


**cubigel**<sup>®</sup>  
compressors

# Технический каталог

Компрессоров Cubigel



для коммерческих хладагентов  
R134a · R404A · R507

 ООО «Промхолод-Ровно»  
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HUAYI  
COMPRESSOR  
BARCELONA

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## 2. Средне и высоко температурные (HMBP) компрессоры R134a

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GL60TB - 220 В (+5/+55 °C = 436 Вт) 5.67 см <sup>3</sup> .....	62
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MX23FBA - 220 В (-25/+55 °C = 718 Вт) 23.20 см <sup>3</sup> .....	151

## 4. Низкотемпературные (LBP) компрессоры R134a

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# Technical Data Sheet

Compressor model **ML45TB**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R404A**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	4,56 cm <sup>3</sup>	Nominal Power	1/5 hp
Refrigerant	R404A	Diameter	19,09 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	15,93 mm	Voltage range	187-264 V
Expansion	Capillar/Valve	Net Weight	9,10 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	295 cm <sup>3</sup>	Locked Rotor Amps (LRA)	9,70 A
				Max. Cont. Current (MCC)	3,20 A
				Main W. resist. at 25°C	12,00 Ω
				Start W. resist. at 25°C	30,00 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	570 kCal/h	525 W
COP	1,82 W/W	1,47 W/W
EER	1,56 kCal/Wh	1,27 kCal/Wh
Input Power	365 W	357 W
Current	2,10 A	2,06 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	47- 56 μF 330 V		
Relay	Option 1		
Reference	2014 127.		
Pick-Up	4,80 A		
Drop-Out	4,10 A		
Protector	Option 1	Option 2	
Reference	MRP56AMK	T0057	
Current	9,40 A	8,50 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 61,00 °C	105,00 / 61,00 °C	

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	203	198	1,44	1,19	1,02
40	-20	260	217	1,50	1,39	1,20
40	-15	327	235	1,57	1,61	1,39
40	-10	403	254	1,64	1,85	1,59
40	-5	490	272	1,71	2,10	1,80
40	0	586	290	1,78	2,35	2,02
40	5	693	308	1,85	2,62	2,25
40	7,2	743	316	1,88	2,74	2,35
40	10	809	325	1,93	2,89	2,49

45	-25	185	200	1,45	1,08	0,93
45	-20	236	221	1,52	1,24	1,07
45	-15	297	242	1,59	1,43	1,23
45	-10	367	262	1,67	1,63	1,40
45	-5	448	283	1,75	1,84	1,58
45	0	538	303	1,83	2,06	1,77
45	5	638	323	1,92	2,30	1,97
45	7,2	685	332	1,95	2,40	2,06
45	10	748	343	2,00	2,53	2,18

50	-25	168	202	1,45	0,96	0,83
50	-20	212	225	1,53	1,10	0,94
50	-15	267	248	1,62	1,25	1,07
50	-10	331	271	1,71	1,42	1,22
50	-5	405	294	1,80	1,60	1,38
50	0	489	316	1,89	1,80	1,55
50	5	583	339	1,98	2,00	1,72
50	7,2	628	349	2,03	2,09	1,80
50	10	687	361	2,08	2,21	1,90

55	-25	150	204	1,46	0,86	0,74
55	-20	189	230	1,55	0,96	0,82
55	-15	237	255	1,64	1,08	0,93
55	-10	295	280	1,74	1,23	1,05
55	-5	363	305	1,84	1,38	1,19
55	0	441	330	1,94	1,55	1,34
55	5	528	354	2,05	1,73	1,49
55	7,2	570	365	2,10	1,82	1,56
55	10	626	379	2,16	1,92	1,65

60	-25	133	206	1,47	0,75	0,64
60	-20	165	234	1,56	0,82	0,70
60	-15	207	261	1,67	0,92	0,79
60	-10	259	289	1,77	1,04	0,90
60	-5	321	316	1,89	1,18	1,01
60	0	392	343	2,00	1,33	1,14
60	5	474	370	2,12	1,49	1,28
60	7,2	513	382	2,18	1,56	1,34
60	10	565	396	2,25	1,66	1,42

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	212	199	1,44	1,07	0,92
40	-20	274	218	1,51	1,26	1,08
40	-15	345	237	1,58	1,46	1,26
40	-10	425	255	1,64	1,67	1,44
40	-5	515	274	1,72	1,88	1,63
40	0	615	292	1,79	2,11	1,82
40	5	724	310	1,86	2,34	2,02
40	7,2	775	318	1,89	2,44	2,11
40	10	843	328	1,94	2,57	2,22

45	-25	192	201	1,45	0,95	0,82
45	-20	245	222	1,52	1,10	0,95
45	-15	309	243	1,60	1,27	1,10
45	-10	382	264	1,68	1,45	1,25
45	-5	464	285	1,76	1,63	1,41
45	0	556	305	1,84	1,82	1,57
45	5	658	326	1,93	2,02	1,75
45	7,2	705	335	1,97	2,11	1,82
45	10	769	346	2,01	2,22	1,92

