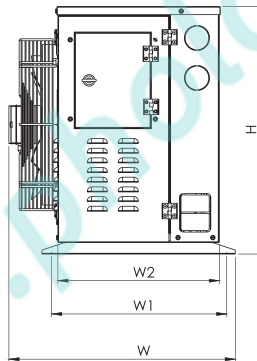
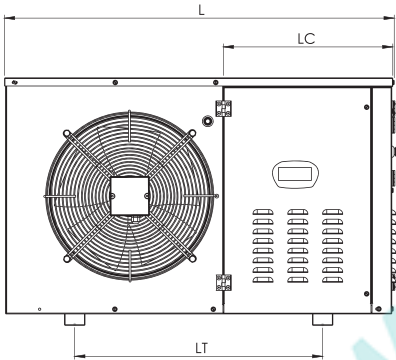
**Bakır Boru / Copper Tube** : 3/8"

**Kalıp / Geometry** : 25 mm x 22 mm

Belirtilen fiyatlara fan dahil değildir.  
Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

All prices are given without fans.  
Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.








BZBOX



## BZBOX SERİSİ

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 25 mm x 22 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity $\Delta t = T_c - T_a = 15^\circ C$		Fanlar / Fans			
			S 1/ 230V AC 50Hz 1400 rpm	L 1/ 230V AC 50Hz 900 rpm	Adet Qty	Çap Diameter	S Hava Debisi Air Flow 1400 rpm	L Hava Debisi Air Flow 900 rpm
			(m <sup>2</sup> )	(dm <sup>3</sup> )				
BZBOX 07	6,19	0,80	3.120	2.700	1x 	300	2.150	1.670
BZBOX 10	11,92	1,20	4.920	4.190		300	2.080	1.530
BZBOX 15	12,08	1,50	6.450	4.890		350	2.800	2.120
BZBOX 20NR	16,67	1,80	8.580	7.410		400	4.220	3.270
BZBOX 30NR	20,74	2,70	10.870	8.870		450	5.000	3.610
BZBOX 40NR	24,75	3,20	14.280	10.360		500	5.110	3.730
BZBOX 50NR	37,21	4,70	18.500	16.000	2x 	400	8.590	6.760
BZBOX 60NR	38,20	4,80	21.100	16.960	2x 	450	9.890	7.110
BZBOX 70NR	46,48	5,80	23.250	18.710		450	10.160	7.400
BZBOX 20TR	23,82	2,60	10.490	8.750	1x 	400	3.950	2.900
BZBOX 30TR	29,67	3,80	13.490	10.690	1x 	450	4.750	3.370
BZBOX 40TR	36,48	4,70	18.570	1.300		500	4.940	3.560
BZBOX 50TR	53,98	6,60	22.260	18.280	2x 	400	8.140	6.130
BZBOX 60TR	55,45	6,80	26.300	20.530	2x 	450	9.350	6.610
BZBOX 70TR	68,69	8,60	28.860	22.910		450	9.790	7.030

Model Model	Boyutlar / Dimensions							Bağlantılar / Connections	
	L	H	W	LT	LC	W1	W2	Giriş Input	Çıkış Output
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(mm/")	(mm/")
BZBOX 07	85	50	53	49,5	30	40	36	3/8	3/8
BZBOX 10	85	50	53	49,5	30	40	36	5/8	1/2
BZBOX 15	85	50	53	49,5	30	40	36	5/8	1/2
BZBOX 20NR	102	64	59	49,5	43	45	42	5/8	1/2
BZBOX 30NR	122	64	59	77	50	45	42	5/8	1/2
BZBOX 40NR	122	69	59	77	50	45	42	19	1/2
BZBOX 50NR	122	118	59	77	50	45	42	22	5/8
BZBOX 60NR	122	118	59	77	50	45	42	22	5/8
BZBOX 70NR	122	118	59	77	50	45	42	22	5/8
BZBOX 20TR	102	64	59	77	43	45	42	5/8	1/2
BZBOX 30TR	122	64	59	77	50	45	42	5/8	1/2
BZBOX 40TR	122	69	59	77	50	45	42	19	1/2
BZBOX 50TR	122	118	59	77	50	45	42	22	5/8
BZBOX 60TR	122	118	59	77	50	45	42	22	5/8
BZBOX 70TR	122	118	59	77	50	45	42	22	5/8



## KONDENSER ÜNİTELERİ

Condensing Units Without Compressor

### TEKNİK BİLGİLER

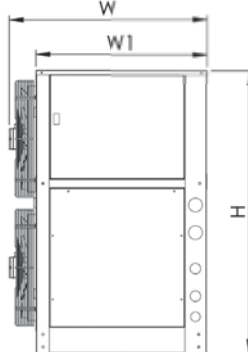
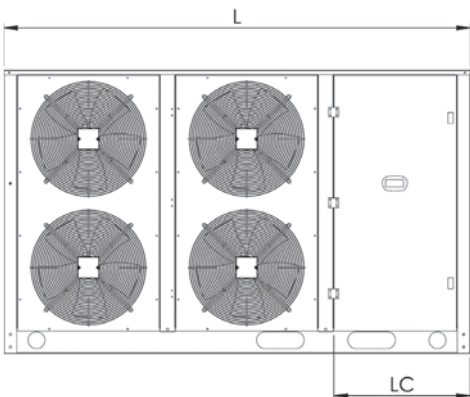
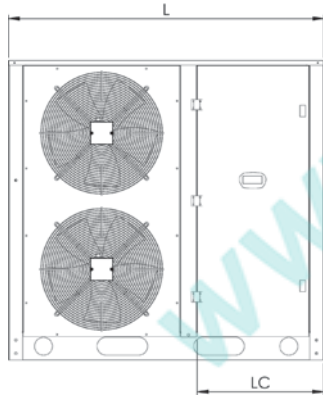
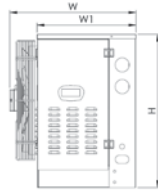
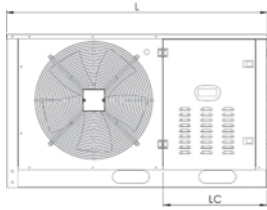
Technical Information

**Bakır Boru / Copper Tube** : 3/8"

**Kalıp / Geometry** : 25 mm x 22 mm

Belirtilen fiyatlara fan dahil değildir.  
Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.




All prices are given without fans.  
Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.



## SHBOX SERİSİ

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 25 mm x 22 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity $\Delta t = T_c - T_a = 15^\circ C$		Fanlar / Fans				
			S	L	Adet Qty	Çap Diameter	S Hava Debisi Air Flow 1400 rpm	L Hava Debisi Air Flow 900 rpm	
			1/ 230V AC 50Hz 1400 rpm	1/ 230V AC 50Hz 900 rpm					(m <sup>2</sup> )
35SHBOX1 110	17,06	1,80	7.010	6.120	1x		350	2.940	2.370
40SHBOX1 110	17,24	2,20	9.120	7.780			400	4.240	3.300
35SHBOX1 111	25,01	2,70	8.770	7.320			350	2.840	2.200
40SHBOX1 111	25,27	3,20	11.260	9.250			400	4.000	2.960
45SHBOX2 110	21,82	2,80	11.090	9.010			450	5.040	3.650
50SHBOX2 110	21,82	2,80	14.190	12.530			500	7.570	6.130
45SHBOX2 111 2,5	27,33	4,10	12.810	10.190			450	4.890	3.510
50SHBOX2 111 2,5	27,33	4,10	16.380	14.130			500	7.120	5.660
45SHBOX2 111	32,15	4,10	13.920	10.960			450	4.830	3.450
50SHBOX2 111	32,15	4,10	17.730	15.200			500	6.930	5.490
45SHBOX3 120	48,23	6,20	23.320	18.970	2x		450	10.200	7.430
50SHBOX3 120	48,23	6,20	30.160	26.740			500	15.560	12.710
45SHBOX3 121 2,5	60,50	9,10	27.020	21.510			450	9.950	7.180
50SHBOX3 121 2,5	60,50	9,10	34.970	30.350			500	14.730	11.830
45SHBOX3 121	71,17	9,10	29.290	23.110			450	9.840	7.080
50SHBOX3 121	71,17	9,10	37.940	32.640			500	14.440	11.520
40SHBOX4 220	89,49	11,50	41.260	35.710	4x		400	17.610	14.160
45SHBOX4 220	89,49	11,50	45.110	36.610			450	20.210	14.700
50SHBOX4 220	89,49	11,50	57.930	51.190			500	30.490	24.790
40SHBOX4 221 2,5	113,11	17,00	47.660	40.250			400	17.180	13.530
45SHBOX4 221 2,5	113,11	17,00	52.340	41.600			450	19.670	14.160
50SHBOX4 221 2,5	113,11	17,00	67.230	58.040			500	28.830	22.980
40SHBOX4 221	133,06	17,00	51.630	43.080			400	16.990	13.250
45SHBOX4 221	133,06	17,00	56.820	44.770			450	19.460	13.960
50SHBOX4 221	133,06	17,00	72.870	62.490			500	28.130	22.340

Model Model	Boyutlar / Dimensions					Bağlantılar / Connections	
	L	H	W	LC	W1	Giriş Input	Çıkış Output
	(cm)	(cm)	(cm)	(cm)	(cm)	(mm/")	(mm/")
35SHBOX1 110	102	71	58	43	46	5/8	1/2
40SHBOX1 110	102	71	58	43	46	5/8	1/2
35SHBOX1 111	102	71	58	43	46	5/8	1/2
40SHBOX1 111	102	71	58	43	46	5/8	1/2
45SHBOX2 110	122	71	58	43	46	19	5/8
50SHBOX2 110	122	71	58	43	46	19	5/8
45SHBOX2 111 2,5	122	71	58	43	46	19	5/8
50SHBOX2 111 2,5	122	71	58	43	46	19	5/8
45SHBOX2 111	122	71	58	43	46	19	5/8
50SHBOX2 111	122	71	58	43	46	19	5/8
45SHBOX3 120	142	134	74	56	61	22	19
50SHBOX3 120	142	134	74	56	61	22	19
45SHBOX3 121 2,5	142	134	74	56	61	28	22
50SHBOX3 121 2,5	142	134	74	56	61	28	22
45SHBOX3 121	142	134	74	56	61	28	22
50SHBOX3 121	142	134	74	56	61	28	22
40SHBOX4 220	222	134	94	65	81	35	28
45SHBOX4 220	222	134	94	65	81	35	28
50SHBOX4 220	222	134	94	65	81	35	28
40SHBOX4 221 2,5	222	134	94	65	81	35	28
45SHBOX4 221 2,5	222	134	94	65	81	35	28
50SHBOX4 221 2,5	222	134	94	65	81	35	28
40SHBOX4 221	222	134	94	65	81	35	28
45SHBOX4 221	222	134	94	65	81	35	28
50SHBOX4 221	222	134	94	65	81	35	28

## KONDENSER ÜNİTELERİ

Condensing Units Without Compressor

### TEKNİK BİLGİLER

Technical Information

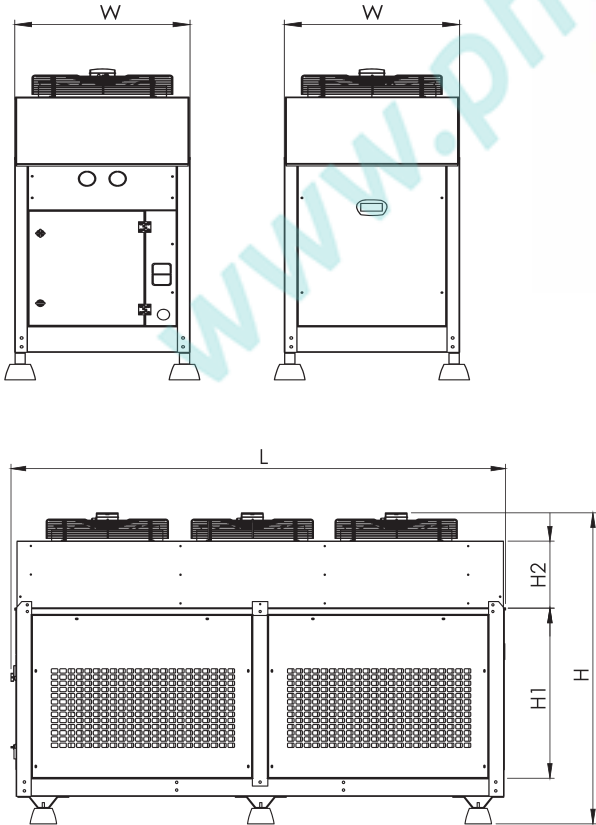
**Bakır Boru / Copper Tube** : 3/8"

**Kalıp / Geometry** : 32 mm x 28 mm

Belirtilen fiyatlara fan dahil değildir.  
Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

All prices are given without fans.  
Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.



EBOX



## EBOX SERİSİ

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 32 mm x 28 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity ( $\Delta t=15^{\circ}\text{C}$ )		Fanlar / Fans			
			S Ø500mm 1/ 230V AC 50Hz 1400 rpm	L Ø500mm 1/ 230V AC 50Hz 900 rpm	Adet Qty	Çap Diameter	S Hava Debisi Air Flow 1400 rpm	L Hava Debisi Air Flow 900 rpm
			(kW)	(kW)				
EBOX53 50211	53,22	4,80	26	20	2x 	500	13.418	8.142
EBOX63 50211	62,92	4,80	29	21		500	12.974	7.844
EBOX71 50212	70,96	6,40	31	22		500	12.228	7.378
EBOX84 50212	83,88	6,40	33	-		500	11.744	-
EBOX89 50213	88,70	8,00	34	-		500	11.220	-
EBOX94 50311	94,38	7,20	43	32	3x 	500	19.461	11.766
EBOX106 50312	106,45	9,60	46	33		500	18.342	11.067
EBOX126 50312	125,82	9,60	49	-		500	17.616	-
EBOX133 50313	133,06	12,00	51	-		500	16.830	-
EBOX157 50313	157,29	12,00	53	-		500	15.700	-

Model Model	Boyutlar Dimensions					Bağlantılar Connections	
	L	H	W	H1	H2	Giriş Input	Çıkış Output
	(cm)	(cm)	(cm)	(cm)	(cm)	(mm/")	(mm/")
EBOX53 50211	159	140	69	77	30	28	22
EBOX63 50211	159	140	69	77	30	28	22
EBOX71 50212	159	140	69	77	30	28	22
EBOX84 50212	159	140	69	77	30	28	22
EBOX89 50213	159	140	69	77	30	28	22
EBOX94 50311	224	140	69	77	30	28	22
EBOX106 50312	224	140	69	77	30	28	22
EBOX126 50312	224	140	69	77	30	35	28
EBOX133 50313	224	140	69	77	30	35	28
EBOX157 50313	224	140	69	77	30	35	28

## KONDENSER ÜNİTELERİ

Condensing Units Without Compressor

### TEKNİK BİLGİLER

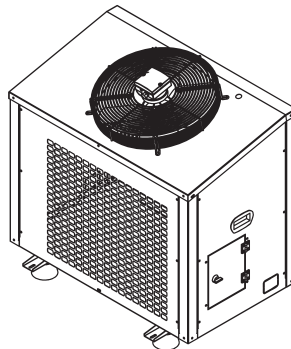
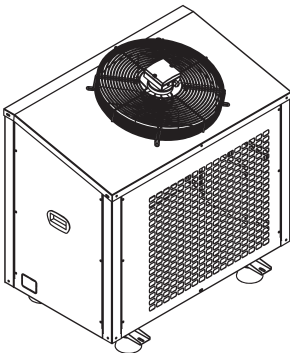
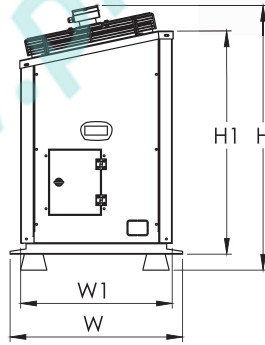
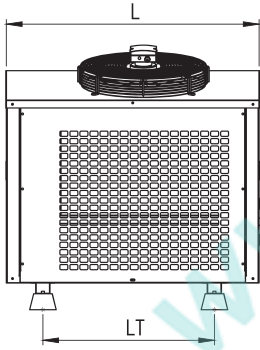
Technical Information

**Bakır Boru / Copper Tube** : 3/8"

**Kalıp / Geometry** : 25 mm x 22 mm

Belirtilen fiyatlara fan dahil değildir.  
Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

All prices are given without fans.  
Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.



## MTBOX SERİSİ

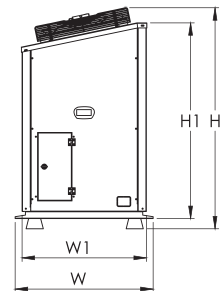
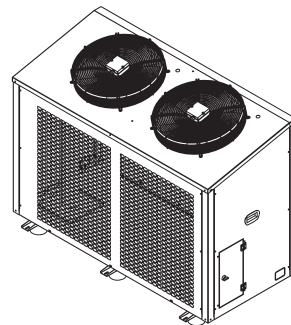
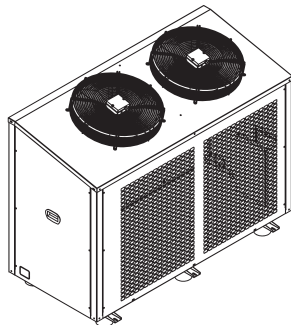
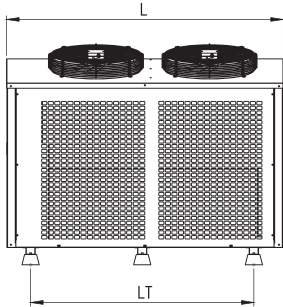
Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 25 mm x 22 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity $\Delta t=T_c-T_a=15^\circ C$		Fanlar / Fans			
			S	L	Adet Qty	Çap Diameter	S	L
			1/ 230V AC 50Hz 1400 rpm	1/ 230V AC 50Hz 900 rpm			Hava Debisi Air Flow 1400 rpm	Hava Debisi Air Flow 900 rpm
(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(n)	(Ømm)	(m3/h)	(m3/h)	
MTBOX 15	14,90	1,90	6. 907	5. 169	1	350	2. 941	2. 265
MTBOX 20	20,53	2,90	9. 667	7. 655		400	3. 470	2. 507
MTBOX 30	29,80	3,80	12. 867	10. 304		450	3. 965	2. 957
MTBOX 35	35,41	5,10	18. 264	14. 422	2	400	6. 726	4. 822
MTBOX 40	40,11	5,10	19. 644	15. 363		400	6. 612	4. 726
MTBOX 45	45,46	6,90	20. 339	16. 100		400	6. 334	4. 518
MTBOX 50	51,21	6,90	21. 364	16. 242		400	6. 220	4. 421
MTBOX 60	59,10	8,90	26. 391	21. 625		450	8. 676	6. 640
MTBOX 70	69,63	8,90	35. 992	24. 844		500	11. 862	7. 223
MTBOX 80	79,83	11,10	37. 831	26. 483		500	11. 064	7. 183

MTBOX

Model Model	Boyutlar / Dimensions						Bağlantılar Connections	
	L	H	W	LT	H1	W1	Giriş Input	Çıkış Output
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(mm/")	(mm/")
MTBOX 15	96	100	65	65	84,5	57,5	19	16
MTBOX 20	96	100	65	65	84,5	57,5	22	19
MTBOX 30	96	100	65	65	84,5	57,5	22	19
MTBOX 35	131	129,5	80	100	114,5	73	22	19
MTBOX 40	131	129,5	80	100	114,5	73	28	22
MTBOX 45	131	129,5	80	100	114,5	73	28	22
MTBOX 50	131	129,5	80	100	114,5	73	28	22
MTBOX 60	161	129,5	80	130	114,5	73	42	35
MTBOX 70	161	129,5	80	130	114,5	73	42	35
MTBOX 80	161	129,5	80	130	114,5	73	42	35



## KONDENSER ÜNİTELERİ

Condensing Units Without Compressor

### TEKNİK BİLGİLER

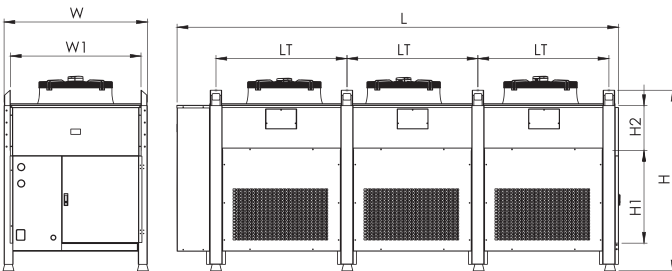
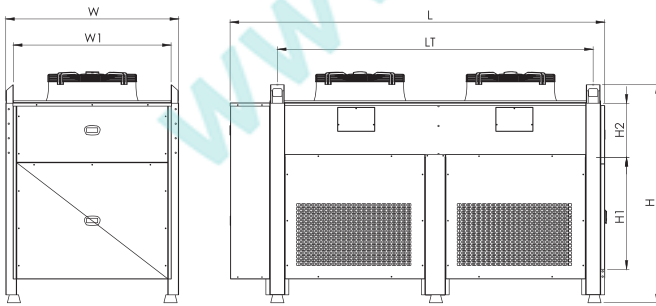
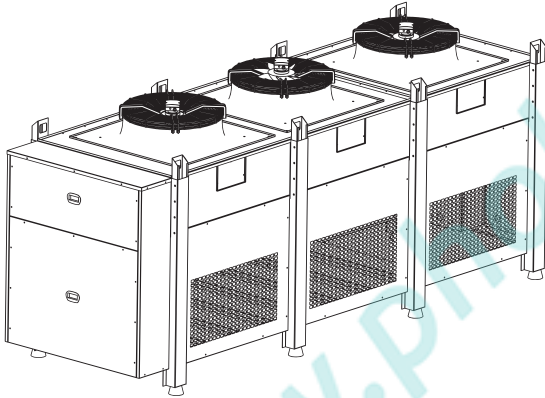
Technical Information

**Bakır Boru / Copper Tube** : 3/8"

**Kalıp / Geometry** : 32 mm x 28 mm

Belirtilen fiyatlara fan dahil değildir.  
Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

All prices are given without fans.  
Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.



## KUK SERİSİ

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 32 mm x 28 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity $\Delta t = T_c - T_a = 15^\circ C$		Fanlar / Fans			
			S Ø630mm 1/230V AC 50Hz 880 rpm	L Ø630mm 3/ 400V AC 50Hz 620 rpm	Adet Qty	Çap Diameter	S Hava Debisi Air Flow 880 rpm	L Hava Debisi Air Flow 620 rpm
			(kW)	(kW)			(m³/h)	(m³/h)
63KUK211 2,5	114,64	10,20	45	37	2x	630	18.340	13.650
63KUK211 2,1	135,52	10,20	49	40			18.010	13.360
63KUK212 2,5	152,84	13,80	52	42	2x	630	17.360	12.830
63KUK212 2,1	180,68	13,80	55	45			16.920	12.470
63KUK311 2,5	171,96	15,30	68	56	3x	630	27.510	20.480
63KUK311 2,1	203,28	15,30	74	61			27.010	20.050
63KUK312 2,5	229,26	20,70	79	64	3x	630	26.040	19.240
63KUK312 2,1	271,02	20,70	83	67			25.380	18.700

Model Model	Boyutlar Dimensions								Bağlantılar Connections		
	L	H	W	LT	LC	H1	H2	W1	Adet (n)	Giriş Input (mm/")	Çıkış Output (mm/")
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)			
63KUK211 2,5	245	165	112	100	--	84	41	100	1	35	28
63KUK211 2,1	245	165	112	100	--	84	41	100	1	35	28
63KUK212 2,5	245	165	112	100	--	84	41	100	1	35	28
63KUK212 2,1	245	165	112	100	--	84	41	100	1	35	28
63KUK311 2,5	345	165	112	100	--	84	41	100	1	42	35
63KUK311 2,1	345	165	112	100	--	84	41	100	1	42	35
63KUK312 2,5	345	165	112	100	--	84	41	100	1	42	35
63KUK312 2,1	345	165	112	100	--	84	41	100	1	42	35

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity $\Delta t = T_c - T_a = 15^\circ C$		Fanlar / Fans			
			S Ø800mm 3/ 400V AC 50Hz 880 rpm	L Ø800mm 3/ 400V AC 50Hz 670 rpm	Adet Qty	Çap Diameter	S Hava Debisi Air Flow 880 rpm	L Hava Debisi Air Flow 670 rpm
			(kW)	(kW)			(m³/h)	(m³/h)
80KUK211 2,5	167,04	15,00	81	70	2x	800	39.970	30.670
80KUK211 2,1	197,46	15,00	89	76			38.910	29.910
80KUK212 2,5	222,72	20,00	97	82	2x	800	36.930	28.500
80KUK212 2,1	263,28	20,00	103	87			35.710	27.620
80KUK311 2,5	250,56	22,50	122	105	3x	800	59.950	46.010
80KUK311 2,1	296,19	22,50	134	114			58.370	44.860
80KUK312 2,5	334,08	30,00	146	124	3x	800	55.400	42.750
80KUK312 2,1	394,92	30,00	155	131			53.560	41.430

Model Model	Boyutlar Dimensions								Bağlantılar Connections		
	L	H	W	LT	LC	H1	H2	W1	Adet (n)	Giriş Input (mm/")	Çıkış Output (mm/")
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)			
80KUK211 2,5	285	165	132	120	--	84	41	120	1	42	35
80KUK211 2,1	285	165	132	120	--	84	41	120	1	42	35
80KUK212 2,5	285	165	132	120	--	84	41	120	1	42	35
80KUK212 2,1	285	165	132	120	--	84	41	120	1	42	35
80KUK311 2,5	405	165	132	120	--	84	41	120	1	64	54
80KUK311 2,1	405	165	132	120	--	84	41	120	1	64	54
80KUK312 2,5	405	165	132	120	--	84	41	120	1	64	54
80KUK312 2,1	405	165	132	120	--	84	41	120	1	64	54



## KONDENSER ÜNİTELERİ

Condensing Units Without Compressor

### TEKNİK BİLGİLER

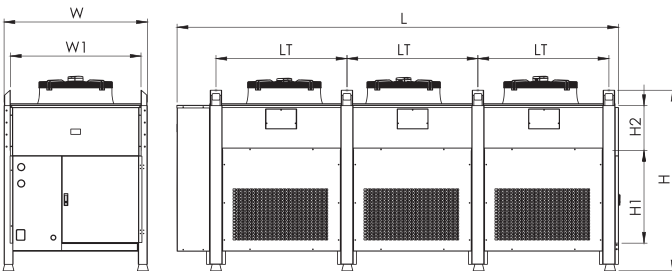
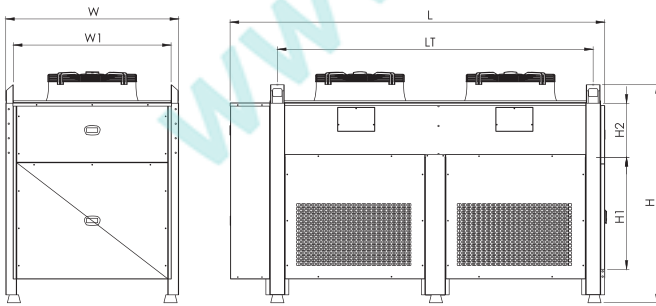
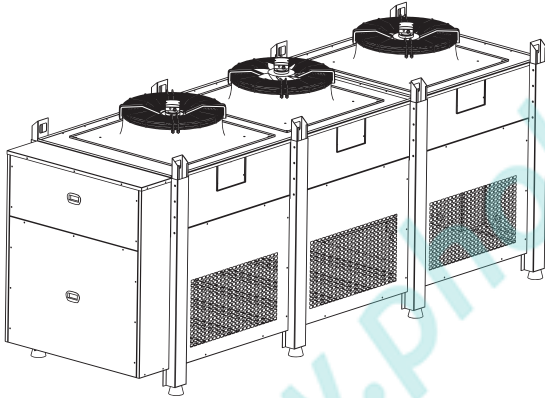
Technical Information

**Bakır Boru / Copper Tube** : 1/2"

**Kalıp / Geometry** : 32 mm x 28 mm

Belirtilen fiyatlara fan dahil değildir.  
Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.


All prices are given without fans.  
Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.




## KUY SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 32 mm x 28 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity $\Delta t = T_c - T_a = 15^\circ C$		Adet Qty	Fanlar / Fans		
			S Ø630mm 1/230V AC 50Hz 880 rpm	L Ø630mm 3/ 400V AC 50Hz 620 rpm		Çap Diameter	S Hava Debisi Air Flow 880 rpm	L Hava Debisi Air Flow 620 rpm
			(kW)	(kW)				
63KUY211 2,5	110,10	19,00	47	38	2x	630	17.410	12.860
63KUY211 2,1	129,80	19,00	50	40		630	16.970	12.500
63KUY212 2,5	146,80	25,40	54	43		630	16.220	11.930
63KUY212 2,1	173,06	25,40	56	44		630	15.760	11.610
63KUY311 2,5	165,15	28,50	71	57	3x	630	26.120	19.290
63KUY311 2,1	194,70	28,50	76	61		630	25.460	18.760
63KUY312 2,5	220,20	38,10	81	64		630	24.340	17.900
63KUY312 2,1	259,59	38,10	85	67		630	23.640	17.410

Model Model	Boyutlar Dimensions								Bağlantılar Connections		
	L	H	W	LT	LC	H1	H2	W1	Adet (n)	Giriş Input (mm/")	Çıkış Output (mm/")
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)			
63KUY211 2,5	245	165	112	100	--	84	41	100	1	35	28
63KUY211 2,1	245	165	112	100	--	84	41	100	1	35	28
63KUY212 2,5	245	165	112	100	--	84	41	100	1	35	28
63KUY212 2,1	245	165	112	100	--	84	41	100	1	35	28
63KUY311 2,5	345	165	112	100	--	84	41	100	1	42	35
63KUY311 2,1	345	165	112	100	--	84	41	100	1	42	35
63KUY312 2,5	345	165	112	100	--	84	41	100	1	42	35
63KUY312 2,1	345	165	112	100	--	84	41	100	1	42	35

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity $\Delta t = T_c - T_a = 15^\circ C$		Adet Qty	Fanlar / Fans		
			S Ø800mm 3/ 400V AC 50Hz 880 rpm	L Ø800mm 3/ 400V AC 50Hz 670 rpm		Çap Diameter	S Hava Debisi Air Flow 880 rpm	L Hava Debisi Air Flow 670 rpm
			(kW)	(kW)				
80KUY211 2,5	160,44	27,60	87	74	2x	800	37.060	28.610
80KUY211 2,1	189,12	27,60	94	79		800	35.830	27.730
80KUY212 2,5	213,90	37,00	101	84		800	33.810	26.090
80KUY212 2,1	252,18	37,00	106	88		800	32.540	25.100
80KUY311 2,5	240,66	41,40	131	112	3x	800	55.590	42.920
80KUY311 2,1	283,68	41,40	141	119		800	53.750	41.600
80KUY312 2,5	320,85	55,50	151	127		800	50.710	39.140
80KUY312 2,1	378,27	55,50	159	132		800	48.810	37.650

Model Model	Boyutlar Dimensions								Bağlantılar Connections		
	L	H	W	LT	LC	H1	H2	W1	Adet (n)	Giriş Input (mm/")	Çıkış Output (mm/")
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)			
80KUY211 2,5	285	165	132	120	--	84	41	120	1	42	35
80KUY211 2,1	285	165	132	120	--	84	41	120	1	42	35
80KUY212 2,5	285	165	132	120	--	84	41	120	1	42	35
80KUY212 2,1	285	165	132	120	--	84	41	120	1	42	35
80KUY311 2,5	405	165	132	120	--	84	41	120	1	64	54
80KUY311 2,1	405	165	132	120	--	84	41	120	1	64	54
80KUY312 2,5	405	165	132	120	--	84	41	120	1	64	54
80KUY312 2,1	405	165	132	120	--	84	41	120	1	64	54

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*The triumph of quality against time...*

# STANDART ODA SOĞUTUCULARI

## STANDARD UNIT COOLERS

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## BATARYA

- Bakır borular Ø3/8", Ø1/2", Ø5/8".
- V-tipi alüminyum lamel.
- Lamel araları 4-6-8-10 mm tasarlanmıştır.
- Giriş - çıkış kolektör malzemesi bakırdır.
- İzin verilen en yüksek çalışma basıncı Ps=21 Bar.
- Şaşırtmalı boru dizilimi.
- Soğutucular R404A, R507C, R22, R134A, R407F, R449A soğutucu gazlarla çalışmaya uygun tasarım.
- Opsiyonel olarak 4mm ile 12mm aralığında farklı hatveler seçeneği.
- Soğutucu akışkan distribütörü.

## KASETLEME

- Galvaniz çelik üzerine elektrostatik RAL 9016 boyalıdır.
- İsteğe bağlı paslanmaz ve alüminyum kaset seçeneği.
- Sökülebilir yan kapaklar.
- Menteşeli/Katlanır drenaj tavası tüm modellerde standarttır.
- Ara drenaj tavası.

## FAN

- Oda boyutlarına göre farklı fan çapı ve fan sayısına sahip soğutucu seçenekleri.
- Opsiyonel seçimler Buzçelik Teknik Uzmanı tarafından teyit edilmelidir.
- Standart veya düşük ses seviyeli bakım gerektirmeyen fan seçeneği.
- İsteğe bağlı AC ya da EC fan motor seçenekleri.
- Koruma sınıfı IP54, fan konstrüksiyonu izolasyon malzeme sınıfı F.
- Opsiyonel olarak seçilebilir fan aksesuar çeşitleri (Axicool fanlar, FlowGrid gürültü düşürücüler vb.)
- Çalışma aralığı -40°C/+50°C'dir.

## DEFROST

- B1 defrost sistemi 0°C/+5°C oda sıcaklığındaki uygulama aralığı içindir. Defrost ısıtıcılar yalnızca batarya üzerine montaj edilir.
- B2 defrost sistemi -34°/0°C oda sıcaklığı uygulama aralığı içindir. Defrost ısıtıcılar batarya ve drenaj tavasına monte edilir.
- Drenaj hattı ısıtıcısı, fan davlumbaz ısıtıcısı, sıcak gaz defrost sistemi ve sulu defrost sistemi opsiyoneldir.
- Defrost uygulaması hızlı ve verimli defrost için homojen ısı dağılımı sağlar.
- +4°C'den büyük veya eşit oda sıcaklıklarında isteğe bağlı olarak tava derinliği artırılmış soğutucu tasarımı ile sulu defrost seçeneği.
  - B1 (Factory) : Hafif elektrik defrost (Batarya)
  - B2 (Factory) : Elektrik defrost (Batarya + Drenaj Tavası)
  - HGD (Factory) : Sıcak gaz defrost (Batarya ve Drenaj Tavası)
  - WD (Factory) : Sulu defrost

## KAPASİTE

- Nominal kapasiteler SC1-SC2-SC3-SC4 koşullarında R404A gaza göre Eurovent EN 328 standartları dikkate alınarak verilmiştir.

## SEÇENEKLER

- Farklı dış kabin rengi,
- Farklı boru et kalınlığı ve hatve,
- Monofaze 220V 1~ 50Hz, Trifaze 400V 3~ 50Hz fan seçeneği.
- Katalogda belirtilmeyen özel ürünler için lütfen satış departmanı ile irtibata geçin.

## NOT

- Montaj, Bakım - Taşıma ve Kaldırma detayları için kullanım Kılavuzuna başvurunuz.

## AKSESUAR

- Bataryada ve tavada sıcak gaz defrost,
- Yalıtım tavası,
- Paslanmaz çelik kabin,
- Epoxy boya,
- Fan kablo rezistansı,
- Drenaj hattı kablo rezistansı.

## Coil

- Ø3/8", Ø1/2 and Ø5/8" copper tubes.
- "V" type aluminum fins.
- The finned coils are designed with aluminum fins spaced at 4, 6, 8, or 10 mm, crimped onto copper tubes.
- Header inlet and outlet tube connections made of copper.
- Maximum operating pressure 21 bar.
- Staggered copper tubes.
- The coil circuits are designed for refrigerants R404A, R507C, R22, R134A, R449A, R407F.
- Different fin spacing can be selected as an option for 4mm to 12mm.
- Refrigerant distributor.

## Casing

- Electrostatic powder coated RAL 9016 galvanized steel.
- Stainless steel and aluminum casing as optional.
- Side panels are removable.
- Hinged/Folding drain tray is standard for all models.
- Intermediate drain pan.

## Fans

- Selection of a unit cooler with various fan number/diameter combinations offering the dimensional and air throw characteristics best adapted to the size of the cold room.
- Selections should be confirmed by your Buzçelik Technical Specialist.
- Standard or low noise level are available.
- Different kinds of motors available as optional. (EC or AC)
- Motor protection IP54 insulation class F.
- Different kinds of accessories available as optional. (Axicool Fans, FlowGrid etc.)
- Working conditions -40°C/+50°C.

## Defrosting

- B1 type defrost system suitable for 0°C/+5°C cold room applications. Defrost heaters are applied on heat exchanger coil.
- B2 type defrost system suitable for -34°C/0°C frozen room applications. Defrost heaters are applied on both heat exchanger coil and drain tray.
- Drain line heaters, fan housing heaters, hot gas defrost system and water defrost system are optional.
- This facility enables homogenous heat distribution for fast and efficient defrosting.
- A water defrost (WD) option is available for room temperature equal to or greater than +4° C. In this case the unit cooler depth is increased amount of depth.
  - B1 (Factory) : Light electric defrost
  - B2 (Factory) : Electric defrost (coil + drain pan)
  - HGD (Factory) : Hot gas (coil and drain pan)
  - WD (Factory) : Water defrost

## Capacity

- The nominal capacities calculated according to Eurovent EN328 standards that refer to SC1-SC2-SC3-SC4 conditions and are valid for R404A.

## Options

- Different casing color.
- Other tube wall thicknesses and fin spacing on request.
- Mono phase 220V 1~ 50Hz fan or three phase 400V 3~ 50Hz fan.
- Please keep in touch with our sales department about your special needs that are not mentioned in the catalogue.

## Options

- Please read "Installation, Operation and Maintenance Instructions" for mounting and maintenance.

## Accessories

- Hot gas defrost in coil and drip tray.
- Insulated drip tray.
- Casing made of stainless steel.
- Epoxy resin coated aluminum fins.
- Fan cable heaters.
- Drain line cable heater.

Options As Listed Are Available On Request For Assistance Please Contact Buzçelik Branch  
Glycol options available - Selections should be confirmed by your Buzçelik Technical Specialist

## ADLANDIRMA CLASIFICACION

# MSA 40 212

### Geometri Geometry

K : 32x28-3/8"  
M : 40x35-1/2"  
N : 40x35-5/8"  
O : 55x48-1/2"  
P : 55x48-5/8"

### Tip Type

S : Kübik Tip  
T : Tek Üflemlerli Tavan Tipi  
C : Çift Üflemlerli Tavan Tipi  
S : Cubic Unit Cooler  
T : Single Discharge Unit Cooler  
C : Dual Discharge Unit Cooler

### Hatve Aralığı Fin Space

D : 4mm  
A : 6mm  
S : 8mm  
O : 10mm

### Fan Çapı Fan Diameter

Ø...mm

### Fan Dizisi Fan Array

Sütun x Satır  
Column x Row

### Ürün Numarası Product Number

## KAPASİTE STANDARTLARI CAPACITY STANDARD

Nominal kapasite değerleri Eurovent standart şartları EN 328'de tanımlanan $\Delta T_1$ esasına göre verilmiştir.		
<b><math>\Delta T_1 = (\text{Oda Sıcaklığı}) - (\text{Evaporasyon Sıcaklığı})</math></b>		
Tablo-1 : Standart Şartlar (Eurovent EN 328)		
Freon için Standart Şartlar	Oda Sıcaklığı °C	Evaporasyon Sıcaklığı °C
SC1	10	0
SC2	0	-8
SC3	-18	-25
SC4	-25	-31

Nominal capacities in the catalog are given according to $\Delta T_1$ as defined in EN 328 standard conditions of Eurovent.		
<b><math>\Delta T_1 = (\text{Room Temp.}) - (\text{Evaporation Temp.})</math></b>		
Table-1 Standard Conditions (Eurovent EN 328)		
Standard Conditions for Refrigerants	Room Temperature °C	Evaporating Temp. °C
SC1	10	0
SC2	0	-8
SC3	-18	-25
SC4	-25	-31

## TABLO-2 / Table-2

<b>Oda Sıcaklığına Bağlı Olarak Önerilen Lamel Aralıkları</b> Recommended Efficient Fin Spacings According to Room Temperatures		
EUROVENT 328 STANDARD	LAMEL ARALIĞI Fin Spacing	ODA SICAKLIĞI (T1) Room Temp. (T1)
SC1	4mm ~ 6mm	10°C
SC2	6mm ~ 8mm	0°C
SC3	8mm ~ 10mm	-18°C
SC4	10mm	-25°C

**TABLO-3 / Table-3**

<b>Sıcaklık ve Soğutucu için Düzeltme Tablosu</b>														
Temperature and Refrigerant Correction Table														
$\Delta T_1$ (°C)	$K_1$ Sıcaklık Düzeltme Faktörü Temperature Correction Factor									$K_2$ Soğutucu Faktör Refrigerant Factor				
	4	5	6	7	8	10	12	14	Refrigerant	SC1	SC2	SC3	SC4	
Evaporasyon Sıcaklığı T <sub>2</sub> (°C) Evaporation Temperature T <sub>2</sub> (°C)	10	0,67	0,83	0,99	1,15	1,32	1,64	1,96	2,29	R404A	1	1	1	1
	5	0,63	0,78	0,94	1,1	1,26	1,57	1,88	2,2	R507A	0,97	0,97	0,97	0,97
	0	0,6	0,75	0,9	1,06	1,2	1,52 (K <sub>1,SC1</sub> )	1,82	2,12	R134A	0,93	0,91	0,85	-
	-5	0,57	0,72	0,86	1,01	1,15	1,44	1,74	2,03	R22				
	-8	0,5	0,63	0,76	0,88	1,00 (K <sub>1,SC2</sub> )	1,26	1,51	1,76	R407A	1,19	1,24	1,28	1,32
	-10	0,49	0,6	0,72	0,85	0,97	1,22	1,47	1,71	R407C	1,21	1,26	1,31	1,36
	-15	0,47	0,59	0,71	0,82	0,94	1,17	1,4	1,63	R407F	1,19	1,24	1,29	1,35
	-20	0,44	0,55	0,66	0,77	0,88	1,1	1,32	1,54					
	-25	0,42	0,52	0,62	0,73 (K <sub>1,SC3</sub> )	0,83	1,04	1,25	1,46					
	-30	0,39	0,49	0,58 (K <sub>1,SC4</sub> )	0,69	0,78	0,97	1,17	1,36					
	-35	0,35	0,45	0,54	0,63	0,72	0,9	1,08	1,26					
	-40	0,33	0,41	0,49	0,57	0,65	0,81	0,97	1,13					

**TABLO-4 / Table-4**

<b>Lamel Malzemesi için Düzeltme Faktörleri</b>			
Fin Material Correction Factors			
Lamel Malzemesi Fin Material	Alüminyum Aluminium	Kaplı Alüminyum Coated Aluminium	Bakır Copper
K <sub>3</sub>	1	0,97	1,03

## ÖRNEK SEÇİM

### Selection Example

Evaporatör çalışma şartları standart şartların dışında ise aşağıdaki formülasyon ve tablolar kullanılarak ürün kapasitesi SC2 şartına dönüştürülebilir. Bu durumda oda sıcaklığına uygun lamel aralığı belirlenip SC2 kapasite değeri ile ürün seçimi önerilir.

Soğutma Yüğü: Q<sub>Oda</sub> = 22,00 kW

Soğutucu Akışkan = R22

Oda Sıcaklığı : T<sub>1</sub> = +5°C

Evaporasyon Sıcaklığı : T<sub>2</sub> = -5°C

$\Delta T = T_1 - T_2 = (5) - (-5) = 10^\circ C$

Mevcut şartlara yakın olan SC2 Eurovent Standardı seçilir.

Tablo-2 : 6mm Lamel seçildi

Tablo-3 :  $\Delta T = 10^\circ C \Rightarrow K_1 = 1,44$

Tablo-3 : K<sub>1,SC2</sub> = 1,00

Tablo-3 : Soğutkan : R22  $\Rightarrow K_2 = 0,97$

Fin Malzemesi : Al

Tablo-4 : K<sub>3</sub> = 1,00

$Q_{SC2} = (Q_{ODA}/K_2) \times (K_1,SC2/K_1) / K_3 = 15,75 \text{ kW}$

Secilen Soğutucu : KSA50 214 (SC2= 15.600.Watt)

If the operating condition of the evaporator is different than Eurovent standards, please use the following formula and tables to convert your capacity to SC2 conditions. In this case, the evaporator can be selected from suitable fin space and SC2 columns.

Cooling Capacity: Q<sub>Room</sub> = 22,00 kW

Refrigerant = R22

Room Temperature: T<sub>1</sub> = +5°C

Evaporation Temperature: T<sub>2</sub> = -5°C

$\Delta T = T_1 - T_2 = (5) - (-5) = 10^\circ C$

Closest Eurovent Standard is SC2.

Table-2 : 6mm Fin Spacing is chosen.