50	-25	171	203	1,46	0,84	0,73
50	-20	217	227	1,54	0,96	0,83
50	-15	273	250	1,62	1,09	0,94
50	-10	338	273	1,71	1,24	1,07
50	-5	413	296	1,80	1,40	1,21
50	0	497	319	1,90	1,56	1,35
50	5	591	341	1,99	1,73	1,50
50	7,2	636	351	2,04	1,81	1,56
50	10	695	364	2,09	1,91	1,65

55	-25	150	205	1,46	0,73	0,63
55	-20	189	231	1,55	0,82	0,71
55	-15	237	256	1,65	0,92	0,80
55	-10	295	282	1,75	1,05	0,90
55	-5	362	307	1,85	1,18	1,02
55	0	439	332	1,95	1,32	1,14
55	5	525	357	2,06	1,47	1,27
55	7,2	566	368	2,11	1,54	1,33
55	10	621	382	2,18	1,63	1,41

60	-25	130	207	1,47	0,63	0,54
60	-20	161	235	1,57	0,68	0,59
60	-15	201	263	1,67	0,76	0,66
60	-10	251	291	1,78	0,86	0,75
60	-5	311	318	1,90	0,98	0,84
60	0	380	345	2,01	1,10	0,95
60	5	458	373	2,13	1,23	1,06
60	7,2	496	384	2,19	1,29	1,11
60	10	547	400	2,26	1,37	1,18

# Technical Data Sheet

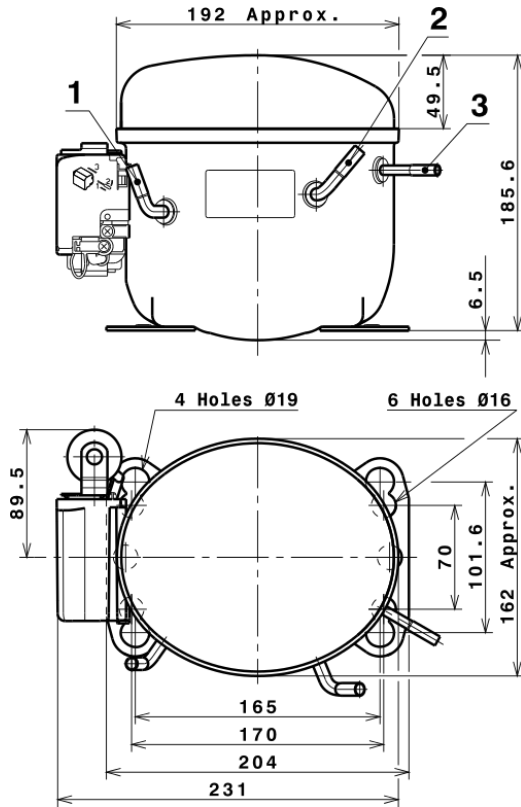
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.085,3988810307	190,3520653592	1,3185064849	21,573638682011
2	33,0339534494	0,1238300787	-0,0009476918	0,7653026382345
3	-12,1694610377	2,7625008520	0,0123723952	-0,11374290927852
4	0,1807041554	0,0002372725	0,0000967727	0,0082798452586022
5	-0,3196400808	0,0940249036	0,0004380328	-0,0025778349828867

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

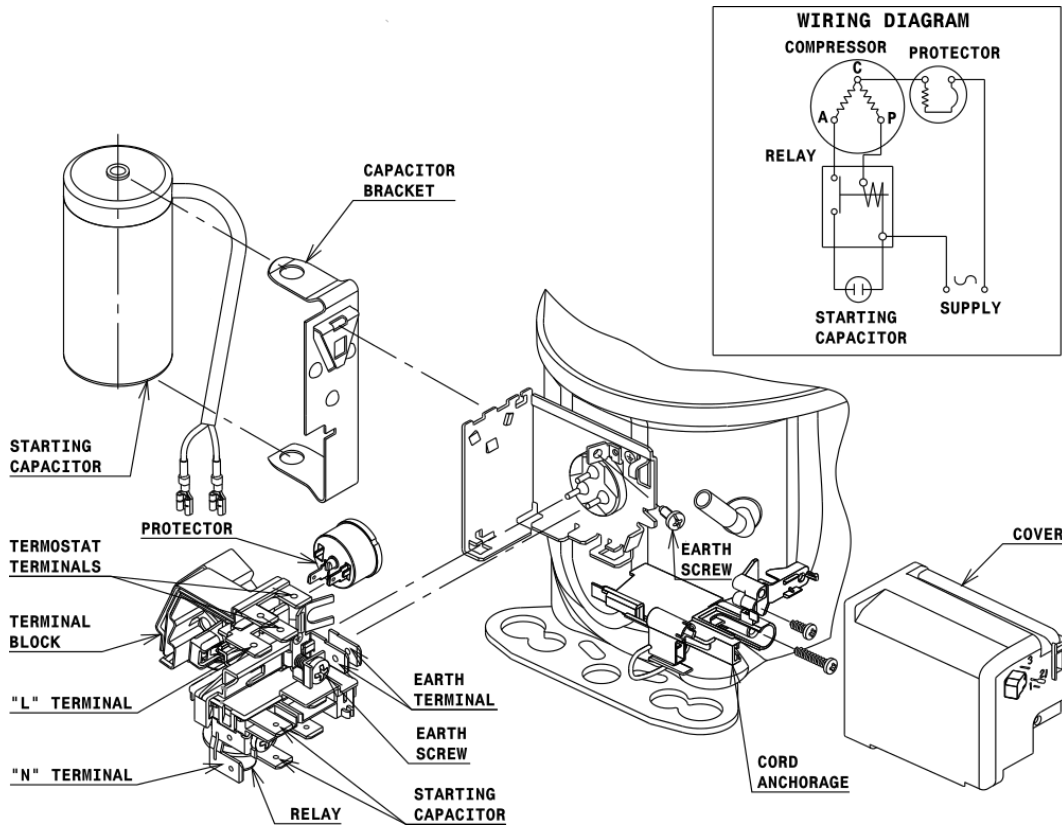


## DESIGNATION INTERNAL DIAM.

1	Suction	6,5 mm
2	Service	6,5 mm
3	Discharge	4,9 mm

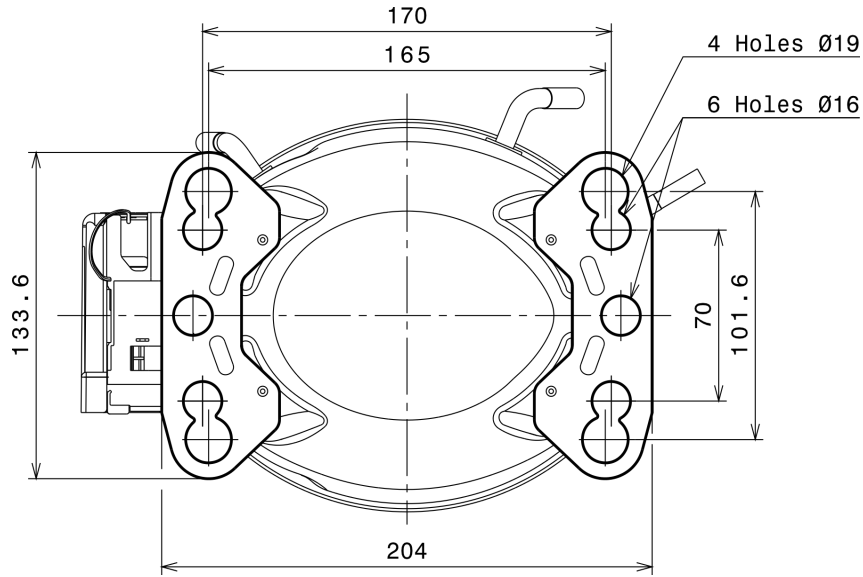
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



# Technical Data Sheet

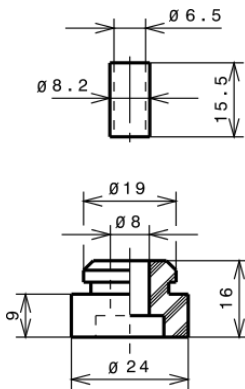
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

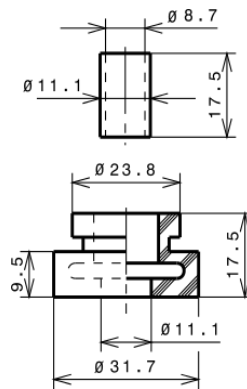
### STANDARD

Ø16 holes (170x70 net)



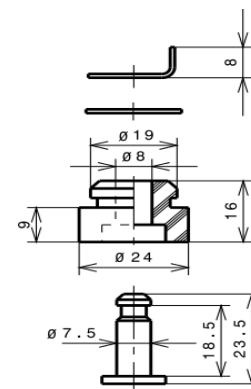
### AMERICAN FEET

Ø19 holes (165x101.6 net)



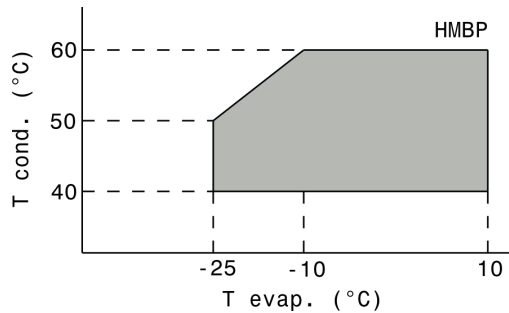
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R404A HMBP



# Technical Data Sheet

Compressor model **ML60TB**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R404A**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	5,68 cm <sup>3</sup>	Nominal Power	1/4 hp
Refrigerant	R404A	Diameter	22,00 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	14,92 mm	Voltage range	198-255 V
Expansion	Capillar/Valve	Net Weight	9,29 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	295 cm <sup>3</sup>	Locked Rotor Amps (LRA)	10,60 A
				Max. Cont. Current (MCC)	3,60 A
				Main W. resist. at 25°C	10,00 Ω
				Start W. resist. at 25°C	31,50 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	700 kCal/h	643 W
COP	1,85 W/W	1,50 W/W
EER	1,59 kCal/Wh	1,30 kCal/Wh
Input Power	440 W	427 W
Current	2,45 A	2,39 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	47- 56 μF 330 V			
Relay	Option 1			
Reference	2014 131.			
Pick-Up	5,30 A			
Drop-Out	4,50 A			
Protector	Option 1	Option 2		
Reference	T0168	MRT38AMK		
Current	9,50 A	10,00 A		
Time check	7,5-14 seg	7,5-14 seg		
Disc temp. (Open/Close)	105,00 / 61,00 °C	105,00 / 61,00 °C		



# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	233	218	1,62	1,24	1,07
40	-20	304	240	1,68	1,47	1,27
40	-15	388	264	1,76	1,71	1,47
40	-10	484	288	1,84	1,95	1,68
40	-5	593	314	1,93	2,20	1,89
40	0	714	340	2,03	2,44	2,10
40	5	847	368	2,13	2,68	2,31
40	7,2	910	380	2,18	2,79	2,39
40	10	993	396	2,25	2,92	2,51

45	-25	210	220	1,63	1,11	0,95
45	-20	274	245	1,70	1,30	1,12
45	-15	350	271	1,78	1,50	1,29
45	-10	439	299	1,87	1,71	1,47
45	-5	541	327	1,98	1,92	1,65
45	0	654	356	2,09	2,14	1,84
45	5	781	386	2,21	2,35	2,02
45	7,2	840	400	2,27	2,44	2,10
45	10	919	418	2,35	2,56	2,20

50	-25	188	223	1,63	0,98	0,84
50	-20	244	250	1,72	1,13	0,97
50	-15	313	279	1,81	1,30	1,12
50	-10	395	309	1,91	1,48	1,28
50	-5	489	340	2,03	1,67	1,44
50	0	595	372	2,15	1,86	1,60
50	5	714	405	2,29	2,05	1,76
50	7,2	770	420	2,36	2,13	1,83
50	10	845	439	2,45	2,24	1,92

55	-25	165	225	1,64	0,85	0,73
55	-20	214	256	1,73	0,97	0,84
55	-15	276	287	1,83	1,12	0,96
55	-10	350	320	1,95	1,27	1,09
55	-5	437	354	2,08	1,44	1,23
55	0	536	388	2,22	1,60	1,38
55	5	647	424	2,38	1,77	1,53
55	7,2	700	440	2,45	1,85	1,59
55	10	771	461	2,55	1,95	1,67

60	-25	143	228	1,65	0,73	0,63
60	-20	184	261	1,75	0,82	0,71
60	-15	239	295	1,86	0,94	0,81
60	-10	305	331	1,99	1,07	0,92
60	-5	385	367	2,13	1,22	1,05
60	0	476	404	2,29	1,37	1,18
60	5	580	443	2,46	1,52	1,31
60	7,2	630	460	2,55	1,59	1,37
60	10	697	482	2,65	1,68	1,45

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	244	219	1,62	1,11	0,96
40	-20	320	241	1,69	1,33	1,15
40	-15	409	265	1,76	1,54	1,33
40	-10	510	290	1,84	1,76	1,52
40	-5	623	316	1,93	1,98	1,71
40	0	749	342	2,03	2,19	1,89
40	5	886	370	2,14	2,39	2,07
40	7,2	950	383	2,20	2,48	2,14
40	10	1.035	399	2,27	2,59	2,24

45	-25	217	221	1,63	0,98	0,85
45	-20	285	247	1,70	1,16	1,00
45	-15	365	273	1,79	1,34	1,15
45	-10	457	301	1,88	1,52	1,31
45	-5	561	329	1,98	1,70	1,47
45	0	677	359	2,10	1,89	1,63
45	5	805	389	2,22	2,07	1,79
45	7,2	865	403	2,28	2,15	1,85
45	10	945	421	2,36	2,25	1,94

50	-25	191	224	1,64	0,86	0,74
50	-20	250	252	1,72	0,99	0,86
50	-15	320	281	1,81	1,14	0,99
50	-10	403	311	1,92	1,30	1,12
50	-5	498	343	2,03	1,45	1,26
50	0	605	375	2,16	1,61	1,39
50	5	724	408	2,31	1,77	1,53
50	7,2	780	423	2,37	1,84	1,59
50	10	855	443	2,46	1,93	1,67

55	-25	165	226	1,64	0,73	0,63
55	-20	215	257	1,74	0,83	0,72
55	-15	276	289	1,84	0,95	0,83
55	-10	350	322	1,96	1,09	0,94
55	-5	435	356	2,09	1,22	1,06
55	0	533	391	2,23	1,36	1,18
55	5	643	427	2,39	1,50	1,30
55	7,2	695	443	2,47	1,57	1,35
55	10	765	464	2,57	1,65	1,42

60	-25	139	229	1,65	0,61	0,53
60	-20	179	262	1,75	0,68	0,59
60	-15	232	297	1,87	0,78	0,67
60	-10	296	333	2,00	0,89	0,77
60	-5	372	369	2,14	1,01	0,87
60	0	461	407	2,30	1,13	0,98
60	5	562	446	2,48	1,26	1,09
60	7,2	610	464	2,56	1,32	1,14
60	10	674	486	2,67	1,39	1,20