Table-3 :  $\Delta T = 10^\circ C \Rightarrow K_1 = 1,44$

Table-3 : K<sub>1,SC2</sub> = 1,00

Table-3 : Refrigerant: R22  $\Rightarrow K_2 = 0,97$

Fin Material: Al

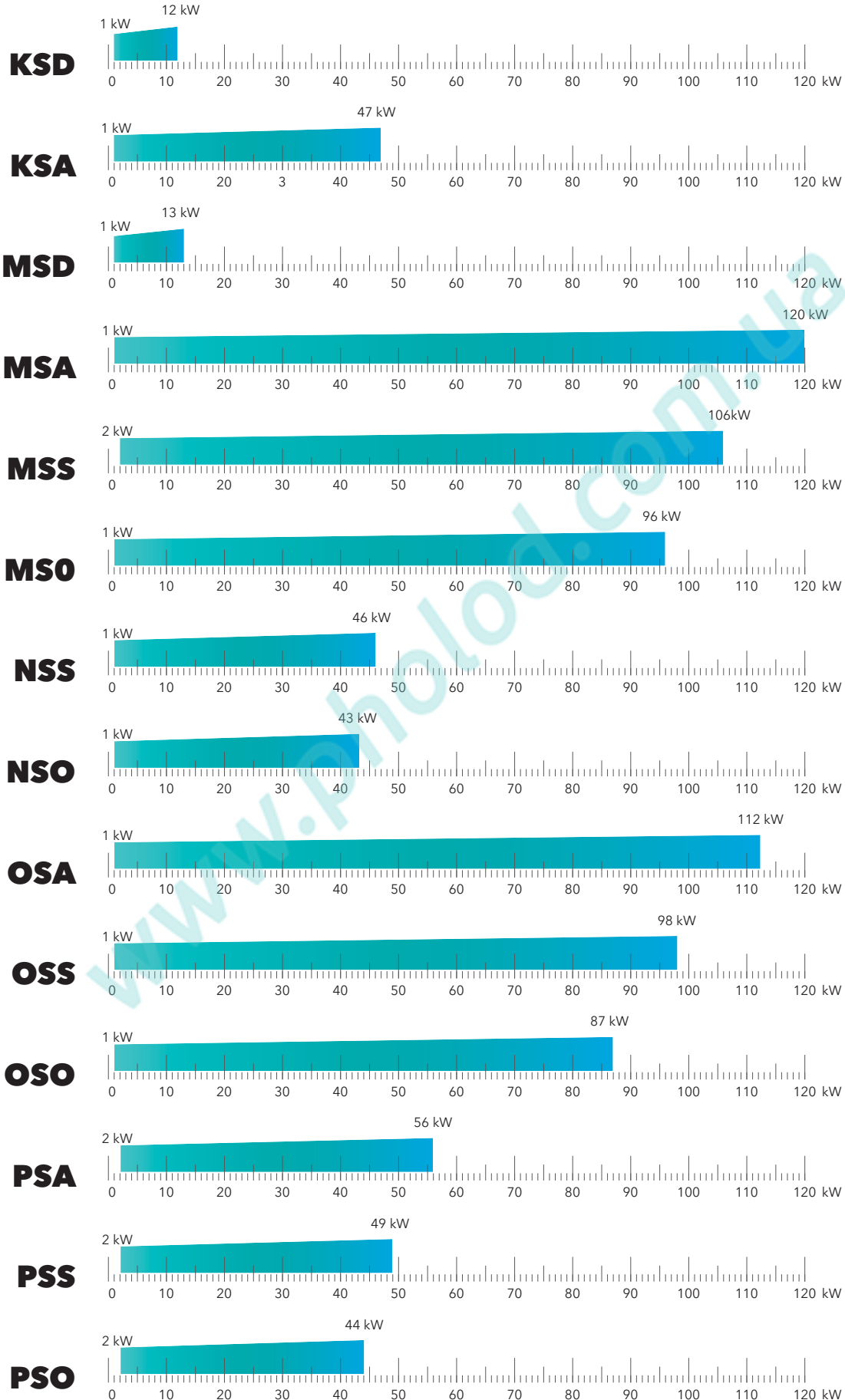
Table-4 : K<sub>3</sub> = 1,00

$Q_{SC2} = (Q_{ODA}/K_2) \times (K_1,SC2/K_1) / K_3 = 15,75 \text{ kW}$

Selected Unit Cooler: KSA50 214 (SC2= 15.600.Watt)

## ÜRÜN KAPASİTE ARALIĞI

### CAPACITY RANGE





## STANDART ODA SOĞUTUCULARI

Standard Unit Coolers

### KSD-KSA SERİSİ TEKNİK BİLGİLER

KSD-KSA Series Technical Information

**Bakır Boru / Copper Tube** : 3/8"

**Kalıp / Geometry** : 32 mm x 28 mm

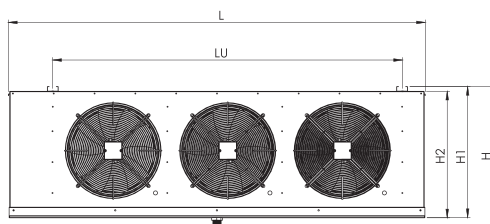
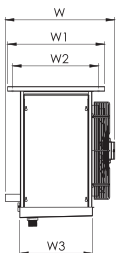
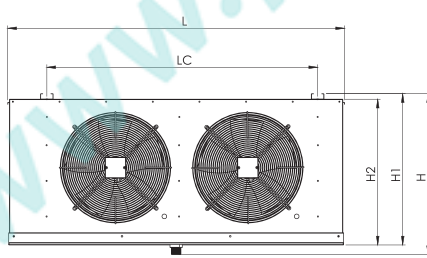
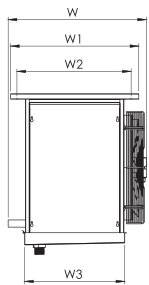
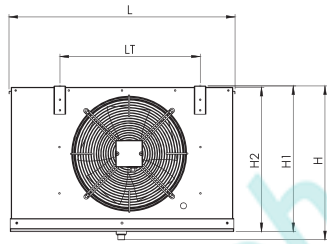
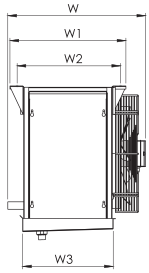
**Hatve / Fin Spacing** : 4 mm - 6 mm

Belirtilen fiyatlara fan dahil değildir.

Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

All prices are given without fans.

Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.



KSD SERİSİ

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 32 mm x 28 mm

Hatve / Fin Spacing : 4 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC / 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
	(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(Watt)	(Watt)	(m <sup>3</sup> /h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
KSD25 111	7,16	1,00	1.700	1.160	-	-	720	1	250	69	46	6	13
KSD25 112	9,55	1,30	1.936	1.327	-	-	656		250	69	46	6	12
KSD30111	7,16	1,00	2.571	1.741	-	-	1.461		300	72	41	10	22
KSD30 112	9,55	1,30	3.050	2.065	-	-	1.385		300	72	41	10	21
KSD30 114	14,33	2,00	3.760	2.570	-	-	1.260		300	72	41	9	19
KSD25 212	19,10	2,60	3.872	2.654	-	-	1.312	2	250	138	49	6	12
KSD25 214	28,66	4,00	4.160	2.880	-	-	1.109		250	138	49	5	10
KSD30 211	14,32	2,00	5.142	3.482	-	-	2.922		300	144	44	10	22
KSD30 212	19,10	2,60	6.100	4.130	-	-	2.770		300	144	44	10	21
KSD30 214	28,66	4,00	7.520	5.140	-	-	2.520		300	144	44	9	19
KSD30 312	28,65	3,90	9.150	6.195	-	-	4.155	3	300	216	46	10	21
KSD30 314	42,99	6,00	11.280	7.710	-	-	3.780		300	216	46	9	19

KSD

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1	B2		L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
KSD25 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
KSD25 112	4x250	4x250	2x250	77	51	47	48	-	-	46	46	39	36	29
KSD30111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
KSD30 112	4x250	4x250	2x250	77	51	47	48	-	-	46	46	39	36	29
KSD30 114	6x250	6x250	2x250	77	51	57	48	-	-	46	46	46	43	36
KSD25 212	4x500	4x500	2x500	121	51	47	-	93	-	46	46	39	36	29
KSD25 214	6x500	6x500	2x500	121	51	57	-	93	-	46	46	46	43	36
KSD30 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
KSD30 212	4x500	4x500	2x500	121	51	47	-	93	-	46	46	39	36	29
KSD30 214	6x500	6x500	2x500	121	51	57	-	93	-	46	46	46	43	36
KSD30 312	4x750	4x750	2x750	166	51	47	-	-	138	46	46	39	36	29
KSD30 314	6x750	6x750	2x750	166	51	57	-	-	138	46	46	46	43	36

## KSA SERİSİ

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 32 mm x 28 mm

Hatve / Fin Spacing : 6 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diam- eter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pres- sure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
			(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
KSA25 111	4,94	1,00	1.400	950	770	-	770	1	250	69	46	7	14
KSA25 112	6,58	1,30	1.670	1.140	910	-	710		250	69	46	6	13
KSA25 114	9,88	2,00	1.920	1.310	1.070	-	610		250	69	46	5	11
KSA30 111	4,94	1,00	2.025	1.370	1.108	-	1.516		300	72	41	11	23
KSA30 112	6,58	1,30	2.544	1.721	1.338	-	1.447	2	300	72	41	10	22
KSA30 114	9,88	2,00	3.223	2.200	1.743	-	1.333		300	72	41	10	20
KSA25 212	13,16	2,60	3.320	2.270	1.840	-	1.420		250	138	49	6	13
KSA25 214	19,76	4,00	3.800	2.600	2.130	-	1.230	3	250	138	49	5	11
KSA30 211	9,88	2,00	4.050	2.740	2.216	-	3.032		300	144	44	11	23
KSA30 212	13,16	2,60	5.088	3.442	2.676	-	2.894		300	144	44	10	22
KSA30 214	19,76	4,00	6.446	4.400	3.486	-	2.666	1	300	144	44	10	20
KSA30 312	19,74	3,90	7.632	5.163	4.014	-	4.341		300	216	46	10	22
KSA30 314	29,64	6,00	9.669	6.600	5.229	-	3.999	1	300	216	46	10	20
KSA35 112	9,15	1,85	4.100	2.770	2.156	-	2.653		350	165	44	12	26
KSA35 114	13,72	2,75	5.225	3.555	2.867	-	2.430	1	350	165	44	11	23
KSA40 112	9,15	1,85	4.530	3.035	2.356	-	3.200		400	219	51	13	27
KSA40 114	13,72	2,75	5.783	3.925	3.140	-	2.889	2	400	219	51	11	24
KSA35 212	18,29	3,70	8.200	5.540	4.312	-	5.306		350	330	47	12	26
KSA35 214	27,43	5,50	10.450	7.110	5.734	-	4.860	2	350	330	47	11	23
KSA40 212	18,29	3,70	9.060	6.070	4.712	-	6.400		400	438	54	13	27
KSA40 214	27,43	5,50	11.566	7.850	6.280	-	5.778	400	438	54	11	24	

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
KSA25 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
KSA25 112	4x250	4x250	2x250	77	51	47	48	-	-	46	46	39	36	29
KSA25 114	6x250	6x250	2x250	77	51	57	48	-	-	46	46	46	43	36
KSA30 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
KSA30 112	4x250	4x250	2x250	77	51	47	48	-	-	46	46	39	36	29
KSA30 114	6x250	6x250	2x250	77	51	57	48	-	-	46	46	46	43	36
KSA25 212	4x500	4x500	2x500	121	51	47	-	93	-	46	46	39	36	29
KSA25 214	6x500	6x500	2x500	121	51	57	-	93	-	46	46	46	43	36
KSA30 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
KSA30 212	4x500	4x500	2x500	121	51	47	-	93	-	46	46	39	36	29
KSA30 214	6x500	6x500	2x500	121	51	57	-	93	-	46	46	46	43	36
KSA30 312	4x750	4x750	2x750	166	51	47	-	-	138	46	46	39	36	29
KSA30 314	6x750	6x750	2x750	166	51	57	-	-	138	46	46	46	43	36
KSA35 112	5x300	5x300	2x300	86	61	52	53	-	-	58	55	44	41	34
KSA35 114	7x300	7x300	2x300	86	61	62	53	-	-	58	55	51	48	41
KSA40 112	5x300	5x300	2x300	86	61	52	53	-	-	58	55	44	41	34
KSA40 114	7x300	7x300	2x300	86	61	62	53	-	-	58	55	51	48	41
KSA35 212	5x550	5x550	2x550	136	61	52	-	103	-	58	55	44	41	34
KSA35 214	7x550	7x550	2x550	136	61	62	-	103	-	58	55	51	48	41
KSA40 212	5x550	5x550	2x550	136	61	52	-	103	-	58	55	44	41	34
KSA40 214	7x550	7x550	2x550	136	61	62	-	103	-	58	55	51	48	41

KSA SERİSİ

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 32 mm x 28 mm

Hatve / Fin Spacing : 6 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Hava Debisi Air Flow	Fanlar / Fans 230V AC 1300-1400 d/d-rpm				Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4		Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendirilsiz Without Streamer	Akış Yönlendiricili With Streamer
			(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)		(Watt)	(Watt)	(m <sup>3</sup> /h)	(n)	(Ø mm)	(Watt)
KSA35 312	27,44	5,55	12.300	8.310	6.468	-	7.959	3	350	495	49	12	26
KSA35 314	41,15	8,25	15.675	10.665	8.601	-	7.290		350	495	49	11	23
KSA40 312	27,44	5,55	13.590	9.105	7.068	-	9.600	3	400	657	56	13	27
KSA40 314	41,15	8,25	17.349	11.775	9.420	-	8.667		400	657	56	11	24
KSA35 412	36,58	7,40	16.400	11.080	8.624	-	10.612	4	350	660	50	12	26
KSA35 414	54,86	11,00	20.900	14.220	11.468	-	9.720		350	660	50	11	23
KSA40 412	36,58	7,40	18.120	12.140	9.424	-	12.800	4	400	876	57	13	27
KSA40 414	54,86	11,00	23.132	15.700	12.560	-	11.556		400	876	57	11	24
KSA45 212	31,70	6,40	14.671	9.880	7.800	-	9.521	2	450	606	50	15	31
KSA45 214	47,54	9,60	19.225	12.970	9.970	-	8.865		450	606	50	14	29
KSA50 212	31,70	6,40	18.020	12.000	9.510	-	13.800	2	500	1.520	59	19	41
KSA50 214	47,54	9,60	23.210	15.600	12.490	-	12.220		500	1.520	59	17	36
KSA45 312	47,55	9,60	22.007	14.820	11.700	-	14.282	3	450	909	52	15	31
KSA45 314	71,31	14,40	28.838	19.455	14.955	-	13.298		450	909	52	14	29
KSA50 312	47,55	9,60	27.190	18.150	14.350	-	20.700	3	500	2.280	61	19	41
KSA50 314	71,31	14,40	35.020	23.580	18.340	-	18.330		500	2.280	61	17	36
KSA45 412	63,40	12,80	29.342	19.760	15.600	-	19.042	4	450	1.212	53	15	31
KSA45 414	95,08	19,20	38.450	25.940	19.940	-	17.730		450	1.212	53	14	29
KSA50 412	63,40	12,80	35.760	24.040	18.960	-	27.610	4	500	3.040	62	19	41
KSA50 414	95,08	19,20	46.940	31.560	24.890	-	24.440		500	3.040	62	17	36

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
KSA35 312	5x800	5x800	2x800	186	61	52	-	-	153	58	55	49	45	34
KSA35 314	7x800	7x800	2x800	186	61	62	-	-	153	58	55	55	51	41
KSA40 312	5x800	5x800	2x800	186	61	52	-	-	153	58	55	49	45	34
KSA40 314	7x800	7x800	2x800	186	61	62	-	-	153	58	55	55	51	41
KSA35 412	5x1050	5x1050	2x1050	237	61	52	-	130	-	58	55	49	45	34
KSA35 414	7x1050	7x1050	2x1050	237	61	62	-	130	-	58	55	55	51	41
KSA40 412	5x1050	5x1050	2x1050	237	61	52	-	130	-	58	55	49	45	34
KSA40 414	7x1050	7x1050	2x1050	237	61	62	-	130	-	58	55	55	51	41
KSA45 212	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
KSA45 214	8x700	8x700	2x700	166	80	62	-	133	-	75	72	55	48	41
KSA50 212	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
KSA50 214	8x700	8x700	2x700	166	80	62	-	133	-	75	72	55	48	41
KSA45 312	6x1050	6x1050	2x1050	237	80	52	-	-	198	75	72	49	45	34
KSA45 314	8x1050	8x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
KSA50 312	6x1050	6x1050	2x1050	237	80	52	-	-	198	75	72	49	45	34
KSA50 314	8x1050	8x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
KSA45 412	6X1350	6X1350	2X1350	302	80	52	-	130	-	75	72	49	45	34
KSA45 414	8X1350	8X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
KSA50 412	6X1350	6X1350	2X1350	302	80	52	-	130	-	75	72	49	45	34
KSA50 414	8X1350	8X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41

## STANDART ODA SOĞUTUCULARI

Standard Unit Coolers

### MSD-MSA SERİSİ TEKNİK BİLGİLER

MSD-MSA Series Technical Information

**Bakır Boru / Copper Tube** : 1/2"

**Kalıp / Geometry** : 40 mm x 35 mm

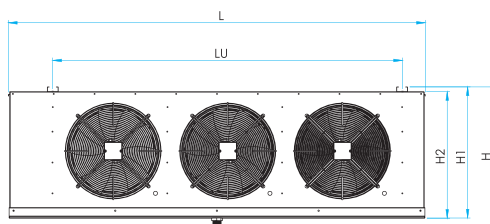
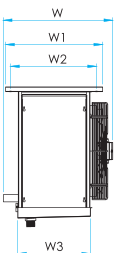
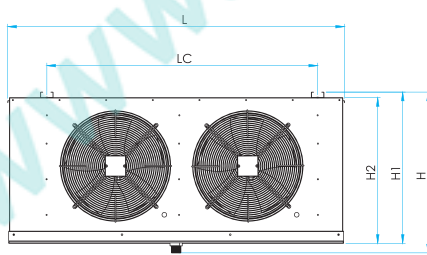
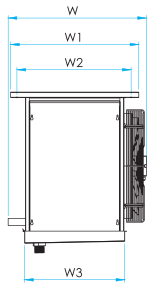
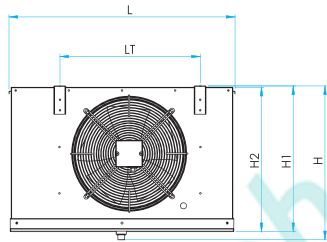
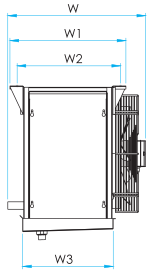
**Hatve / Fin Spacing** : 4 mm - 6 mm - 8 mm - 10 mm

Belirtilen fiyatlara fan dahil değildir.

Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

All prices are given without fans.

Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.



MSD SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 40 mm x 35 mm

Hatve / Fin Spacing : 4 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendi- ricili With Streamer
			(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
MSD25 111	9,13	1,55	1.973	1.348	-	-	684	1	250	69	46	6	13
MSD25 112	12,17	2,07	2.100	1.443	-	-	619		250	69	46	5	11
MSD30 111	9,13	1,55	3.086	2.075	-	-	1.436	2	300	72	41	10	22
MSD30 112	12,17	2,07	3.654	2.500	-	-	1.354		300	72	41	10	21
MSD30 114	18,26	3,10	4.224	2.900	-	-	1.220		300	72	41	9	19
MSD25 211	18,26	3,10	3.946	2.696	-	-	1.368	3	250	138	49	6	13
MSD25 212	24,34	4,13	4.200	2.886	-	-	1.238		250	138	49	5	11
MSD30 211	18,26	3,10	6.172	4.150	-	-	2.872		300	144	44	10	22
MSD30 212	24,34	4,13	7.308	5.000	-	-	2.708		300	144	44	10	21
MSD30 311	27,39	4,65	9.258	6.225	-	-	4.308	3	300	216	46	10	22
MSD30 312	36,51	6,20	10.962	7.500	-	-	4.062		300	216	46	10	21
MSD30 314	54,78	9,30	12.672	8.700	-	-	3.660		300	216	46	9	19

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1		B2	L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
	(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
MSD25 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
MSD25 112	4x250	4x250	2x250	77	51	47	48	-	-	46	46	39	36	29
MSD30 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
MSD30 112	4x250	4x250	2x250	77	51	47	48	-	-	46	46	39	36	29
MSD30 114	6x250	6x250	2x250	77	51	57	48	-	-	46	46	46	43	36
MSD25 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
MSD25 212	4x500	4x500	2x500	121	51	47	-	93	-	46	46	39	36	29
MSD30 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
MSD30 212	4x500	4x500	2x500	121	51	47	-	93	-	46	46	39	36	29
MSD30 311	3x750	3x750	2x750	166	51	51	-	-	138	46	46	39	36	29
MSD30 312	4x750	4x750	2x750	166	51	51	-	-	138	46	46	39	36	29
MSD30 314	6x750	6x750	2x750	166	51	57	-	-	138	46	46	46	43	36

MSD

## MSA SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 40 mm x 35 mm

Hatve / Fin Spacing : 6 mm

MSA

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Hava Debisi Air Flow	Fanlar / Fans 230V AC 1300-1400 d/d-rpm				Üfleme Mesafesi Air Throw		
			SC1	SC2	SC3	SC4		Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer	
			(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)		(Watt)	(Watt)	(m <sup>3</sup> /h)	(n)	(Ø mm)	(Watt)	dB(A)
MSA25 111	6,27	1,55	1.700	1.160	920	-	750	1	250	69	46	6	14	
MSA25 112	8,36	2,07	1.970	1.340	1.040	-	670			69	46	6	12	
MSA30 111	6,27	1,55	2.522	1.694	1.252	-	1.496			300	72	41	11	23
MSA30 112	8,36	2,07	3.020	2.050	1.645	-	1.425	1	300	72	41	10	22	
MSA30 114	12,54	3,10	3.751	2.562	2.000	-	1.305			72	41	9	20	
MSA25 211	12,53	3,10	3.400	2.320	1.840	-	1.500			250	138	49	6	14
MSA25 212	16,71	4,13	3.950	2.680	2.090	-	1.350	2	250	138	49	6	12	
MSA30 211	12,53	3,10	5.044	3.388	2.504	-	2.992			300	144	44	11	23
MSA30 212	16,71	4,13	6.040	4.100	3.290	-	2.850			300	144	44	10	22
MSA30 311	18,80	4,65	7.566	5.082	3.756	-	4.488	3	300	216	46	11	23	
MSA30 312	25,07	6,20	9.060	6.150	4.935	-	4.275			300	216	46	10	22
MSA30 314	37,61	9,30	11.253	7.686	6.000	-	3.915			300	216	46	9	20
MSA35 111	8,36	2,05	3.961	2.680	2.135	-	2.725	1	350	165	44	12	26	
MSA35 112	11,15	2,73	4.764	3.243	2.610	-	2.582			350	165	44	12	25
MSA35 114	16,72	4,10	6.067	4.131	3.233	-	2.345			350	165	44	11	23
MSA40 111	8,36	2,05	4.375	2.950	2.333	-	3.312	1	400	219	51	13	28	
MSA40 112	11,15	2,73	5.263	3.574	2.900	-	3.100			400	219	51	12	26
MSA40 114	16,72	4,10	6.660	4.560	3.675	-	2.772			400	219	51	11	23
MSA35 211	16,72	4,10	7.922	5.360	4.270	-	5.450	2	350	330	47	12	26	
MSA35 212	22,29	5,47	9.528	6.486	5.220	-	5.164			350	330	47	12	25
MSA35 214	33,44	8,20	12.134	8.262	6.466	-	4.690			350	330	47	11	23
MSA40 211	16,72	4,10	8.750	5.900	4.666	-	6.624	2	400	438	54	13	28	
MSA40 212	22,29	5,47	10.526	7.148	5.800	-	6.200			400	438	54	12	26
MSA40 214	33,44	8,20	13.320	9.120	7.350	-	5.544			400	438	54	11	23

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1	B2		L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
	(nxW)	(nxW)	(nxW)											
MSA25 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
MSA25 112	4x250	4x250	2x250	77	51	47	48	-	-	46	46	39	36	29
MSA30 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
MSA30 112	4x250	4x250	2x250	77	51	47	48	-	-	46	46	39	36	29
MSA30 114	6x250	6x250	2x250	77	51	57	48	-	-	46	46	46	43	36
MSA25 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
MSA25 212	4x500	4x500	2x500	121	51	47	-	93	-	46	46	39	36	29
MSA30 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
MSA30 212	4x500	4x500	2x500	121	51	47	-	93	-	46	46	39	36	29
MSA30 311	3x750	3x750	2x750	166	51	51	-	-	138	46	46	39	36	29
MSA30 312	4x750	4x750	2x750	166	51	51	-	-	138	46	46	39	36	29
MSA30 314	6x750	6x750	2x750	166	51	57	-	-	138	46	46	46	43	36
MSA35 111	4x300	4x300	2x300	86	61	56	53	-	-	55	55	44	41	34
MSA35 112	5x300	5x300	2x300	86	61	56	53	-	-	55	55	44	41	34
MSA35 114	7x300	7x300	2x300	86	61	62	53	-	-	55	55	51	48	41
MSA40 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
MSA40 112	5x300	5x300	2x300	86	61	52	53	-	-	55	55	44	41	34
MSA40 114	7x300	7x300	2x300	86	61	62	53	-	-	55	55	51	48	41
MSA35 211	4x550	4x550	2x550	136	61	56	-	103	-	55	55	44	41	34
MSA35 212	5x550	5x550	2x550	136	61	56	-	103	-	55	55	44	41	34
MSA35 214	7x550	7x550	2x550	136	61	62	-	103	-	55	55	51	48	41
MSA40 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
MSA40 212	5x550	5x550	2x550	136	61	52	-	103	-	55	55	44	41	34
MSA40 214	7x550	7x550	2x550	136	61	62	-	103	-	55	55	51	48	41

MSA SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 40 mm x 35 mm

Hatve / Fin Spacing : 6 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basıncı Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
			(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
MSA35 311	25,08	6,15	11.883	8.040	6.405	-	8.175	3	350	495	49	12	26
MSA35 312	33,44	8,20	14.292	9.729	7.830	-	7.746		350	495	49	12	25
MSA35 314	50,16	12,30	18.201	12.393	9.699	-	7.035		350	495	49	11	23
MSA40 311	25,08	6,15	13.125	8.850	6.999	-	9.936		400	657	56	13	28
MSA40 312	33,44	8,20	15.789	10.722	8.700	-	9.300		400	657	56	12	26
MSA40 314	50,16	12,30	19.980	13.680	11.025	-	8.316		400	990	56	11	23
MSA45 211	28,98	7,05	14.188	9.580	7.500	-	9.760	2	450	606	50	15	32
MSA45 212	38,63	9,40	17.344	11.765	9.360	-	9.350		450	606	50	14	31
MSA45 214	57,95	14,10	21.927	15.000	12.120	-	8.640		450	606	50	13	29
MSA50 211	28,98	7,05	16.840	11.420	8.910	-	14.340		500	1.520	59	20	43
MSA50 212	38,63	9,40	20.200	13.700	10.700	-	13.280		500	1.520	59	18	39
MSA50 214	57,95	14,10	26.400	17.920	14.280	-	11.720		500	1.520	59	16	35
MSA45 312	57,95	14,10	26.016	17.648	14.040	-	14.025	3	450	909	52	14	31
MSA45 314	86,93	21,15	32.891	22.500	18.180	-	12.960		450	909	52	13	29
MSA50 312	57,95	14,10	30.310	20.560	16.050	-	19.920		500	2.280	61	18	39
MSA50 314	86,93	21,15	39.800	27.000	20.950	-	17.580		500	2.280	61	16	35
MSA45 412	77,27	18,80	34.688	23.530	18.720	-	18.700		450	1.212	53	14	31
MSA45 414	115,90	28,20	43.854	30.000	24.240	-	17.280		450	1.212	53	13	29
MSA50 412	77,27	18,80	40.410	27.410	21.400	-	26.560	4	500	3.040	62	18	39
MSA50 414	115,90	28,20	53.550	36.400	28.200	-	23.450		500	3.040	62	16	35

Model Model	Defrost Isticilar Electric Defrost Heater			Boyutlar Dimensions										
	B1	B2		L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
MSA35 311	4x800	4x800	2x800	186	61	56	-	-	153	58	55	49	45	34
MSA35 312	5x800	5x800	2x800	186	61	56	-	-	153	58	55	49	45	34
MSA35 314	7x800	7x800	2x800	186	61	62	-	-	153	58	55	55	51	41
MSA40 311	4x800	4x800	2x800	186	61	56	-	-	153	58	55	49	45	34
MSA40 312	5x800	5x800	2x800	186	61	56	-	-	153	58	55	49	45	34
MSA40 314	7x800	7x800	2x800	186	61	62	-	-	153	58	55	55	51	41
MSA45 211	5x700	5x700	2x700	166	80	56	-	133	-	75	72	49	41	34
MSA45 212	6x700	6x700	2x700	166	80	56	-	133	-	75	72	49	41	41
MSA45 214	8x700	8x700	2x700	166	80	62	-	133	-	75	72	55	48	41
MSA50 211	5x700	5x700	2x700	166	80	56	-	133	-	75	72	49	41	34
MSA50 212	6x700	6x700	2x700	166	80	56	-	133	-	75	72	49	41	34
MSA50 214	8x700	8x700	2x700	166	80	62	-	133	-	75	72	55	48	41
MSA45 312	6x1050	6x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
MSA45 314	8x1050	8x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
MSA50 312	6x1050	6x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
MSA50 314	8x1050	8x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
MSA45 412	6X1350	6X1350	2X1350	302	80	56	-	130	-	75	72	49	45	34
MSA45 414	8X1350	8X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
MSA50 412	6X1350	6X1350	2X1350	302	80	56	-	130	-	75	72	49	45	34
MSA50 414	8X1350	8X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41

MSA



## MSA SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 40 mm x 35 mm

Hatve / Fin Spacing : 6 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 400V AC 1320 d/d-rpm					Üfleme Mesafesi Air Throw		
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer	
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C								(Watt)
MSA63 212	92,86	22,60	38.175	25.906	-	-	19.120	2	630	3.800	70	20	43	
MSA63 214	139,30	33,90	48.162	32.696	-	-	17.907	2	630	3.800	70	19	40	
MSA63 312	139,29	33,90	57.263	38.859	-	-	28.680	3	630	5.700	72	20	43	
MSA63 314	208,95	50,85	72.243	49.044	-	-	26.861	3	630	5.700	72	19	40	
MSA63 412	185,72	45,20	76.350	51.812	-	-	38.240	4	630	7.600	73	20	43	
MSA63 414	278,60	67,80	96.324	65.392	-	-	35.814	4	630	7.600	73	19	40	
MSA63 512	232,15	56,50	95.438	64.765	-	-	47.800	5	630	9.500	74	20	43	
MSA63 514	348,25	84,75	120.405	81.740	-	-	44.768	5	630	9.500	74	19	40	

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1	B2		L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
MSA63 212	8X1050	8X1050	2X1050	242	115	62	-	203	-	110	108	55	51	41
MSA63 214	10X1050	10X1050	2X1050	242	115	71	-	203	-	110	108	63	59	49
MSA63 312	8X1550	8X1550	2X1550	342	115	62	-	-	303	110	108	55	51	41
MSA63 314	10X1550	10X1550	2X1550	342	115	71	-	-	303	110	108	63	59	49
MSA63 412	8X2050	8X2050	2X2050	442	115	62	-	200	-	110	108	55	51	41
MSA63 414	10X2050	10X2050	2X2050	442	115	71	-	200	-	110	108	63	59	49
MSA63 512	8X2550	8X2550	2X2550	542	115	62	-	-	-	110	108	55	51	41
MSA63 514	10X2550	10X2550	2X2550	542	115	71	-	-	-	110	108	63	59	49

MSS SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 40 mm x 35 mm

Hatve / Fin Spacing : 8 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm					Üfleme Me- safesi Air Throw	
			SC1	SC2	SC3	SC4	Hava Dehisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendirilsiz Without Streamer	Akış Yönlendiricili With Streamer
			(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(Watt)	(Watt)	(m <sup>3</sup> /h)	(n)	(Ø mm)	(Watt)	dB(A)
MSS30 111	4,84	1,55	2.144	1.444	1.104	871	1.532	1	300	72	41	11	23
MSS30 112	6,45	2,07	2.577	1.710	1.388	1.121	1.466		300	72	41	10	22
MSS30 114	9,67	3,10	3.350	2.290	1.791	1.415	1.354		300	72	41	10	21
MSS30 211	9,67	3,10	4.288	2.888	2.208	1.742	3.064	2	300	144	44	11	23
MSS30 212	12,90	4,13	5.154	3.420	2.776	2.242	2.932		300	144	44	10	22
MSS30 214	19,35	6,20	6.700	4.580	3.582	2.830	2.708		300	144	44	10	21
MSS30 311	14,51	4,65	6.432	4.332	3.312	2.613	4.596	3	300	216	46	11	23
MSS30 312	19,35	6,20	7.731	5.130	4.164	3.363	4.398		300	216	46	10	22
MSS30 314	29,02	9,30	10.050	6.870	5.373	4.245	4.062		300	216	46	10	21
MSS35 111	6,45	2,05	3.300	2.250	1.810	1.460	2.790	1	350	165	44	13	27
MSS35 112	8,60	2,73	4.000	2.630	2.120	1.700	2.600		350	165	44	12	25
MSS35 114	12,90	4,10	5.250	3.500	2.840	2.300	2.400		350	165	44	11	23
MSS40 111	6,45	2,05	3.671	2.478	1.984	1.572	3.416	1	400	219	51	13	29
MSS40 112	8,60	2,73	4.471	2.993	2.420	1.937	3.211		400	219	51	13	27
MSS40 114	12,90	4,10	5.840	3.930	3.173	2.550	2.900		400	219	51	11	24

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1	B2		L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
	(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
MSS30 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
MSS30 112	4x250	4x250	2x250	77	51	47	48	-	-	46	46	39	36	29
MSS30 114	6x250	6x250	2x250	77	51	57	48	-	-	46	46	46	43	36
MSS30 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
MSS30 212	4x500	4x500	2x500	121	51	47	-	93	-	46	46	39	36	29
MSS30 214	6x500	6x500	2x500	121	51	57	-	93	-	46	46	46	43	36
MSS30 311	3x750	3x750	2x750	166	51	51	-	-	138	46	46	39	36	29
MSS30 312	4x750	4x750	2x750	166	51	51	-	-	138	46	46	39	36	29
MSS30 314	6x750	6x750	2x750	166	51	57	-	-	138	46	46	46	43	36
MSS35 111	4x300	4x300	2x300	86	61	56	53	-	-	55	55	44	41	34
MSS35 112	5x300	5x300	2x300	86	61	56	53	-	-	55	55	44	41	34
MSS35 114	7x300	7x300	2x300	86	61	56	53	-	-	55	55	51	48	41
MSS40 111	4x300	4x300	2x300	86	61	56	53	-	-	55	55	44	41	34
MSS40 112	5x300	5x300	2x300	86	61	56	53	-	-	55	55	44	41	34
MSS40 114	7x300	7x300	2x300	86	61	62	53	-	-	55	55	51	48	41

MSS

## MSS SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 40 mm x 35 mm

Hatve / Fin Spacing : 8 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Hava Dehisi Air Flow	Fanlar / Fans 230V AC 1300-1400 d/d-rpm				Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4		Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basıncı Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
	(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(Watt)	(Watt)	(m <sup>3</sup> /h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
MSS35 211	12,90	4,10	6.600	4.500	3.620	2.920	5.580	2	350	330	47	13	27
MSS35 212	17,19	5,47	8.000	5.260	4.240	3.400	5.200		350	330	47	12	25
MSS35 214	25,79	8,20	10.500	7.000	5.680	4.600	4.800		350	330	47	11	23
MSS40 211	12,90	4,10	7.342	4.956	3.968	3.144	6.832		400	438	54	13	29
MSS40 212	17,19	5,47	8.942	5.986	4.840	3.874	6.422	2	400	438	54	13	27
MSS40 214	25,79	8,20	11.680	7.860	6.346	5.100	5.800		400	438	54	11	24
MSS35 311	19,35	6,15	9.900	6.750	5.430	4.380	8.370	3	350	495	49	13	27
MSS35 312	25,79	8,20	12.000	7.890	6.360	5.100	7.800		350	495	49	12	25
MSS35 314	38,69	12,30	15.750	10.500	8.520	6.900	7.200		350	495	49	11	23
MSS40 311	19,35	6,15	11.013	7.434	5.952	4.716	10.248		400	657	56	13	29
MSS40 312	25,79	8,20	13.413	8.979	7.260	5.811	9.633	3	400	657	56	13	27
MSS40 314	38,69	12,30	17.520	11.790	9.519	7.650	8.700		400	657	56	11	24
MSS45 211	22,35	7,05	11.830	8.020	6.400	5.157	9.956	2	450	606	50	15	33
MSS45 212	29,80	9,40	14.737	10.000	8.000	6.420	9.590		450	606	50	15	32
MSS45 214	44,71	14,10	19.191	13.111	10.550	8.480	8.940		450	606	50	14	30
MSS45 215	59,61	18,80	22.300	15.087	12.300	9.980	8.400		450	606	50	13	28
MSS50 211	22,35	7,05	14.290	9.680	7.640	6.170	14.790	2	500	1.520	59	21	44
MSS50 212	29,80	9,40	17.610	11.930	9.420	7.600	13.900		500	1.520	59	19	41
MSS50 214	44,71	14,10	23.180	15.740	12.640	10.180	12.380		500	1.520	59	17	37
MSS50 215	59,61	18,80	27.730	18.800	14.830	11.970	11.130		500	1.520	59	15	33

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1	B2		L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
MSS35 211	4x550	4x550	2x550	136	61	56	-	103	-	55	55	44	41	34
MSS35 212	5x550	5x550	2x550	136	61	56	-	103	-	55	55	44	41	34
MSS35 214	7x550	7x550	2x550	136	61	62	-	103	-	55	55	51	48	41
MSS40 211	4x550	4x550	2x550	136	61	56	-	103	-	55	55	44	41	34
MSS40 212	5x550	5x550	2x550	136	61	56	-	103	-	55	55	44	41	34
MSS40 214	7x550	7x550	2x550	136	61	62	-	103	-	55	55	51	48	41
MSS35 311	4x800	4x800	2x800	186	61	56	-	-	153	58	55	44	45	34
MSS35 312	5x800	5x800	2x800	186	61	56	-	-	153	58	55	44	45	34
MSS35 314	7x800	7x800	2x800	186	61	62	-	-	153	58	55	51	51	41
MSS40 311	4x800	4x800	2x800	186	61	56	-	-	153	58	55	44	45	34
MSS40 312	5x800	5x800	2x800	186	61	56	-	-	153	58	55	44	45	34
MSS40 314	7x800	7x800	2x800	186	61	62	-	-	153	58	55	51	51	41
MSS45 211	5x700	5x700	2x700	166	80	56	-	133	-	75	72	49	41	34
MSS45 212	6x700	6x700	2x700	166	80	56	-	133	-	75	72	49	41	34
MSS45 214	8x700	8x700	2x700	166	80	62	-	133	-	75	72	55	48	41
MSS45 215	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49
MSS50 211	5x700	5x700	2x700	166	80	56	-	133	-	75	72	49	41	34
MSS50 212	6x700	6x700	2x700	166	80	56	-	133	-	75	72	49	41	34
MSS50 214	8x700	8x700	2x700	166	80	62	-	133	-	75	72	55	48	41
MSS50 215	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49

MSS SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 40 mm x 35 mm

Hatve / Fin Spacing : 8 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendirilsiz Without Streamer	Akış Yönlendiricili With Streamer
	(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
MSS45 311	33,53	10,58	17.745	12.030	9.600	7.736	14.934	3	450	909	52	15	33
MSS45 312	44,71	14,10	22.106	15.000	12.000	9.630	14.385		450	909	52	15	32
MSS45 314	67,06	21,15	28.787	19.667	15.825	12.720	13.410		450	909	52	14	30
MSS45 315	89,41	28,20	33.450	22.631	18.450	14.970	12.600		450	909	52	13	28
MSS50 311	33,53	10,58	21.440	14.530	11.470	9.250	22.190		500	2.280	61	21	44
MSS50 312	44,71	14,10	26.410	17.900	14.130	11.400	20.860		500	2.280	61	19	41
MSS50 314	67,06	21,15	35.100	24.000	18.850	15.120	18.570		500	2.280	61	17	37
MSS50 315	89,41	28,20	41.600	28.200	22.250	17.950	16.690		500	2.280	61	15	33
MSS45 411	44,71	14,10	23.660	16.040	12.800	10.314	19.912	4	450	1.212	53	15	33
MSS45 412	59,61	18,80	29.474	20.000	16.000	12.840	19.180		450	1.212	53	15	32
MSS45 414	89,41	28,20	38.382	26.222	21.100	16.960	17.880		450	1.212	53	14	30
MSS45 415	119,21	37,60	44.600	30.174	24.600	19.960	16.800		450	1.212	53	13	28
MSS50 411	44,71	14,10	28.590	19.370	15.290	12.340	29.590		500	3.040	62	21	44
MSS50 412	59,61	18,80	35.220	23.870	18.840	15.200	27.810		500	3.040	62	19	41
MSS50 414	89,41	28,20	47.200	32.000	25.200	20.380	24.760		500	3.040	62	17	37
MSS50 415	119,21	37,60	55.470	37.600	29.670	23.940	22.260		500	3.040	62	15	33

MSS





Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1	B2		L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
MSS45 311	5x1050	5x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
MSS45 312	6x1050	6x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
MSS45 314	8x1050	8x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
MSS45 315	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
MSS50 311	5x1050	5x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
MSS50 312	6x1050	6x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
MSS50 314	8x1050	8x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
MSS50 315	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
MSS45 411	5X1350	5X1350	2X1350	302	80	56	-	130	-	75	72	49	45	34
MSS45 412	6X1350	6X1350	2X1350	302	80	56	-	130	-	75	72	49	51	34
MSS45 414	8X1350	8X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
MSS45 415	9X1350	9X1350	2X1350	302	80	71	-	130	-	75	72	63	59	49
MSS50 411	5X1350	5X1350	2X1350	302	80	56	-	130	-	75	72	49	45	34
MSS50 412	6X1350	6X1350	2X1350	302	80	56	-	130	-	75	72	49	45	34
MSS50 414	8X1350	8X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
MSS50 415	9X1350	9X1350	2X1350	302	80	71	-	130	-	75	72	63	59	49

## MSS SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 40 mm x 35 mm

Hatve / Fin Spacing : 8 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 400V AC 1320 d/d-rpm					Üfleme Mesafesi Air Throw		
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basıncı Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer	
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C								(Watt)
MSS63 212	71,64	22,60	32.494	22.045	17.643	14.085	19.495	2	630	3.800	70	20	43	
MSS63 214	107,46	33,90	42.582	28.916	23.142	18.475	18.424		630	3.800	70	19	41	
MSS63 312	107,46	33,90	48.741	33.068	26.465	21.128	29.243	3	630	5.700	72	20	43	
MSS63 314	161,19	50,85	63.873	43.374	34.713	27.713	27.636		630	5.700	72	19	41	
MSS63 412	143,28	45,20	64.988	44.090	35.286	28.170	38.990	4	630	7.600	73	20	43	
MSS63 414	214,92	67,80	85.164	57.832	46.284	36.950	36.848		630	7.600	73	19	41	
MSS63 512	179,10	56,50	81.235	55.113	44.108	35.213	48.738	5	630	9.500	74	20	43	
MSS63 514	268,65	84,75	106.455	72.290	57.855	46.188	46.060		630	9.500	74	19	41	

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1	B2		L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
MSS63 212	8X1050	8X1050	2X1050	242	115	62	-	203	-	110	108	55	51	41
MSS63 214	10X1050	10X1050	2X1050	242	115	71	-	203	-	110	108	63	59	49
MSS63 312	8X1550	8X1550	2X1550	342	115	62	-	-	303	110	108	55	51	41
MSS63 314	10X1550	10X1550	2X1550	342	115	71	-	-	303	110	108	63	59	49
MSS63 412	8X2050	8X2050	2X2050	442	115	62	-	200	-	110	108	55	51	41
MSS63 414	10X2050	10X2050	2X2050	442	115	71	-	200	-	110	108	63	59	49
MSS63 512	8X2550	8X2550	2X2550	542	115	62	-	-	-	110	108	55	51	41
MSS63 514	10X2550	10X2550	2X2550	542	115	71	-	-	-	110	108	63	59	49

MSO SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 40 mm x 35 mm

Hatve / Fin Spacing : 10 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm				Üfleme Mesafesi Air Throw		
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendirilsiz Without Streamer	Akış Yönlendiricili With Streamer
	(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(Watt)	(Watt)	(m <sup>3</sup> /h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
MS030 111	3,98	1,55	1.877	1.267	982	770	1.556	1	300	72	41	11	24
MS030 112	5,30	2,07	2.233	1.478	1.208	980	1.496	1	300	72	41	11	23
MS030 114	7,95	3,10	3.030	2.056	1.612	1.286	1.390	1	300	72	41	10	21
MS030 211	7,95	3,10	3.754	2.534	1.964	1.540	3.112	2	300	144	44	11	24
MS030 212	10,60	4,13	4.466	2.956	2.416	1.960	2.992	2	300	144	44	11	23
MS030 214	15,91	6,20	6.060	4.112	3.224	2.572	2.780	2	300	144	44	10	21
MS030 311	11,93	4,65	5.631	3.801	2.946	2.310	4.668	3	300	216	46	11	24
MS030 312	15,91	6,20	6.699	4.434	3.624	2.940	4.488	3	300	216	46	11	23
MS030 314	23,86	9,30	9.090	6.168	4.836	3.858	4.170	3	300	216	46	10	21
MS035 111	5,30	2,05	2.860	1.930	1.550	1.240	2.820	1	350	165	44	13	27
MS035 112	7,07	2,73	3.640	2.460	1.970	1.580	2.730	1	350	165	44	12	26
MS035 114	10,61	4,10	4.860	3.290	2.630	2.120	2.550	1	350	165	44	11	25
MS040 111	5,30	2,05	3.198	2.158	1.717	1.366	3.500	1	400	219	51	14	29
MS040 112	7,07	2,73	3.927	2.568	2.097	1.686	3.309	1	400	219	51	13	28
MS040 114	10,61	4,10	5.236	3.460	2.815	2.270	3.003	1	400	219	51	12	25