# Technical Data Sheet

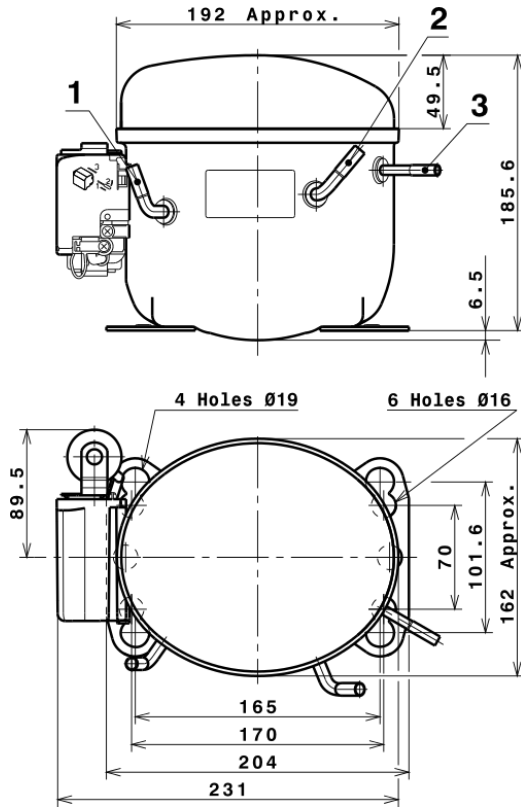
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.323,7214030896	218,8330888724	1,4400240143	26,290272144567
2	40,8635412866	1,2668847612	0,0021786883	0,93645715122666
3	-14,8753623679	3,3519744040	0,0153916989	-0,13951217810676
4	0,2292029353	0,0259262744	0,0003067069	0,010466850889953
5	-0,3852382620	0,1134850631	0,0005559775	-0,0026528346473223