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1	B2		L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
MS030 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
MS030 112	4x250	4x250	2x250	77	51	47	48	-	-	46	46	39	36	29
MS030 114	6x250	6x250	2x250	77	51	57	48	-	-	46	46	46	43	36
MS030 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
MS030 212	4x500	4x500	2x500	121	51	47	-	93	-	46	46	39	36	29
MS030 214	6x500	6x500	2x500	121	51	57	-	93	-	46	46	46	43	36
MS030 311	3x750	3x750	2x750	166	51	51	-	-	138	46	46	39	36	29
MS030 312	4x750	4x750	2x750	166	51	51	-	-	138	46	46	39	36	29
MS030 314	6x750	6x750	2x750	166	51	57	-	-	138	46	46	46	43	36
MS035 111	4x300	4x300	2x300	86	61	56	53	-	-	55	55	44	41	34
MS035 112	5x300	5x300	2x300	86	61	56	53	-	-	55	55	44	41	34
MS035 114	7x300	7x300	2x300	86	61	62	53	-	-	55	55	51	48	41
MS040 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
MS040 112	5x300	5x300	2x300	86	61	52	53	-	-	55	55	44	41	34
MS040 114	7x300	7x300	2x300	86	61	62	53	-	-	55	55	51	48	41

MSO

## MSO SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 40 mm x 35 mm

Hatve / Fin Spacing : 10 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Hava Debisi Air Flow	Fanlar / Fans 230V AC 1300-1400 d/d-rpm				Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4		Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec. Power	Ses Basıncı Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
	(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(Watt)	(Watt)	(m <sup>3</sup> /h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
MSO35 211	10,61	4,10	5.720	3.860	3.100	2.480	5.640	2	350	330	47	13	27
MSO35 212	14,14	5,47	7.280	4.920	3.940	3.160	5.460		350	330	47	12	26
MSO35 214	21,21	8,20	9.720	6.580	5.260	4.240	5.100		350	330	47	11	25
MSO40 211	10,61	4,10	6.396	4.316	3.434	2.732	7.000		400	438	54	14	29
MSO40 212	14,14	5,47	7.854	5.136	4.194	3.372	6.618	3	400	438	54	13	28
MSO40 214	21,21	8,20	10.472	6.920	5.630	4.540	6.006		400	438	54	12	25
MSO35 311	15,91	6,15	8.580	5.790	4.650	3.720	8.460		350	495	49	13	27
MSO35 312	21,21	8,20	10.920	7.380	5.910	4.740	8.190		350	495	49	12	26
MSO35 314	31,82	12,30	14.580	9.870	7.890	6.360	7.650	2	350	495	49	11	25
MSO40 311	15,91	6,15	9.594	6.474	5.151	4.098	10.500		400	657	56	14	29
MSO40 312	21,21	8,20	11.781	7.704	6.291	5.058	9.927		400	657	56	13	28
MSO40 314	31,82	12,30	15.708	10.380	8.445	6.810	9.009		400	657	56	12	25
MSO45 211	18,38	7,05	10.320	6.990	5.590	4.500	10.080	2	450	606	50	16	33
MSO45 212	24,51	9,40	12.980	8.790	7.030	5.660	9.820		450	606	50	15	32
MSO45 214	36,76	14,10	17.420	11.800	9.440	7.600	9.330		450	606	50	14	31
MSO45 215	49,01	18,80	20.830	14.110	11.280	9.090	8.900		450	606	50	14	29
MSO50 211	18,38	7,05	12.410	8.400	6.720	5.410	15.100	2	500	1.520	59	21	45
MSO50 212	24,51	9,40	15.480	10.490	8.390	6.750	14.320		500	1.520	59	20	43
MSO50 214	36,76	14,10	20.800	14.100	11.380	9.160	12.860		500	1.520	59	18	38
MSO50 215	49,01	18,80	25.140	17.020	13.620	10.960	11.630		500	1.520	59	16	35

Model Model	Defrost Isıtıcılar Electric Defrost Heater						Boyutlar Dimensions									
	B1		B2			L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D. Tray	(nxW)	(nxW)											
MSO35 211	4x550	4x550	2x550	136	61	56	-	103	-	55	55	44	41	34		
MSO35 212	5x550	5x550	2x550	136	61	56	-	103	-	55	55	44	41	34		
MSO35 214	7x550	7x550	2x550	136	61	62	-	103	-	55	55	51	48	41		
MSO40 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34		
MSO40 212	5x550	5x550	2x550	136	61	52	-	103	-	55	55	44	41	34		
MSO40 214	7x550	7x550	2x550	136	61	62	-	103	-	55	55	51	48	41		
MSO35 311	4x800	4x800	2x800	186	61	56	-	-	153	58	55	44	45	34		
MSO35 312	5x800	5x800	2x800	186	61	56	-	-	153	58	55	44	45	34		
MSO35 314	7x800	7x800	2x800	186	61	62	-	-	153	58	55	51	51	41		
MSO40 311	4x800	4x800	2x800	186	61	56	-	-	153	58	55	44	45	34		
MSO40 312	5x800	5x800	2x800	186	61	56	-	-	153	58	55	44	45	34		
MSO40 314	7x800	7x800	2x800	186	61	62	-	-	153	58	55	51	51	41		
MSO45 211	5x700	5x700	2x700	166	80	56	-	133	-	75	72	49	41	34		
MSO45 212	6x700	6x700	2x700	166	80	56	-	133	-	75	72	49	41	34		
MSO45 214	8x700	8x700	2x700	166	80	62	-	133	-	75	72	55	48	41		
MSO45 215	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	4.9		
MSO50 211	5x700	5x700	2x700	166	80	52	-	133	-	75	72	49	41	34		
MSO50 212	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34		
MSO50 214	8x700	8x700	2x700	166	80	62	-	133	-	75	72	55	48	41		
MSO50 215	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49		

MSO SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalip / Geometry : 40 mm x 35 mm

Hatve / Fin Spacing : 10 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm				Üfleme Mesafesi Air Throw		
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendirilsiz Without Streamer	Akış Yönlendiricili With Streamer
			(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(Watt)	(Watt)	(m <sup>3</sup> /h)	(n)	(Ø mm)	(Watt)	dB(A)
MS045 311	27,57	10,58	15.480	10.485	8.385	6.750	15.120	3	450	909	52	16	33
MS045 312	36,76	14,10	19.470	13.185	10.545	8.490	14.730		450	909	52	15	32
MS045 314	55,14	21,15	26.130	17.700	14.160	11.400	13.995		450	909	52	14	31
MS045 315	73,52	28,20	31.245	21.165	16.920	13.635	13.350		450	909	52	14	29
MS050 311	27,57	10,58	18.960	12.840	10.270	8.270	22.650		500	2.280	61	21	45
MS050 312	36,76	14,10	23.230	15.730	12.580	10.130	21.480		500	2.280	61	20	43
MS050 314	55,14	21,15	31.500	21.340	17.020	13.700	19.290		500	2.280	61	18	38
MS050 315	73,52	28,20	37.710	25.540	20.430	16.450	17.450		500	2.280	61	16	35
MS045 411	36,76	14,10	20.640	13.980	11.180	9.000	20.160	4	450	1.212	53	16	33
MS045 412	49,01	18,80	25.960	17.580	14.060	11.320	19.640		450	1.212	53	15	32
MS045 414	73,52	28,20	34.840	23.600	18.880	15.200	18.660		450	1.212	53	14	31
MS045 415	98,03	37,60	41.660	28.220	22.560	18.180	17.800		450	1.212	53	14	29
MS050 411	36,76	14,10	25.000	16.930	13.540	10.900	30.200		500	3.040	62	21	45
MS050 412	49,01	18,80	30.970	20.980	16.780	13.510	28.640		500	3.040	62	20	43
MS050 414	73,52	28,20	42.400	28.700	22.900	18.500	25.720		500	3.040	62	18	38
MS050 415	98,03	37,60	50.290	34.050	27.240	21.930	23.270		500	3.040	62	16	35

MSO

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1	B2		L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
MS045 311	5x1050	5x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
MS045 312	6x1050	6x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
MS045 314	8x1050	8x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
MS045 315	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
MS050 311	5x1050	5x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
MS050 312	6x1050	6x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
MS050 314	8x1050	8x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
MS050 315	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
MS045 411	5X1350	5X1350	2X1350	302	80	56	-	130	-	75	72	49	45	34
MS045 412	6X1350	6X1350	2X1350	302	80	56	-	130	-	75	72	49	51	34
MS045 414	8X1350	8X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
MS045 415	9X1350	9X1350	2X1350	302	80	71	-	130	-	75	72	63	59	49
MS050 411	5X1350	5X1350	2X1350	302	80	56	-	130	-	75	72	49	45	34
MS050 412	6X1350	6X1350	2X1350	302	80	56	-	130	-	75	72	49	45	34
MS050 414	8X1350	8X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
MS050 415	9X1350	9X1350	2X1350	302	80	71	-	130	-	75	72	63	59	49



## MSO SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 40 mm x 35 mm

Hatve / Fin Spacing : 10 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 400V AC 1320 d/d-rpm					Üfleme Mesafesi Air Throw		
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elect. Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer	
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C								(Watt)
MS063 212	58,91	22,60	28.466	19.347	15.401	12.334	19.740	2	630	3.800	70	21	44	
MS063 214	88,36	33,90	38.275	25.990	20.400	16.277	18.772	2	630	3.800	70	20	42	
MS063 312	88,37	33,90	42.699	29.021	23.102	18.501	29.610	3	630	5.700	72	21	44	
MS063 314	132,54	50,85	57.413	38.985	30.600	24.416	28.158	3	630	5.700	72	20	42	
MS063 412	117,82	45,20	56.932	38.694	30.802	24.668	39.480	4	630	7.600	73	21	44	
MS063 414	176,72	67,80	76.550	51.980	40.800	32.554	37.544	4	630	7.600	73	20	42	
MS063 512	147,28	56,50	71.165	48.368	38.503	30.835	49.350	5	630	9.500	74	21	44	
MS063 514	220,90	84,75	95.688	64.975	51.000	40.693	46.930	5	630	9.500	74	20	42	

MSO

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1	B2		L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
MS063 212	8X1050	8X1050	2X1050	242	115	62	-	203	-	110	108	55	51	41
MS063 214	10X1050	10X1050	2X1050	242	115	71	-	203	-	110	108	63	59	49
MS063 312	8X1550	8X1550	2X1550	342	115	62	-	-	303	110	108	55	51	41
MS063 314	10X1550	10X1550	2X1550	342	115	71	-	-	303	110	108	63	59	49
MS063 412	8X2050	8X2050	2X2050	442	115	62	-	200	-	110	108	55	51	41
MS063 414	10X2050	10X2050	2X2050	442	115	71	-	200	-	110	108	63	59	49
MS063 512	8X2550	8X2550	2X2550	542	115	62	-	-	-	110	108	55	51	41
MS063 514	10X2550	10X2550	2X2550	542	115	71	-	-	-	110	108	63	59	49

*Kalitenin zamana karşı zaferi...*

*The triumph of quality against time...*



## STANDART ODA SOĞUTUCULARI

Standard Unit Coolers

### NSS-NSO SERİSİ TEKNİK BİLGİLER

NSS-NSO Series Technical Information

**Bakır Boru / Copper Tube** : 5/8"

**Kalıp / Geometry** : 40 mm x 35 mm

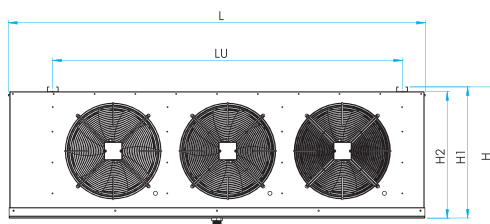
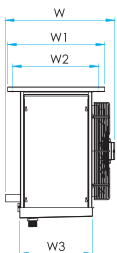
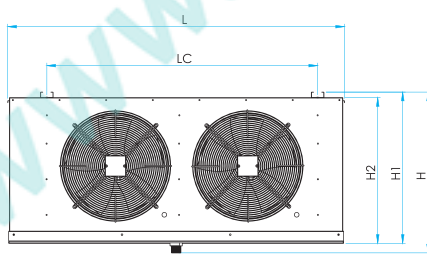
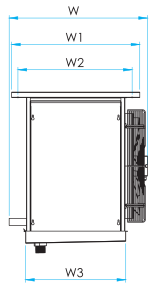
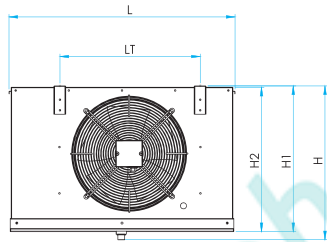
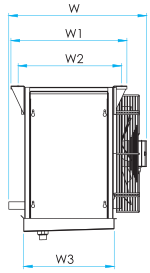
**Hatve / Fin Spacing** : 8 mm - 10 mm

Belirtilen fiyatlara fan dahil değildir.

Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

All prices are given without fans.

Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.



NSS SERİSİ

Bakır Boru / Copper Tube : 5/8"

Kalıp / Geometry : 40 mm x 35 mm

Hatve / Fin Spacing : 8 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm				Üfleme Mesafesi Air Throw		
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basıncı Seviyesi Sound Pressure Level	Yönlendirilsiz Without Streamer	Akış Yönlendiricili With Streamer
	(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(Watt)	(Watt)	(m <sup>3</sup> /h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
NSS30 111	4,73	2,40	2.041	1.323	1.100	883	1.483	1	300	72	41	11	23
NSS30 112	6,30	3,20	2.622	1.754	1.414	1.128	1.406	1	300	72	41	10	22
NSS30 114	9,46	4,80	2.977	1.973	1.667	1.363	1.283	1	300	72	41	9	20
NSS30 211	9,46	4,80	4.082	2.646	2.200	1.766	2.966	2	300	144	44	11	23
NSS30 212	12,61	6,40	5.244	3.508	2.828	2.256	2.812	2	300	144	44	10	22
NSS30 214	18,91	9,60	5.954	3.946	3.334	2.726	2.566	2	300	144	44	9	20
NSS30 311	14,18	7,20	6.123	3.969	3.300	2.649	4.449	3	300	216	44	11	23
NSS30 312	18,91	9,60	7.866	5.262	4.242	3.384	4.218	3	300	216	44	10	22
NSS30 314	28,37	14,40	8.931	5.919	5.001	4.089	3.849	3	300	216	44	9	20
NSS35 111	6,31	3,20	3.450	2.320	1.850	1.480	2.710	1	350	165	44	12	26
NSS35 112	8,41	4,27	3.800	2.450	2.064	1.662	2.547	1	350	165	44	11	25
NSS35 114	12,61	6,40	5.272	3.543	2.869	2.294	2.300	1	350	165	44	10	22
NSS40 111	6,31	3,20	3.790	2.538	1.980	1.580	3.265	1	400	219	51	13	27
NSS40 112	8,41	4,27	4.285	2.741	2.303	1.840	3.047	1	400	219	51	12	26
NSS40 114	12,61	6,40	5.832	3.956	3.159	2.524	2.706	1	400	219	51	11	23
NSS35 211	12,61	6,40	6.900	4.640	3.700	2.960	5.420	2	350	330	47	12	26
NSS35 212	16,82	8,53	7.600	4.900	4.128	3.324	5.094	2	350	330	47	11	25
NSS35 214	25,22	12,80	10.544	7.086	5.738	4.588	4.600	2	350	330	47	10	22
NSS40 211	12,61	6,40	7.580	5.076	3.960	3.160	6.530	2	400	438	54	13	27
NSS40 212	16,82	8,53	8.570	5.482	4.606	3.680	6.094	2	400	438	54	12	26
NSS40 214	25,22	12,80	11.664	7.912	6.318	5.048	5.412	2	400	438	54	11	23

NSS

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1	B2		L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
NSS30 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
NSS30 112	4x250	4x250	2x250	77	51	47	48	-	-	46	46	39	36	29
NSS30 114	6x250	6x250	2x250	77	51	57	48	-	-	46	46	46	43	36
NSS30 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
NSS30 212	4x500	4x500	2x500	121	51	47	-	93	-	46	46	39	36	29
NSS30 214	6x500	6x500	2x500	121	51	57	-	93	-	46	46	46	43	36
NSS30 311	3x750	3x750	2x750	166	51	51	-	-	138	46	46	39	36	29
NSS30 312	4x750	4x750	2x750	166	51	51	-	-	138	46	46	39	36	29
NSS30 314	6x750	6x750	2x750	166	51	57	-	-	138	46	46	46	43	36
NSS35 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
NSS35 112	5x300	5x300	2x300	86	61	52	53	-	-	55	55	44	41	34
NSS35 114	7x300	7x300	2x300	86	61	62	53	-	-	55	55	51	48	41
NSS40 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
NSS40 112	5x300	5x300	2x300	86	61	52	53	-	-	55	55	44	41	34
NSS40 114	7x300	7x300	2x300	86	61	62	53	-	-	55	55	51	48	41
NSS35 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
NSS35 212	5x550	5x550	2x550	136	61	52	-	103	-	55	55	44	41	34
NSS35 214	7x550	7x550	2x550	136	61	62	-	103	-	55	55	51	48	41
NSS40 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
NSS40 212	5x550	5x550	2x550	136	61	52	-	103	-	55	55	44	41	34
NSS40 214	7x550	7x550	2x550	136	61	62	-	103	-	55	55	51	48	41

## NSS SERİSİ

Bakır Boru / Copper Tube : 5/8"

Kalıp / Geometry : 40 mm x 35 mm

Hatve / Fin Spacing : 8 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Hava Debisi Air Flow	Fanlar / Fans 230V AC 1300-1400 d/d-rpm				Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4		Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elect. Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
	(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(Watt)	(Watt)	(m <sup>3</sup> /h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
NSS35 311	18,92	9,60	10.350	6.960	5.550	4.440	8.130	3	350	495	49	12	26
NSS35 312	25,22	12,80	11.400	7.350	6.192	4.986	7.641		350	495	49	11	25
NSS35 314	37,84	19,20	15.816	10.629	8.607	6.882	6.900		350	495	49	10	22
NSS40 311	18,92	9,60	11.370	7.614	5.940	4.740	9.795		400	876	56	13	27
NSS40 312	25,22	12,80	12.855	8.223	6.909	5.520	9.141	2	400	876	56	12	26
NSS40 314	37,84	19,20	17.496	11.868	9.477	7.572	8.118		400	876	56	11	23
NSS45 211	21,87	11,13	11.956	8.061	6.553	5.230	9.670		450	606	50	15	32
NSS45 212	29,16	14,84	14.846	10.044	8.167	6.544	9.242		450	606	50	14	31
NSS45 214	43,73	22,27	19.403	13.181	10.536	8.485	8.520	3	450	606	50	13	28
NSS45 215	58,31	29,69	22.163	15.115	12.191	9.850	7.930		450	606	50	12	26
NSS50 211	21,87	11,13	14.320	9.730	7.910	6.370	14.170		500	1.520	59	20	42
NSS50 212	29,16	14,84	17.590	11.960	9.710	7.830	13.080		500	1.520	59	18	39
NSS50 214	43,73	22,27	22.800	15.500	12.590	10.140	11.450	4	500	1.520	59	16	34
NSS50 215	58,31	29,69	26.460	17.990	14.610	11.770	10.460		500	1.520	59	15	31
NSS45 312	43,73	22,27	22.269	15.066	12.251	9.816	13.863		450	909	52	14	31
NSS45 314	65,60	33,40	29.105	19.772	15.804	12.728	12.780		450	909	52	13	28
NSS45 315	87,47	44,53	33.245	22.673	18.287	14.775	11.895	3	450	909	52	12	26
NSS50 312	43,73	22,27	26.390	17.940	14.570	11.740	19.630		500	2.280	61	18	39
NSS50 314	65,60	33,40	34.210	23.250	18.890	15.220	17.170		500	2.280	61	16	34
NSS50 315	87,47	44,53	39.700	26.990	21.920	17.660	15.700		500	2.280	61	15	31
NSS45 412	58,31	29,69	29.692	20.088	16.334	13.088	18.484	4	450	1.212	53	14	31
NSS45 414	87,47	44,53	38.806	26.362	21.072	16.970	17.040		450	1.212	53	13	28
NSS50 412	58,31	29,69	35.190	23.920	19.430	15.660	26.170		500	3.040	62	18	39
NSS50 414	87,47	44,53	45.610	31.000	25.190	20.290	22.900		500	3.040	62	16	34

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1	B2		L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
NSS35 311	4x800	4x800	2x800	186	61	56	-	-	153	58	55	49	45	34
NSS35 312	5x800	5x800	2x800	186	61	56	-	-	153	58	55	49	45	34
NSS35 314	7x800	7x800	2x800	186	61	62	-	-	153	58	55	55	51	41
NSS40 311	4x800	4x800	2x800	186	61	56	-	-	153	58	55	49	45	34
NSS40 312	5x800	5x800	2x800	186	61	56	-	-	153	58	55	49	45	34
NSS40 314	7x800	7x800	2x800	186	61	62	-	-	153	58	55	55	51	41
NSS45 211	5x700	5x700	2x700	166	80	52	-	133	-	75	72	49	41	34
NSS45 212	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
NSS45 214	8x700	8x700	2x700	166	80	62	-	133	-	75	72	55	48	41
NSS45 215	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	4.9
NSS50 211	5x700	5x700	2x700	166	80	52	-	133	-	75	72	49	41	34
NSS50 212	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
NSS50 214	8x700	8x700	2x700	166	80	62	-	133	-	75	72	55	48	41
NSS50 215	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49
NSS45 312	6x1050	6x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
NSS45 314	8x1050	8x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
NSS45 315	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
NSS50 312	6x1050	6x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
NSS50 314	8x1050	8x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
NSS50 315	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
NSS45 412	6X1350	6X1350	2X1350	302	80	56	-	130	-	75	72	49	45	34
NSS45 414	8X1350	8X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
NSS50 412	6X1350	6X1350	2X1350	302	80	56	-	130	-	75	72	49	45	34
NSS50 414	8X1350	8X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41

NSO SERİSİ

Bakır Boru / Copper Tube : 5/8"

Kalıp / Geometry : 40 mm x 35 mm

Hatve / Fin Spacing : 10 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4	Hava Dehisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
			(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(Watt)	(Watt)	(m <sup>3</sup> /h)	(n)	(Ø mm)	(Watt)	dB(A)
NSO30 111	3,92	2,40	1.750	1.134	948	765	1.510	1	300	72	41	11	23
NSO30 112	5,22	3,20	2.341	1.538	1.250	1.000	1.439	1	300	72	41	10	22
NSO30 114	7,84	4,80	2.670	1.763	1.494	1.221	1.321	1	300	72	41	9	20
NSO30 211	7,84	4,80	3.500	2.268	1.896	1.530	3.020	2	300	144	44	11	23
NSO30 212	10,45	6,40	4.682	3.076	2.500	2.000	2.878	2	300	144	44	10	22
NSO30 214	15,67	9,60	5.340	3.526	2.988	2.442	2.642	2	300	144	44	9	20
NSO30 311	11,75	7,20	5.250	3.402	2.844	2.295	4.530	3	300	216	46	11	23
NSO30 312	15,67	9,60	7.023	4.614	3.750	3.000	4.317	3	300	216	46	10	22
NSO30 314	23,51	14,40	8.010	5.289	4.482	3.663	3.963	3	300	216	46	9	20
NSO35 111	5,23	3,20	3.030	2.040	1.620	1.300	2.750	1	350	165	44	12	26
NSO35 112	6,97	4,27	3.285	2.116	1.800	1.450	2.612	1	350	165	44	12	25
NSO35 114	10,45	6,40	4.800	3.176	2.590	2.076	2.376	1	350	165	44	11	23
NSO40 111	5,23	3,20	3.350	2.247	1.775	1.415	3.350	1	400	219	51	13	28
NSO40 112	6,97	4,27	3.700	2.363	1.996	1.603	3.136	1	400	219	51	12	26
NSO40 114	10,45	6,40	5.327	3.566	2.880	2.294	2.820	1	400	219	51	11	24
NSO35 211	10,45	6,40	6.060	4.080	3.240	2.600	5.500	2	350	330	47	12	26
NSO35 212	13,93	8,53	6.570	4.232	3.600	2.900	5.224	2	350	330	47	12	25
NSO35 214	20,90	12,80	9.600	6.352	5.180	4.152	4.752	2	350	330	47	11	23
NSO40 211	10,45	6,40	6.700	4.494	3.550	2.830	6.700	2	400	438	54	13	28
NSO40 212	13,93	8,53	7.400	4.726	3.992	3.206	6.272	2	400	438	54	12	26
NSO40 214	20,90	12,80	10.654	7.132	5.760	4.588	5.640	2	400	438	54	11	24

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1	B2		L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
	(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
NSO30 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
NSO30 112	4x250	4x250	2x250	77	51	47	48	-	-	46	46	39	36	29
NSO30 114	6x250	6x250	2x250	77	51	57	48	-	-	46	46	46	43	36
NSO30 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
NSO30 212	4x500	4x500	2x500	121	51	47	-	93	-	46	46	39	36	29
NSO30 214	6x500	6x500	2x500	121	51	57	-	93	-	46	46	46	43	36
NSO30 311	3x750	3x750	2x750	166	51	51	-	-	138	46	46	39	36	29
NSO30 312	4x750	4x750	2x750	166	51	51	-	-	138	46	46	39	36	29
NSO30 314	6x750	6x750	2x750	166	51	57	-	-	138	46	46	46	43	36
NSO35 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
NSO35 112	5x300	5x300	2x300	86	61	52	53	-	-	55	55	44	41	34
NSO35 114	7x300	7x300	2x300	86	61	62	53	-	-	55	55	51	48	41
NSO40 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
NSO40 112	5x300	5x300	2x300	86	61	52	53	-	-	55	55	44	41	34
NSO40 114	7x300	7x300	2x300	86	61	62	53	-	-	55	55	51	48	41
NSO35 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
NSO35 212	5x550	5x550	2x550	136	61	52	-	103	-	55	55	44	41	34
NSO35 214	7x550	7x550	2x550	136	61	62	-	103	-	55	55	51	48	41
NSO40 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
NSO40 212	5x550	5x550	2x550	136	61	52	-	103	-	55	55	44	41	34
NSO40 214	7x550	7x550	2x550	136	61	62	-	103	-	55	55	51	48	41

NSO

## NSO SERİSİ

Bakır Boru / Copper Tube : 5/8"

Kalıp / Geometry : 40 mm x 35 mm

Hatve / Fin Spacing : 10 mm

NSN

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm				Üfleme Mesafesi Air Throw		
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
	(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(Watt)	(Watt)	(m <sup>3</sup> /h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
NS035 311	15,68	9,60	9.090	6.120	4.860	3.900	8.250	3	350	495	49	12	26
NS035 312	20,90	12,80	9.855	6.348	5.400	4.350	7.836		350	495	49	12	25
NS035 314	31,35	19,20	14.400	9.528	7.770	6.228	7.128		350	495	49	11	23
NS040 311	15,68	9,60	10.050	6.741	5.325	4.245	10.050		400	876	56	13	28
NS040 312	20,90	12,80	11.100	7.089	5.988	4.809	9.408		400	876	56	12	26
NS040 314	31,35	19,20	15.981	10.698	8.640	6.882	8.460		400	876	56	11	24
NS045 211	18,11	11,13	10.483	6.932	5.675	4.529	9.825	2	450	606	50	15	32
NS045 212	24,15	14,84	13.165	8.754	7.167	5.737	9.423		450	606	50	15	31
NS045 214	36,22	22,27	17.602	11.950	9.566	7.679	8.742		450	606	50	13	29
NS045 215	48,29	29,69	20.485	13.795	11.237	9.050	8.176		450	606	50	13	27
NS050 211	18,11	11,13	13.100	8.810	6.990	5.610	14.530		500	1.520	59	20	43
NS050 212	24,15	14,84	16.390	11.030	8.750	7.030	13.530		500	1.520	59	19	40
NS050 214	36,22	22,27	21.430	14.410	11.440	9.190	11.930	500	1.520	59	17	35	
NS050 215	48,29	29,69	24.900	16.750	13.290	10.670	10.700	500	1.520	59	15	32	

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1	B2		L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
(mxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
NS035 311	4x800	4x800	2x800	186	61	56	-		153	58	55	49	45	34
NS035 312	5x800	5x800	2x800	186	61	56	-		153	58	55	49	45	34
NS035 314	7x800	7x800	2x800	186	61	62	-		153	58	55	55	51	41
NS040 311	4x800	4x800	2x800	186	61	56	-		153	58	55	49	45	34
NS040 312	5x800	5x800	2x800	186	61	56	-		153	58	55	49	45	34
NS040 314	7x800	7x800	2x800	186	61	62	-		153	58	55	55	51	41
NS045 211	5x700	5x700	2x700	166	80	52	-	133	-	75	72	49	41	34
NS045 212	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
NS045 214	8x700	8x700	2x700	166	80	62	-	133	-	75	72	55	48	41
NS045 215	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	4.9
NS050 211	5x700	5x700	2x700	166	80	52	-	133	-	75	72	49	41	34
NS050 212	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
NS050 214	8x700	8x700	2x700	166	80	62	-	133	-	75	72	55	48	41
NS050 215	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49

Bakır Boru / Copper Tube : 5/8"

Kalıp / Geometry : 40 mm x 35 mm

Hatve / Fin Spacing : 10 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm				Üfleme Mesafesi Air Throw		
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basıncı Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
	(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(Watt)	(Watt)	(m <sup>3</sup> /h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
NS045 312	36,22	22,27	19.748	13.131	10.751	8.606	14.135	3	450	909	52	15	31
NS045 314	54,33	33,40	26.403	17.925	14.349	11.519	13.113		450	909	52	13	29
NS045 315	72,44	44,53	30.728	20.693	16.856	13.575	12.264		450	909	52	13	27
NS050 312	36,22	22,27	24.590	16.540	13.130	10.540	20.300		500	2.280	61	19	40
NS050 314	54,33	33,40	32.140	21.620	17.160	13.780	17.890		500	2.280	61	17	35
NS050 315	72,44	44,53	37.350	25.120	19.940	16.010	16.060		500	2.280	61	15	32
NS045 412	48,29	29,69	26.330	17.508	14.334	11.474	18.846	4	450	1.212	53	15	31
NS045 414	72,44	44,53	35.204	23.900	19.132	15.358	17.484		450	1.212	53	13	29
NS050 412	48,29	29,69	32.790	22.060	17.510	14.060	27.070		500	3.040	62	19	40
NS050 414	72,44	44,53	42.860	28.830	22.880	18.380	23.860		500	3.040	62	17	35

NSO

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1		B2	L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
NS045 312	6x1050	6x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
NS045 314	8x1050	8x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
NS045 315	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
NS050 312	6x1050	6x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
NS050 314	8x1050	8x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
NS050 315	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
NS045 412	6X1350	6X1350	2X1350	302	80	56	-	130	-	75	72	49	45	34
NS045 414	8X1350	8X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
NS050 412	6X1350	6X1350	2X1350	302	80	56	-	130	-	75	72	49	45	34
NS050 414	8X1350	8X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41



## STANDART ODA SOĞUTUCULARI

Standard Room Refrigerators

### OSA-OSS-OSO SERİSİ TEKNİK BİLGİLER

OSA-OSS-OSO Series Technical Information

**Bakır Boru / Copper Tube** : 1/2"

**Kalıp / Geometry** : 55 mm x 48 mm

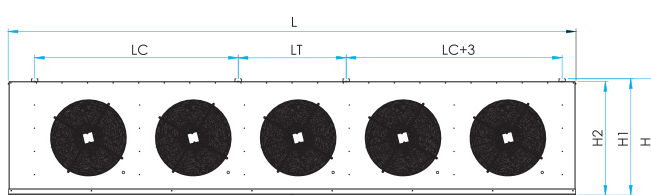
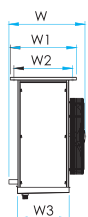
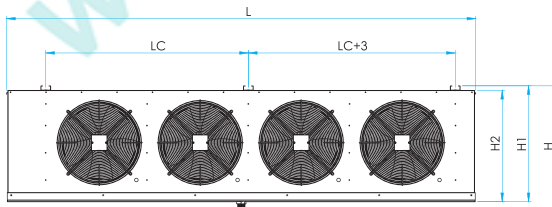
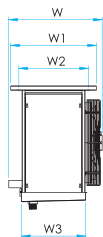
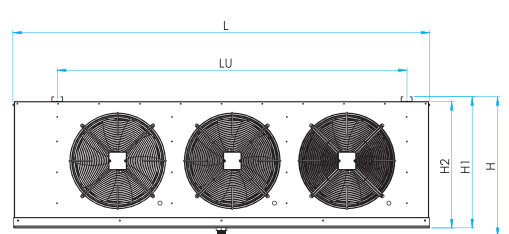
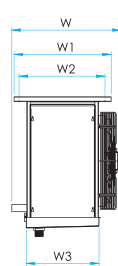
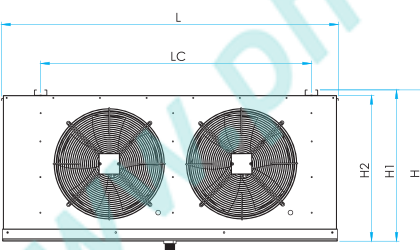
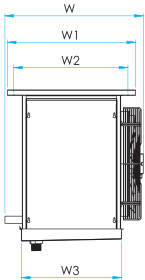
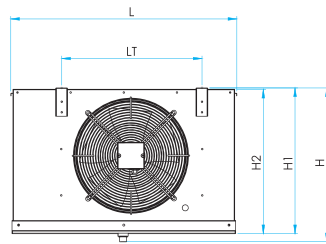
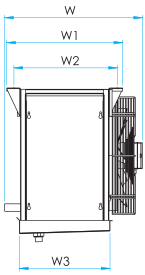
**Hatve / Fin Spacing** : 6 mm - 8 mm - 10 mm

Belirtilen fiyatlara fan dahil değildir.

Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

All prices are given without fans.

Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.



OSA SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 6 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
			(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(Watt)	(Watt)	(m <sup>3</sup> /h)	(n)	(Ø mm)	(Watt)	dB(A)
OSA25 111	8,23	1,10	1.680	1.130	910	-	770		250	69	46	7	14
OSA25 112	10,97	1,47	1.880	1.270	1.020	-	700	1	250	69	46	6	13
OSA30 111	8,23	1,10	2.240	1.520	1.219	-	1.521		300	72	41	11	23
OSA30 112	10,97	1,47	2.774	1.874	1.437	-	1.453		300	72	41	10	22
OSA25 211	16,46	2,20	3.360	2.270	1.820	-	1.550		250	138	49	7	14
OSA25 212	21,95	2,93	3.770	2.550	2.050	-	1.400	2	250	138	49	6	13
OSA30 211	16,46	2,20	4.480	3.040	2.438	-	3.042		300	144	44	11	23
OSA30 212	21,95	2,93	5.548	3.748	2.874	-	2.906		300	144	44	10	22
OSA30 311	24,69	3,30	6.720	4.560	3.657	-	4.563	3	300	216	46	11	23
OSA30 312	32,92	4,40	8.322	5.622	4.311	-	4.359		300	216	46	10	22
OSA35 111	11,76	1,53	3.442	2.348	1.952	-	2.816		350	165	44	13	27
OSA35 112	15,68	2,04	4.404	2.994	2.421	-	2.695	1	350	165	44	12	26
OSA35 114	23,51	3,07	5.682	3.893	3.195	-	2.480		350	165	44	11	24
OSA40 111	11,76	1,53	3.728	2.536	2.106	-	3.464		400	219	51	14	29
OSA40 112	15,68	2,04	4.789	3.245	2.607	-	3.265		400	219	51	13	27
OSA40 114	23,51	3,07	6.211	4.240	3.460	-	2.955		400	219	51	12	25
OSA35 211	23,51	3,07	6.884	4.696	3.904	-	5.632		350	330	47	13	27
OSA35 212	31,35	4,09	8.808	5.988	4.842	-	5.390	2	350	330	47	12	26
OSA35 214	47,03	6,13	11.364	7.786	6.390	-	4.960		350	330	47	11	24
OSA40 211	23,51	3,07	7.456	5.072	4.212	-	6.928		400	438	54	14	29
OSA40 212	31,35	4,09	9.578	6.490	5.214	-	6.530		400	438	54	13	27
OSA40 214	47,03	6,13	12.422	8.480	6.920	-	5.910		400	438	54	12	25

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1	B2		L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
	(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
OSA25 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
OSA25 112	4x250	4x250	2x250	77	51	57	48	-	-	46	46	46	43	36
OSA30 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
OSA30 112	4x250	4x250	2x250	77	51	57	48	-	-	46	46	46	43	36
OSA25 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
OSA25 212	4x500	4x500	2x500	121	51	57	-	93	-	46	46	46	43	36
OSA30 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
OSA30 212	4x500	4x500	2x500	121	51	57	-	93	-	46	46	46	43	36
OSA30 311	3x750	3x750	2x750	166	51	51	-	-	138	46	46	39	36	29
OSA30 312	4x750	4x750	2x750	166	51	47	-	-	138	46	46	46	43	36
OSA35 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
OSA35 112	5x300	5x300	2x300	86	61	62	53	-	-	55	55	51	48	41
OSA35 114	7x300	7x300	2x300	86	61	71	53	-	-	55	55	59	56	49
OSA40 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
OSA40 112	5x300	5x300	2x300	86	61	62	53	-	-	55	55	51	48	41
OSA40 114	7x300	7x300	2x300	86	61	71	53	-	-	55	55	59	56	49
OSA35 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
OSA35 212	5x550	5x550	2x550	136	61	62	-	103	-	55	55	51	48	41
OSA35 214	7x550	7x550	2x550	136	61	71	-	103	-	55	55	59	56	49
OSA40 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
OSA40 212	5x550	5x550	2x550	136	61	62	-	103	-	55	55	51	48	41
OSA40 214	7x550	7x550	2x550	136	61	71	-	103	-	55	55	59	56	49

OSA

## OSA SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 6 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm				Üfleme Mesafesi Air Throw		
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
	(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(Watt)	(Watt)	(m <sup>3</sup> /h)	(m)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
OSA35 311	35,27	4,60	10.326	7.044	5.856	-	8.448	3	350	495	49	13	27
OSA35 312	47,03	6,13	13.212	8.982	7.263	-	8.085		350	495	49	12	26
OSA35 314	70,54	9,20	17.046	11.679	9.585	-	7.440		350	495	49	11	24
OSA40 311	35,27	4,60	11.184	7.608	6.318	-	10.392		400	657	56	14	29
OSA40 312	47,03	6,13	14.367	9.735	7.821	-	9.795	400	657	56	13	27	
OSA40 314	70,54	9,20	18.633	12.720	10.380	-	8.865	400	657	56	12	25	
OSA45 211	40,76	5,27	12.325	8.381	6.931	-	10.030	2	450	606	50	15	33
OSA45 212	54,34	7,02	15.805	10.713	8.565	-	9.669		450	606	50	15	32
OSA45 214	81,51	10,53	20.551	14.039	11.377	-	9.046		450	606	50	14	30
OSA50 211	40,76	5,27	14.820	10.020	8.040	-	14.980		500	1.520	59	21	45
OSA50 212	54,34	7,02	18.710	12.660	10.160	-	14.170	500	1.520	59	20	42	
OSA50 214	81,51	10,53	24.820	16.790	13.470	-	12.620	500	1.520	59	18	38	
OSA45 312	81,51	10,53	23.708	16.070	12.848	-	14.504	3	450	909	52	15	32
OSA45 314	122,27	15,80	30.827	21.059	17.066	-	13.569		450	909	52	14	30
OSA50 312	81,51	10,53	28.060	18.990	15.240	-	21.250		500	2.280	61	20	42
OSA50 314	122,27	15,80	37.230	25.190	20.210	-	18.930		500	2.280	61	18	38
OSA45 412	108,69	14,04	31.610	21.426	17.130	-	19.338	4	450	1.212	53	15	32
OSA45 414	163,03	21,07	41.102	28.078	22.754	-	18.092		450	1.212	53	14	30
OSA50 412	108,69	14,04	37.420	25.320	20.320	-	28.340		500	3.040	62	20	42
OSA50 414	163,03	21,07	49.640	33.590	26.950	-	25.240		500	3.040	62	18	38

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1	B2		L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
OSA35 311	4x800	4x800	2x800	186	61	56	-	-	153	58	55	49	45	34
OSA35 312	5x800	5x800	2x800	186	61	62	-	-	153	58	55	55	51	41
OSA35 314	7x800	7x800	2x800	186	61	71	-	-	153	58	55	63	59	49
OSA40 311	4x800	4x800	2x800	186	61	56	-	-	153	58	55	49	45	34
OSA40 312	5x800	5x800	2x800	186	61	62	-	-	153	58	55	55	51	41
OSA40 314	7x800	7x800	2x800	186	61	71	-	-	153	58	55	63	59	49
OSA45 211	6x700	6x700	2x700	166	80	56	-	133	-	75	72	49	41	34
OSA45 212	7x700	7x700	2x700	166	80	62	-	133	-	75	72	55	48	41
OSA45 214	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49
OSA50 211	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
OSA50 212	7x700	7x700	2x700	166	80	62	-	133	-	75	72	55	48	41
OSA50 214	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49
OSA45 312	7x1050	7x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
OSA45 314	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
OSA50 312	7x1050	7x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
OSA50 314	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
OSA45 412	7x1350	7x1350	2x1350	302	80	62	-	130	-	75	72	55	51	41
OSA45 414	9x1350	9x1350	2x1350	302	80	71	-	130	-	75	72	63	59	49
OSA50 412	7x1350	7x1350	2x1350	302	80	62	-	130	-	75	72	55	51	41
OSA50 414	9x1350	9x1350	2x1350	302	80	71	-	130	-	75	72	63	59	49

OSA SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 6 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 400V AC 1320 d/d-rpm					Üfleme Mesafesi Air Throw		
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendirilsiz Without Streamer	Akış Yönlendiricili With Streamer	
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C								(Watt)
OSA63 212	125,40	16,30	34.659	23.470	-	-	19.482	2	630	3.800	70	20	43	
OSA63 214	188,11	24,40	44.829	30.326	-	-	18.398	2	630	3.800	70	19	41	
OSA63 312	188,10	24,45	51.989	35.205	-	-	29.223	3	630	5.700	72	20	43	
OSA63 314	282,17	36,60	67.244	45.489	-	-	27.597	3	630	5.700	72	19	41	
OSA63 412	250,80	32,60	69.318	46.940	-	-	38.964	4	630	7.600	73	20	43	
OSA63 414	376,22	48,80	89.658	60.652	-	-	36.796	4	630	7.600	73	19	41	
OSA63 512	313,50	40,75	86.648	58.675	-	-	48.705	5	630	9.500	74	20	43	
OSA63 514	470,28	61,00	112.073	75.815	-	-	45.995	5	630	9.500	74	19	41	

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1	B2		L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
OSA63 212	8X1050	8X1050	2X1050	242	115	71	-	203	-	110	108	63	59	49
OSA63 214	10X1050	10X1050	2X1050	242	115	81	-	203	-	110	108	73	68	59
OSA63 312	8X1550	8X1550	2X1550	342	115	71	-	-	303	110	108	63	59	49
OSA63 314	10X1550	10X1550	2X1550	342	115	81	-	-	303	110	108	73	68	59
OSA63 412	8X2050	8X2050	2X2050	442	115	71	-	200	-	110	108	63	59	49
OSA63 414	10X2050	10X2050	2X2050	442	115	81	-	200	-	110	108	73	68	59
OSA63 512	8X2550	8X2550	2X2550	542	115	71	-	-	-	110	108	63	59	49
OSA63 514	10X2550	10X2550	2X2550	542	115	81	-	-	-	110	108	73	68	59

## OSS SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 8 mm






Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
			(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
OSS30 111	6,27	1,08	1.860	1.261	1.028	830	1.554	1	300	72	41	11	24
OSS30 112	8,36	1,44	2.363	1.600	1.250	1.010	1.494	1	300	72	41	11	23
OSS30 211	12,53	2,16	3.720	2.522	2.056	1.660	3.108	2	300	144	44	11	24
OSS30 212	16,71	2,88	4.726	3.200	2.500	2.020	2.988	2	300	144	44	11	23
OSS30 311	18,80	3,24	5.580	3.783	3.084	2.490	4.662	3	300	216	46	11	24
OSS30 312	25,07	4,32	7.089	4.800	3.750	3.030	4.482	3	300	216	46	11	23
OSS35 111	8,95	1,55	2.829	1.862	1.546	1.246	2.879	1	350	165	44	13	28
OSS35 112	11,94	2,07	3.670	2.500	2.070	1.670	2.770		350	165	44	12	27
OSS35 114	17,91	3,10	4.897	3.350	2.748	2.205	2.573		350	165	44	12	25
OSS40 111	8,95	1,55	3.065	2.052	1.700	1.359	3.565		400	219	51	14	30
OSS40 112	11,94	2,07	4.016	2.717	2.221	1.809	3.382	2	400	219	51	13	28
OSS40 114	17,91	3,10	5.340	3.638	2.993	2.416	3.082		400	219	51	12	26
OSS35 211	17,91	3,10	5.658	3.724	3.092	2.492	5.758		350	330	47	13	28
OSS35 212	23,87	4,13	7.340	5.000	4.140	3.340	5.540		350	330	47	12	27
OSS35 214	35,81	6,20	9.794	6.700	5.496	4.410	5.146	2	350	330	47	12	25
OSS40 211	17,91	3,10	6.130	4.104	3.400	2.718	7.130		400	438	54	14	30
OSS40 212	23,87	4,13	8.032	5.434	4.442	3.618	6.764		400	438	54	13	28
OSS40 214	35,81	6,20	10.680	7.276	5.986	4.832	6.164		400	438	54	12	26

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1	B2		L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
	(nxW)	(nxW)	(nxW)											
OSS30 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	44	41	34
OSS30 112	4x250	4x250	2x250	77	51	57	48	-	-	46	46	46	43	36
OSS30 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
OSS30 212	4x500	4x500	2x500	121	51	57	-	93	-	46	46	46	43	36
OSS30 311	3x750	3x750	2x750	166	51	47	-	-	138	46	46	39	36	29
OSS30 312	4x750	4x750	2x750	166	51	57	-	-	138	46	46	46	43	36
OSS35 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
OSS35 112	5x300	5x300	2x300	86	61	62	53	-	-	55	55	51	48	41
OSS35 114	7x300	7x300	2x300	86	61	71	53	-	-	55	55	59	56	49
OSS40 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
OSS40 112	5x300	5x300	2x300	86	61	62	53	-	-	55	55	51	48	41
OSS40 114	7x300	7x300	2x300	86	61	71	53	-	-	55	55	59	56	49
OSS35 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
OSS35 212	5x550	5x550	2x550	136	61	62	-	103	-	55	55	51	48	41
OSS35 214	7x550	7x550	2x550	136	61	71	-	103	-	55	55	59	56	49
OSS40 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
OSS40 212	5x550	5x550	2x550	136	61	62	-	103	-	55	55	51	48	41
OSS40 214	7x550	7x550	2x550	136	61	71	-	103	-	55	55	59	56	49

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 8 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw		
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec. t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer	
			(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(Watt)	(Watt)	(m <sup>3</sup> /h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)
OSS35 311	26,86	4,65	8,487	5,586	4,638	3,738	8,637	3		350	495	49	13	28
OSS35 312	35,81	6,20	11,010	7,500	6,210	5,010	8,310			350	495	49	12	27
OSS35 314	53,72	9,30	14,691	10,050	8,244	6,615	7,719			350	495	49	12	25
OSS40 311	26,86	4,65	9,195	6,156	5,100	4,077	10,695			400	657	56	14	30
OSS40 312	35,81	6,20	12,048	8,151	6,663	5,427	10,146	2		400	657	56	13	28
OSS40 314	53,72	9,30	16,020	10,914	8,979	7,248	9,246			400	657	56	12	26
OSS45 211	31,04	5,30	10,120	6,900	5,700	4,600	10,150			450	606	50	16	34
OSS45 212	41,38	7,07	13,238	8,970	7,267	5,910	9,882			450	606	50	15	33
OSS45 214	62,07	10,60	17,670	12,046	9,881	8,080	9,316	3		450	606	50	14	31
OSS50 211	31,04	5,30	11,740	8,000	6,620	5,340	15,400			500	1,520	59	21	46
OSS50 212	41,38	7,07	15,080	10,280	8,500	6,850	14,660			500	1,520	59	20	44
OSS50 214	62,07	10,60	20,420	13,920	11,510	9,280	13,260			500	1,520	59	18	39
OSS45 312	62,07	10,60	19,857	13,455	10,901	8,865	14,823	3		450	909	52	15	33
OSS45 314	93,11	15,90	26,505	18,069	14,822	12,120	13,974			450	909	52	14	31
OSS50 312	62,07	10,60	22,620	15,420	12,750	10,280	21,990			500	2,280	61	20	44
OSS50 314	93,11	15,90	30,630	20,880	17,270	13,930	19,900			500	2,280	61	18	39
OSS45 412	82,76	14,13	26,476	17,940	14,534	11,820	19,764	4		450	1,212	53	15	33
OSS45 414	124,14	21,20	35,340	24,092	19,762	16,160	18,632			450	1,212	53	14	31
OSS50 412	82,76	14,13	30,160	20,560	17,000	13,710	29,330			500	3,040	62	20	44
OSS50 414	124,14	21,20	40,850	27,850	23,030	18,570	26,530			500	3,040	62	18	39

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1		B2	L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
	(nxW)	(nxW)	(nxW)											
OSS35 311	4x800	4x800	2x800	186	61	56	-	-	153	58	55	49	45	34
OSS35 312	5x800	5x800	2x800	186	61	62	-	-	153	58	55	55	51	41
OSS35 314	7x800	7x800	2x800	186	61	71	-	-	153	58	55	63	59	49
OSS40 311	4x800	4x800	2x800	186	61	56	-	-	153	58	55	49	45	34
OSS40 312	5x800	5x800	2x800	186	61	62	-	-	153	58	55	55	51	41
OSS40 314	7x800	7x800	2x800	186	61	71	-	-	153	58	55	63	59	49
OSS45 211	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
OSS45 212	7x700	7x700	2x700	166	80	62	-	133	-	75	72	55	48	41
OSS45 214	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49
OSS50 211	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
OSS50 212	7x700	7x700	2x700	166	80	62	-	133	-	75	72	55	48	41
OSS50 214	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49
OSS45 312	7x1050	7x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
OSS45 314	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
OSS50 312	7x1050	7x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
OSS50 314	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
OSS45 412	7X1350	7X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
OSS45 414	9X1350	9X1350	2X1350	302	80	71	-	130	-	75	72	63	59	49
OSS50 412	7X1350	7X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
OSS50 414	9X1350	9X1350	2X1350	302	80	71	-	130	-	75	72	63	59	49

## OSS SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 8 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 400V AC 1320 d/d-rpm					Üfleme Mesafesi Air Throw		
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer	
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C								(Watt)
OSS63 212	95,49	16,30	29.138	19.734	15.785	12.848	19.817	2	630	3.800	70	21	44	
OSS63 214	143,23	24,40	39.093	26.453	20.522	16.545	18.888	2	630	3.800	70	20	42	
OSS63 312	143,24	24,45	43.707	29.601	23.678	19.272	29.726	3	630	5.700	72	21	44	
OSS63 314	214,85	36,60	58.640	39.680	30.783	24.818	28.332	3	630	5.700	72	20	42	
OSS63 412	190,98	32,60	58.276	39.468	31.570	25.696	39.634	4	630	7.600	73	21	44	
OSS63 414	286,46	48,80	78.186	52.906	41.044	33.090	37.776	4	630	7.600	73	20	42	
OSS63 512	238,73	40,75	72.845	49.335	39.463	32.120	49.543	5	630	9.500	74	21	44	
OSS63 514	358,08	61,00	97.733	66.133	51.305	41.363	47.220	5	630	9.500	74	20	42	

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1		B2	L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
OSS63 212	8X1050	8X1050	2X1050	242	115	71	-	203	-	110	108	63	59	49
OSS63 214	10X1050	10X1050	2X1050	242	115	81	-	203	-	110	108	73	68	59
OSS63 312	8X1550	8X1550	2X1550	342	115	71	-	-	303	110	108	63	59	49
OSS63 314	10X1550	10X1550	2X1550	342	115	81	-	-	303	110	108	73	68	59
OSS63 412	8X2050	8X2050	2X2050	442	115	71	-	200	-	110	108	63	59	49
OSS63 414	10X2050	10X2050	2X2050	442	115	81	-	200	-	110	108	73	68	59
OSS63 512	8X2550	8X2550	2X2550	542	115	71	-	-	-	110	108	63	59	49
OSS63 514	10X2550	10X2550	2X2550	542	115	81	-	-	-	110	108	73	68	59

OSO SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 10 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm				Üfleme Mesafesi Air Throw			
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer	
	(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)	
OS030 111	5,09	1,10	1.601	1.085	878	702	1.578	1	300	72	41	11	24	
OS030 112	6,78	1,47	2.066	1.398	1.114	900	1.521	1	300	72	41	11	23	
OS030 211	10,18	2,20	3.202	2.170	1.756	1.404	3.156	2	300	144	44	11	24	
OS030 212	13,57	2,93	4.132	2.796	2.228	1.800	3.042	2	300	144	44	11	23	
OS030 311	15,26	3,30	4.803	3.255	2.634	2.106	4.734	3	300	216	46	11	24	
OS030 312	20,35	4,40	6.198	4.194	3.342	2.700	4.563	3	300	216	46	11	23	
OS035 111	7,27	1,53	2.373	1.530	1.282	1.037	2.921	1	350	165	44	13	28	
OS035 112	9,69	2,04	3.220	2.170	1.780	1.420	2.800		350	165	44	13	27	
OS035 114	14,54	3,07	4.319	2.884	2.372	1.913	2.637		350	165	44	12	25	
OS040 111	7,27	1,53	2.624	1.679	1.404	1.130	3.628		400	219	51	14	31	
OS040 112	9,69	2,04	2.483	2.357	1.937	1.543	3.464		400	219	51	14	29	
OS040 114	14,54	3,07	4.708	3.187	2.605	2.090	3.177		400	219	51	12	27	
OS035 211	14,54	3,07	4.746	3.060	2.564	2.074	5.842		2	350	330	47	13	28
OS035 212	19,39	4,09	6.440	4.340	3.560	2.840	5.600			350	330	47	13	27
OS035 214	29,08	6,13	8.638	5.768	4.744	3.826	5.274			350	330	47	12	25
OS040 211	14,54	3,07	5.248	3.358	2.808	2.260	7.256			400	438	54	14	31
OS040 212	19,39	4,09	4.966	4.714	3.874	3.086	6.928	400		438	54	14	29	
OS040 214	29,08	6,13	9.416	6.374	5.210	4.180	6.354	400		438	54	12	27	

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1		B2	L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
OS030 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
OS030 112	4x250	4x250	2x250	77	51	57	48	-	-	46	46	46	43	36
OS030 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
OS030 212	4x500	4x500	2x500	121	51	57	-	93	-	46	46	46	43	36
OS030 311	3x750	3x750	2x750	166	51	47	-	-	138	46	46	39	36	29
OS030 312	4x750	4x750	2x750	166	51	57	-	-	138	46	46	46	43	36
OS035 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
OS035 112	5x300	5x300	2x300	86	61	62	53	-	-	55	55	51	48	41
OS035 114	7x300	7x300	2x300	86	61	71	53	-	-	55	55	59	56	49
OS040 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
OS040 112	5x300	5x300	2x300	86	61	62	53	-	-	55	55	51	48	41
OS040 114	7x300	7x300	2x300	86	61	71	53	-	-	55	55	59	56	49
OS035 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
OS035 212	5x550	5x550	2x550	136	61	62	-	103	-	55	55	51	48	41
OS035 214	7x550	7x550	2x550	136	61	71	-	103	-	55	55	59	56	49
OS040 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
OS040 212	5x550	5x550	2x550	136	61	62	-	103	-	55	55	51	48	41
OS040 214	7x550	7x550	2x550	136	61	71	-	103	-	55	55	59	56	49

OSO



## OSO SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 10 mm





Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Hava Debişi Air Flow	Fanlar / Fans 230V AC 1300-1400 d/d-rpm				Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4		Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
	(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
OS035 311	21,81	4,60	7.119	4.590	3.846	3.111	8.763	3	350	495	49	13	28
OS035 312	29,08	6,13	9.660	6.510	5.340	4.260	8.400		350	495	49	13	27
OS035 314	43,62	9,20	12.957	8.652	7.116	5.739	7.911		350	495	49	12	25
OS040 311	21,81	4,60	7.872	5.037	4.212	3.390	10.884		400	657	56	14	31
OS040 312	29,08	6,13	7.449	7.071	5.811	4.629	10.392	400	657	56	14	29	
OS040 314	43,62	9,20	14.124	9.561	7.815	6.270	9.531	400	657	56	12	27	
OS045 211	25,20	5,27	8.540	5.780	4.720	3.760	10.230	2	450	606	50	16	34
OS045 212	33,60	7,02	11.370	7.690	6.290	5.010	10.030		450	606	50	15	33
OS045 214	50,40	10,53	15.230	10.300	8.420	6.710	9.630		450	606	50	15	32
OS050 211	25,20	5,27	10.300	6.970	5.690	4.540	15.690		500	1.520	59	22	47
OS050 212	33,60	7,02	13.390	9.060	7.400	5.900	14.980	500	1.520	59	21	45	
OS050 214	50,40	10,53	18.230	12.330	10.080	8.030	13.740	500	1.520	59	19	41	
OS045 312	50,40	10,53	17.055	11.535	9.435	7.515	15.045	3	450	909	52	15	33
OS045 314	75,60	15,80	22.845	15.450	12.630	10.065	14.445		450	909	52	15	32
OS050 312	50,40	10,53	20.080	13.590	11.100	8.850	22.470		500	2.280	61	21	45
OS050 314	75,60	15,80	27.350	18.500	15.120	12.050	20.620		500	2.280	61	19	41
OS045 412	67,20	14,04	22.740	15.380	12.580	10.020	20.060	4	450	1.212	53	15	33
OS045 414	100,81	21,07	30.460	20.600	16.840	13.420	19.260		450	1.212	53	15	32
OS050 412	67,20	14,04	26.780	18.120	14.800	11.800	29.970		500	3.040	62	21	45
OS050 414	100,81	21,07	36.470	24.670	20.160	16.070	27.490		500	3.040	62	19	41

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1		B2	L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	
OS035 311	4x800	4x800	2x800	186	61	56	-	-	153	58	55	49	45	34
OS035 312	5x800	5x800	2x800	186	61	62	-	-	153	58	55	55	51	41
OS035 314	7x800	7x800	2x800	186	61	71	-	-	153	58	55	63	59	49
OS040 311	4x800	4x800	2x800	186	61	56	-	-	153	58	55	49	45	34
OS040 312	5x800	5x800	2x800	186	61	62	-	-	153	58	55	55	51	41
OS040 314	7x800	7x800	2x800	186	61	71	-	-	153	58	55	63	59	49
OS045 211	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
OS045 212	7x700	7x700	2x700	166	80	62	-	133	-	75	72	55	48	41
OS045 214	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49
OS050 211	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
OS050 212	7x700	7x700	2x700	166	80	62	-	133	-	75	72	55	48	41
OS050 214	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49
OS045 312	7x1050	7x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
OS045 314	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
OS050 312	7x1050	7x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
OS050 314	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
OS045 412	7X1350	7X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
OS045 414	9X1350	9X1350	2X1350	302	80	71	-	130	-	75	72	63	59	49
OS050 412	7X1350	7X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
OS050 414	9X1350	9X1350	2X1350	302	80	71	-	130	-	75	72	63	59	49

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 10 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 400V AC 1320 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C							
OS063 212	77,54	16,30	25.271	17.118	13.882	11.291	20.024	2	630	3.800	70	21	45
OS063 214	116,31	24,40	34.710	23.496	18.467	14.944	19.198		630	3.800	70	20	43
OS063 312	116,31	24,45	37.907	25.677	20.823	16.937	30.036	3	630	5.700	72	21	45
OS063 314	174,47	36,60	52.065	35.244	27.701	22.416	28.797		630	5.700	72	20	43
OS063 412	155,08	32,60	50.542	34.236	27.764	22.582	40.048	4	630	7.600	73	21	45
OS063 414	232,62	48,80	69.420	46.992	36.934	29.888	38.396		630	7.600	73	20	43
OS063 512	193,85	40,75	63.178	42.795	34.705	28.228	50.060	5	630	9.500	74	21	45
OS063 514	290,78	61,00	86.775	58.740	46.168	37.360	47.995		630	9.500	74	20	43

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1	B2		L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
	(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
OS063 212	8X1050	8X1050	2X1050	242	115	71	-	203	-	110	108	63	59	49
OS063 214	10X1050	10X1050	2X1050	242	115	81	-	203	-	110	108	73	68	59
OS063 312	8X1550	8X1550	2X1550	342	115	71	-	-	303	110	108	63	59	49
OS063 314	10X1550	10X1550	2X1550	342	115	81	-	-	303	110	108	73	68	59
OS063 412	8X2050	8X2050	2X2050	442	115	71	-	200	-	110	108	63	59	49
OS063 414	10X2050	10X2050	2X2050	442	115	81	-	200	-	110	108	73	68	59
OS063 512	8X2550	8X2550	2X2550	542	115	71	-	-	-	110	108	63	59	49
OS063 514	10X2550	10X2550	2X2550	542	115	81	-	-	-	110	108	73	68	59

## STANDART ODA SOĞUTUCULARI

Standard Room Refrigerators

### PSA-PSS-PSO SERİSİ TEKNİK BİLGİLER

PSA-PSS-PSO Series Technical Information

**Bakır Boru / Copper Tube** : 5/8"

**Kalıp / Geometry** : 55 mm x 48 mm

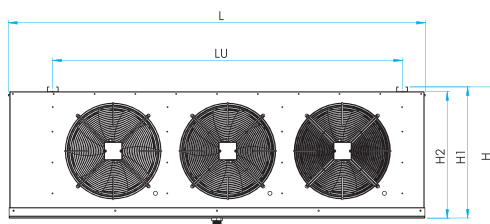
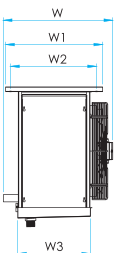
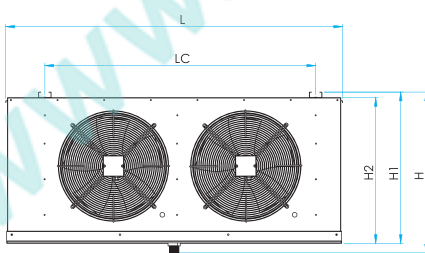
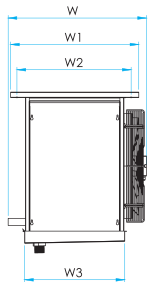
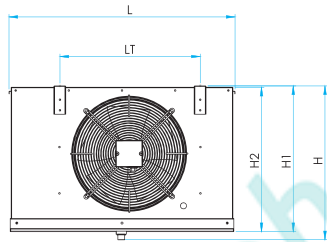
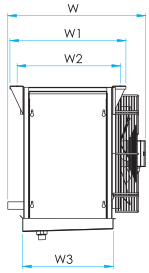
**Hatve / Fin Spacing** : 6 mm - 8 mm - 10 mm

Belirtilen fiyatlara fan dahil değildir.

Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

All prices are given without fans.

Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.



PSA SERİSİ

Bakır Boru / Copper Tube : 5/8"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 6 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
			(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
PSA30 111	8,16	1,68	2.570	1.728	1.400	-	1.488	1	300	72	41	11	23
PSA30 112	10,89	2,24	3.129	2.133	1.681	-	1.412	1	300	72	41	10	22
PSA30 211	16,33	3,36	5.140	3.456	2.800	-	2.976	2	300	144	44	11	23
PSA30 212	21,77	4,48	6.258	4.266	3.362	-	2.824	2	300	144	44	10	22
PSA30 311	24,49	5,04	7.710	5.184	4.200	-	4.464	3	300	216	46	11	23
PSA30 312	32,66	6,72	9.387	6.399	5.043	-	4.236	3	300	216	46	10	22
PSA35 111	11,41	2,40	4.050	2.760	2.210	-	2.760	1	350	165	44	12	27
PSA35 112	15,22	3,20	5.049	3.388	2.750	-	2.622		350	165	44	12	25
PSA40 111	11,41	2,40	4.600	3.090	2.300	-	3.366	1	400	219	51	13	28
PSA40 112	15,22	3,20	5.530	3.754	3.025	-	3.155		400	219	51	12	27
PSA40 114	22,83	4,80	7.100	4.831	3.750	-	2.838	2	400	219	51	11	24
PSA35 211	22,83	4,80	8.100	5.520	4.420	-	5.520		350	330	47	12	27
PSA35 212	30,44	6,40	10.098	6.776	5.500	-	5.244	2	350	330	47	12	25
PSA40 211	22,83	4,80	9.200	6.180	4.600	-	6.732		400	438	54	13	28
PSA40 212	30,44	6,40	11.060	7.508	6.050	-	6.310	2	400	438	54	12	27
PSA40 214	45,65	9,60	14.200	9.662	7.500	-	5.676		400	438	54	11	24

PSA

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1		B2	L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
	(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
PSA30 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
PSA30 112	4x250	4x250	2x250	77	51	57	48	-	-	46	46	46	43	36
PSA30 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
PSA30 212	4x500	4x500	2x500	121	51	57	-	93	-	46	46	46	43	36
PSA30 311	3x750	3x750	2x750	166	51	47	-	-	138	46	46	39	36	29
PSA30 312	4x750	4x750	2x750	166	51	57	-	-	138	46	46	51	48	41
PSA35 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
PSA35 112	5x300	5x300	2x300	86	61	62	53	-	-	55	55	51	48	41
PSA40 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
PSA40 112	5x300	5x300	2x300	86	61	62	53	-	-	55	55	51	48	41
PSA40 114	7x300	7x300	2x300	86	61	71	53	-	-	55	55	59	56	49
PSA35 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
PSA35 212	5x550	5x550	2x550	136	61	62	-	103	-	55	55	51	48	41
PSA40 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
PSA40 212	5x550	5x550	2x550	136	61	62	-	103	-	55	55	51	48	41
PSA40 214	7x550	7x550	2x550	136	61	71	-	103	-	55	55	59	56	49

## PSA SERİSİ

Bakır Boru / Copper Tube : 5/8"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 6 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm				Üfleme Mesafesi Air Throw		
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
	(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(Watt)	(Watt)	(m <sup>3</sup> /h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
PSA35 311	34,24	7,20	12.150	8.280	6.630	-	8.280	3	350	495	49	12	27
PSA35 312	45,65	9,60	15.147	10.164	8.250	-	7.866		350	495	49	12	25
PSA40 311	34,24	7,20	13.800	9.270	6.900	-	10.098		400	657	56	13	28
PSA40 312	45,65	9,60	16.590	11.262	9.075	-	9.465		400	657	56	12	27
PSA40 314	68,48	14,40	21.300	14.493	11.250	-	8.514	2	400	657	56	11	24
PSA45 211	40,43	8,33	14.750	10.050	8.050	-	9.850		450	606	50	15	33
PSA45 212	53,91	11,11	18.130	12.360	10.000	-	9.456		450	606	50	15	31
PSA45 214	80,87	16,67	22.950	15.580	12.770	-	8.783		450	606	50	14	29
PSA50 211	40,43	8,33	17.090	11.650	9.330	-	14.590	3	500	1.520	59	20	43
PSA50 212	53,91	11,11	21.020	14.330	11.480	-	13.610		500	1.520	59	19	40
PSA50 214	80,87	16,67	27.520	18.750	15.030	-	12.020		500	1.520	59	17	36
PSA45 312	80,87	16,67	27.195	18.540	15.000	-	14.184		450	909	52	15	31
PSA45 314	121,30	25,00	34.425	23.370	19.155	-	13.175	3	450	909	52	14	29
PSA50 312	80,87	16,67	31.540	21.490	17.220	-	20.420		500	2.280	61	19	40
PSA50 314	121,30	25,00	41.280	28.130	22.540	-	18.030		500	2.280	61	17	36
PSA45 412	107,82	22,22	36.260	24.720	20.000	-	18.912		450	1.212	53	15	31
PSA45 414	161,74	33,33	45.900	31.160	25.540	-	17.566	4	450	1.212	53	14	29
PSA50 412	107,82	22,22	42.050	28.660	22.960	-	27.230		500	3.040	62	19	40
PSA50 414	161,74	33,33	55.040	37.510	30.060	-	24.040	500	3.040	62	17	36	

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1		B2	L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
PSA35 311	4x800	4x800	2x800	186	61	52	-	-	153	58	55	49	45	34
PSA35 312	5x800	5x800	2x800	186	61	62	-	-	153	58	55	55	51	41
PSA40 311	4x800	4x800	2x800	186	61	52	-	-	153	58	55	49	45	34
PSA40 312	5x800	5x800	2x800	186	61	62	-	-	153	58	55	55	51	41
PSA40 314	7x800	7x800	2x800	186	61	71	-	-	153	58	55	63	59	49
PSA45 211	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
PSA45 212	7x700	7x700	2x700	166	80	62	-	133	-	75	72	55	48	41
PSA45 214	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49
PSA50 211	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
PSA50 212	7x700	7x700	2x700	166	80	62	-	133	-	75	72	55	48	41
PSA50 214	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49
PSA45 312	7x1050	7x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
PSA45 314	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
PSA50 312	7x1050	7x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
PSA50 314	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
PSA45 412	7X1350	7X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
PSA45 414	9X1350	9X1350	2X1350	302	80	71	-	130	-	75	72	63	59	49
PSA50 412	7X1350	7X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
PSA50 414	9X1350	9X1350	2X1350	302	80	71	-	130	-	75	72	63	59	49

PSS SERİSİ

Bakır Boru / Copper Tube : 5/8"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 8 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
	(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(Watt)	(Watt)	(m <sup>3</sup> /h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
PSS30 111	6,24	1,70	2.123	1.402	1.147	926	1.523	1	300	72	41	11	23
PSS30 112	8,32	2,27	2.685	1.816	1.446	1.157	1.455	1	300	72	41	10	22
PSS30 211	12,48	3,40	4.246	2.804	2.294	1.852	3.046	2	300	144	44	11	23
PSS30 212	16,64	4,53	5.370	3.632	2.892	2.314	2.910	2	300	144	44	10	22
PSS30 311	18,72	5,10	6.369	4.206	3.441	2.778	4.569	3	300	216	46	11	23
PSS30 312	24,96	6,80	8.055	5.448	4.338	3.471	4.365	3	300	216	46	10	22
PSS35 111	8,92	2,40	3.430	2.310	1.890	1.540	2.810	1	350	165	44	13	27
PSS35 112	11,89	3,20	4.213	2.780	2.287	1.850	2.702		350	165	44	12	26
PSS35 114	17,83	4,80	5.677	3.830	3.052	2.452	2.490		350	165	44	11	24
PSS40 111	8,92	2,40	3.890	2.610	2.140	1.740	3.476		400	219	51	14	29
PSS40 112	11,89	3,20	4.675	3.072	2.516	2.029	3.278		400	219	51	13	28
PSS40 114	17,83	4,80	6.244	4.246	3.340	2.670	2.968		400	219	51	12	25
PSS35 211	17,83	4,80	6.860	4.620	3.780	3.080	5.620		350	330	47	13	27
PSS35 212	23,77	6,40	8.426	5.560	4.574	3.700	5.404		350	330	47	12	26
PSS35 214	35,66	9,60	11.354	7.660	6.104	4.904	4.980		350	330	47	11	24
PSS40 211	17,83	4,80	7.780	5.220	4.280	3.480	6.952		400	438	54	14	29
PSS40 212	23,77	6,40	9.350	6.144	5.032	4.058	6.556		400	438	54	13	28
PSS40 214	35,66	9,60	12.488	8.492	6.680	5.340	5.936		400	438	54	12	25

PSS

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1	B2		L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
PSS30 111	3x250	3x250	2x250	77	36	42	48	-	-	46	46	39	36	29
PSS30 112	4x250	4x250	2x250	77	51	57	48	-	-	46	46	46	43	36
PSS30 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
PSS30 212	4x500	4x500	2x500	121	51	57	-	93	-	46	46	46	43	36
PSS30 311	3x750	3x750	2x750	166	51	47	-	-	138	46	46	39	36	29
PSS30 312	4x750	4x750	2x750	166	51	57	-	-	138	46	46	46	43	36
PSS35 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
PSS35 112	5x300	5x300	2x300	86	61	62	53	-	-	55	55	51	48	41
PSS35 114	7x300	7x300	2x300	86	61	71	53	-	-	55	55	59	56	49
PSS40 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
PSS40 112	5x300	5x300	2x300	86	61	62	53	-	-	55	55	51	48	41
PSS40 114	7x300	7x300	2x300	86	61	71	53	-	-	55	55	59	56	49
PSS35 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
PSS35 212	5x550	5x550	2x550	136	61	62	-	103	-	55	55	51	48	41
PSS35 214	7x550	7x550	2x550	136	61	71	-	103	-	55	55	59	56	49
PSS40 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
PSS40 212	5x550	5x550	2x550	136	61	62	-	103	-	55	55	51	48	41
PSS40 214	7x550	7x550	2x550	136	61	71	-	103	-	55	55	59	56	49
PSS35 311	4x800	4x800	2x800	186	61	52	-	-	153	58	55	49	45	34

## PSS SERİSİ

Bakır Boru / Copper Tube : 5/8"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 8 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Hava Debisi Air Flow	Fanlar / Fans 230V AC 1300-1400 d/d-rpm				Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4		Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
	(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(Watt)	(Watt)	(m <sup>3</sup> /h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
PSS35 311	26,75	7,20	10.290	6.930	5.670	4.620	8.430	3	350	495	49	13	27
PSS35 312	35,66	9,60	12.639	8.340	6.861	5.550	8.106		350	495	49	12	26
PSS35 314	53,49	14,40	17.031	11.490	9.156	7.356	7.470		350	495	49	11	24
PSS40 311	26,75	7,20	11.670	7.830	6.420	5.220	10.428		400	657	56	14	29
PSS40 312	35,66	9,60	14.025	9.216	7.548	6.087	9.834	3	400	657	56	13	28
PSS40 314	53,49	14,40	18.732	12.738	10.020	8.010	8.904		400	657	56	12	25
PSS45 211	30,91	8,33	12.320	8.290	6.780	5.520	10.040	2	450	606	50	15	33
PSS45 212	41,21	11,11	15.300	10.250	8.356	6.741	9.694		450	606	50	15	32
PSS45 214	61,82	16,67	19.884	13.250	10.926	8.875	9.078		450	606	50	14	30
PSS50 211	30,91	8,33	14.410	9.690	7.930	6.450	15.020		500	1.520	59	21	45
PSS50 212	41,21	11,11	18.080	12.160	9.950	8.100	14.220	2	500	1.520	59	20	42
PSS50 214	61,82	16,67	24.090	16.200	13.260	10.790	12.680		500	1.520	59	18	38
PSS45 312	61,82	16,67	22.950	15.375	12.534	10.112	19.388	3	450	909	52	20	43
PSS45 314	92,72	25,00	29.826	19.875	16.389	13.313	18.156		450	909	52	19	40
PSS50 312	61,82	16,67	27.120	18.240	14.930	12.150	21.340	3	500	2.280	61	20	42
PSS50 314	92,72	25,00	36.140	24.300	19.900	16.190	19.030		500	2.280	61	18	38
PSS45 412	82,42	22,22	30.600	20.500	16.712	13.482	19.388	4	450	1.212	53	15	32
PSS45 414	123,63	33,33	39.768	26.500	21.852	17.750	18.156		450	1.212	53	14	30
PSS50 412	82,42	22,22	36.160	24.320	19.910	16.200	28.450		500	3.040	62	20	42
PSS50 414	123,63	33,33	48.190	32.400	26.530	21.580	25.370		500	3.040	62	18	38

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1	B2		L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
PSS35 311	4x800	4x800	2x800	186	61	52	-	-	153	58	55	49	45	34
PSS35 312	5x800	5x800	2x800	186	61	62	-	-	153	58	55	55	51	41
PSS35 314	7x800	7x800	2x800	186	61	71	-	-	153	58	55	63	59	49
PSS40 311	4x800	4x800	2x800	186	61	52	-	-	153	58	55	49	45	34
PSS40 312	5x800	5x800	2x800	186	61	62	-	-	153	58	55	55	51	41
PSS40 314	7x800	7x800	2x800	186	61	71	-	-	153	58	55	63	59	49
PSS45 211	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
PSS45 212	7x700	7x700	2x700	166	80	62	-	133	-	75	72	55	48	41
PSS45 214	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49
PSS50 211	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
PSS50 212	7x700	7x700	2x700	166	80	62	-	133	-	75	72	55	48	41
PSS50 214	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49
PSS45 312	7x1050	7x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
PSS45 314	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
PSS50 312	7x1050	7x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
PSS50 314	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
PSS45 412	7X1350	7X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
PSS45 414	9X1350	9X1350	2X1350	302	80	71	-	130	-	75	72	63	59	49
PSS50 412	7X1350	7X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
PSS50 414	9X1350	9X1350	2X1350	302	80	71	-	130	-	75	72	63	59	49

Bakır Boru / Copper Tube : 5/8"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 10 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm				Üfleme Mesafesi Air Throw		
			SC1	SC2	SC3	SC4	Hava Dehisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
			(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(Watt)	(Watt)	(m <sup>3</sup> /h)	(n)	(Ø mm)	(Watt)	dB(A)
PS030 111	5,09	1,7	1.795	1.186	975	792	1.548	1	300	72	41	11	24
PS030 112	6,78	2,2	2.363	1.571	1.263	1.016	1.488	1	300	72	41	11	23
PS030 211	10,18	3,40	3.590	2.372	1.950	1.584	3.096	2	300	144	44	11	24
PS030 212	13,56	4,46	4.726	3.142	2.526	2.032	2.976	2	300	144	44	11	23
PS030 311	15,27	5,10	5.385	3.558	2.925	2.376	4.644	3	300	216	46	11	24
PS030 312	20,34	6,69	7.089	4.713	3.789	3.048	4.464	3	300	216	46	11	23
PS035 111	7,27	2,4	3.084	2.083	1.630	1.298	2.871	1	350	165	44	13	28
PS035 112	9,69	3,2	3.591	2.368	1.958	1.591	2.757		350	165	44	12	27
PS035 114	14,53	4,8	5.086	3.420	2.737	2.195	2.557		350	165	44	11	25
PS040 111	7,24	2,4	3.382	2.278	1.770	1.412	3.550		400	219	51	14	30
PS040 112	9,69	3,2	3.990	2.615	2.154	1.742	3.363	2	400	219	51	13	28
PS040 114	14,53	4,8	5.589	3.790	2.985	2.393	3.063		400	219	51	12	26
PS035 211	14,54	4,80	6.168	4.166	3.260	2.596	5.742		350	330	47	13	28
PS035 212	19,38	6,40	7.182	4.736	3.916	3.182	5.514		350	330	47	12	27
PS035 214	29,06	9,60	10.172	6.840	5.474	4.390	5.114	2	350	330	47	11	25
PS040 211	14,48	4,80	6.764	4.556	3.540	2.824	7.100		400	438	54	14	30
PS040 212	19,38	6,40	7.980	5.230	4.308	3.484	6.726		400	438	54	13	28
PS040 214	29,06	9,60	11.178	7.580	5.970	4.786	6.126		400	438	54	12	26

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1	B2		L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
PS030 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
PS030 112	4x250	4x250	2x250	77	51	57	48	-	-	46	46	46	43	36
PS030 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
PS030 212	4x500	4x500	2x500	121	51	57	-	93	-	46	46	46	43	36
PS030 311	3x750	3x750	2x750	166	51	47	-	-	138	46	46	39	36	29
PS030 312	4x750	4x750	2x750	166	51	57	-	-	138	46	46	46	43	36
PS035 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
PS035 112	5x300	5x300	2x300	86	61	62	53	-	-	55	55	51	48	41
PS035 114	7x300	7x300	2x300	86	61	71	53	-	-	55	55	59	56	49
PS040 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
PS040 112	5x300	5x300	2x300	86	61	62	53	-	-	55	55	51	48	41
PS040 114	7x300	7x300	2x300	86	61	71	53	-	-	55	55	59	56	49
PS035 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
PS035 212	5x550	5x550	2x550	136	61	62	-	103	-	55	55	51	48	41
PS035 214	7x550	7x550	2x550	136	61	71	-	103	-	55	55	59	56	49
PS040 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
PS040 212	5x550	5x550	2x550	136	61	62	-	103	-	55	55	51	48	41
PS040 214	7x550	7x550	2x550	136	61	71	-	103	-	55	55	59	56	49



## PSO SERİSİ

Bakır Boru / Copper Tube : 5/8"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 10 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm				Üfleme Mesafesi Air Throw		
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
	(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(Watt)	(Watt)	(m <sup>3</sup> /h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
PS035 311	21,81	7,20	9.252	6.249	4.890	3.894	8.613	3	350	495	49	13	28
PS035 312	29,07	9,60	10.773	7.104	5.874	4.773	8.271		350	495	49	12	27
PS035 314	43,59	14,40	15.258	10.260	8.211	6.585	7.671		350	495	49	11	25
PS040 311	21,72	7,20	10.146	6.834	5.310	4.236	10.650		400	657	56	14	30
PS040 312	29,07	9,60	11.970	7.845	6.462	5.226	10.089		400	657	56	13	28
PS040 314	43,59	14,40	16.767	11.370	8.955	7.179	9.189		400	657	56	12	26
PS045 211	25,20	8,3	10.680	7.160	5.820	4.730	10.130	2	450	606	50	16	33
PS045 212	33,60	11,1	13.247	8.724	7.163	5.789	9.850		450	606	50	15	33
PS045 214	50,39	16,7	17.365	11.548	9.548	7.782	9.275		450	606	50	14	31
PS050 211	25,20	8,3	12.740	8.540	6.940	5.650	15.330		500	1.520	59	21	46
PS050 212	33,60	11,1	16.170	10.840	8.810	7.160	14.590		500	1.520	59	20	43
PS050 214	50,39	16,7	21.770	14.600	11.860	9.650	13.160		500	1.520	59	18	39

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1	B2		L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
PS035 311	4x800	4x800	2x800	186	61	52	-	-	153	58	55	49	45	34
PS035 312	5x800	5x800	2x800	186	61	62	-	-	153	58	55	55	51	41
PS035 314	7x800	7x800	2x800	186	61	71	-	-	153	58	55	63	59	49
PS040 311	4x800	4x800	2x800	186	61	52	-	-	153	58	55	49	45	34
PS040 312	5x800	5x800	2x800	186	61	62	-	-	153	58	55	55	51	41
PS040 314	7x800	7x800	2x800	186	61	71	-	-	153	58	55	63	59	49
PS045 211	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
PS045 212	7x700	7x700	2x700	166	80	62	-	133	-	75	72	55	48	41
PS045 214	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49
PS050 211	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
PS050 212	7x700	7x700	2x700	166	80	62	-	133	-	75	72	55	48	41
PS050 214	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49

Bakır Boru / Copper Tube : 5/8"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 10 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm				Üfleme Mesafesi Air Throw		
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
	(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(Watt)	(Watt)	(m <sup>3</sup> /h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
PS045 312	50,40	16,67	19.871	13.086	10.745	8.684	14.775	3	450	909	52	15	33
PS045 314	75,59	25,01	26.048	17.322	14.322	11.673	13.913		450	909	52	14	31
PS050 312	50,38	16,7	24.250	16.260	13.210	10.750	21.880		500	2.280	61	20	43
PS050 314	75,58	25,0	32.650	21.900	17.790	14.470	19.750		500	2.280	61	18	39
PS045 412	67,20	22,22	26.494	17.448	14.326	11.578	19.700	4	450	1.212	53	15	33
PS045 414	100,78	33,34	34.730	23.096	19.096	15.564	18.550		450	1.212	53	14	31
PS050 412	67,18	22,2	32.340	21.690	17.620	14.330	29.180		500	3.040	62	20	43
PS050 414	100,77	33,3	43.540	29.200	23.720	19.300	26.330		500	3.040	62	18	39

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions										
	B1	B2		L	H	W	LT	LC	LU	H1	H2	W1	W2	W3
	Batarya Coil	Batarya Coil	Tava D.Tray											
(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
PS045 312	7x1050	7x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
PS045 314	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
PS050 312	7x1050	7x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
PS050 314	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
PS045 412	7X1350	7X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
PS045 414	9X1350	9X1350	2X1350	302	80	71	-	130	-	75	72	63	59	49
PS050 412	7X1350	7X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
PS050 414	9X1350	9X1350	2X1350	302	80	71	-	130	-	75	72	63	59	49

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# TAVAN TİPİ SOĞUTUCULAR

## CEILING TYPE COOLERS

		Sayfa / Page
<b>KTD KTA</b>	<i>Bakır Boru / Copper Tube : 3/8"</i> <i>Kalip / Geometry : 32 mm x 28 mm</i> <i>Hatve / Fin Spacing : 4 mm - 6 mm</i>	<b>120</b>
<b>MTA MTS</b>	<i>Bakır Boru / Copper Tube : 1/2"</i> <i>Kalip / Geometry : 40 mm x 35 mm</i> <i>Hatve / Fin Spacing : 6 mm - 8 mm</i>	<b>122</b>
<b>KCD</b>	<i>Bakır Boru / Copper Tube : 3/8"</i> <i>Kalip / Geometry : 32 mm x 28 mm</i> <i>Hatve / Fin Spacing : 4 mm</i>	<b>124</b>
<b>KCA</b>	<i>Bakır Boru / Copper Tube : 3/8"</i> <i>Kalip / Geometry : 32 mm x 28 mm</i> <i>Hatve / Fin Spacing : 6 mm</i>	<b>126</b>
<b>MCA</b>	<i>Bakır Boru / Copper Tube : 1/2"</i> <i>Kalip / Geometry : 40 mm x 35 mm</i> <i>Hatve / Fin Spacing : 6 mm</i>	<b>128</b>
<b>MCS</b>	<i>Bakır Boru / Copper Tube : 1/2"</i> <i>Kalip / Geometry : 40 mm x 35 mm</i> <i>Hatve / Fin Spacing : 8 mm</i>	<b>130</b>
<b>FTD FTA</b>	<i>Bakır Boru / Copper Tube : 3/8"</i> <i>Kalip / Geometry : 32 mm x 28 mm</i> <i>Hatve / Fin Spacing : 4 mm - 6 mm</i>	<b>132</b>

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*BUZÇELİK reserves the right to make modifications in the catalog at any time without prior notice.*

## BATARYA

- Bakır borular Ø3/8" and Ø1/2".
- V-tipi alüminyum lamel.
- Lamel araları 6mm-8mm tasarlanmıştır.
- Giriş - çıkış kolektör malzemesi bakırdır.
- İzin verilen en yüksek çalışma basıncı Ps=21 Bar.
- Şaşırtmalı boru dizilimi.
- Soğutucular R404A, R,407F, R507C, R22, R134A soğutucu gazlarla çalışmaya uygun tasarımı.
- Soğutucu akışkan distribütörü.

## KASETLEME

- Galvaniz çelik üzerine elektrostatik RAL 9016 boyalıdır.
- İsteğe bağlı paslanmaz ve alüminyum kaset seçeneği.
- Sökülebilir yan kapaklar.
- Menteşeli/Katlanır drenaj tavası tüm modellerde standarttır.
- Ara drenaj tavası.

## FAN

- Oda boyutlarına göre farklı fan çapı ve fan sayısına sahip soğutucu seçenekleri.
- Opsiyonel seçimler Buzçelik Teknik Uzmanı tarafından teyit edilmektedir.
- Standart veya düşük ses seviyeli bakım gerektirmeyen fan seçeneği.
- İsteğe bağlı AC ya da EC fan motor seçenekleri.
- Koruma sınıfı IP54, fan konstrüksiyonu izolasyon malzeme sınıfı F.
- Opsiyonel olarak seçilebilir fan aksesuar çeşitleri (Axicool fanlar, FlowGrid gürültü düşürücüler vb.)
- Çalışma aralığı -40°C/+50°C'dir.

## DEFROST

- B1 defrost sistemi 0°C/+5°C oda sıcaklığındaki uygulama aralığı içindir. Defrost ısıtıcılar yalnızca batarya üzerine montaj edilir.
- B2 defrost sistemi -34°/0°C oda sıcaklığı uygulama aralığı içindir. Defrost ısıtıcılar batarya ve drenaj tavasına monte edilir.
- Drenaj hattı ısıtıcısı, fan davlumbaz ısıtıcısı, sıcak gaz defrost sistemi ve sulu defrost sistemi opsiyoneldir.
- Defrost uygulaması hızlı ve verimli defrost için homojen ısı dağılımı sağlar.
- +4°C'den büyük veya eşit oda sıcaklıklarında isteğe bağlı olarak tava derinliği artırılmış soğutucu tasarımı ile sulu defrost seçeneği.
- B1 (Opsiyonel) : Hafif elektrik defrost (Batarya)
- B2 (Opsiyonel) : Elektrik defrost (Batarya + Drenaj Tavası)
- HGD (Opsiyonel) : Sıcak gaz defrost (Batarya ve Drenaj Tavası)
- WD (Opsiyonel) : Sulu defrost

## KAPASİTE

- Nominal kapasiteler SC1-SC2-SC3-SC4 koşullarında R404A gaza göre Eurovent EN 328 standartları dikkate alınarak verilmiştir.

## SEÇENEKLER

- Farklı dış kabin rengi,
- Farklı boru et kalınlığı ve hatve,
- Monofaze 220V 1~ 50Hz, Trifaze 400V 3~ 50Hz fan seçeneği.
- Katalogda belirtilmeyen özel ürünler için lütfen satış departmanı ile irtibata geçin.

## NOT

- Montaj, Bakım - Taşıma ve Kaldırma detayları için kullanım Kılavuzuna başvurunuz.

## AKSESUAR

- Bataryada ve tavada sıcak gaz defrost,
- Yalıtım tavası,
- Paslanmaz çelik veya alüminyum kabin,
- Epoxy boya,
- Fan kablo rezistansı,
- Drenaj hattı kablo rezistansı.

## Coil

- Ø3/8" and Ø1/2" copper tubes.
- "V" type aluminum fins.
- The finned coils are designed with aluminum fins spaced at 6mm or 8mm, crimped onto copper tubes.
- Header inlet and outlet tube connections made of copper.
- Maximum operating pressure 21 bar.
- Staggered copper tubes.
- The coil circuits are designed for refrigerants R404A, R407F, R507C, R22, R134A.
- Refrigerant distributor.

## Casing

- Electrostatic powder coated RAL 9016 galvanized steel.
- Stainless steel and aluminum casing as optional.
- Side panels are removable.
- Hinged/Folding drain tray is standard for all models.
- Intermediate drain pan.