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

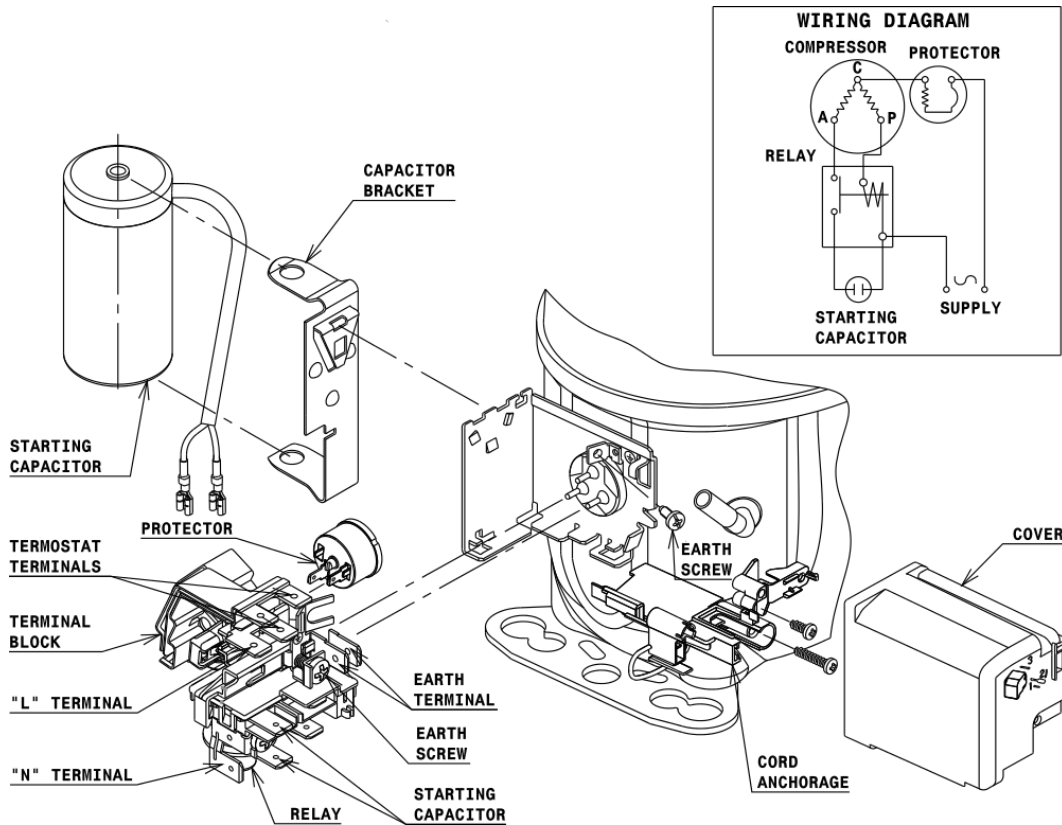


## DESIGNATION INTERNAL DIAM.

1	Suction	6,5 mm
2	Service	6,5 mm
3	Discharge	4,9 mm

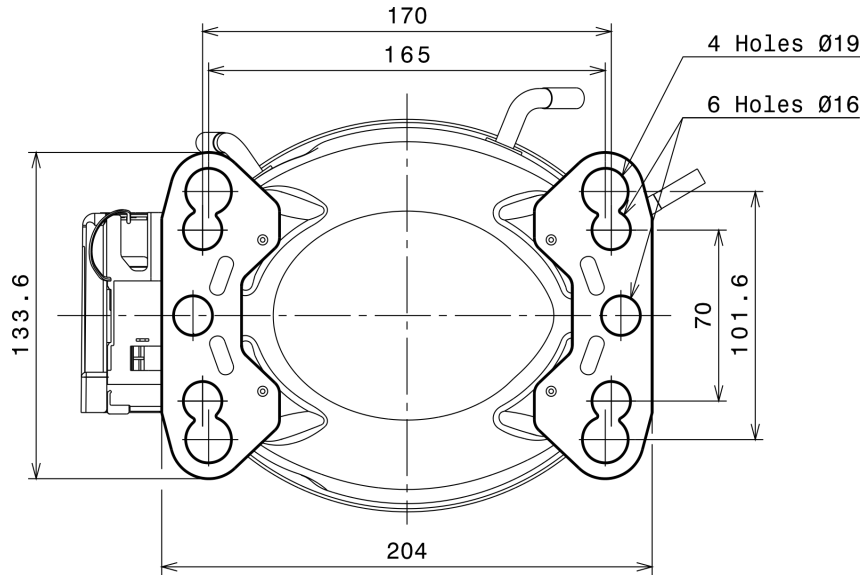
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



# Technical Data Sheet

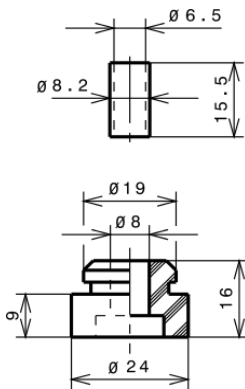
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

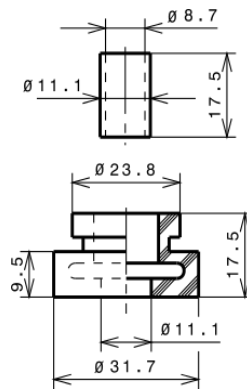
### STANDARD

Ø16 holes (170x70 net)



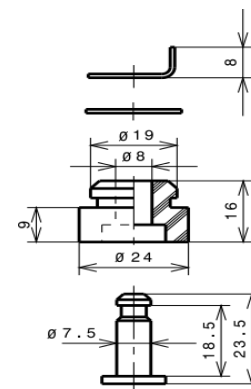
### AMERICAN FEET

Ø19 holes (165x101.6 net)



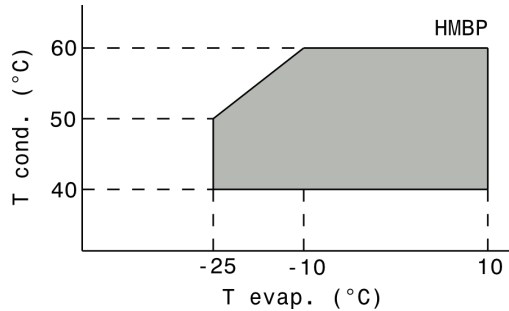
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R404A HMBP



# Technical Data Sheet

Compressor model **ML80TB**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R404A**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	7,57 cm <sup>3</sup>	Nominal Power	3/8 hp
Refrigerant	R404A	Diameter	25,40 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	14,92 mm	Voltage range	198-255 V
Expansion	Capillar/Valve	Net Weight	9,68 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	395 cm <sup>3</sup>	Locked Rotor Amps (LRA)	12,80 A
				Max. Cont. Current (MCC)	5,10 A
				Main W. resist. at 25°C	7,75 Ω
				Start W. resist. at 25°C	21,43 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	950 kCal/h	875 W
COP	1,99 W/W	1,61 W/W
EER	1,71 kCal/Wh	1,39 kCal/Wh
Input Power	555 W	543 W
Current	3,10 A	3,05 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	47- 56 μF 330 V		
Relay	Option 1		
Reference	2014 138.		
Pick-Up	6,10 A		
Drop-Out	5,20 A		
Protector	Option 1	Option 2	
Reference	MRT26AMK	T0181	
Current	11,10 A	11,10 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 61,00 °C	105,00 / 61,00 °C	

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	315	284	2,08	1,29	1,11
40	-20	419	316	2,18	1,55	1,33
40	-15	538	346	2,28	1,81	1,56
40	-10	673	375	2,38	2,09	1,79
40	-5	822	403	2,49	2,38	2,04
40	0	987	429	2,58	2,67	2,30
40	5	1.166	454	2,68	2,99	2,57
40	7,2	1.250	465	2,72	3,13	2,69
40	10	1.361	478	2,78	3,31	2,85

45	-25	285	286	2,09	1,16	1,00
45	-20	378	322	2,20	1,37	1,18
45	-15	487	357	2,32	1,59	1,37
45	-10	610	390	2,44	1,82	1,57
45	-5	749	422	2,56	2,06	1,77
45	0	902	453	2,68	2,32	1,99
45	5	1.071	482	2,79	2,58	2,22
45	7,2	1.150	495	2,85	2,70	2,32
45	10	1.255	511	2,91	2,86	2,46

50	-25	255	288	2,09	1,03	0,89
50	-20	337	328	2,22	1,20	1,03
50	-15	435	367	2,36	1,38	1,18
50	-10	548	405	2,49	1,57	1,35
50	-5	675	441	2,63	1,78	1,53
50	0	818	477	2,77	2,00	1,72
50	5	976	510	2,91	2,22	1,91
50	7,2	1.050	525	2,97	2,33	2,00
50	10	1.149	543	3,05	2,46	2,11