## Fans

- Selection of a unit cooler with various fan number/diameter combinations offering the dimensional and air throw characteristics best adapted to the size of the cold room.
- Selections should be confirmed by your Buzçelik Technical Specialist.
- Standard or low noise level are available.
- Different kinds of motors available as optional. (EC or AC)
- Motor protection IP54 insulation class F.
- Different kinds of accessories available as optional. (Axicool Fans, FlowGrid etc.)
- Working conditions -40°C/+50°C.

## Defrosting

- B1 type defrost system suitable for 0°C/+5°C cold room applications. Defrost heaters are applied on heat exchanger coil.
- B2 type defrost system suitable for -34°C/0°C frozen room applications. Defrost heaters are applied on both heat exchanger coil and drain tray.
- Drain line heaters, fan housing heaters, hot gas defrost system and water defrost system are optional.
- This facility enables homogenous heat distribution for fast and efficient defrosting.
- A water defrost (WD) option is available for room temperature equal to or greater than +4° C. In this case the unit cooler depth is increased amount of depth.
- B1 (Optional) : Light electric defrost
- B2 (Optional) : Electric defrost (coil + drain pan)
- HGD (Optional) : Hot gas (coil and drain pan)
- WD (Optional) : Water defrost

## Capacity

- The nominal capacities calculated according to Eurovent EN328 standards that refer to SC1-SC2-SC3-SC4 conditions and are valid for R404A.

## Options

- Different casing color.
- Other tube wall thicknesses and fin spacing on request.
- Mono phase 220V 1~ 50Hz fan or three phase 400V 3~ 50Hz fan.
- Please keep in touch with our sales department about your special needs that are not mentioned in the catalogue.

## Options

- Please read "Installation, Operation and Maintenance Instructions" for mounting and maintenance.

## Accessories

- Hot gas defrost in coil and drip tray.
- Insulated drip tray.
- Casing made of stainless steel or aluminum.
- Epoxy resin coated aluminum fins.
- Fan cable heaters.
- Drain line cable heater.

Options As Listed Are Available On Request For Assistance Please Contact Buzçelik Branch  
Glycol options available - Selections should be confirmed by your Buzçelik Technical Specialist

## ADLANDIRMA CLASIFICACION

# MTA 40 212

### Geometri Geometry

K : 32x28-3/8"  
M : 40x35-1/2"

### Tip Type

T : Tek Üfleme  
C : Çift Üfleme

T : Single Discharge  
C : Dual Discharge

### Hatve Aralığı Fin Space

D : 4mm  
A : 6mm  
S : 8mm

### Fan Çapı Fan Diameter

Ø...mm

### Fan Dizisi Fan Array

Sütun x Satır  
Column x Row

### Ürün Numarası Product Number

## KAPASİTE STANDARTLARI CAPACITY STANDARD

Nominal kapasite değerleri Eurovent standart şartları EN 328'de tanımlanan  $\Delta T_1$  esasına göre verilmiştir.

$\Delta T_1 = (\text{Oda Sıcaklığı}) - (\text{Evaporasyon Sıcaklığı})$

Tablo-1 : Standart Şartlar (Eurovent EN 328)

Freon için Standart Şartlar	Oda Sıcaklığı °C	Evaporasyon Sıcaklığı °C
SC1	10	0
SC2	0	-8
SC3	-18	-25
SC4	-25	-31

Nominal capacities in the catalog are given according to  $\Delta T_1$  as defined in EN 328 standard conditions of Eurovent.

$\Delta T_1 = (\text{Room Temp.}) - (\text{Evaporation Temp.})$

Table-1 Standard Conditions (Eurovent EN 328)

Standard Conditions for Refrigerants	Room Temperature °C	Evaporating Temp. °C
SC1	10	0
SC2	0	-8
SC3	-18	-25
SC4	-25	-31

## TABLO-2 / Table-2

### Oda Sıcaklığına Bağlı Olarak Önerilen Lamel Aralıkları

Recommended Efficient Fin Spacings According to Room Temperatures

EUROVENT 328 STANDARD	LAMEL ARALIĞI Fin Spacing	ODA SICAKLIĞI (T1) Room Temp. (T1)
SC1	4mm ~ 6mm	10°C
SC2	6mm ~ 8mm	0°C
SC3	8mm ~ 10mm	-18°C
SC4	8mm	-25°C

**TABLO-3 / Table-3**

Sıcaklık ve Soğutucu için Düzeltme Tablosu												
Temperature and Refrigerant Correction Table												
ΔT1 (°C)		K <sub>1</sub> Sıcaklık Düzeltme Faktörü Temperature Correction Factor							K <sub>2</sub> Soğutucu Faktör Refrigerant Factor			
		4	5	6	7	8	10	12	14	R404A/ R507	R134A	R22
Evaporasyon Sıcaklığı T2 (°C) Evaporation Temperature (°C)	10	0,67	0,83	0,99	1,15	1,32	1,64	1,96	2,29	1	0,89	0,97
	5	0,63	0,78	0,94	1,1	1,26	1,57	1,88	2,2	1	0,89	0,97
	0	0,6	0,75	0,9	1,06	1,2	1,52 (K <sub>1,SC1</sub> )	1,82	2,12	1	0,89	0,97
	-5	0,57	0,72	0,86	1,01	1,15	1,44	1,74	2,03	1	0,88	0,97
	-8	0,5	0,63	0,76	0,88	1,00 (K <sub>1,SC2</sub> )	1,26	1,51	1,76	1	0,87	0,97
	-10	0,49	0,6	0,72	0,85	0,97	1,22	1,47	1,71	1	0,86	0,97
	-15	0,47	0,59	0,71	0,82	0,94	1,17	1,4	1,63	1	0,85	0,97
	-20	0,44	0,55	0,66	0,77	0,88	1,1	1,32	1,54	1	0,83	0,97
	-25	0,42	0,52	0,62	0,73 (K <sub>1,SC3</sub> )	0,83	1,04	1,25	1,46	1	0,81	0,97
	-30	0,39	0,49	0,58 (K <sub>1,SC4</sub> )	0,69	0,78	0,97	1,17	1,36	1	-	0,97
	-35	0,35	0,45	0,54	0,63	0,72	0,9	1,08	1,26	1	-	0,97
	-40	0,33	0,41	0,49	0,57	0,65	0,81	0,97	1,13	1	-	0,97

**TABLO-4 / Table-4**

Lamel Malzemesi için Düzeltme Faktörleri			
Fin Material Correction Factors			
Lamel Malzemesi Fin Material	Alüminyum Aluminium	Kaplı Alüminyum Coated Aluminium	Bakır Copper
K <sub>3</sub>	1,00	0,97	1,03

## ÖRNEK SEÇİM

### Selection Example

Evaporatör çalışma şartları standart şartların dışında ise aşağıdaki formülasyon ve tablolar kullanılarak ürün kapasitesi SC2 şartına dönüştürülebilir. Bu durumda oda sıcaklığına uygun lamel aralığı belirlenip SC2 kapasite değeri ile ürün seçimi önerilir.

Soğutma Yüğü : Q<sub>Oda</sub> = 8,00 kW

Soğutucu Akışkan = R134A

Oda Sıcaklığı : T<sub>1</sub> = +5°C

Evaporasyon Sıcaklığı : T<sub>2</sub> = -5°C

ΔT = T<sub>1</sub> - T<sub>2</sub> = (5) - (-5) = 10°C

Mevcut şartlara yakın olan SC2 Eurovent Standardı seçilir.

Tablo-2 : 6mm Lamel seçildi.

Tablo-3 : ΔT=10°C => K<sub>1</sub>=1,44

Tablo-3 : K<sub>1</sub>,SC<sub>2</sub>=1,00

Tablo-3 : Soğutucu R134A => K<sub>2</sub>=0,89

Fin Malzemesi : Al

Tablo-4 / : K<sub>3</sub>=1,00

Q<sub>SC2</sub> = (Q<sub>ODA</sub>/K<sub>2</sub>) x (K<sub>1</sub>,SC<sub>2</sub>/K<sub>1</sub>) / K<sub>3</sub> = 6,24 Kw

Seçilen Soğutucu : MTA35 211 (SC<sub>2</sub> = 6.350.Watt)

If the operating condition of the evaporator is different than Eurovent standards, please use the following formula and tables to convert your capacity to SC2 conditions. In this case, the evaporator can be selected from suitable fin space and SC2 columns.

Cooling Capacity: Q<sub>Room</sub> = 8,00 kW

Refrigerant = R134A

Room Temperature: T<sub>1</sub> = +5°C

Evaporation Temperature: T<sub>2</sub> = -5°C

ΔT = T<sub>1</sub> - T<sub>2</sub> = (5) - (-5) = 10°C

Closest Eurovent Standard is SC2.

able-2 : 6mm Fin Spacing is chosen.

able3 : ΔT=10°C => K<sub>1</sub>=1,44

Table-3 : K<sub>1</sub>,SC<sub>2</sub>=1,00

Table-3 : Refrigerant: R134A => K<sub>2</sub>=0,89

Fin Material: Al

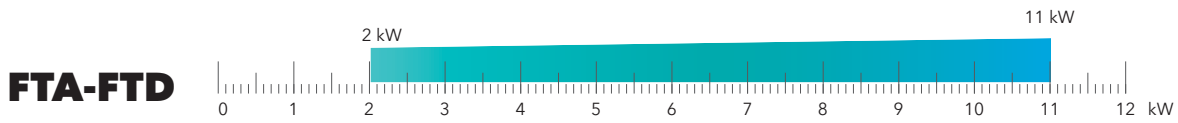
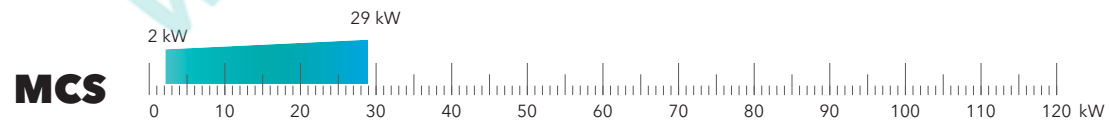
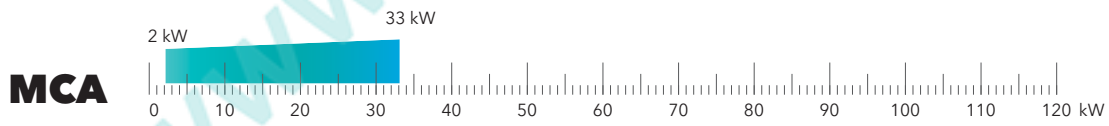
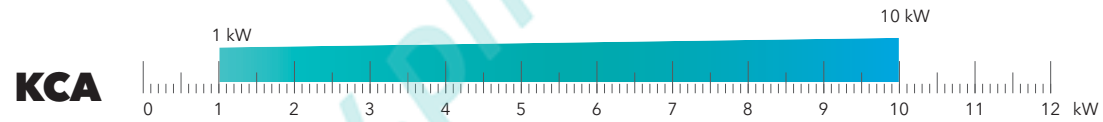
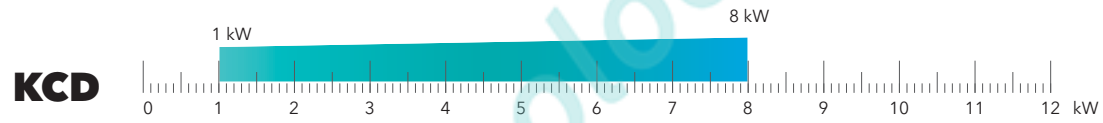
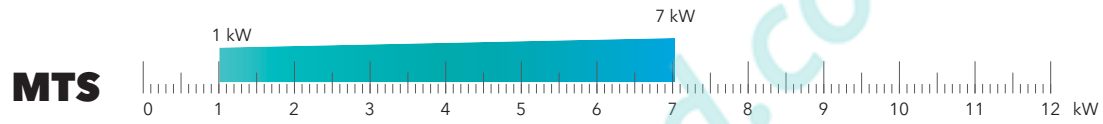
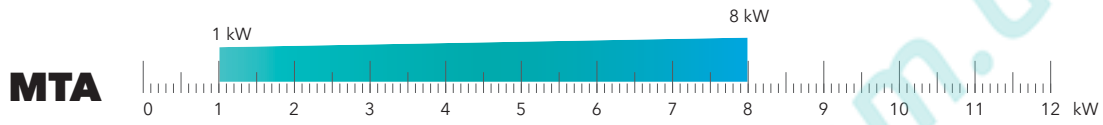
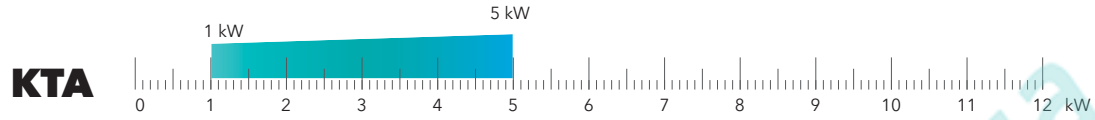
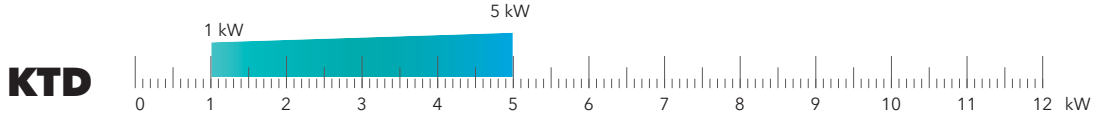
Tablo-4 / Table-4 : K<sub>3</sub>=1,00

Q<sub>SC2</sub> = (Q<sub>ODA</sub>/K<sub>2</sub>) x (K<sub>1</sub>,SC<sub>2</sub>/K<sub>1</sub>) / K<sub>3</sub> = 6,24 Kw

Selected Unit Cooler: MTA35 211 (SC<sub>2</sub> = 6.350.Watt)

## ÜRÜN KAPASİTE ARALIĞI

### CAPACITY RANGE





## TAVAN TİPİ SOĞUTUCULAR

Ceiling Type Coolers

### TEKNİK BİLGİLER

Technical Information

**Bakır Boru / Copper Tube** : 3/8"

**Kalıp / Geometry** : 32 mm x 28 mm

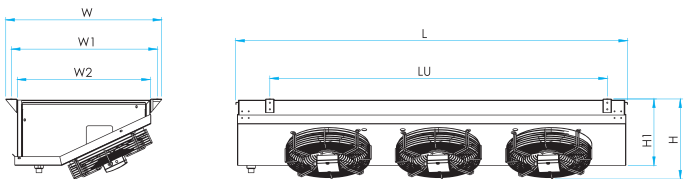
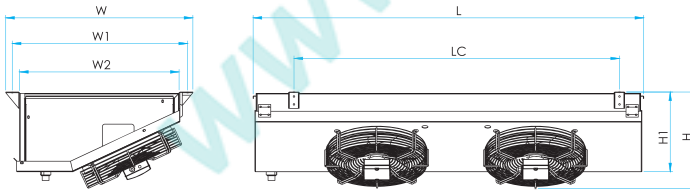
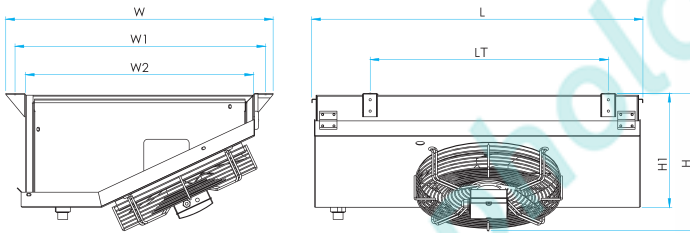
**Hatve / Fin Spacing** : 4 mm - 6 mm

Belirtilen fiyatlara fan dahil değildir.

Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

All prices are given without fans.

Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.



## KTD SERİSİ

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 32 mm x 28 mm

Hatve / Fin Spacing : 4 mm - 6 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level		
			Te= 0°C TO= +10°C	Te= -8°C TO= 0°C	Te= -25°C TO= -18°C	Te= -31°C TO= -25°C							(Watt)
KTD25 111	3,50	0,5	1.121	764	-	-	500	1	250	69	46	4	
KTD30 111	4,25	0,6	1.667	1.116	-	-	854	1	300	72	41	6	
KTD30 112	6,37	0,9	2.313	1.574	-	-	1132		300	72	41	8	
KTD25 211	7,00	1,0	2.242	1.528	-	-	1.000	2	250	138	49	4	
KTD30 211	8,50	1,2	3.334	2.232	-	-	1.708		300	144	44	6	
KTD30 212	12,74	1,8	4.626	3.148	-	-	2.264		300	144	44	8	

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions								
	B1	B2		L	H	W	LT	LC	LU	H1	W1	W2
	Batarya Coil	Batarya Coil	Tava D.Tray									
KTD25 111	1X200	-	-	60	30	70	-	-	-	25	68	60
KTD30 111	1X250	-	-	68	30	70	-	-	-	25	68	60
KTD30 112	2X350	-	-	88	30	70	-	-	-	25	68	60
KTD25 211	2X400	-	-	94	30	70	-	-	-	25	68	60
KTD30 211	2X500	-	-	108	30	70	-	-	-	25	68	60
KTD30 212	2X700	-	-	148	30	70	-	-	-	25	68	60

## KTA SERİSİ

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level		
			Te= 0°C TO= +10°C	Te= -8°C TO= 0°C	Te= -25°C TO= -18°C	Te= -31°C TO= -25°C							(Watt)
KTA25 111	2,92	0,6	1.118	758	594	-	630	1	250	69	46	5	
KTA30 111	3,66	0,7	1.690	1.126	832	-	1105	1	300	72	41	8	
KTA30 112	5,49	1,1	2.066	1.407	1.126	-	936		300	72	41	7	
KTA25 211	5,84	1,2	2.236	1.516	1.188	-	1.260	2	250	138	49	5	
KTA30 211	7,32	1,4	3.380	2.252	1.664	-	2.210		300	144	44	8	
KTA30 212	10,98	2,2	4.132	2.814	2.252	-	1.872		300	144	44	7	

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions								
	B1	B2		L	H	W	LT	LC	LU	H1	W1	W2
	Batarya Coil	Batarya Coil	Tava D.Tray									
KTA25 111	2X250	2X250	2X250	68	30	70	-	-	-	25	68	60
KTA30 111	2X300	2X300	2X300	78	30	70	-	-	-	25	68	60
KTA30 112	3X300	3X300	2X300	78	30	70	-	-	-	25	68	60
KTA25 211	2X500	2X500	2X500	108	30	70	-	-	-	25	68	60
KTA30 211	2X500	2X500	2X500	128	30	70	-	-	-	25	68	60
KTA30 212	3X600	3X300	2X600	128	30	70	-	-	-	25	68	60

## TAVAN TİPİ SOĞUTUCULAR

Ceiling Type Coolers

### TEKNİK BİLGİLER

Technical Information

**Bakır Boru / Copper Tube** : 1/2"

**Kalıp / Geometry** : 40 mm x 35 mm

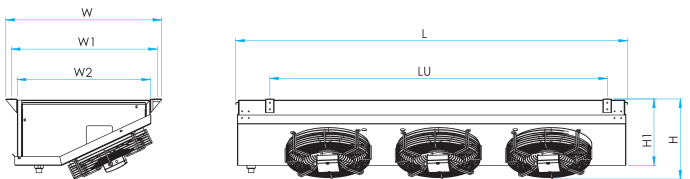
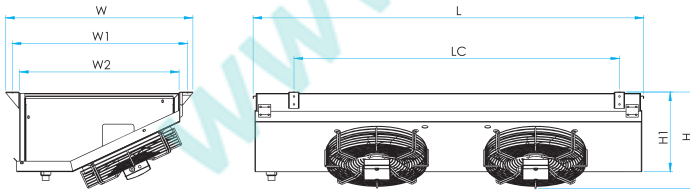
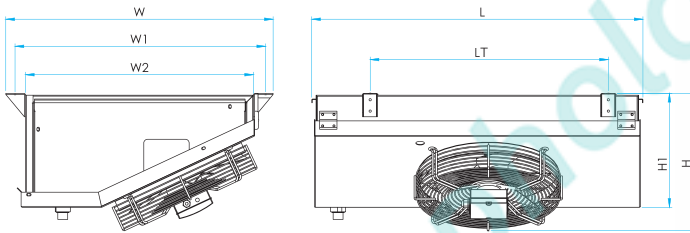
**Hatve / Fin Spacing** : 6 mm - 8 mm

Belirtilen fiyatlara fan dahil değildir.

Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

All prices are given without fans.

Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.



Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basıncı Seviyesi Sound Pressure Level	
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C						
MTA30 111	5,57	1,4	2.340	1.580	1.202	-	1.209	1	300	72	41	9
MTA30 112	6,96	1,7	2.560	1.702	1.400	-	1.127		300	72	41	8
MTA35 111	6,68	1,6	3.300	2.191	1.538	-	2.010	2	350	165	44	9
MTA35 112	8,35	2,0	3.736	2.541	2.046	-	1.830		350	165	44	8
MTA30 211	11,14	2,8	4.680	3.160	2.404	-	2.418	3	300	144	44	9
MTA30 212	13,92	3,4	5.120	3.404	2.800	-	2.254		300	144	44	8
MTA35 211	13,36	3,2	6.600	4.382	3.076	-	4.020	3	350	330	47	9
MTA35 212	16,70	4,0	7.472	5.082	4.092	-	3.660		350	330	47	8
MTA30 311	16,71	4,2	7.020	4.740	3.606	-	3.627	3	300	216	46	9
MTA30 312	20,88	5,1	7.680	5.106	4.200	-	3.381		300	216	46	8

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions								
	B1		B2	L	H	W	LT	LC	LU	H1	W1	W2
	Batarya Coil	Batarya Coil	Tava D.Tray									
MTA30 111	2X300	2X300	2X300	78	35	70	53	--	--	30	68	60
MTA30 112	3X300	3X300	2X300	78	35	70	53	--	--	30	68	60
MTA35 111	2X350	2X350	2X350	88	35	70	63	--	--	30	68	60
MTA35 112	3X350	3X350	2X350	88	35	70	63	--	--	30	68	60
MTA30 211	3X550	3X550	2X550	128	35	70	--	103	--	30	68	60
MTA30 212	3X550	3X550	2X550	128	35	70	--	103	--	30	68	60
MTA35 211	3X650	3X650	2X650	148	35	70	--	103	--	30	68	60
MTA35 212	3X650	3X650	2X650	148	35	70	--	103	--	30	68	60
MTA30 311	3X800	3X800	2X800	178	35	70	--	--	153	30	68	60
MTA30 312	3X800	3X800	2X800	178	35	70	--	--	153	30	68	60

MTS SERİSİ

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basıncı Seviyesi Sound Pressure Level	
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C						
MTS30 111	4,29	1,4	2.024	1.368	1.067	850	1.264	1	300	72	41	9
MTS30 112	5,37	1,7	2.186	1.450	1.200	974	1.187		300	72	41	8
MTS35 111	5,16	1,6	2.891	1.927	1.393	1.095	2.135	2	350	165	44	9
MTS35 112	6,45	2,0	3.274	2.227	1.790	1.425	1.960		350	165	44	9
MTS30 211	8,58	2,8	4.048	2.736	2.134	1.700	2.528	3	300	138	44	9
MTS30 212	10,74	3,4	4.372	2.900	2.400	1.948	2.374		300	138	44	8
MTS35 211	10,32	3,2	5.782	3.854	2.786	2.190	4.270	3	350	330	47	10
MTS35 212	12,90	4,0	6.548	4.454	3.580	2.850	3.920		350	330	47	9
MTS30 311	12,87	4,2	6.072	4.104	3.201	2.550	3.792	3	300	216	46	9
MTS30 312	16,11	5,1	6.558	4.350	3.600	2.922	3.561		300	216	46	8

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions								
	B1		B2	L	H	W	LT	LC	LU	H1	W1	W2
	Batarya Coil	Batarya Coil	Tava D.Tray									
MTS30 111	2X300	2X300	2X300	78	35	70	53	-	-	30	68	60
MTS30 112	3X300	3X300	2X300	78	35	70	53	-	-	30	68	60
MTS35 111	2X350	2X350	2X350	88	35	70	63	-	-	30	68	60
MTS35 112	3X350	3X350	2X350	88	35	70	63	-	-	30	68	60
MTS30 211	3X550	3X550	2X550	128	35	70	-	103	-	30	68	60
MTS30 212	3X550	3X550	2X550	128	35	70	-	103	-	30	68	60
MTS35 211	3X650	3X650	2X650	148	35	70	-	123	-	30	68	60
MTS35 212	3X650	3X650	2X650	148	35	70	-	123	-	30	68	60
MTS30 311	3X800	3X800	2X800	178	35	70	-	-	153	30	68	60
MTS30 312	3X800	3X800	2X800	178	35	70	-	-	153	30	68	60

## TAVAN TİPİ SOĞUTUCULAR

Ceiling Type Coolers

### TEKNİK BİLGİLER

Technical Information

**Bakır Boru / Copper Tube** : 3/8"

**Kalıp / Geometry** : 32 mm x 28 mm

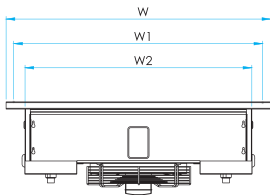
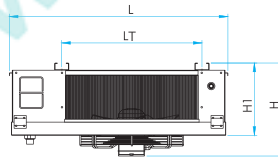
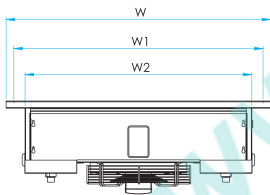
**Hatve / Fin Spacing** : 4 mm

Belirtilen fiyatlara fan dahil değildir.

Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

All prices are given without fans.

Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.





## KCD SERİSİ

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 32 mm x 28 mm

Hatve / Fin Spacing : 4 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level		
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C							(Watt)
KCD25 111	7,16	1,0	1.838	1.257	-	-	800	1		250	69	46	7
KCD25 112	9,56	1,3	2.138	1.469	-	-	750			250	69	46	6
KCD30 111	10,60	1,5	3.338	2.250	-	-	1410			300	72	41	10
KCD30 112	15,92	2,2	3.986	2.745	-	-	1.295			300	72	41	9
KCD25 211	14,32	2,0	3.676	2.514	-	-	1.600	2		250	138	49	7
KCD25 212	19,12	2,6	4.276	2.938	-	-	1.500			250	138	49	6
KCD30 211	21,20	3,0	6.676	4.500	-	-	2.820			300	144	44	10
KCD30 212	31,84	4,4	7.972	5.490	-	-	2.590			300	144	44	9

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions									
	B1	B2		L	H	W	LT	LC	LU	H1	W1	W2	
	Batarya Coil	Batarya Coil	Tava D.Tray										(nxW)
KCD25 111	2X250	-	-	78	37	100	48				27	96	86
KCD25 112	4X250	-	-	78	37	100	48				27	96	86
KCD30 111	4X300	-	-	83	37	100	53				27	96	86
KCD30 112	4X300	-	-	83	37	100	53				27	96	86
KCD25 211	4X500	-	-	123	37	100		93			27	96	86
KCD25 212	4X500	-	-	123	37	100		93			27	96	86
KCD30 211	4X600	-	-	133	37	100		103			27	96	86
KCD30 212	4X600	-	-	128	37	100		103			27	96	86

## TAVAN TİPİ SOĞUTUCULAR

Ceiling Type Coolers

### TEKNİK BİLGİLER

Technical Information

**Bakır Boru / Copper Tube** : 3/8"

**Kalıp / Geometry** : 32 mm x 28 mm

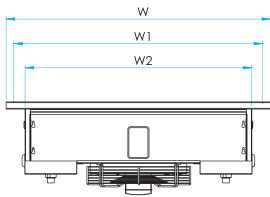
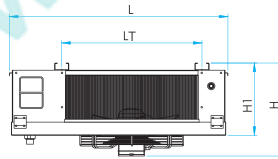
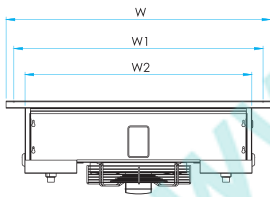
**Hatve / Fin Spacing** : 6 mm

Belirtilen fiyatlara fan dahil değildir.

Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

All prices are given without fans.

Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.





KCA SERİSİ

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 32 mm x 28 mm

Hatve / Fin Spacing : 6 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw			
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elect. Power	Ses Basınç Seviyesi Sound Pressure Level				
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C							(Watt)	(Watt)	(Watt)
KCA25 111	4,92	1,0	1.490	1.015	827	-	850	1		250	69	46	7		
KCA25 112	6,60	1,3	1.809	1.235	992	-	800			250	69	46	7		
KCA25 113	9,88	2,0	2.179	1.493	1.150	-	720			250	69	46	6		
KCA30 111	6,60	1,3	2.570	1.737	1.363	-	1.434			300	72	41	10		
KCA30 112	9,88	2,0	3.216	2.161	1.584	-	1.313			300	72	41	9		
KCA35 111	7,30	1,5	3.590	2.397	1.766	-	2.423			350	165	44	11		
KCA35 112	11,00	2,2	4.507	3.065	2.461	-	2.144			350	165	44	10		
KCA25 211	9,84	2,0	2.980	2.030	1.654	-	1.700			250	138	49	7		
KCA25 212	13,20	2,6	3.618	2.470	1.984	-	1.600			250	138	49	7		
KCA25 213	19,76	4,0	4.358	2.986	2.300	-	1.440			250	138	49	6		
KCA30 211	13,20	2,6	5.140	3.474	2.726	-	2.868			2		300	144	44	10
KCA30 212	19,76	4,0	6.432	4.322	3.168	-	2.626					300	144	44	9
KCA35 211	14,60	3,0	7.180	4.794	3.532	-	4.846	350	330			47	11		
KCA35 212	22,00	4,4	9.014	6.130	4.922	-	4.288	350	330			47	10		

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions								
	B1		B2	L	H	W	LT	LC	LU	H1	W1	W2
	Batarya Coil	Batarya Coil	Tava D.Tray									
	(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
KCA25 111	2X250	2X250	2X250	78	37	100	48	--	--	27	96	86
KCA25 112	2X250	2X250	2X250	78	37	100	48	--	--	27	96	86
KCA25 113	4X250	4X250	2X250	78	37	100	48	--	--	27	96	86
KCA30 111	2X250	2X250	2X250	78	37	100	48	--	--	27	96	86
KCA30 112	4X250	4X250	2X250	78	37	100	48	--	--	27	96	86
KCA35 111	4X250	4X250	2X250	83	37	100	53	--	--	27	96	86
KCA35 112	4X250	4X250	2X250	83	37	100	53	--	--	27	96	86
KCA25 211	4X500	4X500	2X500	123	37	100	--	93	--	27	96	86
KCA25 212	4X500	4X500	2X500	123	37	100	--	93	--	27	96	86
KCA25 213	4X500	4X500	2X500	123	37	100	--	93	--	27	96	86
KCA30 211	4X500	4X500	2X500	123	37	100	--	93	--	27	96	86
KCA30 212	4X500	4X500	2X500	123	37	100	--	93	--	27	96	86
KCA35 211	4X500	4X500	2X500	133	37	100	--	103	--	27	96	86
KCA35 212	4X500	4X500	2X500	133	37	100	--	103	--	27	96	86



## TAVAN TİPİ SOĞUTUCULAR

Ceiling Type Coolers

### TEKNİK BİLGİLER

Technical Information

**Bakır Boru / Copper Tube** : 1/2"

**Kalıp / Geometry** : 40 mm x 35 mm

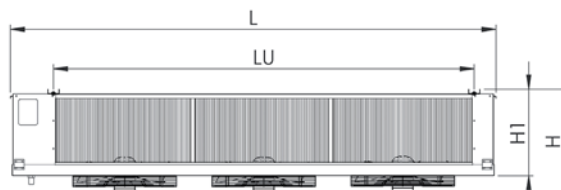
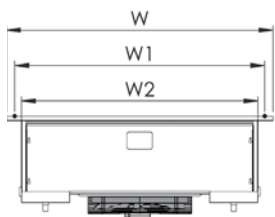
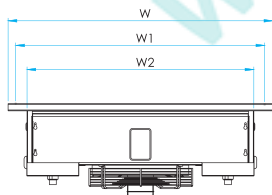
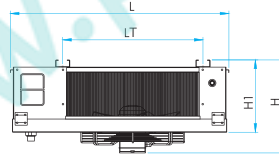
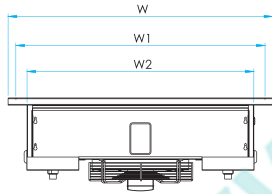
**Hatve / Fin Spacing** : 6 mm

Belirtilen fiyatlara fan dahil değildir.

Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

All prices are given without fans.

Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.



## MCA SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 40 mm x 35 mm

Hatve / Fin Spacing : 6 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level		
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C							(Watt)
MCA35 111	11,14	2,7	4.896	3.309	2.542	-	2.583	1	350	165	44	12	
MCA35 211	22,28	5,4	9.792	6.618	5.084	-	5.166	2	350	330	44	12	
MCA35 311	33,42	8,1	14.688	9.927	7.626	-	7.749	3	350	495	44	12	
MCA40 111	13,40	3,3	6.081	4.075	2.976	-	3.328	1	400	219	51	13	
MCA45 111	17,80	4,3	8.215	5.576	4.473	-	4.564	1	450	303	47	14	
MCA50 111	20,80	5,1	11.109	7.472	5.700	-	6.900	1	500	760	56	22	
MCA40 211	26,80	6,6	12.162	8.150	5.952	-	6.656	2	400	438	54	13	
MCA45 211	35,60	8,6	16.430	11.152	8.946	-	9.128	2	450	606	50	14	
MCA50 211	41,60	10,2	22.218	14.944	11.400	-	13.800	2	500	1.520	59	19	
MCA40 311	40,20	9,9	18.243	12.225	8.928	-	9.984	3	400	657	56	13	
MCA45 311	53,40	12,9	24.645	16.728	13.419	-	13.692	3	450	909	52	14	
MCA50 311	62,40	15,3	33.327	22.416	17.100	-	20.700	3	500	2.280	61	19	

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions								
	B1		B2	L	H	W	LT	LC	LU	H1	W1	W2
	Batarya Coil	Batarya Coil	Tava D.Tray									
	(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
MCA35 111	2X300	2X300	2X300	83	44	100	53	-	-	34	96	86
MCA35 211	6X550	6X550	4X550	133	44	100	-	103	-	34	96	86
MCA35 311	4X800	4X800	2X800	183	44	100	-	-	153	34	96	86
MCA40 111	4X350	4X350	2X350	93	44	100	63	-	-	34	96	86
MCA45 111	4X350	4X350	2X350	93	51	110	63	-	-	42	106	96
MCA50 111	6x375	6x375	4x375	103	51	110	73	-	-	42	106	96
MCA40 211	4X650	4X650	2X650	153	44	100	-	123	-	34	96	86
MCA45 211	4X650	4X650	2X650	153	51	110	-	123	-	42	106	96
MCA50 211	4X750	4X750	2X750	173	51	110	-	123	-	42	106	96
MCA40 311	4X950	4X950	2X950	213	44	100	-	-	183	34	96	86
MCA45 311	4X950	4X950	2X950	213	51	110	-	-	183	42	106	96
MCA50 311	4X1100	4X1100	2X1100	243	51	110	-	-	213	42	106	96

## TAVAN TİPİ SOĞUTUCULAR

Ceiling Type Coolers

### TEKNİK BİLGİLER

Technical Information

**Bakır Boru / Copper Tube** : 1/2"

**Kalıp / Geometry** : 40 mm x 35 mm

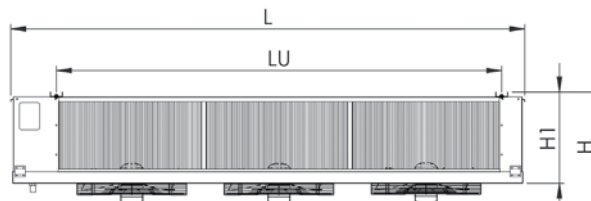
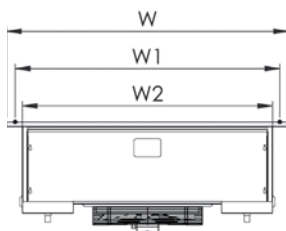
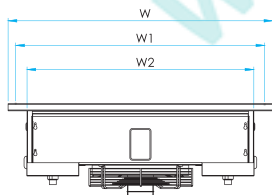
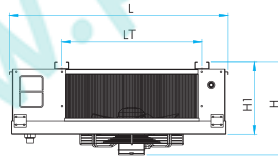
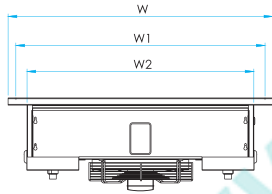
**Hatve / Fin Spacing** : 8 mm

Belirtilen fiyatlara fan dahil değildir.

Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

All prices are given without fans.

Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.



## MCS SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 40 mm x 35 mm

Hatve / Fin Spacing : 8 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec. t Power	Ses Basınç Seviyesi Sound Pressure Level		
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C							(Watt)
MCS35 111	8,60	2,7	4.195	2.838	2.233	1.790	2.667	1	350	165	44	12	
MCS35 211	17,20	5,4	8.390	5.676	4.466	3.580	5.334	2	350	330	47	12	
MCS35 311	25,80	8,1	12.585	8.514	6.699	5.370	8.001	3	350	495	49	12	
MCS40 111	10,30	3,3	4.962	3.252	2.692	2.181	3.439	1	400	219	51	14	
MCS45 111	13,80	4,3	6.974	4.732	3.828	3.052	4.695	2	450	303	47	14	
MCS50 111	16,04	5,1	9.495	6.398	4.981	4.008	7.194	3	500	760	56	20	
MCS40 211	20,60	6,6	9.924	6.504	5.384	4.362	6.878	2	400	438	54	14	
MCS45 211	27,60	8,6	13.948	9.464	7.656	6.104	9.390	3	450	606	50	14	
MCS40 311	30,90	9,9	14.886	9.756	8.076	6.543	10.317	3	400	657	56	14	
MCS45 311	41,40	12,9	20.922	14.196	11.484	9.156	14.085	3	450	909	52	14	
MCS50 311	48,12	15,3	28.485	19.194	14.943	12.024	21.582	3	500	2.280	61	20	

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar / Dimensions								
	B1		B2	L	H	W	LT	LC	LU	H1	W1	W2
	Batarya Coil	Batarya Coil	Tava D.Tray									
	(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
MCS35 111	2X300	2X300	2X300	83	44	100	53	-	-	34	96	86
MCS35 211	4X550	4X550	2X550	133	44	100	-	103	-	34	96	86
MCS35 311	4X800	4X800	2X800	183	44	100	-	-	153	34	96	86
MCS40 111	4X350	4X350	2X350	93	44	100	63	-	-	34	96	86
MCS45 111	4X350	4X350	2X350	93	51	110	63	-	-	42	106	96
MCS50 111	4X400	4X400	2X400	103	51	110	73	-	-	42	106	96
MCS40 211	4X650	4X650	2X650	153	44	100	-	123	-	34	96	86
MCS45 211	4X750	4X750	2X750	153	51	110	-	123	-	42	106	96
MCS40 311	4X950	4X950	2X950	213	44	100	-	-	183	34	96	86
MCS45 311	4X950	4X950	2X950	213	51	110	-	-	183	42	106	96
MCS50 311	4X1100	4X1100	2X1100	243	51	110	-	-	213	42	106	96

## TAVAN TİPİ SOĞUTUCULAR

Ceiling Type Coolers

### TEKNİK BİLGİLER

Technical Information

**Bakır Boru / Copper Tube** : 3/8"

**Kalıp / Geometry** : 32 mm x 28 mm

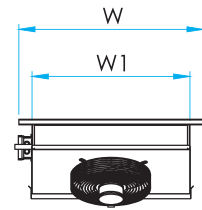
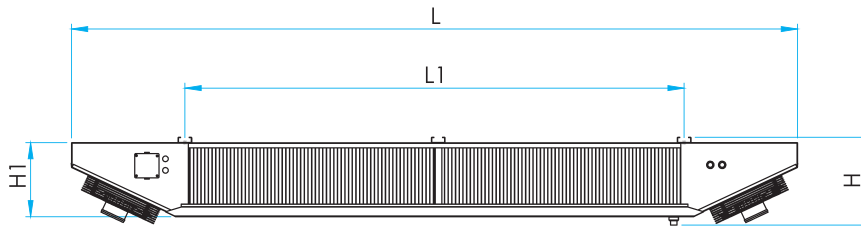
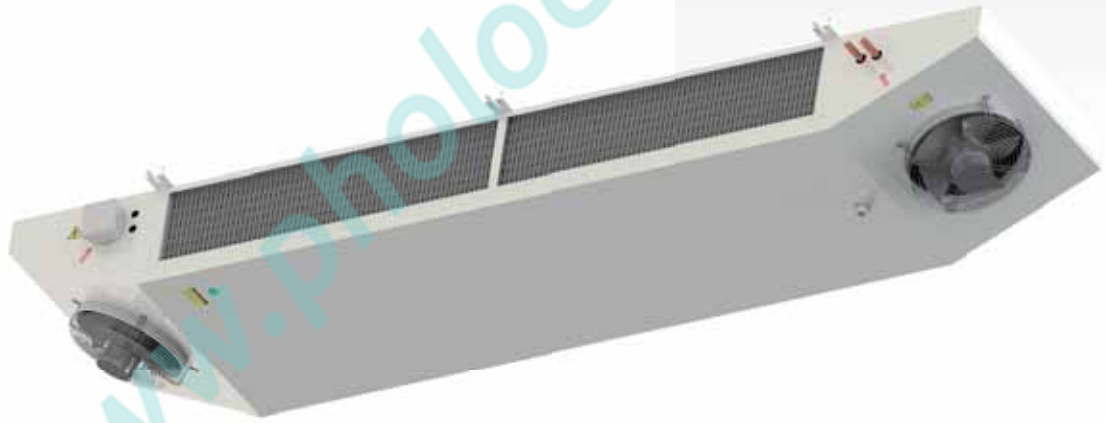
**Hatve / Fin Spacing** : 4 mm - 6 mm

Belirtilen fiyatlara fan dahil değildir.

Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

All prices are given without fans.

Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.




## FTD SERİSİ

Bakır Boru / Copper Tube : 3/8"


Kalip / Geometry : 32 mm x 28 mm

Hatve / Fin Spacing : 4 mm - 6 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm			
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C				
(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(Watt)	(Watt)	(m <sup>3</sup> /h)	(n)	(Ø mm)	(Watt)	
20 FTD 100	21,24	3,0	3.610	2.636	--	--	840	2 	200	72
25 FTD 150	31,84	4,4	6.760	2.948	--	--	1.650		250	138
25 FTD 200	42,46	5,8	7.292	5.334	--	--	1.600		250	138
30 FTD 200	51,08	7,4	11.302	8.258	--	--	3.200		300	144

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions					
	B1	B2		L	L1	W	W1	H	H1
	Batarya Coil	Batarya Coil	Tava D.Tray						
(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
20 FTD 100	3X500	3X500	2X500	196	103	65	55	36	30
25 FTD 150	4X750	4X750	2X750	246	153	70	60	36	30
25 FTD 200	3X1000	3X1000	2X1000	296	203	75	65	36	30
30 FTD 200	4X1250	4X1250	2X1250	296	203	75	65	36	30

## FTA SERİSİ

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm			
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C				
(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(Watt)	(Watt)	(m <sup>3</sup> /h)	(n)	(Ø mm)	(Watt)	
20 FTA 100	14,16	3,0	3.024	2.200	--	--	850	2 	200	72
25 FTA 150	21,94	4,4	5.538	4.022	--	--	1.700		250	138
25 FTA 200	29,26	5,8	6.100	4.438	--	--	1.650		250	138
30 FTA 200	36,58	7,4	9.074	6.612	--	--	3.250		300	144

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions					
	B1	B2		L	L1	W	W1	H	H1
	Batarya Coil	Batarya Coil	Tava D.Tray						
(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
20 FTA 100	3X500	3X500	2X500	196	103	65	55	36	30
25 FTA 150	4X750	4X750	2X750	246	153	70	60	36	30
25 FTA 200	3X1000	3X1000	2X1000	296	203	75	65	36	30
30 FTA 200	4X1250	4X1250	2X1250	296	203	75	65	36	30

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*The triumph of quality against time...*

# ŞOK DONDURUCULAR

## BLAST FREEZERS

		Sayfa / Page
<b>FNO S</b> <b>FNN S</b>	<i>Bakır Boru / Copper Tube : 5/8"</i> <i>Kalip / Geometry : 40 mm x 35 mm</i>	140
<b>FNO SS</b> <b>FNN SS</b>	<i>Bakır Boru / Copper Tube : 5/8"</i> <i>Kalip / Geometry : 40 mm x 35 mm</i>	142
<b>FNO T</b> <b>FNN T</b>	<i>Bakır Boru / Copper Tube : 5/8"</i> <i>Kalip / Geometry : 40 mm x 35 mm</i>	144
<b>FPO S</b> <b>FPN S</b>	<i>Bakır Boru / Copper Tube : 5/8"</i> <i>Kalip / Geometry : 55 mm x 48 mm</i>	146
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BUZÇELİK katalogdaki değerleri haber vermeden deęiřtirme hakkını saklı tutar.

*BUZÇELİK reserves the right to make modifications in the catalog at any time without prior notice.*



## BATARYA

- Bakır borular Ø5/8".
- V-tipi alüminyum lamel.
- Lamel araları 10-12 mm tasarlanmıştır.
- Giriş - çıkış kolektör malzemesi bakırdır.
- İzin verilen en yüksek çalışma basıncı Ps=21 Bar.
- Şaşırtmalı boru dizilimi.
- Az soğutucu şarjı gerektiren devreleme.
- Soğutucular R404A, R449A, R22 soğutucu gazlarla çalışmaya uygun tasarımdır.
- Soğutucu akışkan distribütörü.

## KASETLEME

- Galvaniz çelik üzerine elektrostatik RAL 9016 boyalıdır.
- İsteğe bağlı paslanmaz kaset seçeneği.
- Sökülebilir yan kapaklar.
- Menteşeli/Katlanır drenaj tavası tüm modellerde standarttır.
- Ara drenaj tavası.

## FAN

- Oda boyutlarına göre farklı fan çapı ve fan sayısına sahip soğutucu seçenekleri.
- Opsiyonel seçimler Buzçelik Teknik Uzmanı tarafından teyit edilmelidir.
- Standart veya düşük ses seviyeli bakım gerektirmeyen fan seçeneği.
- İsteğe bağlı AC ya da EC fan motor seçenekleri.
- Koruma sınıfı IP54, fan konstrüksiyonu izolasyon malzeme sınıfı F.
- Opsiyonel olarak seçilebilir fan aksesuar çeşitleri.
- Çalışma aralığı -40°C/+50°C'dir.

## DEFROST

- B2 defrost sistemine sahiptir. Defrost ısıtıcılar batarya ve drenaj tavasına monte edilir.
- Drenaj hattı ısıtıcısı, fan davlumbaz ısıtıcısı ve sıcak gaz defrost sistemi opsiyoneldir.
- Defrost uygulaması hızlı ve verimli defrost için homojen ısı dağılımı sağlar.
- +4°C'den büyük veya eşit oda sıcaklıklarında isteğe bağlı olarak tava derinliği artırılmış soğutucu tasarımı ile sulu defrost seçeneği.
  - B2 (Opsiyonel) : Elektrik defrost (Batarya + Drenaj Tavası)
  - HGD ( Opsiyonel ) : Sıcak gaz defrost (Batarya ve Drenaj Tavası)

## KAPASİTE

- Nominal kapasiteler E.T./R.T.=-40°C/-35°C koşullarında R404A gaza göre Eurovent EN 328 standartları dikkate alınarak verilmiştir.

## SEÇENEKLER

- Farklı dış kabin rengi,
- Farklı boru et kalınlığı ve hatve,
- Monofaze 220V 1~ 50Hz, Trifaze 400V 3~ 50Hz fan seçeneği.
- Katalogda belirtilmeyen özel ürünler için lütfen satış departmanı ile irtibata geçin.

## NOT

- Montaj, Bakım - Taşıma ve Kaldırma detayları için kullanım Kılavuzuna başvurunuz.

## AKSESUAR

- Bataryada ve tavada sıcak gaz defrost.
- Yalıtım tavası.
- Paslanmaz çelik kabin.
- Epoxy boya.
- Fan kablo rezistansı.
- Drenaj hattı kablo rezistansı.

## Coil

- Ø5/8" copper tube.
- "V" type aluminum fins.
- The finned coils are designed with aluminum fins spaced at 10 or 12 mm, crimped onto copper tubes.
- Header inlet and outlet tube connections made of copper.
- Maximum operating pressure 21 bar.
- Staggered copper tubes.
- Low refrigerant charge required circuit design.
- The coil circuits are designed for refrigerants R404A, R449A, R22.
- Refrigerant distributor.

## Casing

- Electrostatic powder coated RAL 9016 galvanized steel.
- Stainless steel casing as optional.
- Side panels are removable.
- Hinged/Folding drain tray is standard for all models.
- Intermediate drain pan.

## Fans

- Selection of a unit cooler with various fan number/diameter combinations offering the dimensional and air throw characteristics best adapted to the size of the cold room.
- Selections should be confirmed by your Buzçelik Technical Specialist.
- Standard or low noise level are available.
- Different kinds of motors available as optional. (EC or AC)
- Motor protection IP54 insulation class F.
- Different kinds of accessories available as optional.
- Working conditions -40°C/+50°C.

## Defrosting

- Products have B2 type defrost system and spare defrosts.
- Defrost heaters are applied on both heat exchanger coil and drain tray.
- Drain line heaters, fan housing heaters and hot gas defrost system are optional.
- This facility enables homogenous heat distribution for fast and efficient defrosting.
- A water defrost (WD) option is available for room temperature equal to or greater than +4° C. In this case the unit cooler depth is increased amount of depth.
  - B2 (Optional) : Electric defrost (coil + drain pan)
  - HGD (Optional) : Hot gas (coil and drain pan)

## Capacity

- The nominal capacities calculated according to Eurovent EN328 standards that refer to E.T./R.T.=-40°C/-35°C condition and are valid for R404A.

## Options

- Different casing color.
- Other tube wall thicknesses and fin spacing on request.
- Mono phase 220V 1~ 50Hz fan or three phase 400V 3~ 50Hz fan.
- Please keep in touch with our sales department about your special needs that are not mentioned in the catalogue.

## Options

- Please read "Installation, Operation and Maintenance Instructions" for mounting and maintenance.

## Accessories

- Hot gas defrost in coil and drip tray.
- Insulated drip tray.
- Casing made of stainless steel.
- Epoxy resin coated aluminum fins.
- Fan cable heaters.
- Drain line cable heater.

Options As Listed Are Available On Request For Assistance Please Contact Buzçelik Branch

## ADLANDIRMA CLASIFICACION

# 63 F N N 21 2 T

**Fan Çapı**  
Fan Diameter

Ø...cm

**F**

Şok Dondurucu  
Blast Freezer

**Hatve Aralığı**  
Fin Space

O : 10mm  
N : 12mm

**Fan Çapı**  
Fan Diameter

Ø...mm

**Fan Dizisi**  
Fan Array

Sütun x Satır  
Column x Row

**Ürün Numarası**  
Product Number

**Tip**  
Type

S : Tavan Tip  
SS : Çok Katlı Tip  
T : Tünel Tipi

S : Ceiling Type  
SS : Multi-Layer Type  
T : Tunnel Type

## KAPASİTE STANDARTLARI CAPACITY STANDARD

Nominal kapasite değerleri Eurovent standart şartları EN 328'de tanımlanan  $\Delta T_1$  esasına göre verilmiştir.

$\Delta T_1 = (\text{Oda Sıcaklığı}) - (\text{Evaporasyon Sıcaklığı})$

Tablo-1 : Standart Şartlar (Eurovent EN 328)

Freon için Standart Şartlar	Oda Sıcaklığı °C	Evaporasyon Sıcaklığı °C
SC5	-34	40

Nominal capacities in the catalog are given according to  $\Delta T_1$  as defined in EN 328 standard conditions of Eurovent.

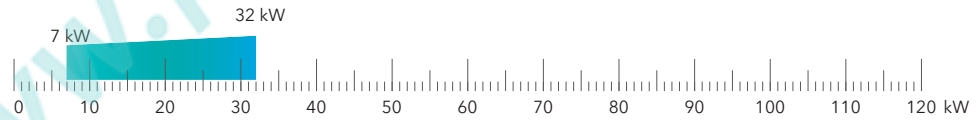
$\Delta T_1 = (\text{Room Temp.}) - (\text{Evaporation Temp.})$

Table-1 Standard Conditions (Eurovent EN 328)

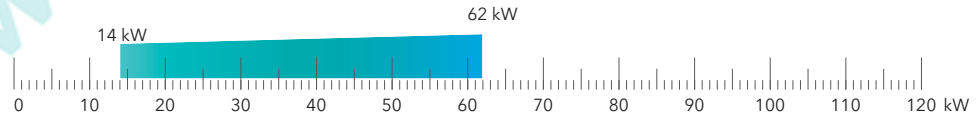
Standard Conditions for Refrigerants	Room Temperature °C	Evaporating Temp. °C
SC5	-34	40

## ÜRÜN KAPASİTE ARALIĞI CAPACITY RANGE

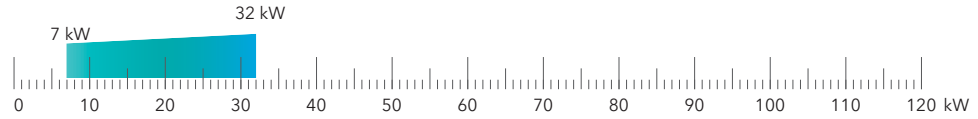
**FNO/FNN S**



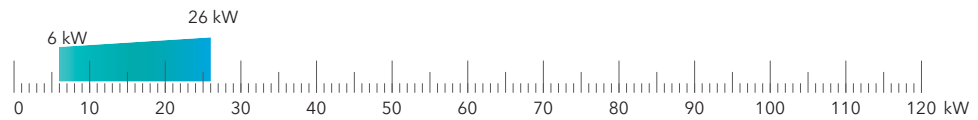
**FNO/FNN SS**



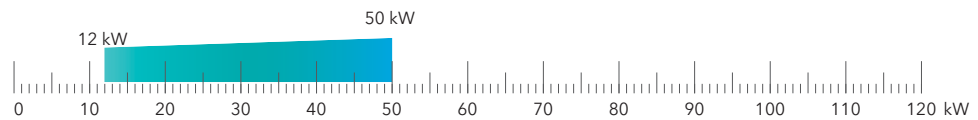
**FNO/FNN T**



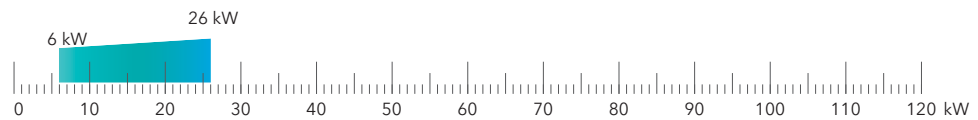
**FPO/FPN S**



**FPO/FPN SS**



**FPO/FPN ST**



**TABLO-2 / Table-2**

Oda Sıcaklığına Bağlı Olarak Önerilen Lamel Aralıkları Recommended Efficient Fin Spacings According to Room Temperatures		
EUROVENT 328 STANDARD	LAMEL ARALIĞI Fin Spacing	ODA SICAKLIĞI (T1) Room Temp. (T1)
SC5	10mm ~ 12mm	-34°C

## (f<sub>1</sub>) KAPASİTE DÜZELTME FAKTÖRÜ

(f<sub>1</sub>) CAPACITY CORRECTION FACTORS

Oda Sıcaklığı Room Temp. (°C)	ΔT (Oda Sıcaklığı-Evaporasyon Sıcaklığı) (Room Temp.-Evaporation Temp.) °C					
	5	6	7	8	9	10
-35	1	1,2	1,4	1,6	1,8	2
-40	0,98	1,18	1,37	1,57	1,76	1,96

$Q_{NK}$  = Nominal Katalog Kapasitesi.  
 Nominal Catalog Capacity  
 $Q_R$  = İstenen Kapasite  
 Required Capacity  
 $f_1$  = Düzeltme Faktörü  
 Correction Factor

$$QNK = (QR/f_1)$$

## K<sub>2</sub> SOĞUTUCU FAKTÖR / K<sub>2</sub> REFRIGERANT FACTOR

Refrigerant	SC1	SC2	SC3	SC4
<b>R404A</b>	1	1	1	1
<b>R507A</b>	0,97	0,97	0,97	0,97
<b>R22</b>	0,97	0,97	0,97	0,97
<b>R407A</b>	1,19	1,24	1,28	1,32
<b>R407F</b>	1,19	1,24	1,29	1,35

## ÖRNEK SEÇİM

Selection Example

QR = 18Kw (İstenen Kapasite)  
 T1 = -40°C (Oda Sıcaklığı)  
 T2 = -47°C (Evaporasyon Sıcaklığı)  
 T = 7°C (Sıcaklık Farkı)  
 f1 = 1,37 (Düzeltme Faktörü)

QNK = (QR/f1) = (18/1,37) = 13,5 kW  
 Seçilen Soğutucu = 63FNN 211 S / 63FNN 211 T

QR = 18Kw (RequiredCapacity)  
 T1 = -40°C (Room Temp.)  
 T2 = -47°C (Evaporation Temp.)  
 T = 7°C (emperature Difference)  
 f1 = 1,37 (Correction Factor)

QNK = (QR/f1) = (18/1,37) = 13,5 kW  
 Selected Blast Freezer = 63FNN 211 S / 63FNN 211 T

*Kalitenin zamana karşı zaferi...*

*The triumph of quality against time...*



## ŞOK DONDURUCULAR

Blast Freezers

### TEKNİK BİLGİLER

Technical Information

**Bakır Boru / Copper Tube** : 5/8"

**Kalıp / Geometry** : 40 mm x 35 mm

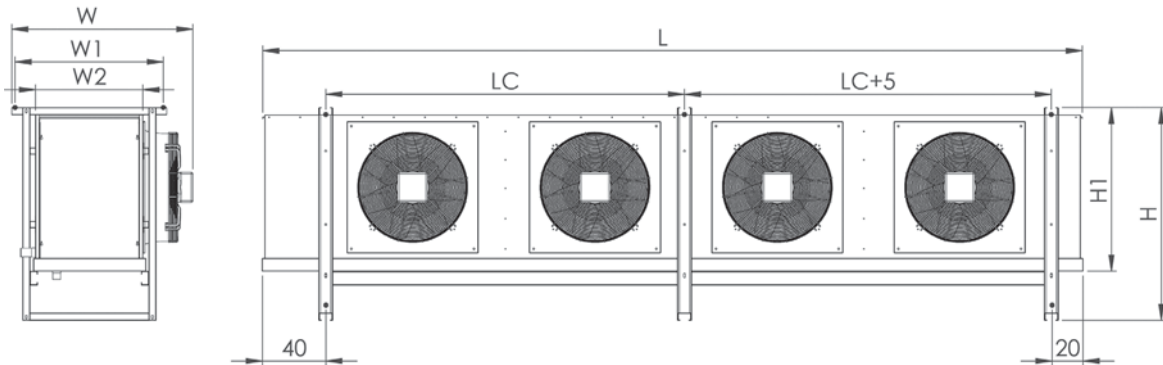
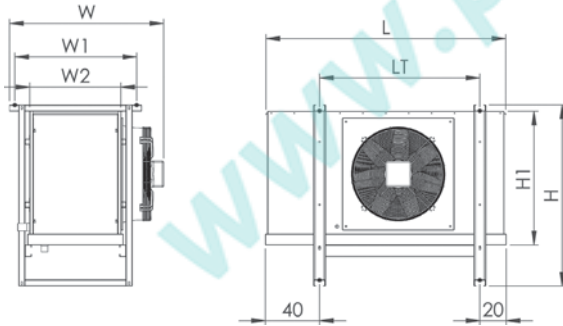
**Hatve / Fin Spacing** : 10 mm - 12 mm

Belirtilen fiyatlara fan dahil değildir.

Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

All prices are given without fans.

Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.







## FNO/FNN S SERİSİ

Bakır Boru / Copper Tube : 5/8"

Kalıp / Geometry : 40 mm x 35 mm

Hatve / Fin Spacing : 10 mm - 12mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity		Fanlar / Fans 400V AC 50 Hz 1320 rpm		
			RT / ET RT: Room Temperature ET: Evaporation Temperature -35 °C / -40 °C	Adet Qty	Çap Diameter	Hava Debisi Air Flow	
	(m <sup>2</sup> )	(dm <sup>3</sup> )	(kW)	(n)	(Ømm)	(m <sup>3</sup> /h)	
63FNO 111 S	55,20	17,3	7.3	1x 	630	13.750	
63FNO 112 S	70,26	22,0	8.7		630	15.250	
63FNN 111 S	46,81	17,3	6.5		630	14.150	
63FNN 112 S	59,57	22,0	7.8		630	15.400	
63FNO 211 S	110,40	34,6	14.6	2x 	630	27.500	
63FNO 212 S	140,52	44,0	17.4		630	30.500	
63FNN 211 S	93,62	34,6	13.0		630	28.300	
63FNN 212 S	119,14	44,0	15.6		630	30.800	
63FNO 311 S	165,60	51,9	21.9	3x 	630	41.250	
63FNO 312 S	210,78	66,0	26.1		630	45.750	
63FNN 311 S	140,43	51,9	19.5		630	42.450	
63FNN 312 S	178,71	66,0	23.4		630	46.200	
63FNO 411 S	220,80	69,2	29.2	4x 	630	55.000	
63FNO 412 S	281,04	88,0	34.8		630	61.000	
63FNN 411 S	187,24	69,2	26.0		630	56.600	
63FNN 412 S	238,28	88,0	31.2		630	61.600	

Model Model	Defrost Isitıcılar Electric Defrost		Boyutlar Dimensions								
	B2		L	H	W	LT	LC	LU	H1	W1	W2
	Batarya Coil	Tava D.Tray									
	(nXW)	(nXW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
63FNO 111 S	22X600	4X600	172	132	105	115	-	-	100	91	66
63FNO 112 S	28X600	4X600	173	154	105	115	-	-	122	91	66
63FNN 111 S	22X600	4X600	172	132	105	115	-	-	100	91	66
63FNN 112 S	28X600	4X600	172	154	105	115	-	-	122	91	66
63FNO 211 S	22X1150	4X1150	282	132	105	-	225	-	100	91	66
63FNO 212 S	28X1150	4X1150	282	154	105	-	225	-	122	91	66
63FNN 211 S	22X1150	4X1150	282	132	105	-	225	-	100	91	66
63FNN 212 S	28X1150	4X1150	282	154	105	-	225	-	122	91	66
63FNO 311 S	22X1700	4X1700	392	132	105	-	-	335	100	91	66
63FNO 312 S	28X1700	4X1700	392	154	105	-	-	335	122	91	66
63FNN 311 S	22X1700	4X1700	392	132	105	-	-	335	100	91	66
63FNN 312 S	28X1700	4X1700	392	154	105	-	-	335	122	91	66
63FNO 411 S	22X2250	4X2250	502	132	105	-	220	-	100	91	66
63FNO 412 S	28X2250	4X2250	502	154	105	-	220	-	122	91	66
63FNN 411 S	22X2250	4X2250	502	132	105	-	220	-	100	91	66
63FNN 412 S	28X2250	4X2250	502	154	105	-	220	-	122	91	66

## ŞOK DONDURUCULAR

Blast Freezers

### TEKNİK BİLGİLER

Technical Information

**Bakır Boru / Copper Tube** : 5/8"

**Kalıp / Geometry** : 40 mm x 35 mm

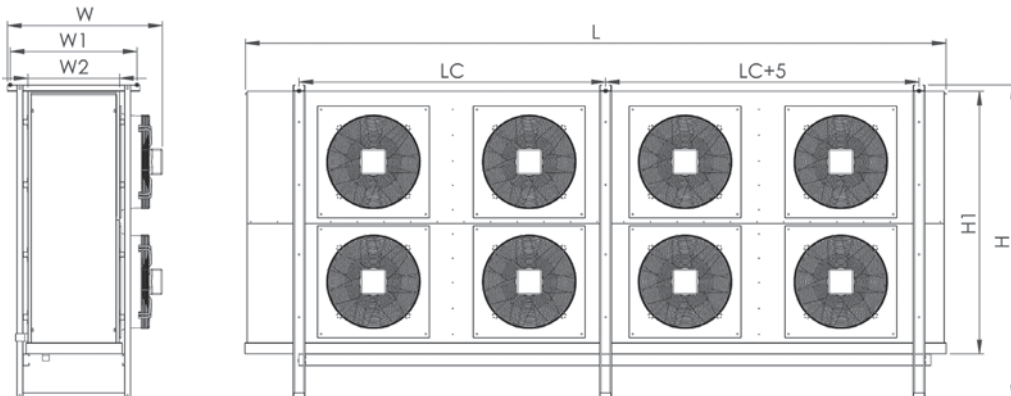
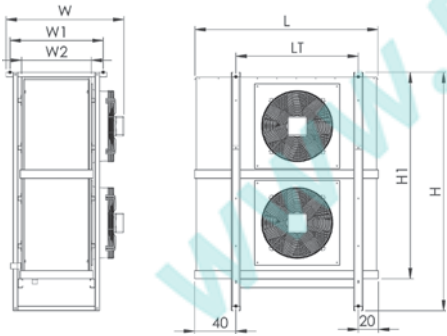
**Hatve / Fin Spacing** : 10 mm - 12 mm

Belirtilen fiyatlara fan dahil değildir.

Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

All prices are given without fans.

Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.







## FNO-FNN SS SERİSİ

Bakır Boru / Copper Tube : 5/8"

Kalıp / Geometry : 40 mm x 35 mm

Hatve / Fin Spacing : 10 mm - 12mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity		Fanlar / Fans 400V AC 50 Hz 1320 rpm		
			RT / ET RT: Room Temperature ET: Evaporation Temperature -35 °C / -40 °C	Adet Qty	Çap Diameter	Hava Debisi Air Flow	
	(m <sup>2</sup> )	(dm <sup>3</sup> )	(kW)	(n)	(Ømm)	(m <sup>3</sup> /h)	
63FNO 121 SS	110,40	34,6	14.6	2x 	630	27.500	
63FNO 122 SS	140,52	44,0	17.4		630	30.500	
63FNN 121 SS	93,62	34,6	13.0		630	28.300	
63FNN 122 SS	119,14	44,0	15.6		630	30.800	
63FNO 221 SS	220,80	69,2	29.2	4x 	630	55.000	
63FNO 222 SS	281,04	88,0	34.8		630	61.000	
63FNN 221 SS	187,24	69,2	26.0		630	56.600	
63FNN 222 SS	238,28	88,0	31.2		630	61.600	
63FNO 321 SS	331,20	103,8	43.8	6x 	630	82.500	
63FNO 322 SS	421,56	132,0	52.2		630	91.500	
63FNN 321 SS	280,86	103,8	39.0		630	84.900	
63FNN 322 SS	357,42	132,0	46.8		630	92.400	
63FNO 421 SS	441,60	138,4	58.4	8x 	630	110.000	
63FNO 422 SS	562,08	176,0	69.6		630	122.000	
63FNN 421 SS	374,48	138,4	52.0		630	113.200	
63FNN 422 SS	476,56	176,0	62.4		630	123.200	

Model Model	Defrost Isıtıcılar Electric Defrost		Boyutlar / Dimensions								
	B2		L	H	W	LT	LC	LU	H1	W1	W2
	Batarya Coil	Tava D.Tray									
	(nXW)	(nXW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
63FNO 121 SS	44X600	4X600	172	225	105	115	-	-	195	91	66
63FNO 122 SS	56X600	4X600	172	274	105	115	-	-	240	91	66
63FNN 121 SS	44X600	4X600	172	225	105	115	-	-	195	91	66
63FNN 122 SS	56X600	4X600	172	274	105	115	-	-	240	91	66
63FNO 221 SS	44X1150	4X1150	282	225	105	-	225	-	195	91	66
63FNO 222 SS	56X1150	4X1150	282	274	105	-	225	-	240	91	66
63FNN 221 SS	44X1150	4X1150	282	225	105	-	225	-	195	91	66
63FNN 222 SS	56X1150	4X1150	282	274	105	-	225	-	240	91	66
63FNO 321 SS	44X1700	4X1700	392	225	105	-	-	335	195	91	66
63FNO 322 SS	56X1700	4X1700	392	274	105	-	-	335	240	91	66
63FNN 321 SS	44X1700	4X1700	392	225	105	-	-	335	195	91	66
63FNN 322 SS	56X1700	4X1700	392	274	105	-	-	335	240	91	66
63FNO 421 SS	44X2250	4X2250	502	225	105	-	220	-	195	91	66
63FNO 422 SS	56X2250	4X2250	502	274	105	-	220	-	240	91	66
63FNN 421 SS	44X2250	4X2250	502	225	105	-	220	-	195	91	66
63FNN 422 SS	56X2250	4X2250	502	274	105	-	220	-	240	91	66



## ŞOK DONDURUCULAR

Blast Freezers

### TEKNİK BİLGİLER

Technical Information

**Bakır Boru / Copper Tube** : 5/8"

**Kalıp / Geometry** : 40 mm x 35 mm

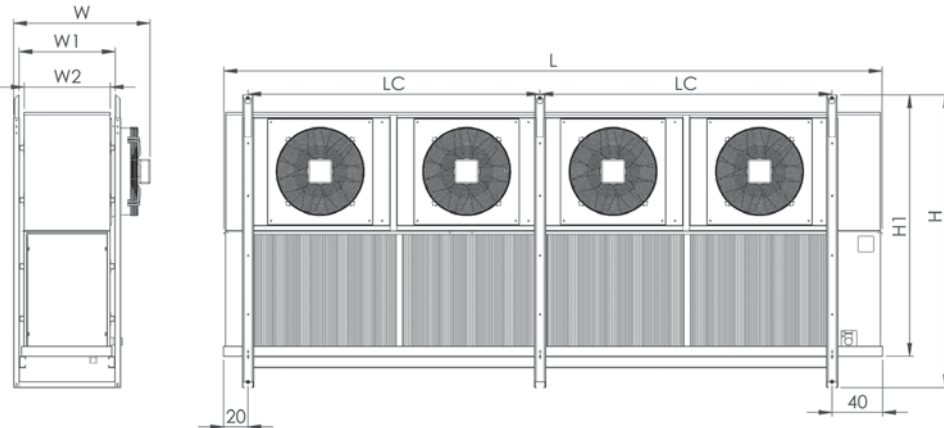
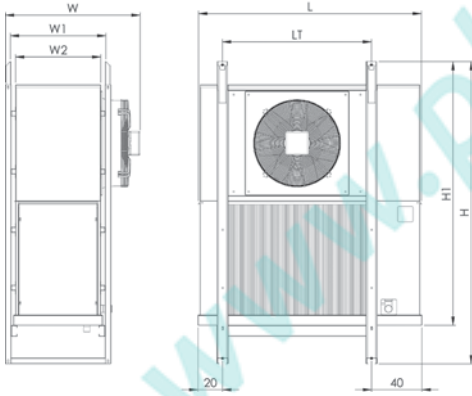
**Hatve / Fin Spacing** : 10 mm - 12 mm

Belirtilen fiyatlara fan dahil değildir.

Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

All prices are given without fans.

Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.







## FNO/FNN T SERİSİ

Bakır Boru / Copper Tube : 5/8"

Kalıp / Geometry : 40 mm x 35 mm

Hatve / Fin Spacing : 10 mm - 12mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity		Fanlar / Fans 400V AC 50 Hz 1320 rpm		
			RT / ET RT: Room Temperature ET: Evaporation Temperature -35 °C / -40 °C	Adet Qty	Çap Diameter	Hava Debisi Air Flow	
			(kW)	(n)	(Ømm)	(m3/h)	
63FNO 111 T	55,20	17,3	7.3	1x 	630	13.750	
63FNO 112 T	70,26	22,0	8.7		630	15.250	
63FNN 112 T	59,57	22,0	7.8		630	15.400	
63FNN 111 T	46,81	17,3	6.5		630	14.150	
63FNO 211 T	110,40	34,6	14.6	2x 	630	27.500	
63FNO 212 T	140,52	44,0	17.4		630	30.500	
63FNN 211 T	93,62	34,6	13.0		630	28.300	
63FNN 212 T	119,14	44,0	15.6		630	30.800	
63FNO 311 T	165,60	51,9	21.9	3x 	630	41.250	
63FNO 312 T	210,78	66,0	26.1		630	45.750	
63FNN 311 T	140,43	51,9	19.5		630	42.450	
63FNN 312 T	178,71	66,0	23.4		630	46.200	
63FNO 411 T	220,80	69,2	29.2	4x 	630	55.000	
63FNO 412 T	281,04	88,0	34.8		630	61.000	
63FNN 411 T	187,24	69,2	26.0		630	56.600	
63FNN 412 T	238,28	88,0	31.2		630	61.600	

Model Model	Defrost Isıtıcılar Electric Defrost		Boyutlar / Dimensions								
	B2		L (cm)	H (cm)	W (cm)	LT (cm)	LC (cm)	LU (cm)	H1 (cm)	W1 (cm)	W2 (cm)
	Batarya Coil	Tava D.Tray									
	(nXW)	(nXW)									
63FNO 111 T	22X600	4X600	172	260	105	115	-	-	230	75	66
63FNO 112 T	28X600	4X600	172	282	105	115	-	-	252	75	66
63FNN 112 T	28X600	4X600	172	260	105	115	-	-	230	75	66
63FNN 111 T	22X600	4X600	172	282	105	115	-	-	252	75	66
63FNO 211 T	22X1150	4X1150	282	260	105	-	225	-	230	75	66
63FNO 212 T	28X1150	4X1150	282	282	105	-	225	-	252	75	66
63FNN 211 T	22X1150	4X1150	282	260	105	-	225	-	230	75	66
63FNN 212 T	28X1150	4X1150	282	282	105	-	225	-	252	75	66
63FNO 311 T	22X1700	4X1700	392	260	105	-	-	335	230	75	66
63FNO 312 T	28X1700	4X1700	392	282	105	-	-	335	252	75	66
63FNN 311 T	22X1700	4X1700	392	260	105	-	-	335	230	75	66
63FNN 312 T	28X1700	4X1700	392	282	105	-	-	335	252	75	66
63FNO 411 T	22X2250	4X2250	502	260	105	-	220	-	230	75	66
63FNO 412 T	28X2250	4X2250	502	282	105	-	220	-	252	75	66
63FNN 411 T	22X2250	4X2250	502	260	105	-	220	-	230	75	66
63FNN 412 T	28X2250	4X2250	502	282	105	-	220	-	252	75	66

## ŞOK DONDURUCULAR

Blast Freezers

### TEKNİK BİLGİLER

Technical Information

**Bakır Boru / Copper Tube** : 5/8"

**Kalıp / Geometry** : 55 mm x 48 mm

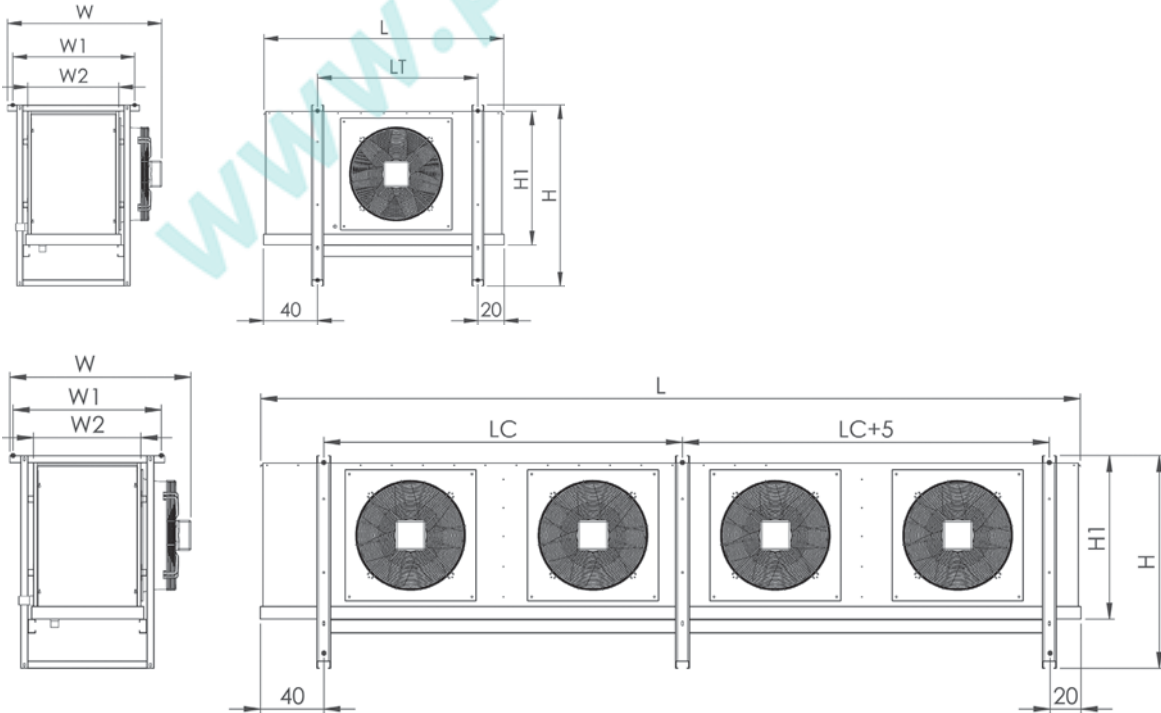
**Hatve / Fin Spacing** : 10 mm - 12 mm

Belirtilen fiyatlara fan dahil değildir.

Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

All prices are given without fans.

Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.







## FPO/FPN S SERİSİ

Bakır Boru / Copper Tube : 5/8"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 10 mm - 12mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity		Fanlar / Fans 400V AC 50 Hz 1320 rpm		
			RT / ET RT: Room Temperature ET: Evaporation Temperature -35 °C / -40 °C		Adet Qty	Çap Diameter	Hava Debisi Air Flow
			(kW)	(n)			
63FPO 111 S	56,48	12,6	6.0	1x 	630	15.650	
63FPO 112 S	70,60	15,7	7.1		630	16.600	
63FPN 111 S	47,65	12,6	5.3		630	16.000	
63FPN 112 S	59,57	15,7	6.3		630	17.000	
63FPO 211 S	112,96	25,2	12.0	2x 	630	31.300	
63FPO 212 S	141,20	31,4	14.2		630	33.200	
63FPN 211 S	95,30	25,2	10.6		630	32.000	
63FPN 212 S	119,13	31,4	12.6		630	34.000	
63FPO 311 S	169,44	37,8	18.0	3x 	630	46.950	
63FPO 312 S	211,80	47,1	21.3		630	49.800	
63FPN 311 S	142,95	37,8	15.9		630	48.000	
63FPN 312 S	178,70	47,1	18.9		630	51.000	
63FPO 411 S	225,92	50,4	24.0	4x 	630	62.600	
63FPO 412 S	282,40	62,8	28.4		630	66.400	
63FPN 411 S	190,60	50,4	21.2		630	64.000	
63FPN 412 S	238,26	62,8	25.2		630	68.000	

Model Model	Defrost İsticiler Electric Defrost		Boyutlar / Dimensions								
	B2		L (cm)	H (cm)	W (cm)	LT (cm)	LC (cm)	LU (cm)	H1 (cm)	W1 (cm)	W2 (cm)
	Batarya Coil	Tava D.Tray									
	(nXW)	(nXW)									
63FPO 111 S	16x600	4x600	172	130	105	115	-	-	100	91	66
63FPO 112 S	20x600	4x600	172	150	105	115	-	-	122	91	66
63FPN 111 S	16x600	4x600	172	130	105	115	-	-	100	91	66
63FPN 112 S	20x600	4x600	172	150	105	115	-	-	122	91	66
63FPO 211 S	16x1150	4x1150	282	130	105	-	225	-	100	91	66
63FPO 212 S	20x1150	4x1150	282	150	105	-	225	-	122	91	66
63FPN 211 S	16x1150	4x1150	282	130	105	-	225	-	100	91	66
63FPN 212 S	20x1150	4x1150	282	150	105	-	225	-	122	91	66
63FPO 311 S	16x1700	4x1700	392	130	105	-	-	335	100	91	66
63FPO 312 S	20x1700	4x1700	392	150	105	-	-	335	122	91	66
63FPN 311 S	16x1700	4x1700	392	130	105	-	-	335	100	91	66
63FPN 312 S	20x1700	4x1700	392	150	105	-	-	335	122	91	66
63FPO 411 S	16x2250	4x2250	502	130	105	-	220	-	100	91	66
63FPO 412 S	20x2250	4x2250	502	150	105	-	220	-	122	91	66
63FPN 411 S	16x2250	4x2250	502	130	105	-	220	-	100	91	66
63FPN 412 S	20x2250	4x2250	502	150	105	-	220	-	122	91	66

## ŞOK DONDURUCULAR

Blast Freezers

### TEKNİK BİLGİLER

Technical Information

**Bakır Boru / Copper Tube** : 5/8"

**Kalıp / Geometry** : 55 mm x 48 mm

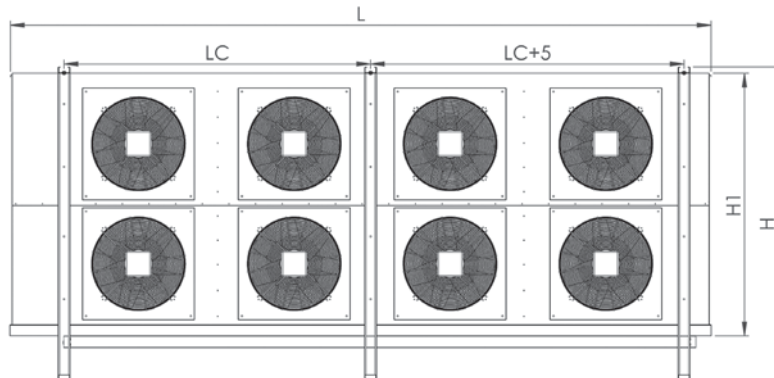
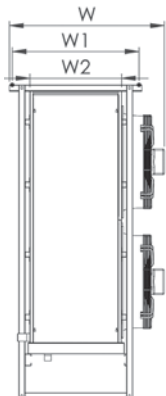
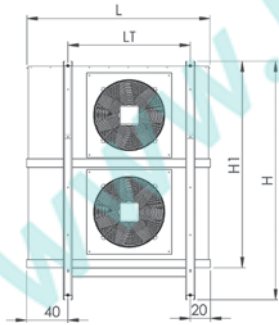
**Hatve / Fin Spacing** : 10 mm - 12 mm

Belirtilen fiyatlara fan dahil değildir.

Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

All prices are given without fans.

Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.







## FPO/FPN SS SERİSİ

Bakır Boru / Copper Tube : 5/8"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 10 mm - 12mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity		Fanlar / Fans 400V AC 50 Hz 1320 rpm		
			RT / ET RT: Room Temperature ET: Evaporation Temperature -35 °C / -40 °C		Adet Qty	Çap Diameter	Hava Debisi Air Flow
			(kW)	(n)			
63FPO 121 SS	112,96	25,2	12.0	2x 	630	31.300	
63FPO 122 SS	141,20	31,4	14.2		630	33.200	
63FPN 121 SS	95,30	25,2	10.6		630	32.000	
63FPN 122 SS	119,13	31,4	12.6		630	34.000	
63FPO 221 SS	225,92	50,4	24.0	4x 	630	62.600	
63FPO 222 SS	282,40	62,8	28.4		630	66.400	
63FPN 221 SS	190,60	50,4	21.2		630	64.000	
63FPN 222 SS	238,26	62,8	25.2		630	68.000	
63FPO 321 SS	338,89	75,6	36.0	6x 	630	93.900	
63FPO 322 SS	423,60	94,2	42.6		630	99.600	
63FPN 321 SS	285,90	75,6	31.8		630	96.000	
63FPN 322 SS	357,40	94,2	37.8		630	102.000	
63FPO 421 SS	451,85	100,8	48.0	8x 	630	125.200	
63FPO 422 SS	564,80	125,6	56.8		630	132.800	
63FPN 421 SS	381,20	100,8	42.4		630	128.000	
63FPN 422 SS	476,53	125,6	50.4		630	136.000	

Model Model	Defrost Isıtıcılar Electric Defrost		Boyutlar / Dimensions								
	B2		L	H	W	LT	LC	LU	H1	W1	W2
	Batarya Coil	Tava D.Tray									
63FPO 121 SS	32x600	4x600	172	225	105	115	-	-	195	91	66
63FPO 122 SS	40x600	4x600	172	274	105	115	-	-	240	91	66
63FPN 121 SS	32x600	4x600	172	225	105	115	-	-	195	91	66
63FPN 122 SS	40x600	4x600	172	274	105	115	-	-	240	91	66
63FPO 221 SS	32x1150	4x1150	282	225	105	-	225	-	195	91	66
63FPO 222 SS	40x1150	4x1150	282	274	105	-	225	-	240	91	66
63FPN 221 SS	32x1150	4x1150	282	225	105	-	225	-	195	91	66
63FPN 222 SS	40x1150	4x1150	282	274	105	-	225	-	240	91	66
63FPO 321 SS	32x1700	4x1700	392	225	105	-	-	335	195	91	66
63FPO 322 SS	40x1700	4x1700	392	274	105	-	-	335	240	91	66
63FPN 321 SS	32x1700	4x1700	392	225	105	-	-	335	195	91	66
63FPN 322 SS	40x1700	4x1700	392	274	105	-	-	335	240	91	66
63FPO 421 SS	32x2250	4x2250	502	225	105	-	220	-	195	91	66
63FPO 422 SS	40x2250	4x2250	502	274	105	-	220	-	240	91	66
63FPN 421 SS	32x2250	4x2250	502	225	105	-	220	-	195	91	66
63FPN 422 SS	40x2250	4x2250	502	274	105	-	220	-	240	91	66

## ŞOK DONDURUCULAR

Blast Freezers

### TEKNİK BİLGİLER

Technical Information

**Bakır Boru / Copper Tube** : 5/8"

**Kalıp / Geometry** : 55 mm x 48 mm

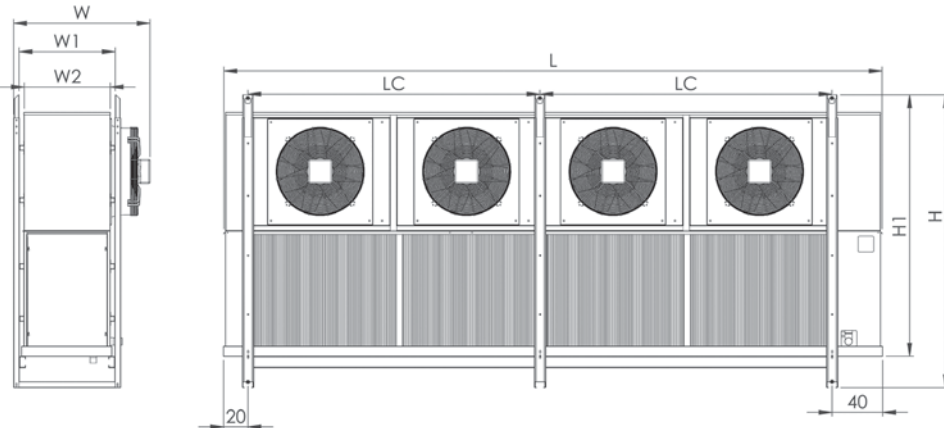
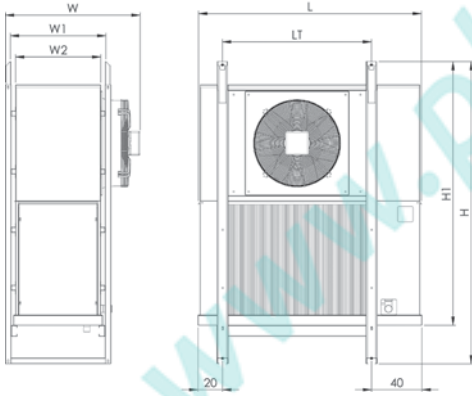
**Hatve / Fin Spacing** : 10 mm - 12 mm

Belirtilen fiyatlara fan dahil değildir.

Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

All prices are given without fans.

Capacities are calculated according to EBM or Ziehl - Abegg or equivalent brand fans.







## FPO/FPN T SERİSİ

Bakır Boru / Copper Tube : 5/8"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 10 mm - 12mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite / Capacity		Fanlar / Fans 400V AC 50 Hz 1320 rpm		
			RT / ET RT: Room Temperature ET: Evaporation Temperature -35 °C / -40 °C	Adet Qty	Çap Diameter	Hava Debisi Air Flow	
			(kW)	(n)	(Ømm)	(m3/h)	
63FPO 111 T	56,48	12,6	6.0	1x 	630	15.650	
63FPO 112 T	70,60	15,7	7.1		630	16.600	
63FPN 111 T	47,65	12,6	5.3		630	16.000	
63FPN 112 T	59,57	15,7	6.3		630	17.000	
63FPO 211 T	112,96	25,2	12.0	2x 	630	31.300	
63FPO 212 T	141,20	31,4	14.2		630	33.200	
63FPN 211 T	95,30	25,2	10.6		630	32.000	
63FPN 212 T	119,13	31,4	12.6		630	34.000	
63FPO 311 T	169,44	37,8	18.0	3x 	630	46.950	
63FPO 312 T	211,80	47,1	21.3		630	49.800	
63FPN 311 T	142,95	37,8	15.9		630	48.000	
63FPN 312 T	178,70	47,1	18.9		630	51.000	
63FPO 411 T	225,92	50,4	24.0	4x 	630	62.600	
63FPO 412 T	282,40	62,8	28.4		630	66.400	
63FPN 411 T	190,60	50,4	21.2		630	64.000	
63FPN 412 T	238,26	62,8	25.2		630	68.000	

Model Model	Defrost Isıtıcılar Electric Defrost		Boyutlar / Dimensions								
	B2		L	H	W	LT	LC	LU	H1	W1	W2
	Batarya Coil	Tava D.Tray									
	(nXW)	(nXW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
63FPO 121 SS	32x600	4x600	172	225	105	115	-	-	195	91	66
63FPO 112 T	20x600	4x600	172	282	105	115	-	-	252	75	66
63FPN 111 T	16x600	4x600	172	260	105	115	-	-	230	75	66
63FPN 112 T	20x600	4x600	172	282	105	115	-	-	252	75	66
63FPO 211 T	16x1150	4x1150	282	260	105	-	225	-	230	75	66
63FPO 212 T	20x1150	4x1150	282	282	105	-	225	-	252	75	66
63FPN 211 T	16x1150	4x1150	282	260	105	-	225	-	230	75	66
63FPN 212 T	20x1150	4x1150	282	282	105	-	225	-	252	75	66
63FPO 311 T	16x1700	4x1700	392	260	105	-	-	335	230	75	66
63FPO 312 T	20x1700	4x1700	392	282	105	-	-	335	252	75	66
63FPN 311 T	16x1700	4x1700	392	260	105	-	-	335	230	75	66
63FPN 312 T	20x1700	4x1700	392	282	105	-	-	335	252	75	66
63FPO 411 T	16x2250	4x2250	502	260	105	-	220	-	230	75	66
63FPO 412 T	20x2250	4x2250	502	282	105	-	220	-	252	75	66
63FPN 411 T	16x2250	4x2250	502	260	105	-	220	-	230	75	66
63FPN 412 T	20x2250	4x2250	502	282	105	-	220	-	252	75	66



# ISI APAREYLERİ

## AIR HEATER UNITS

### TEKNİK BİLGİLER

#### Technical Information

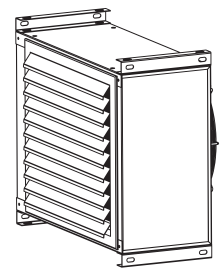
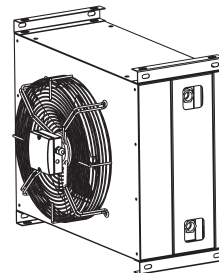
Belirtilen fiyatlara fan dahil değildir.  
Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

*All prices are given without fans.  
Capacities are calculated according to Ziehl - Abegg or equivalent brand fans.*

- Apareyler fabrika, atölye, cafe, garaj, hangar v.b. hacimlerin ısıtılması amacı ile dizayn edilen tiptedir.
- Uyumlu estetik tasarımı sayesinde uygulanan mekanın mimari ve görsel bütünlüğünü bozmayarak, projeye değer katacak niteliğe sahiptir.
- Gövde korozyona dayanıklı elektrostatik toz boya ile kaplı DKP veya galvaniz sacdan imal edilmektedir.
- Bakır boru ve alüminyum kanatlı bataryalar ile yüksek verimlilikte tasarlanmıştır.
- Hem tesisata hem de montajı düşünülen alana kolay montaja izin verecek şekilde tasarlanmış olup, bakım gerektiren durumlarda müdahale kolaylığı sunan güçlü konstrüksiyonla desteklenmiştir. Duvara ya da tavana kolay montaja izin verir.
- Aksiyal apareyler verimliliği en üst seviyede tutmak ve uzun süre sorunsuz çalışmayı garanti etmek amacıyla yüksek verimli direkt akuple motorlara sahip fanlarla sessizliği ve titreşimsiz çalışmayı sağlayacak şekilde dizayn edilmiştir. Fan motorları yüksek devir ve düşük devirli opsiyonlara sahip 230V voltaja sahip fanlardan seçilmiştir.
- Hava yönlendirmesi ürün üzerinde ki ayar panjurunun kanatları üzerinde bulunan kolla istenilen şekilde yönlendirilir.