55	-25	225	290	2,10	0,90	0,78
55	-20	297	335	2,25	1,03	0,89
55	-15	383	378	2,40	1,18	1,01
55	-10	485	420	2,55	1,34	1,15
55	-5	602	461	2,71	1,52	1,31
55	0	734	500	2,87	1,71	1,47
55	5	881	539	3,03	1,90	1,64
55	7,2	950	555	3,10	1,99	1,71
55	10	1.043	576	3,19	2,11	1,81

60	-25	195	292	2,11	0,78	0,67
60	-20	256	341	2,27	0,87	0,75
60	-15	332	389	2,43	0,99	0,85
60	-10	422	435	2,61	1,13	0,97
60	-5	528	480	2,78	1,28	1,10
60	0	649	524	2,97	1,44	1,24
60	5	785	567	3,15	1,61	1,39
60	7,2	850	585	3,23	1,69	1,45
60	10	936	608	3,34	1,79	1,54

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	330	286	2,09	1,16	1,00
40	-20	442	317	2,19	1,39	1,20
40	-15	568	348	2,29	1,63	1,41
40	-10	709	377	2,39	1,88	1,62
40	-5	864	405	2,49	2,13	1,84
40	0	1.034	432	2,60	2,39	2,07
40	5	1.219	458	2,70	2,66	2,30
40	7,2	1.305	469	2,74	2,79	2,41
40	10	1.418	482	2,79	2,94	2,54

45	-25	295	288	2,09	1,03	0,89
45	-20	393	324	2,21	1,22	1,05
45	-15	506	359	2,33	1,41	1,22
45	-10	634	392	2,45	1,62	1,40
45	-5	776	425	2,57	1,83	1,58
45	0	933	456	2,69	2,05	1,77
45	5	1.104	486	2,81	2,27	1,96
45	7,2	1.184	499	2,86	2,37	2,05
45	10	1.290	515	2,93	2,51	2,17

50	-25	260	290	2,10	0,90	0,78
50	-20	345	330	2,23	1,05	0,90
50	-15	445	369	2,37	1,20	1,04
50	-10	559	407	2,50	1,37	1,19
50	-5	688	444	2,64	1,55	1,34
50	0	832	480	2,78	1,73	1,50
50	5	990	514	2,93	1,92	1,66
50	7,2	1.064	529	2,99	2,01	1,74
50	10	1.162	547	3,07	2,12	1,83

55	-25	225	292	2,11	0,77	0,67
55	-20	297	337	2,25	0,88	0,76
55	-15	383	380	2,40	1,01	0,87
55	-10	484	423	2,56	1,15	0,99
55	-5	600	464	2,72	1,29	1,12
55	0	730	504	2,88	1,45	1,25
55	5	875	543	3,05	1,61	1,39
55	7,2	943	559	3,12	1,69	1,46
55	10	1.034	580	3,21	1,78	1,54

60	-25	191	294	2,11	0,65	0,56
60	-20	249	343	2,27	0,73	0,63
60	-15	322	391	2,44	0,82	0,71
60	-10	410	438	2,62	0,94	0,81
60	-5	512	483	2,80	1,06	0,91
60	0	629	528	2,98	1,19	1,03
60	5	760	571	3,17	1,33	1,15
60	7,2	822	589	3,25	1,40	1,21
60	10	906	613	3,36	1,48	1,28

# Technical Data Sheet

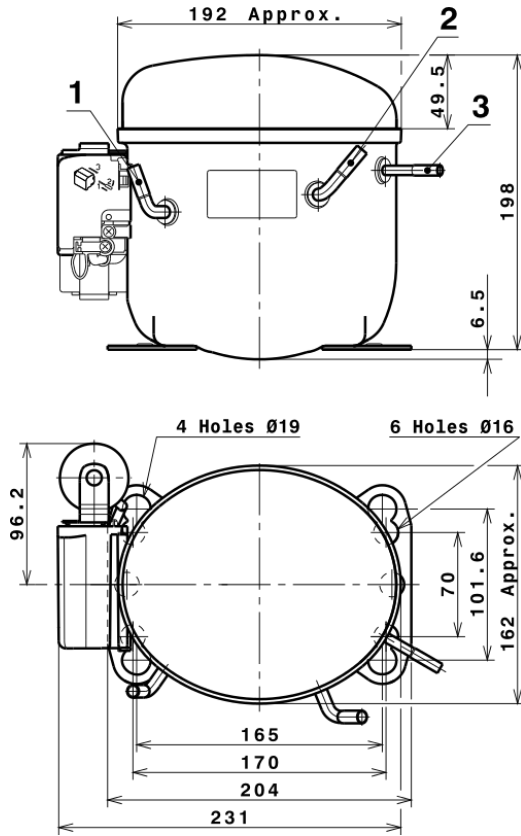
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.844,1654358994	247,3131646163	1,7676603846	37,209712793919
2	56,6828614829	-1,6368084797	-0,0090061356	1,3076743535973
3	-20,9375463317	4,9473767289	0,0214144559	-0,21299060786709
4	0,2764332705	-0,0196399069	0,0000996566	0,012975409746254
5	-0,5568819630	0,1814199387	0,0008040005	-0,0046865142132231