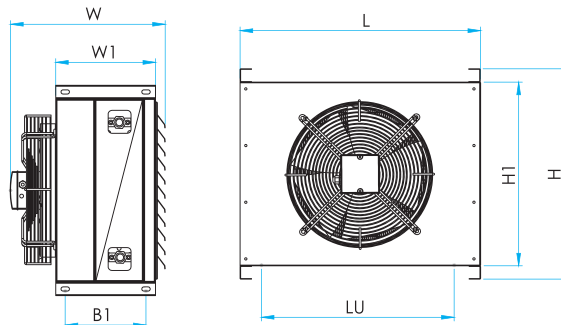
### Technical Specifications

- Apareyler fabrika, atölye, cafe, garaj, hangar v.b. hacimlerin ısıtılması amacı ile dizayn edilen tiptedir.
- Uyumlu estetik tasarımı sayesinde uygulanan mekanın mimari ve görsel bütünlüğünü bozmayarak, projeye değer katacak niteliğe sahiptir.
- Gövde korozyona dayanıklı elektrostatik toz boya ile kaplı DKP veya galvaniz sacdan imal edilmektedir.
- Bakır boru ve alüminyum kanatlı bataryalar ile yüksek verimlilikte tasarlanmıştır.
- Hem tesisata hem de montajı düşünülen alana kolay montaja izin verecek şekilde tasarlanmış olup, bakım gerektiren durumlarda müdahale kolaylığı sunan güçlü konstrüksiyonla desteklenmiştir. Duvara ya da tavana kolay montaja izin verir.
- Aksiyal apareyler verimliliği en üst seviyede tutmak ve uzun süre sorunsuz çalışmayı garanti etmek amacıyla yüksek verimli direkt akuple motorlara sahip fanlarla sessizliği ve titreşimsiz çalışmayı sağlayacak şekilde dizayn edilmiştir. Fan motorları yüksek devir ve düşük devirli opsiyonlara sahip 230V voltaja sahip fanlardan seçilmiştir.
- Hava yönlendirmesi ürün üzerinde ki ayar panjurunun kanatları üzerinde bulunan kolla istenilen şekilde yönlendirilir.



SU GİRİŞ/ÇIKIŞ SICAKLIĞI	MODEL	FAN BİLGİLERİ		GİRİŞ HAVASI							
		Fan Çapı (Ø mm)	Hava Debisi (m³/h)	5 °C		10 °C		15 °C		18 °C	
				KAPASİTE kcal/h	HAVA ÇIKIŞ °C	KAPASİTE kcal/h	HAVA ÇIKIŞ °C	KAPASİTE kcal/h	HAVA ÇIKIŞ °C	KAPASİTE kcal/h	HAVA ÇIKIŞ °C
50°C / 30°C SICAK SU	BAP-1	300	1350	8.640	26	7.190	27	5.730	29	4.820	30
	BAP-2	350	1800	10.370	24	8.630	26	6.860	28	5.770	29
	BAP-3	350	1650	12.000	29	10.030	30	8.020	31	6.770	32
	BAP-4	400	2250	16.270	28	13.570	30	10.840	31	9.170	32
	BAP-5	450	2800	18.760	27	15.630	28	12.470	30	10.540	31
60°C / 40°C SICAK SU	BAP-1	300	1350	11.520	33	10.090	34	8.670	36	7.820	37
	BAP-2	350	1800	13.860	30	12.130	32	10.420	34	9.390	35
	BAP-3	350	1650	15.960	36	14.000	38	12.030	39	10.860	40
	BAP-4	400	2250	21.610	36	18.940	38	16.290	39	14.700	40
	BAP-5	450	2800	24.980	34	21.880	36	18.800	37	16.960	38
70°C / 50°C SICAK SU	BAP-1	300	1350	14.320	39	12.890	41	11.480	43	10.630	44
	BAP-2	350	1800	17.260	36	15.530	38	13.820	41	12.800	42
	BAP-3	350	1650	19.800	44	17.820	46	15.870	47	14.710	48
	BAP-4	400	2250	26.820	44	24.130	46	21.490	47	19.910	48
	BAP-5	450	2800	31.060	41	27.950	43	24.870	45	23.040	46
80°C / 60°C SICAK SU	BAP-1	300	1350	17.090	46	15.650	48	14.220	50	13.380	51
	BAP-2	350	1800	20.620	42	18.880	45	17.160	47	16.140	48
	BAP-3	350	1650	23.600	52	21.600	53	19.620	55	18.460	56
	BAP-4	400	2250	31.960	51	29.250	53	26.580	54	25.000	55
	BAP-5	450	2800	37.070	48	33.920	50	30.820	52	28.990	53
90°C / 70°C SICAK SU	BAP-1	300	1350	19.830	53	18.370	55	16.940	57	16.090	58
	BAP-2	350	1800	23.960	48	22.200	51	20.470	53	19.440	54
	BAP-3	350	1650	27.371	59	25.330	61	23.340	62	22.160	63
	BAP-4	400	2250	37.050	58	34.310	60	31.610	62	30.020	63
	BAP-5	450	2800	43.020	55	39.840	57	36.710	59	34.860	60

MODEL	FAN ÇAPI	ELEKTRİKSEL DEĞER	DIŞ ÖLÇÜLER (cm)				BAĞLANTI ÖLÇÜLERİ	
			L	W	H	W1	GİRİŞ	ÇIKIŞ
BAP-1	Ø300	230V / 50 Hz / 90 W / 0,42 A	63.5	40.5	56	26.5	3/4"	3/4"
BAP-2	Ø350	230V / 50 Hz / 145 W / 0,65 A	63.5	40.5	56	26.5	3/4"	3/4"
BAP-3	Ø350	230V / 50 Hz / 145 W / 0,65 A	63.5	40.5	56	26.5	3/4"	3/4"
BAP-4	Ø400	230V / 50 Hz / 190 W / 0,85 A	63.5	43	69	26.5	3/4"	3/4"
BAP-5	Ø450	230V / 50 Hz / 250 W / 1,15 A	63.5	43	69	26.5	3/4"	3/4"



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# VİTRİN SOĞUTUCULAR

## GRAVITY COOLERS

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## 15 BES SERİSİ

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 32 mm x 28 mm

Hatve / Fin Spacing : 6 mm



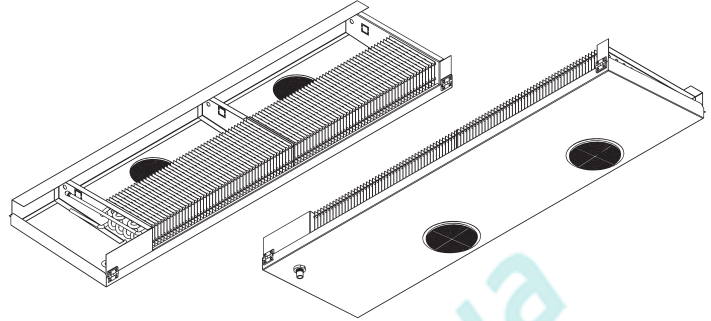
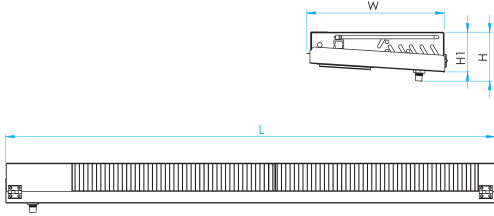
Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite Capacity		Adet Qty	Fanlar Fans			Boyutlar Dimensions			
			SC1	SC2		Çap Diameter	Hava Debisi Air Flow	Toplam Güç Total Power	L	H	W	H1
			10°C/0°C	0°C/ - 8°C								
15BES 80	3,02	0,6	430	290	1	150	190	36	80	15	43	12
15BES 90	3,57	0,7	467	316	1	150	190	36	90	15	43	12
15BES 100	4,62	0,8	813	542	2	150	380	72	100	15	43	12
15BES 110	4,66	0,9	860	578		150	380	72	110	15	43	12
15BES 120	5,21	1,0	900	609		150	380	72	120	15	43	12
15BES 130	5,76	1,2	936	636		150	380	72	130	15	43	12
15BES 140	6,31	1,3	967	659		150	380	72	140	15	43	12
15BES 150	6,86	1,4	996	680		150	380	72	150	15	43	12
15BES 160	7,41	1,5	1.021	698	3	150	380	72	160	15	43	12
15BES 170	7,96	1,6	1.360	928		150	570	108	170	15	43	12
15BES 180	8,51	1,7	1.389	947		150	570	108	180	15	43	12
15BES 190	9,05	1,8	1.414	964		150	570	108	190	15	43	12
15BES 200	9,60	1,9	1.438	980		150	570	108	200	15	43	12
15BES 210	10,15	2,0	1.460	994		150	570	108	210	15	43	12
15BES 220	10,70	2,1	1.492	1.009	4	150	570	108	220	15	43	12
15BES 230	11,25	2,2	1.521	1.030		150	570	108	230	15	43	12
15BES 240	11,80	2,3	1.549	1.050		150	570	108	240	15	43	12
15BES 250	12,35	2,5	1.574	1.068		150	570	108	250	15	43	12
15BES 260	12,90	2,6	1.954	1.333		150	760	144	260	15	43	12
15BES 270	13,44	2,7	1.982	1.354		150	760	144	270	15	43	12
15BES 280	14,00	2,7	2.009	1.374	5	150	760	144	280	15	43	12
15BES 290	14,54	2,9	2.035	1.393		150	760	144	290	15	43	12
15BES 300	15,09	3,0	2.059	1.410		150	760	144	300	15	43	12
15BES 310	15,64	3,1	2.422	1.651	6	150	950	180	310	15	43	12
15BES 320	16,19	3,2	2.449	1.669		150	950	180	320	15	43	12
15BES 330	16,74	3,3	2.475	1.687		150	950	180	330	15	43	12
15BES 340	17,28	3,4	2.500	1.703		150	950	180	340	15	43	12
15BES 350	17,83	3,5	2.523	1.718		150	950	180	350	15	43	12
15BES 360	18,38	3,7	2.880	1.963		150	1.140	216	360	15	43	12
15BES 370	18,93	3,8	2.910	1.986	6	150	1.140	216	370	15	43	12
15BES 380	19,48	3,9	2.940	2.007		150	1.140	216	380	15	43	12
15BES 390	20,03	4,0	2.968	2.028		150	1.140	216	390	15	43	12
15BES 400	20,58	4,1	3.000	2.050		150	1.140	216	400	15	43	12

## 20 BES SERİSİ

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 32 mm x 28 mm

Hatve / Fin Spacing : 6 mm



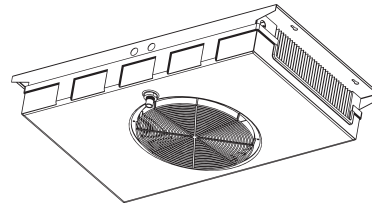
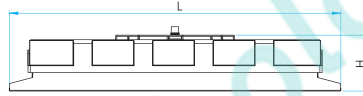
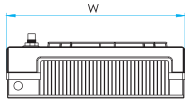
Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite Capacity		Adet Qty	Fanlar Fans			Boyutlar Dimensions			
			SC1	SC2		Çap Diameter	Hava Debisi Air Flow	Toplam Güç Total Power	L	H	W	H1
			10°C/0°C	0°C/ - 8°C								
20BES 80	3,02	0,6	650	417	1	200	355	36	80	15	48	12
20BES 90	3,57	0,7	721	467	1	200	355	36	90	15	48	12
20BES 100	4,62	0,8	1.190	803	2	200	700	72	100	15	48	12
20BES 110	4,66	0,9	1.267	857		200	700	72	110	15	48	12
20BES 120	5,21	1,0	1.330	904		200	700	72	120	15	48	12
20BES 130	5,76	1,2	1.389	946		200	700	72	130	15	48	12
20BES 140	6,31	1,3	1.441	983		200	700	72	140	15	48	12
20BES 150	6,86	1,4	1.490	1.016		200	700	72	150	15	48	12
20BES 160	7,41	1,5	1.531	1.046	3	200	700	72	160	15	48	12
20BES 170	7,96	1,6	1.977	1.309		200	1.050	108	170	15	48	12
20BES 180	8,51	1,7	2.048	1.368		200	1.050	108	180	15	48	12
20BES 190	9,05	1,8	2.112	1.424		200	1.050	108	190	15	48	12
20BES 200	9,60	1,9	2.139	1.457		200	1.050	108	200	15	48	12
20BES 210	10,15	2,0	2.192	1.494		200	1.050	108	210	15	48	12
20BES 220	10,70	2,1	2.242	1.528	4	200	1.050	108	220	15	48	12
20BES 230	11,25	2,2	2.290	1.560		200	1.050	108	230	15	48	12
20BES 240	11,80	2,3	2.334	1.590		200	1.050	108	240	15	48	12
20BES 250	12,35	2,5	2.376	1.619		200	1.050	108	250	15	48	12
20BES 260	12,90	2,6	2.878	1.959		200	1.400	144	260	15	48	12
20BES 270	13,44	2,7	2.924	1.991		200	1.400	144	270	15	48	12
20BES 280	14,00	2,7	2.972	2.021	5	200	1.400	144	280	15	48	12
20BES 290	14,54	2,9	3.013	2.049		200	1.400	144	290	15	48	12
20BES 300	15,09	3,0	3.053	2.075		200	1.400	144	300	15	48	12
20BES 310	15,64	3,1	3.706	2.518	6	200	1.875	180	310	15	48	12
20BES 320	16,19	3,2	3.763	2.557		200	1.875	180	320	15	48	12
20BES 330	16,74	3,3	3.817	2.594		200	1.875	180	330	15	48	12
20BES 340	17,28	3,4	3.858	2.630		200	1.875	180	340	15	48	12
20BES 350	17,83	3,5	3.908	2.664		200	1.875	180	350	15	48	12
20BES 360	18,38	3,7	4.420	3.003		200	2.250	216	360	15	48	12
20BES 370	18,93	3,8	4.472	3.039	200	2.250	216	370	15	48	12	
20BES 380	19,48	3,9	4.523	3.074	6	200	2.250	216	380	15	48	12
20BES 390	20,03	4,0	4.572	3.107		200	2.250	216	390	15	48	12
20BES 400	20,58	4,1	4.619	3.139		200	2.250	216	400	15	48	12

## KKTD - KKCA - KKCD SERİSİ

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 32 mm x 28 mm

Hatve / Fin Spacing : 4 mm - 6 mm



KKTD - KKCA - KKCD

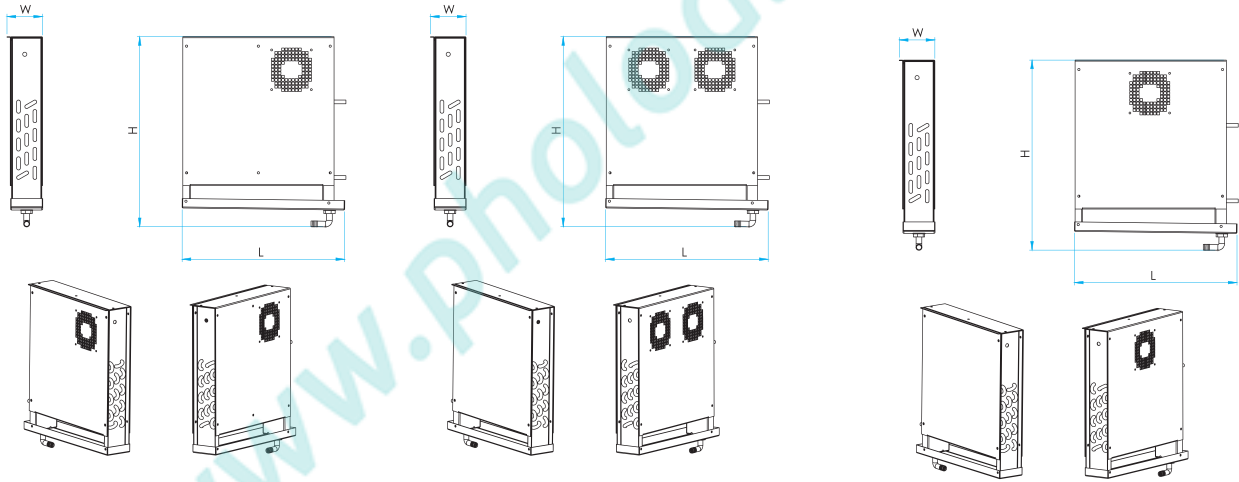
Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite Capacity		Fanlar Fans 230V AC 1300-1400 d/d-rpm			Boyutlar Dimensions		
			SC1 10°C/0°C	SC2 0°C/- 8°C	Adet Qty	Çap Diameter	Hava Debisi Air Flow	L	H	W
			(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(Watt)	(n)	(Ømm)	(m <sup>3</sup> /h)	(cm)
20KKTD111	2,55	0,4	568	307	1	200	325	44	14	49
20KKTD211	4,31	0,5	1.177	746	2	200	650	74	14	49
20KKTD212	4,94	0,7	1.323	866		200	650	74	14	49
20KKTD311	7,21	1,0	1.857	1.121	3	200	975	104	14	49
25KKCA111	3,84	0,8	1.400	758	1	250	570	88	15	47.5
30KKCA111	3,84	0,8	1.558	874		300	750	88	15	47.5
30KKCA112	5,12	1,0	1.970	1.120		300	900	88	18	47.5
25KKCD112	5,56	0,8	1.574	886		250	520	88	15	47.5
30KKCD112	5,56	0,8	1.816	1.082		300	700	88	15	47.5
30KKCD113	7,43	1,0	2.150	1.400		300	800	88	18	47.5

## LVY SERİSİ

Bakır Boru / Copper Tube : 3/8"

Kalip / Geometry : 25 mm x 22 mm

Hatve / Fin Spacing : 3,5 mm



Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite Capacity		Fanlar Fans		Boyutlar Dimensions		
			SC1 10°C/0°C	Adet Qty	Çap Diameter	Hava Debisi Air Flow	L	H	W
	(m <sup>2</sup> )	(dm <sup>3</sup> )	(Watt)	(n)	(Ømm)	(m3/h)	(cm)	(cm)	(cm)
12LVY117	2,23	0,4	370	1	120	110	44	44	10
12LVY119	2,87	0,6	410		120	110	44	49	10
12LVY110	3,19	0,7	430		120	110	44	64	10
12LVY112	3,82	0,8	450		120	110	44	64	10
12LVY217	2,23	0,4	590	2	120	215	44	44	10
12LVY219	2,87	0,6	660		120	215	44	49	10
12LVY210	3,19	0,7	690		120	215	44	64	10
12LVY212	3,82	0,8	740		120	215	44	64	10

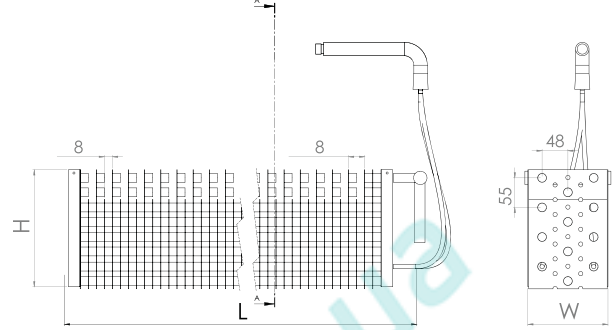
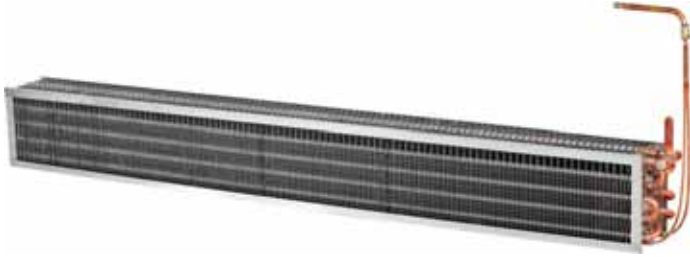


## KVS SERİSİ

Bakır Boru / Copper Tube : 3/8"

Kalıp / Geometry : 32 mm x 28 mm

Hatve / Fin Spacing : 6 mm



Cebri Hava Sirkülasyonlu Sütük Soğutucular  
Forced Air Coolers For Shop Windows

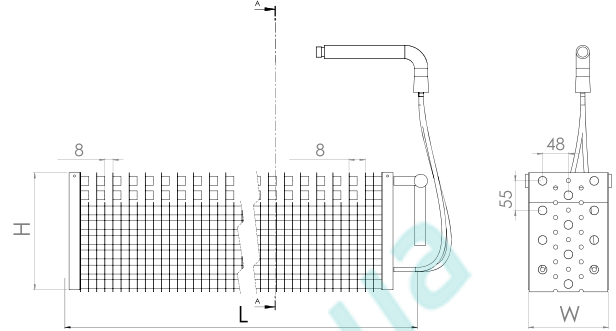
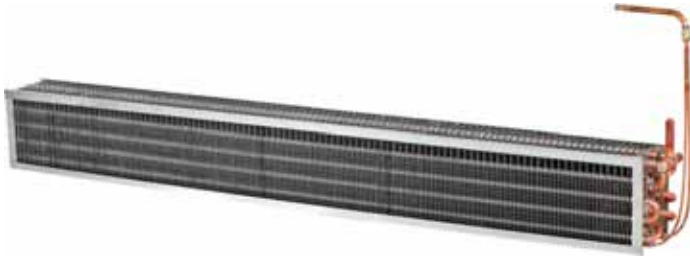
Model Model	Kapasite (Watt) Capacity		Yüzey Area (m <sup>2</sup> )	Boru Sayısı N. of Copper Tube	Geometri Geometry	Boyutlar Dimensions		
	(SC1)	(SC2)				L (cm)	H (cm)	W (cm)
<b>KVS</b>								
100 KVS 1243	1069	700	3,7	12	4X3	100	12.8	8.4
150 KVS 1243	1653	1111	5,5			150	12.8	84
200 KVS 1243	2303	1506	7,3			200	12.8	84
250 KVS 1243	2898	1925	9,1			250	12.8	84
100 KVS 1553	1294	859	4,6	15	5X3	100	16	84
150 KVS 1553	1931	1222	6,9			150	16	84
200 KVS 1553	2654	1761	9,1			200	16	84
250 KVS 1553	3386	2278	11,4			250	16	84
100 KVS 1863	1422	956	5,5	18	6X3	100	19.2	84
150 KVS 1863	2162	1428	8,2			150	19.2	84
200 KVS 1863	2915	1958	11,0			200	19.2	84
250 KVS 1863	3691	2448	13,7			250	19.2	84
100 KVS 2173	1520	1033	6,4	21	7X3	100	22.4	84
150 KVS 2173	2123	1477	9,6			150	22.4	84
200 KVS 2173	3135	2126	12,8			200	22.4	84
250 KVS 2173	4004	2680	16,0			250	22.4	84
100 KVS 2483	1597	1094	7,3	24	8X3	100	25.6	84
150 KVS 2483	2521	1689	11,0			150	25.6	84
200 KVS 2483	3288	2239	14,6			200	25.6	84
250 KVS 2483	4260	2874	18,3			250	25.6	84
100 KVS 2054	1611	1087	6,1	20	5X4	100	16	11.2
150 KVS 2054	2499	1660	9,1			150	16	112
200 KVS 2054	3311	2238	12,2			200	16	112
250 KVS 2054	4265	2851	15,2			250	16	112
100 KVS 2464	1727	1076	7,3	24	6X4	100	19.2	112
150 KVS 2464	2735	1838	11,0			150	19.2	112
200 KVS 2464	3624	2416	14,6			200	19.2	112
250 KVS 2464	4615	3125	18,3			250	19.2	112

## MVS SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 40 mm x 35 mm

Hatve / Fin Spacing : 8 mm



Cebri Hava Sirkülasyonlu Sütük Soğutucular  
Forced Air Coolers For Shop Windows

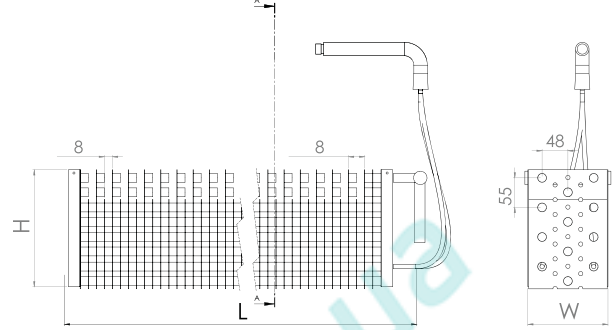
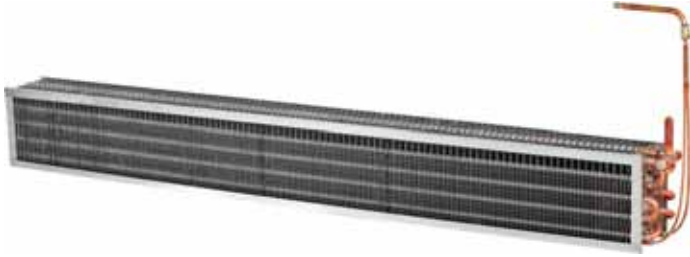
Model Model	Kapasite (Watt) Capacity		Yüzey Area (m <sup>2</sup> )	Boru Sayısı N, of Copper Tube	Geometri Geometry	Boyutlar Dimensions			Fiyat Price €
	(SC1)	(SC2)				L (cm)	H (cm)	W (cm)	
<b>MVS</b>									
100 MVS 1262	1025	537	4,3	12	6X2	100	24	7	€ 77
150 MVS 1262	1801	1084	6,5			150	24	7	€ 116
200 MVS 1262	2439	1605	8,6			200	24	7	€ 154
250 MVS 1262	3037	2032	10,7			250	24	7	€ 192
100 MVS 1243	1136	583	4,3	12	4X3	100	16	10.5	€ 77
150 MVS 1243	1901	1165	6,5			150	16	10.5	€ 116
200 MVS 1243	2591	1708	8,6			200	16	10.5	€ 154
250 MVS 1243	3041	1676	10,8			250	16	10.5	€ 192
100 MVS 1553	1408	769	5,4	15	5X3	100	20	10.5	€ 96
150 MVS 1553	2291	1504	8,1			150	20	10.5	€ 144
200 MVS 1553	3028	2031	10,8			200	20	10.5	€ 192
250 MVS 1553	3731	2280	13,4			250	20	10.5	€ 240
100 MVS 1863	1639	969	6,5	18	6X3	100	24	10.5	€ 116
150 MVS 1863	2528	1681	9,7			150	24	10.5	€ 173
200 MVS 1863	3286	1934	12,9			200	24	10.5	€ 231
250 MVS 1863	4206	2749	16,1			250	24	10.5	€ 288
100 MVS 2173	1814	1142	7,5	21	7X3	100	28	10.5	€ 135
150 MVS 2173	2734	1837	11,3			150	28	10.5	€ 202
200 MVS 2173	3644	2274	15,0			200	28	10.5	€ 269
250 MVS 2173	4638	3075	18,8			250	28	10.5	€ 336
100 MVS 2054	1784	1109	7,2	20	5X4	100	20	14	€ 128
150 MVS 2054	2760	1853	10,7			150	20	14	€ 192
200 MVS 2054	3579	2211	14,3			200	20	14	€ 256
250 MVS 2054	4526	2994	17,9			250	20	14	€ 320
100 MVS 2464	1987	1298	8,6	24	6X4	100	24	14	€ 154
150 MVS 2464	2911	1686	12,9			150	24	14	€ 231
200 MVS 2464	4033	2639	17,2			200	24	14	€ 308
250 MVS 2464	5007	3356	21,5			250	24	14	€ 384

## NVS SERİSİ

Bakır Boru / Copper Tube : 5/8"

Kalıp / Geometry : 40 mm x 35 mm

Hatve / Fin Spacing : 8 mm



Cebri Hava Sirkülasyonlu Sütük Soğutucular  
Forced Air Coolers For Shop Windows

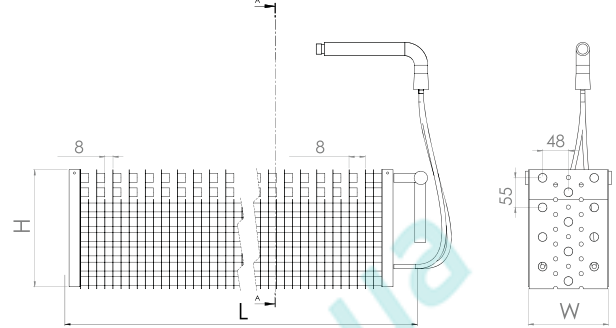
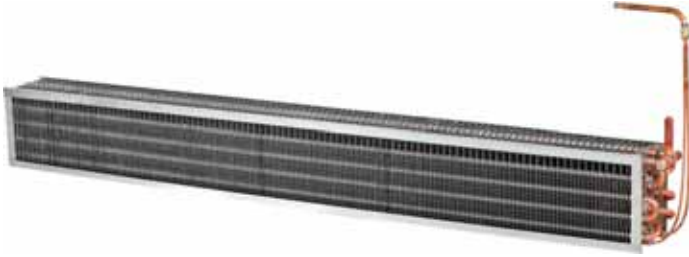
Model Model	Kapasite (Watt) Capacity		Yüzey Area (m <sup>2</sup> )	Boru Sayısı N. of Copper Tube	Geometri Geometry	Boyutlar Dimensions		
	(SC1)	(SC2)				L (cm)	H (cm)	W (cm)
NVS								
100 NVS 1262	853	472	4,2	12	6X2	100	24	7
150 NVS 1262	1684	882	6,3			150	24	7
200 NVS 1262	2587	1451	8,4			200	24	7
250 NVS 1262	3325	2096	10,5			250	24	7
100 NVS 1243	945	517	4,2	12	4X3	100	16	10,5
150 NVS 1243	1984	1010	6,3			150	16	10,5
200 NVS 1243	2985	1738	8,4			200	16	10,5
250 NVS 1243	3743	2426	10,5			250	16	10,5
100 NVS 1553	1268	663	5,3	15	5X3	100	20	10,5
150 NVS 1553	2439	1329	7,9			150	20	10,5
200 NVS 1553	3375	2141	10,5			200	20	10,5
250 NVS 1553	4248	2817	13,1			250	20	10,5
100 NVS 1863	1549	827	6,3	18	6X3	100	24	10,5
150 NVS 1863	2698	1591	9,5			150	24	10,5
200 NVS 1863	3673	2415	12,6			200	24	10,5
250 NVS 1863	4550	3054	15,8			250	24	10,5
100 NVS 2173	1767	973	7,4	21	7X3	100	28	10,5
150 NVS 2173	2910	1816	11,0			150	28	10,5
200 NVS 2173	3903	2607	14,7			200	28	10,5
250 NVS 2173	4768	3230	18,4			250	28	10,5
100 NVS 2483	1951	1104	8,4	24	8X3	100	32	10,5
150 NVS 2483	3084	1975	12,6			150	32	10,5
200 NVS 2483	4084	2749	16,8			200	32	10,5
250 NVS 2483	5091	3043	21,0			250	32	10,5
100 NVS 2464	2181	1223	8,4	24	6X4	100	24	14
150 NVS 2464	3364	2188	12,6			150	24	14
200 NVS 2464	4426	2989	16,8			200	24	14
250 NVS 2464	5565	3398	21,0			250	24	14

## OVS SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 8 mm



Cebri Hava Sirkülasyonlu Sütüklük Soğutucular  
Forced Air Coolers For Shop Windows

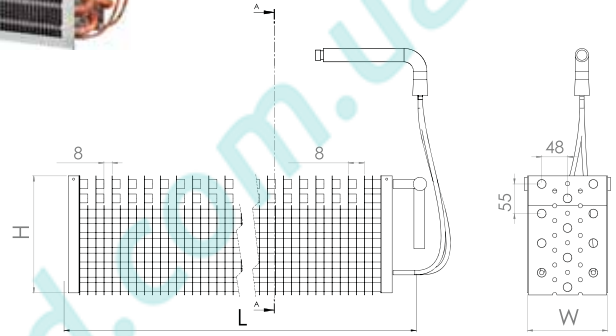
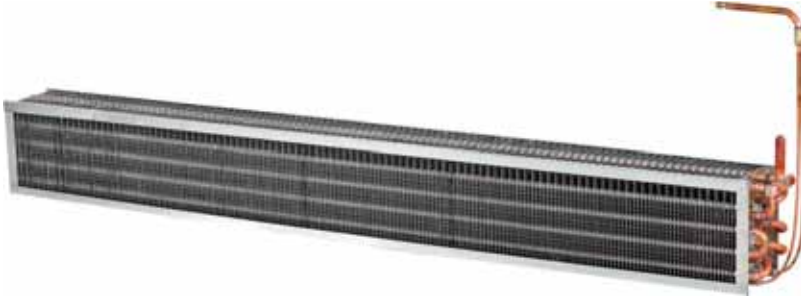
Model Model	Kapasite (Watt) Capacity		Yüzey Area	Boru Sayısı N. of Copper Tube	Geometri Geometry	Boyutlar Dimensions		
	(SC1)	(SC2)				L (cm)	H (cm)	W (cm)
<b>OVS</b>			(m <sup>2</sup> )					
100 OVS 1052	1069	610	6,7	10	5X2	100	27,5	9,6
150 OVS 1052	1797	1127	12,0			150	27,5	9,6
200 OVS 1052	2467	1660	13,4			200	27,5	9,6
250 OVS 1052	3091	2103	16,7			250	27,5	9,6
100 OVS 1262	1256	726	8,0	12	6X2	100	33	9,6
150 OVS 1262	2027	1353	12,0			150	33	9,6
200 OVS 1262	2739	1857	16,0			200	33	9,6
250 OVS 1262	3375	2314	20,0			250	33	9,6
100 OVS 1243	1411	815	8,0	12	4X3	100	22	14,4
150 OVS 1243	2257	1514	12,0			150	22	14,4
200 OVS 1243	3039	2066	16,0			200	22	14,4
250 OVS 1243	3712	2557	20,0			250	22	14,4
100 OVS 1553	1658	1024	10,0	15	5X3	100	27,5	14,4
150 OVS 1553	2567	1738	15,0			150	27,5	14,4
200 OVS 1553	3319	2042	20,0			200	27,5	14,4
250 OVS 1553	4263	2867	25,0			250	27,5	14,4
100 OVS 1863	1851	1211	12,0	18	6X3	100	33	14,4
150 OVS 1863	2801	1911	18,0			150	33	14,4
200 OVS 1863	3712	2415	24,0			200	33	14,4
250 OVS 1863	4704	3182	30,0			250	33	14,4

## PVS SERİSİ

Bakır Boru / Copper Tube : 5/8"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 8 mm



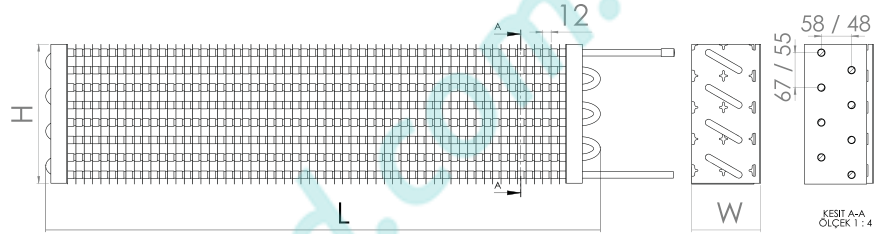
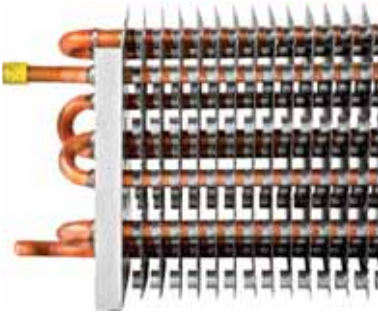
Cebri Hava Sirkülasyonlu Sütük Soğutucular Forced Air Coolers For Shop Windows								
Model Model	Kapasite (Watt) Capacity		Yüzey Area	Boru Sayısı N. of Copper Tube	Geometri Geometry	Boyutlar Dimensions		
	(SC1)	(SC2)				(m <sup>2</sup> )	L (cm)	H (cm)
<b>PVS</b>								
100 PVS 842	727	464	5,3	8	4X2	100	22	9.6
150 PVS 842	1336	774	7,9			150	22	9.6
200 PVS 842	2145	1164	10,6			200	22	9.6
250 PVS 842	2895	1698	13,2			250	22	9.6
100 PVS 1052	926	562	6,6	10	5X2	100	27.5	9.6
150 PVS 1052	1704	951	9,9			150	27.5	9.6
200 PVS 1052	2608	1500	13,2			200	27.5	9.6
250 PVS 1052	3362	2166	16,5			250	27.5	9.6
100 PVS 1262	1118	652	7,9	12	6X2	100	33	9.6
150 PVS 1262	2032	1152	11,9			150	33	9.6
200 PVS 1262	2937	1809	15,9			200	33	9.6
250 PVS 1262	3740	2502	19,8			250	33	9.6
100 PVS 1243	1254	727	7,9	12	4X3	100	22	14.4
150 PVS 1243	2346	1302	11,9			150	22	14.4
200 PVS 1243	3290	2101	15,9			200	22	14.4
250 PVS 1243	4181	2803	19,8			250	22	14.4
100 PVS 1553	1569	892	9,9	15	5X3	100	26	14.4
150 PVS 1553	2728	1636	14,9			150	27.5	14.4
200 PVS 1553	3730	2500	19,8			200	27.5	14.4
250 PVS 1553	4653	3157	24,8			250	27.5	14.4
100 PVS 1863	1846	1065	11,9	18	6X3	100	33	14.4
150 PVS 1863	3020	1930	17,8			150	33	14.4
200 PVS 1863	4064	2749	23,8			200	33	14.4
250 PVS 1863	4985	2915	29,7			250	33	14.4

## MVR SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 40 mm x 35 mm

Hatve / Fin Spacing : 12 mm



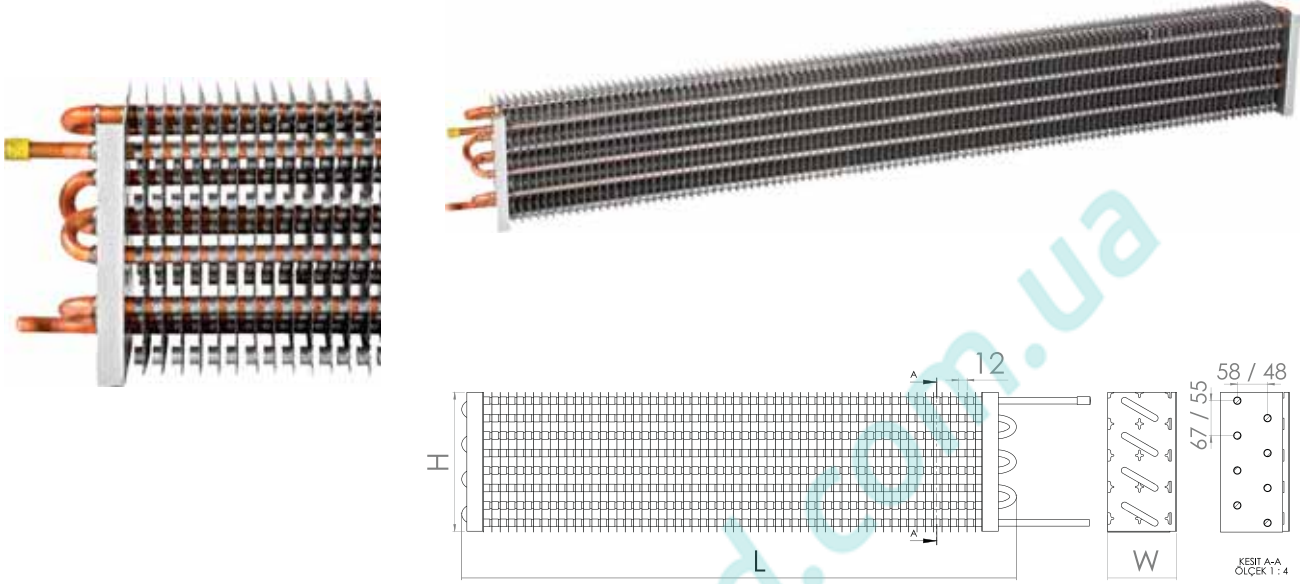
Reyon Soğutucular Gravity Coolers For Shop Windows								
Model Model	Kapasite (Watt) Capacity		Yüzey Area (m <sup>2</sup> )	Boru Sayısı N. of Copper Tube	Geometri Geometry	Boyutlar Dimensions		
	(SC1)	(SC2)				L (cm)	H (cm)	W (cm)
MVR								
140 MVR 632	316	183	2,1	6	3X2	140	12	9
200 MVR 632	509	292	3,0			200	12	9
260 MVR 632	742	427	3,8			260	12	9
140 MVR 842	408	239	2,8	8	4X2	140	16	9
200 MVR 842	641	377	4,0			200	16	9
260 MVR 842	914	545	5,2			260	16	9
140 MVR 1052	487	289	3,5	10	5X2	140	20	9
200 MVR 1052	748	450	5,0			200	20	9
260 MVR 1052	1049	642	6,6			260	20	9
140 MVR 1262	553	333	4,2	12	6X2	140	24	9
200 MVR 1262	835	512	6,1			200	24	9
260 MVR 1262	1161	722	7,9			260	24	9
140 MVR 1472	610	373	4,9	14	7X2	140	28	9
200 MVR 1472	910	566	7,1			200	28	9
260 MVR 1472	1244	792	9,2			260	28	9
140 MVR 1682	660	407	5,6	16	8X2	140	32	9
200 MVR 1682	974	612	8,1			200	32	9
260 MVR 1682	1309	850	10,5			260	32	9
140 MVR 1243	650	387	4,2	12	4X3	140	16	12,5
200 MVR 1243	991	603	6,1			200	16	12,5
260 MVR 1243	1362	860	7,9			260	16	12,5
140 MVR 1553	748	455	5,3	15	5X3	140	20	12,5
200 MVR 1553	1117	696	7,6			200	20	12,5
260 MVR 1553	1484	970	9,8			260	20	12,5

## OVR SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 12 mm



Reyon Soğutucular  
Gravity Coolers For Shop Windows

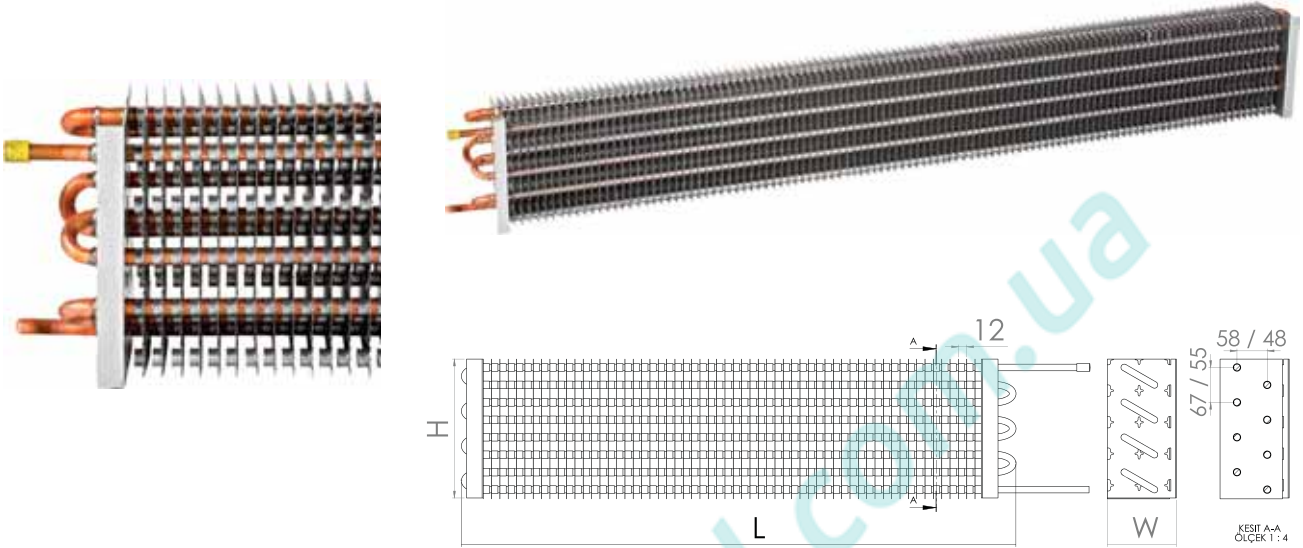
Model Model	Kapasite (Watt) Capacity		Yüzey Area (m <sup>2</sup> )	Boru Sayısı N. of Copper Tube	Boru x Sıra N. Of Tube x Row	Boyutlar Dimensions		
	(SC1)	(SC2)				L (cm)	H (cm)	W (cm)
<b>OVR</b>								
140 OVR 632	409	253	3,9	6	3X2	140	16,5	11,6
200 OVR 632	631	385	5,5			200	16,5	11,6
260 OVR 632	896	544	7,2			260	16,5	11,6
140 OVR 842	515	319	5,1	8	4X2	140	22	11,6
200 OVR 842	783	484	7,3			200	22	11,6
260 OVR 842	1099	681	9,5			260	22	11,6
140 OVR 1052	604	377	6,4	10	5X2	140	27,5	11,6
200 OVR 1052	907	567	9,2			200	27,5	11,6
260 OVR 1052	1261	794	11,9			260	27,5	11,6
140 OVR 1262	680	428	7,7	12	6X2	140	33	11,6
200 OVR 1262	1010	639	11,0			200	33	11,6
260 OVR 1262	1375	890	14,3			260	33	11,6
140 OVR 1472	745	472	9,0	14	7X2	140	38,5	11,6
200 OVR 1472	1098	701	12,8			200	38,5	11,6
260 OVR 1472	1463	967	16,7			260	38,5	11,6
140 OVR 1682	802	512	10,3	16	8X2	140	44	11,6
200 OVR 1682	1172	755	14,7			200	44	11,6
260 OVR 1682	1537	1026	19,1			260	44	11,6

## PVR SERİSİ

Bakır Boru / Copper Tube : 5/8"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 12 mm



Reyon Soğutucular Gravity Coolers For Shop Windows								
Model Model	Kapasite (Watt) Capacity		Yüzey Area	Boru Sayısı N. of Copper Tube	Boru x Sıra N. Of Tube x Row	Boyutlar Dimensions		
	(SC1)	(SC2)				L	H	W
PVR	(SC1)	(SC2)	(m <sup>2</sup> )			(cm)	(cm)	(cm)
100 PVR 632	263	168	2,7	6	3X2	100	16,5	11,6
150 PVR 632	428	265	4,1			150	16,5	11,6
200 PVR 632	622	376	5,5			200	16,5	11,6
250 PVR 632	840	502	6,9			250	16,5	11,6
300 PVR 632	1079	642	8,2			300	16,5	11,6
100 PVR 842	330	209	3,7	8	4X2	100	22	11,6
150 PVR 842	542	335	5,5			150	22	11,6
200 PVR 842	785	479	7,3			200	22	11,6
250 PVR 842	1053	639	9,1			250	22	11,6
300 PVR 842	1340	815	11,0			300	22	11,6

Reyon Soğutucular Gravity Coolers For Shop Windows								
Model Model	Kapasite (Watt) Capacity		Yüzey Area	Boru Sayısı N. of Copper Tube	Boru x Sıra N. Of Tube x Row	Boyutlar Dimensions		
	(SC1)	(SC2)				L	H	W
PVR	(SC1)	(SC2)	(m <sup>2</sup> )			(cm)	(cm)	(cm)
10 RVR 632	324	212	4,0	6	3X2	10	20,1	13,6
15 RVR 632	525	335	6,0			15	20,1	13,6
20 RVR 632	753	475	8,0			20	20,1	13,6
25 RVR 632	1005	630	10,0			25	20,1	13,6
10 RVR 842	401	261	5,3	8	4X2	10	26,8	13,6
15 RVR 842	652	417	8,0			15	26,8	13,6
20 RVR 842	933	592	10,7			20	26,8	13,6
25 RVR 842	1236	785	13,3			25	26,8	13,6

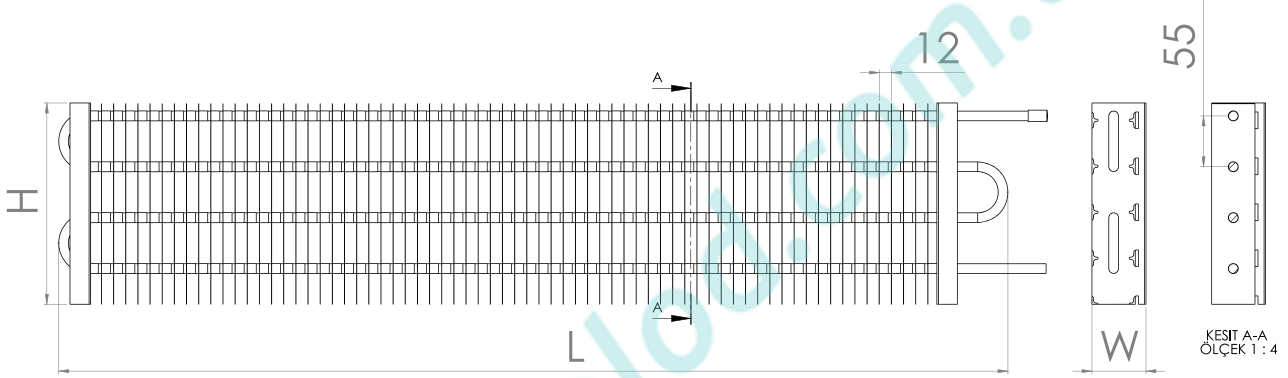
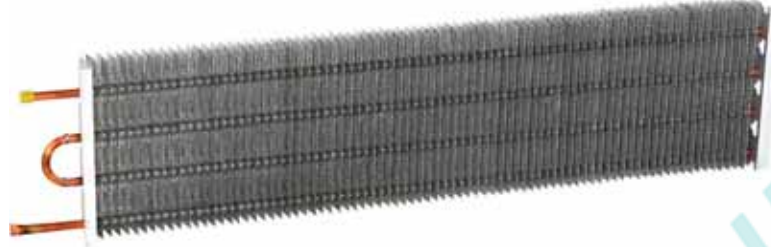


## OVA SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 12 mm



Ankastre Soğutucular  
Gravity Coolers For Shop Windows

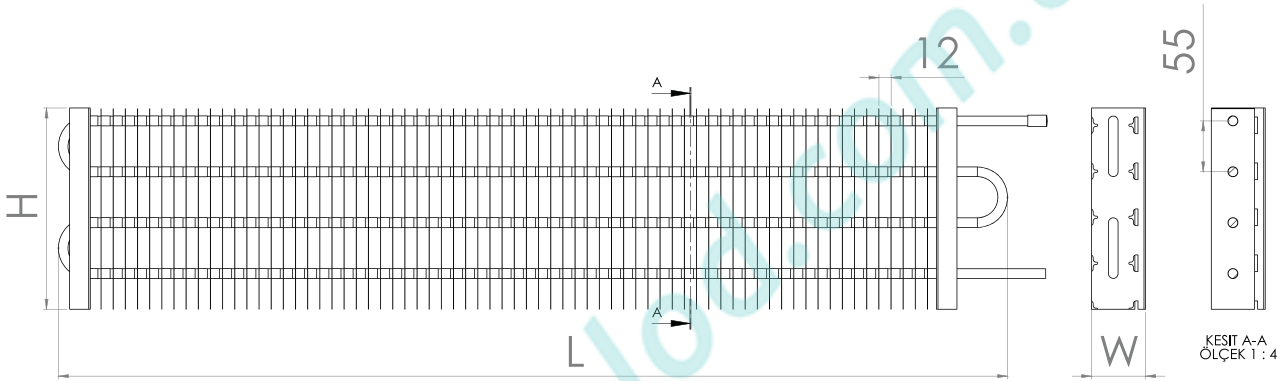
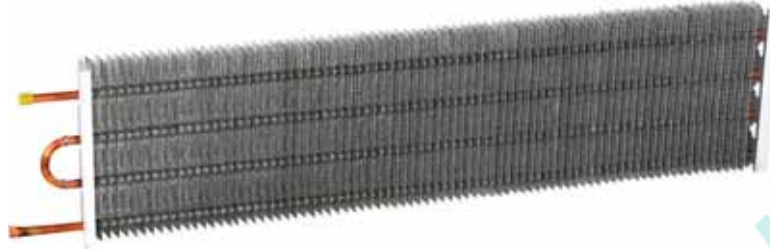
Model Model	Kapasite(Watt) Capacity		Yüzey Area (m <sup>2</sup> )	Boru Sayısı N. of Copper Tube	Boru x Sıra N. Of Tube x Row	Boyutlar Dimensions		
	(SC1)	(SC2)				L (cm)	H (cm)	W (cm)
<b>OVA</b>								
80 OVA 331	107	73	1,1	3	3X1	80	16.5	6.8
100 OVA 331	128	85	1,4			100	16.5	6.8
120 OVA 331	157	103	1,7			120	16.5	6.8
150 OVA 331	201	130	2,1			150	16.5	6.8
170 OVA 331	233	148	2,3			170	16.5	6.8
200 OVA 331	283	178	2,8			200	16.5	6.8
220 OVA 331	319	199	3,0			220	16.5	6.8
250 OVA 331	375	232	3,4			250	16.5	6.8
270 OVA 331	414	255	3,7			270	16.5	6.8
80 OVA 441	135	89	1,5			4	4X1	80
100 OVA 441	161	105	1,8	100	2.2			6.8
120 OVA 441	197	127	2,2	120	2.2			6.8
150 OVA 441	255	163	2,8	150	2.2			6.8
170 OVA 441	296	187	3,1	170	2.2			6.8
200 OVA 441	362	226	3,7	200	2.2			6.8
220 OVA 441	408	253	4,0	220	2.2			6.8
250 OVA 441	480	296	4,6	250	2.2			6.8
270 OVA 441	530	326	5,0	270	2.2			6.8

## PVA SERİSİ

Bakır Boru / Copper Tube : 5/8"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 12 mm



KESİT A-A  
ÖLÇEK 1 : 4

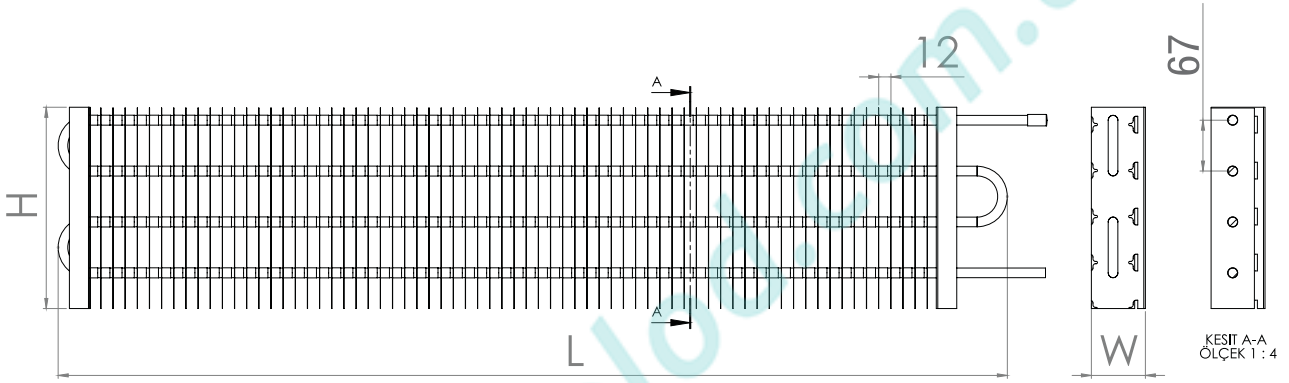
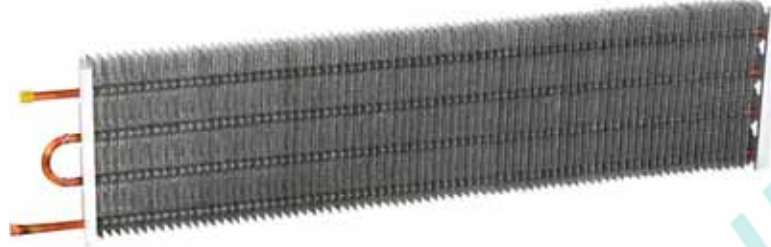
Ankastre Soğutucular Gravity Coolers For Shop Windows								
Model Model	Kapasite(Watt) Capacity		Yüzey Area (m <sup>2</sup> )	Boru Sayısı N. of Copper Tube	Boru x Sıra N. Of Tube x Row	Boyutlar Dimensions		
	(SC1)	(SC2)				L (cm)	H (cm)	W (cm)
80 PVA 331	106	74	1,1	3	3X1	80	16,5	6,8
120 PVA 331	154	103	1,6			120	16,5	6,8
150 PVA 331	196	129	2,1			150	16,5	6,8
170 PVA 331	225	147	2,3			170	16,5	6,8
200 PVA 331	272	175	2,7			200	16,5	6,8
220 PVA 331	304	194	3,0			220	16,5	6,8
250 PVA 331	355	223	3,4			250	16,5	6,8
270 PVA 331	390	243	3,7			270	16,5	6,8
80 PVA 441	133	89	1,5			4	4X1	80
120 PVA 441	193	125	2,2	120	2,2			6,8
150 PVA 441	247	158	2,7	150	2,2			6,8
170 PVA 441	286	181	3,1	170	2,2			6,8
200 PVA 441	346	218	3,7	200	2,2			6,8
220 PVA 441	388	243	4,0	220	2,2			6,8
250 PVA 441	455	282	4,6	250	2,2			6,8
270 PVA 441	501	309	4,9	270	2,2			6,8

## RVA SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 67 mm x 58 mm

Hatve / Fin Spacing : 12 mm



### Ankastre Soğutucular Gravity Coolers For Shop Windows

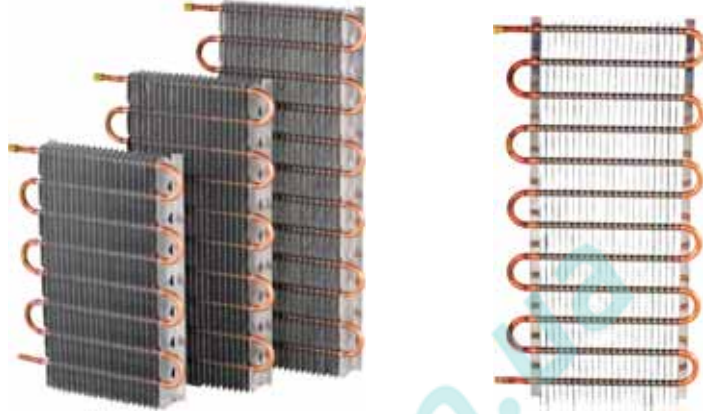
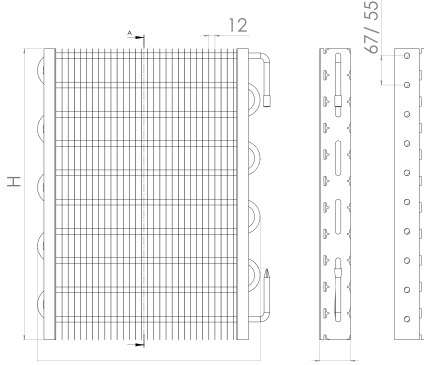
Model Model	Kapasite(Watt) Capacity		Yüzey Area (m <sup>2</sup> )	Boru Sayısı N. of Copper Tube	Boru x Sıra N. Of Tube x Row	Boyutlar Dimensions		
	(SC1)	(SC2)				L (cm)	H (cm)	W (cm)
80 RVA 331	133	91	1,6	3	3X1	80	20.1	7.8
100 RVA 331	158	106	2,0			100	20.1	7.8
120 RVA 331	192	128	2,4			120	20.1	7.8
150 RVA 331	244	161	3,0			150	20.1	7.8
170 RVA 331	281	184	3,4			170	20.1	7.8
200 RVA 331	339	220	4,0			200	20.1	7.8
220 RVA 331	379	245	4,4			220	20.1	7.8
250 RVA 331	441	283	5,0			250	20.1	7.8
270 RVA 331	485	310	5,4			270	20.1	7.8
80 RVA 441	166	111	2,1			4	4X1	80
100 RVA 441	196	131	2,7	100	26.8			7.8
120 RVA 441	239	158	3,2	120	26.8			7.8
150 RVA 441	306	201	4,0	150	26.8			7.8
170 RVA 441	353	230	4,5	170	26.8			7.8
200 RVA 441	427	276	5,3	200	26.8			7.8
220 RVA 441	478	308	5,9	220	26.8			7.8
250 RVA 441	558	357	6,7	250	26.8			7.8
270 RVA 441	614	391	7,2	270	26.8	7.8		

## OVY SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 12 mm



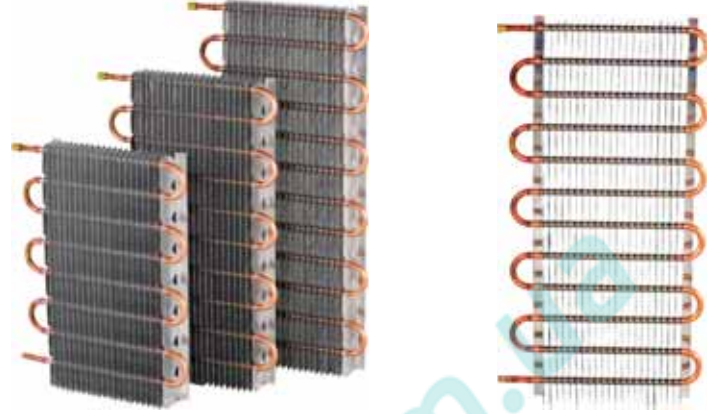
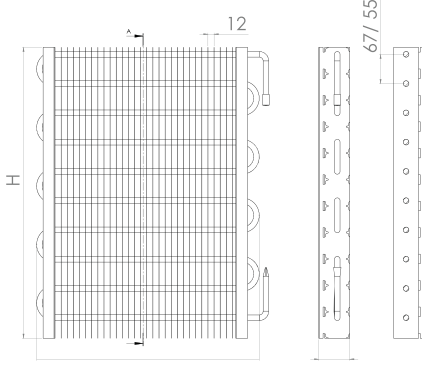
Yan Soğutucular Side Gravity Coolers For Shop Windows								
Model Model	Kapasite(Watt) Capacity		Yüzey Area (m <sup>2</sup> )	Boru Sayısı N. of Copper Tube	Boru x Sıra N. Of Tube x Row	Boyutlar Dimensions		
	(SC1)	(SC2)				L (cm)	H (cm)	W (cm)
OVY	(SC1)	(SC2)	(m <sup>2</sup> )			(cm)	(cm)	(cm)
<b>3 LÜ YAN SOĞUTUCULAR</b>								
20 Ovy 361	61	45	0,6	6	6X1	20	33	5.5
25 Ovy 361	73	53	0,7			25	33	5.5
30 Ovy 361	85	60	0,8			30	33	5.5
35 Ovy 361	96	67	1,0			35	33	5.5
40 Ovy 361	107	72	1,1			40	33	5.5
45 Ovy 361	118	79	1,2			45	33	5.5
50 Ovy 361	128	85	1,4			50	33	5.5
55 Ovy 361	138	91	1,5			55	33	5.5
60 Ovy 361	148	97	1,7			60	33	5.5
<b>4 LÜ YAN SOĞUTUCULAR</b>								
20 Ovy 481	77	55	0,7	8	8X1	20	44	5.5
25 Ovy 481	93	65	0,9			25	44	5.5
30 Ovy 481	107	73	1,1			30	44	5.5
35 Ovy 481	122	81	1,3			35	44	5.5
40 Ovy 481	135	89	1,5			40	44	5.5
45 Ovy 481	148	97	1,7			45	44	5.5
50 Ovy 481	161	105	1,8			50	44	5.5
55 Ovy 481	173	112	2,0			55	44	5.5
60 Ovy 481	185	120	2,2			60	44	5.5
<b>5 Lİ YAN SOĞUTUCULAR</b>								
20 Ovy 5101	93	65	0,9	10	10X1	20	55	5.5
25 Ovy 5101	111	75	1,1			25	55	5.5
30 Ovy 5101	128	85	1,4			30	55	5.5
35 Ovy 5101	145	95	1,6			35	55	5.5
40 Ovy 5101	161	105	1,8			40	55	5.5
45 Ovy 5101	176	115	2,1			45	55	5.5
50 Ovy 5101	191	125	2,3			50	55	5.5
55 Ovy 5101	204	135	2,5			55	55	5.5
60 Ovy 5101	218	145	2,8			60	55	5.5
<b>6 Lİ YAN SOĞUTUCULAR</b>								
20 Ovy 6121	107	73	1,1	12	12X1	20	66	5.5
25 Ovy 6121	128	85	1,4			25	66	5.5
30 Ovy 6121	148	97	1,7			30	66	5.5
35 Ovy 6121	167	109	1,9			35	66	5.5
40 Ovy 6121	185	120	2,2			40	66	5.5
45 Ovy 6121	202	131	2,5			45	66	5.5
50 Ovy 6121	218	141	2,8			50	66	5.5
55 Ovy 6121	233	151	3,0			55	66	5.5
60 Ovy 6121	248	160	3,3			60	66	5.5

## OVY SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 55 mm x 48 mm

Hatve / Fin Spacing : 12 mm



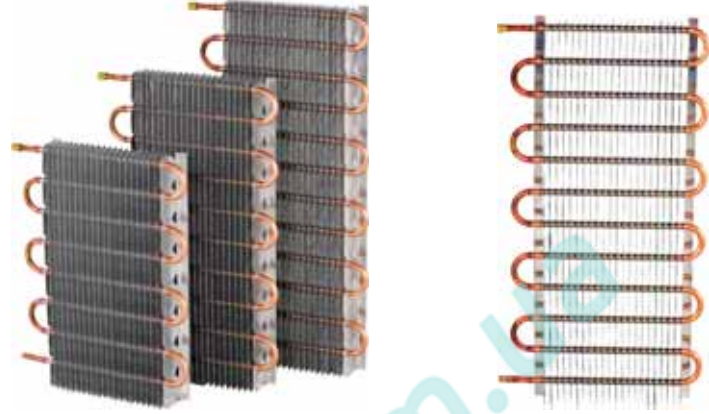
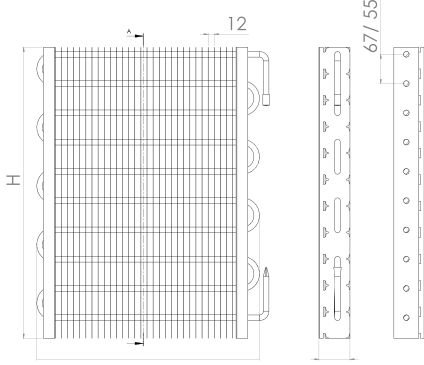
Yan Soğutucular Side Gravity Coolers For Shop Windows								
Model Model	Kapasite(Watt) Capacity		Yüzey Area	Boru Sayısı N. of Copper Tube	Boru x Sıra N. Of Tube x Row	Boyutlar Dimensions		
OVY	(SC1)	(SC2)	(m <sup>2</sup> )			L (cm)	H (cm)	W (cm)
<b>7 Lİ YAN SOĞUTUCULAR</b>								
20 Ovy 7141	122	81	1,3	14	14X1	20	77	5.5
25 Ovy 7141	145	95	1,6			25	77	5.5
30 Ovy 7141	167	109	1,9			30	77	5.5
35 Ovy 7141	188	122	2,2			35	77	5.5
40 Ovy 7141	207	134	2,6			40	77	5.5
45 Ovy 7141	225	146	2,9			45	77	5.5
50 Ovy 7141	243	157	3,2			50	77	5.5
55 Ovy 7141	259	167	3,5			55	77	5.5
60 Ovy 7141	275	177	3,9	60	77	5.5		
<b>8 Lİ YAN SOĞUTUCULAR</b>								
20 Ovy 8161	135	89	1,5	16	16X1	20	88	5.5
25 Ovy 8161	161	105	1,8			25	88	5.5
30 Ovy 8161	185	120	2,2			30	88	5.5
35 Ovy 8161	200	134	2,6			35	88	5.5
40 Ovy 8161	228	147	2,9			40	88	5.5
45 Ovy 8161	248	160	3,3			45	88	5.5
50 Ovy 8161	266	172	3,7			50	88	5.5
55 Ovy 8161	283	183	4,0			55	88	5.5
60 Ovy 8161	300	193	4,4	60	88	5.5		
<b>9 Lİ YAN SOĞUTUCULAR</b>								
30 Ovy 9181	216	139	2,5	18	18X1	30	99	5.5
35 Ovy 9181	243	156	2,9			35	99	5.5
40 Ovy 9181	268	172	3,3			40	99	5.5
45 Ovy 9181	292	187	3,7			45	99	5.5
50 Ovy 9181	314	187	4,1			50	99	5.5
55 Ovy 9181	335	215	4,5			55	99	5.5
60 Ovy 9181	355	228	4,9			60	99	5.5
<b>10 Lİ YAN SOĞUTUCULAR</b>								
30 Ovy 10201	238	153	2,8	20	20X1	30	110	5.5
35 Ovy 10201	267	171	3,2			35	110	5.5
40 Ovy 10201	295	189	3,7			40	110	5.5
45 Ovy 10201	320	205	4,1			45	110	5.5
50 Ovy 10201	344	220	4,6			50	110	5.5
55 Ovy 10201	367	235	5,0			55	110	5.5
60 Ovy 10201	388	249	5,5	60	110	5.5		

## RVY SERİSİ

Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 67 mm x 58 mm

Hatve / Fin Spacing : 12 mm

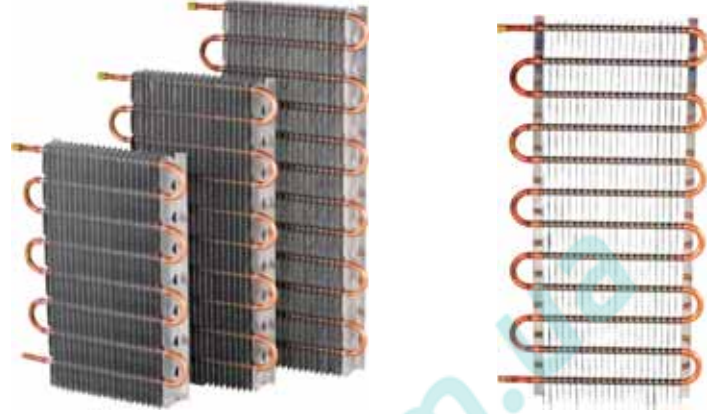
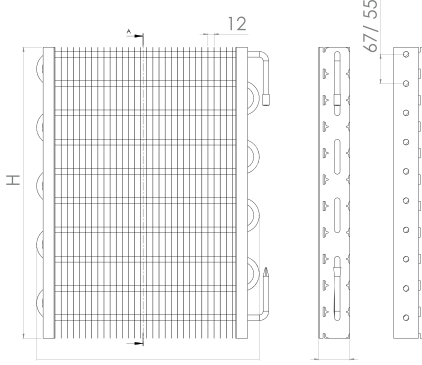


Yan Soğutucular Side Gravity Coolers For Shop Windows								
Model	Kapasite(Watt) Capacity		Yüzey Area	Boru Sayısı N. of Copper Tube	Boru x Sıra N. Of Tube x Row	Boyutlar Dimensions		
RVY	(SC1)	(SC2)	(m <sup>2</sup> )			L (cm)	H (cm)	W (cm)
<b>3 LÜ YAN SOĞUTUCULAR</b>								
20 RVY 361	77	57	0,8	6	6x1	20	40,2	6,7
25 RVY 361	92	66	1,0			25	40,2	6,7
30 RVY 361	106	75	1,2			30	40,2	6,7
35 RVY 361	120	83	1,4			35	40,2	6,7
40 RVY 361	133	91	1,6			40	40,2	6,7
45 RVY 361	146	98	1,8			45	40,2	6,7
50 RVY 361	158	106	2,0			50	40,2	6,7
55 RVY 361	170	114	2,2			55	40,2	6,7
60 RVY 361	181	121	2,4			60	40,2	6,7
<b>4 LÜ YAN SOĞUTUCULAR</b>								
20 RVY 481	97	69	1,0	8	8X1	20	53,6	6,7
25 RVY 481	116	80	1,3			25	53,6	6,7
30 RVY 481	133	91	1,6			30	53,6	6,7
35 RVY 481	150	101	1,9			35	53,6	6,7
40 RVY 481	166	111	2,1			40	53,6	6,7
45 RVY 481	181	121	2,4			45	53,6	6,7
50 RVY 481	196	131	2,7			50	53,6	6,7
55 RVY 481	211	141	2,9			55	53,6	6,7
60 RVY 481	226	150	3,2			60	53,6	6,7
<b>5 Lİ YAN SOĞUTUCULAR</b>								
20 RVY 5101	116	81	1,3	10	10X1	20	67	6,7
25 RVY 5101	137	93	1,7			25	67	6,7
30 RVY 5101	158	106	2,0			30	67	6,7
35 RVY 5101	178	119	2,3			35	67	6,7
40 RVY 5101	196	131	2,7			40	67	6,7
45 RVY 5101	214	142	3,0			45	67	6,7
50 RVY 5101	230	153	3,3			50	67	6,7
55 RVY 5101	246	163	3,7			55	67	6,7
60 RVY 5101	261	173	4,0			60	67	6,7
<b>6 Lİ YAN SOĞUTUCULAR</b>								
20 RVY 6121	133	91	1,6	12	12X1	20	80,4	6,7
25 RVY 6121	158	106	2,0			25	80,4	6,7
30 RVY 6121	181	121	2,4			30	80,4	6,7
35 RVY 6121	203	135	2,8			35	80,4	6,7
40 RVY 6121	224	149	3,2			40	80,4	6,7
45 RVY 6121	243	161	3,4			45	80,4	6,7
50 RVY 6121	261	173	4,0			50	80,4	6,7
55 RVY 6121	279	185	4,4			55	80,4	6,7
60 RVY 6121	295	195	4,8			60	80,4	6,7

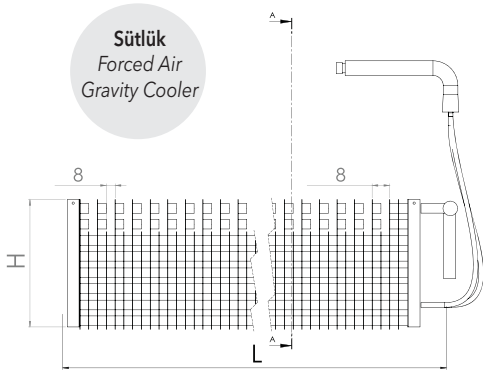
Bakır Boru / Copper Tube : 1/2"

Kalıp / Geometry : 67 mm x 58 mm

Hatve / Fin Spacing : 12 mm

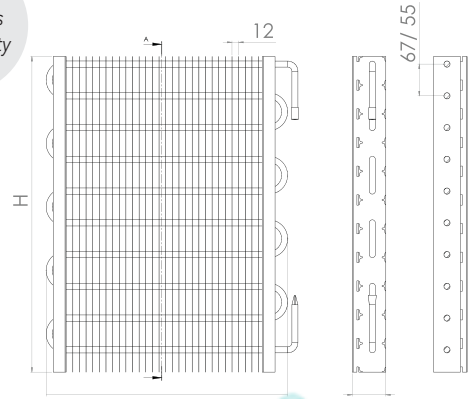


Yan Soğutucular Side Gravity Coolers For Shop Windows								
Model Model	Kapasite(Watt) Capacity		Yüzey Area (m <sup>2</sup> )	Boru Sayısı N. of Copper Tube	Boru x Sıra N. Of Tube x Row	Boyutlar Dimensions		
	(SC1)	(SC2)				L (cm)	H (cm)	W (cm)
<b>7 Lİ YAN SOĞUTUCULAR</b>								
20 RVY 7141	150	101	1,9	14	14X1	20	93.8	6.7
25 RVY 7141	178	119	2,3			25	93.8	6.7
30 RVY 7141	203	135	2,8			30	93.8	6.7
35 RVY 7141	227	151	3,3			35	93.8	6.7
40 RVY 7141	249	165	3,7			40	93.8	6.7
45 RVY 7141	270	179	4,2			45	93.8	6.7
50 RVY 7141	290	192	4,7			50	93.8	6.7
55 RVY 7141	309	204	5,1			55	93.8	6.7
60 RVY 7141	326	215	5,6			60	93.8	6.7
<b>8 Lİ YAN SOĞUTUCULAR</b>								
20 RVY 8161	166	111	2,1	16	16X1	20	107.2	6.7
25 RVY 8161	196	131	2,7			25	107.2	6.7
30 RVY 8161	224	149	3,2			30	107.2	6.7
35 RVY 8161	249	165	3,7			35	107.2	6.7
40 RVY 8161	273	181	4,3			40	107.2	6.7
45 RVY 8161	295	195	4,8			45	107.2	6.7
50 RVY 8161	316	209	5,3			50	107.2	6.7
55 RVY 8161	336	222	5,9			55	107.2	6.7
60 RVY 8161	354	234	6,4			60	107.2	6.7
<b>9 LU YAN SOĞUTUCULAR</b>								
30 RVY 9181	260	172	3,6	18	18X1	30	120.6	6.7
35 RVY 9181	291	192	4,2			35	120.6	6.7
40 RVY 9181	320	210	4,8			40	120.6	6.7
45 RVY 9181	347	228	5,4			45	120.6	6.7
50 RVY 9181	372	244	6,0			50	120.6	6.7
55 RVY 9181	395	259	6,6			55	120.6	6.7
60 RVY 9181	417	274	7,2			60	120.6	6.7
<b>10 LU YAN SOĞUTUCULAR</b>								
30 RVY 10201	286	188	4,0	20	20X1	30	134	6.7
35 RVY 10201	319	210	4,7			35	134	6.7
40 RVY 10201	350	230	5,3			40	134	6.7
45 RVY 10201	379	248	6,0			45	134	6.7
50 RVY 10201	406	266	6,7			50	134	6.7
55 RVY 10201	431	282	7,3			55	134	6.7
60 RVY 10201	455	298	8,0			60	134	6.7

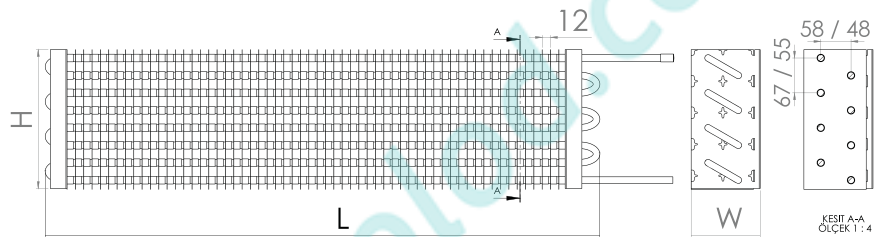
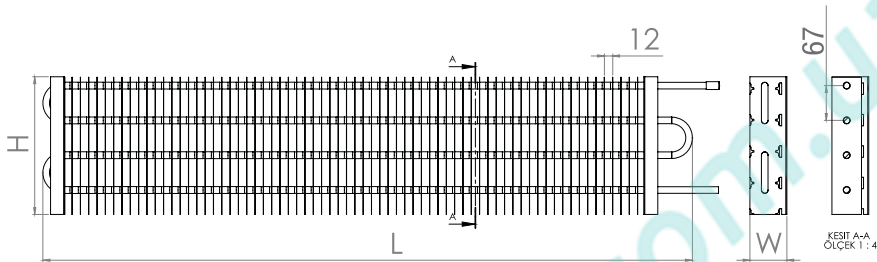


**Sütlük**  
Forced Air  
Gravity Cooler

**Yan**  
One Rows  
Side Gravity  
Coolers



**Ankastre**  
One Rows  
Gravity  
Coolers



**Reyon**  
Two Rows  
Gravity  
Coolers

**Tam Borulu Özel Vitrin Soğutucuları Fiyat Listesi (Euro / m.boru)**

The Prices Of Special Gravity Coolers (Euro / m.tube)

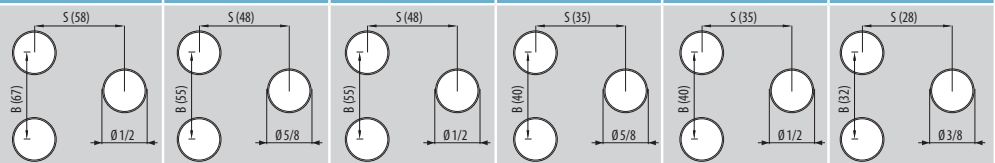
	6758-1/2"	5548-5/8"	5548-1/2"	4035-5/8"	4035-1/2"	3228-3/8"
<b>Sütlük</b> Forced Air Gravity Coolers	-	€ 8,8	€ 7,7	€ 7,2	€ 6,4	€ 5,3
<b>Reyon</b> Two Rows Gravity Coolers	€ 7,5	€ 8,0	€ 6,7	€ 6,9	€ 5,9	€ 5,3
<b>Ankastre</b> One Row Gravity Coolers	€ 8,5	€ 8,0	€ 7,5	-	-	-
<b>Yan 20/25/30cm</b> One Row Side Gravity Coolers	€ 9,6	€ 9,0	€ 8,3	-	-	-
<b>Yan 35cm ve üzeri</b> One Row Side Gravity Coolers	€ 8,5	€ 8,0	€ 7,5	-	-	-

**Eksik Borulu Özel Vitrin Soğutucuları Fiyat Listesi (Euro / m.boru)**

The Prices Of Special Gravity Coolers With Incomplete Tubes (Euro / m.tube)

	6758-1/2"	5548-5/8"	5548-1/2"	4035-5/8"	4035-1/2"	3228-3/8"
<b>Özel Sütlük</b> Special Forced Air Gravity Coolers	-	€ 11,5	€ 9,9	€ 8,8	€ 7,5	€ 6,7
<b>Özel Reyon</b> Special Two Rows Gravity Coolers	-	€ 10,4	€ 8,3	€ 8,5	€ 7,0	€ 5,9

**Kalıp Geometrisi**  
Fin Geometry



**Sütlük Boyutları**

(Dimension of Forced Air Gravity Coolers)

**L(mm)**: İstenen Uzunluk (Length)

**H(mm)**: Sıradaki Boru Sayısı x B (Tubes in A Row x B)

**W(mm)**: Sıra Sayısı x S (Rows x S)

**Reyon, Ankastre yan Boyutları**

(Dimension of Gravity Coolers)

**L(mm)**: İstenen Uzunluk (Length)

**H(mm)**: Sıradaki Boru Sayısı x B (Tubes in A Row x B)

**W(mm)**: Sıra Sayısı x S (Rows x S + 15mm)



## Eşanjör Detayları

Firma : \_\_\_\_\_

Yetkili: \_\_\_\_\_

Lokasyon: \_\_\_\_\_

Telefon: \_\_\_\_\_

Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

Üretici : \_\_\_\_\_

Uygulama Yeri : \_\_\_\_\_

Paslanmaz:

Bakır  304  316  Alüminyum  Galvaniz  Diğer :

Bağlantı (Firkete) Sayısı: \_\_\_\_\_  
 Düşeydeki Boru Sayısı: \_\_\_\_\_  
 Sıra Boru Sayısı: \_\_\_\_\_  
 Lamel Uzunluğu (mm) : \_\_\_\_\_  
 Devre Sayısı (Kollektör) : \_\_\_\_\_  
 \* Varsa Boş Boru Sayısı \_\_\_\_\_  
 Opsiyonlar (Fan, Bağlantı elemanları..) \_\_\_\_\_

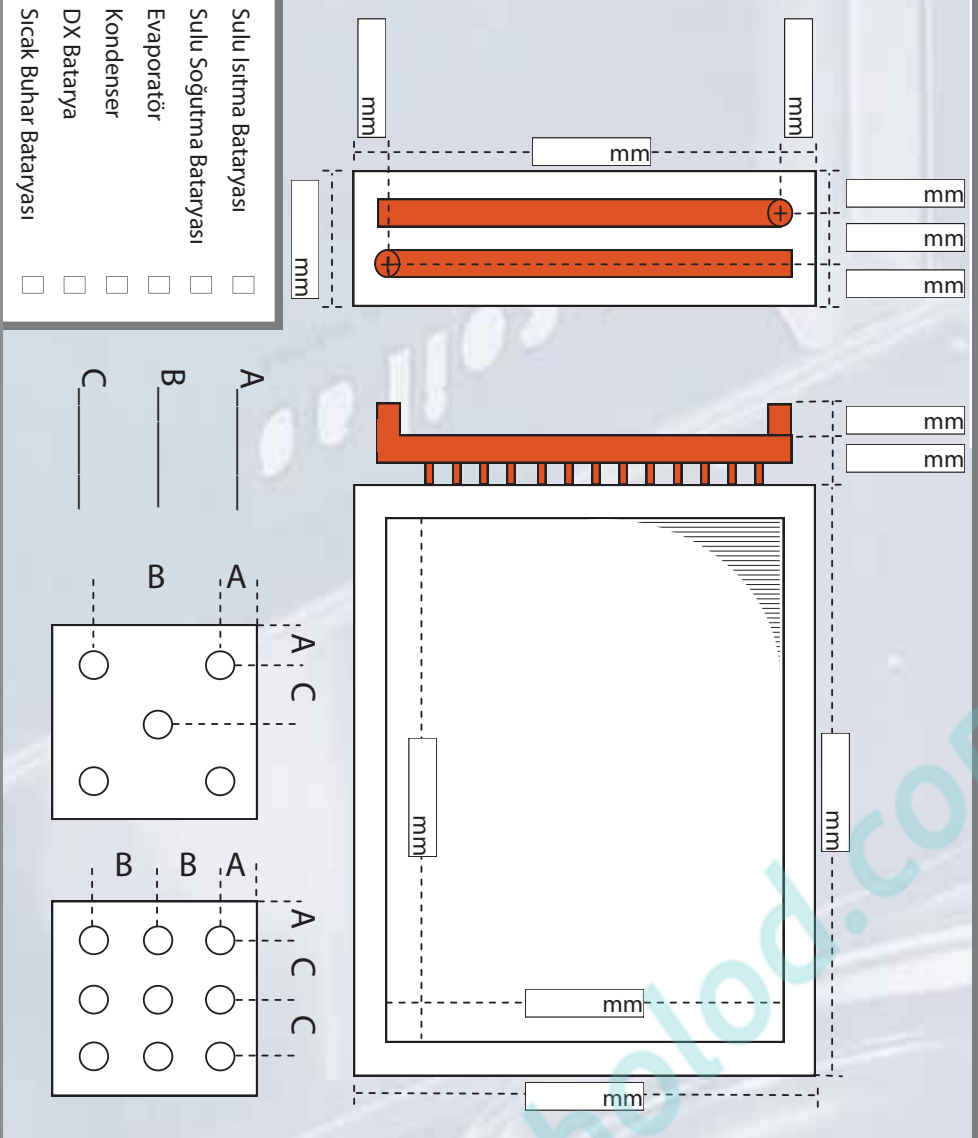
Materyal:  Ø 5/16"  Ø 3/8"  Ø 1/2"  Ø 5/8"

Borular  mm  mm  mm  mm

Lameller  Ø \_\_\_\_\_  Ø \_\_\_\_\_  Ø \_\_\_\_\_

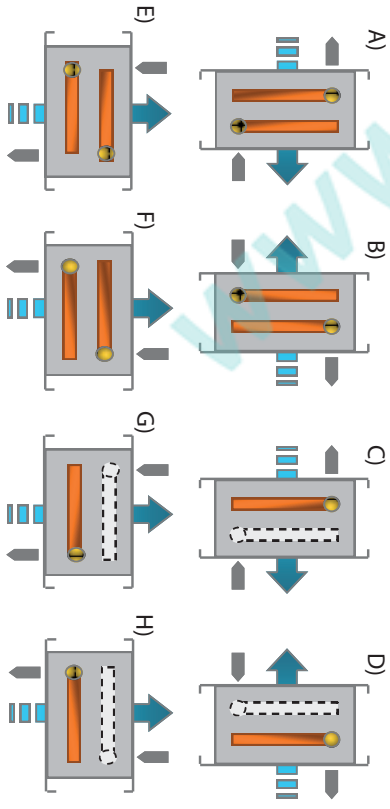
Kollektörler  mm  mm  mm  mm

Şase \_\_\_\_\_



Hava Giriş Sıcaklığı	°C	Kapasite	KW
Bağıl Nem	%	Talep Edilen	KW
Hava Çıkış Sıcaklığı	°C	Evaporasyon Sıcaklığı	°C
Hava Debisi	m <sup>3</sup> /h	Kondenzasyon Sıcaklığı	°C
Maksimum Çalışma Basıncı	Pa	İzin Verilen Maksimum Çalışma Basıncı	kPa

Hava Yönü ve Montaj Şekli



- Sulu Isıtma Bataryası
- Sulu Soğutma Bataryası
- Evaporatör
- Kondenser
- DX Batarya
- Sıcak Buhar Bataryası

QUALITY  
RAPIDITY  
THECNICAL COMPETENCE

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Küçük ve Orta Ölçekli İşletmeleri  
Geliştirme ve Destekleme İdaresi Başkanlığı  
Bahçivanlar Basım San. A.Ş. tarafından  
19.01.2018 tarihinde basılmıştır.