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

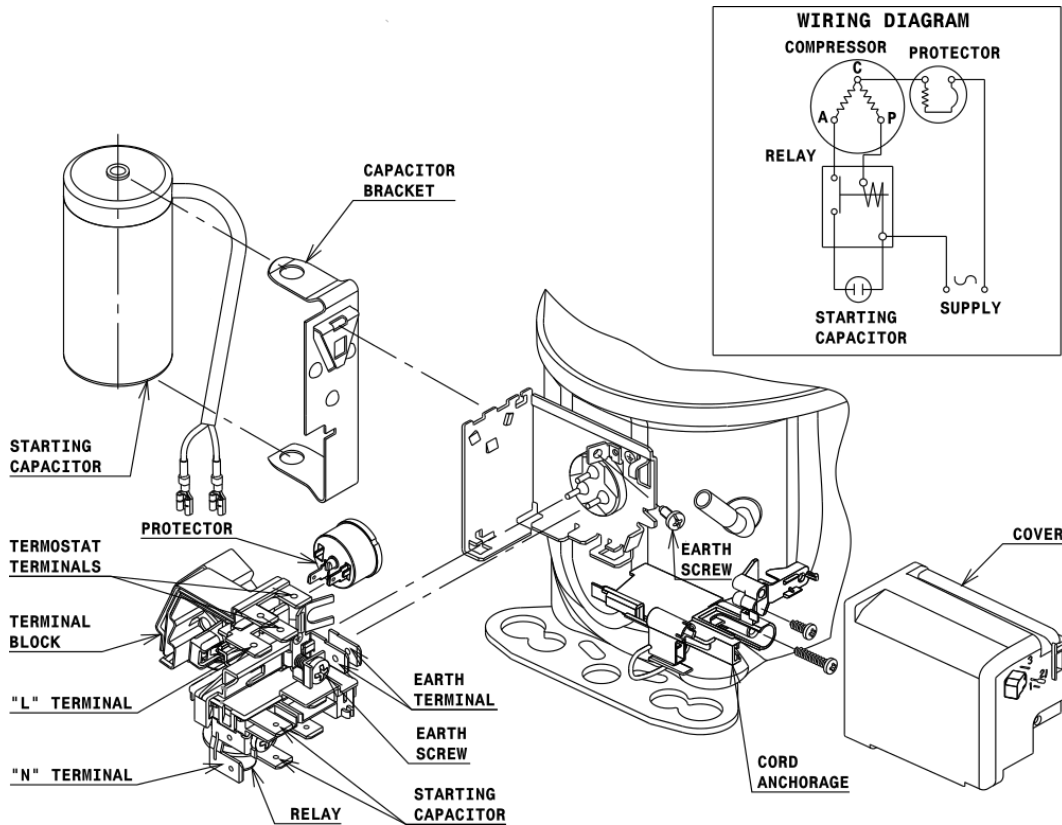


## DESIGNATION INTERNAL DIAM.

1	Suction	6,5 mm
2	Service	6,5 mm
3	Discharge	4,9 mm

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

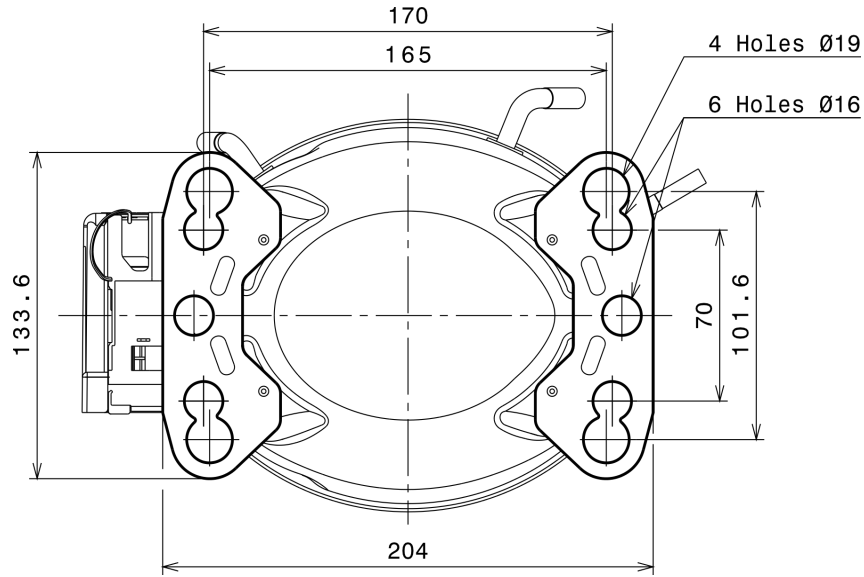
### CSIR CONNECTION (L, P ranges)





# Technical Data Sheet

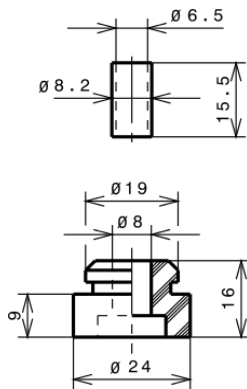
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

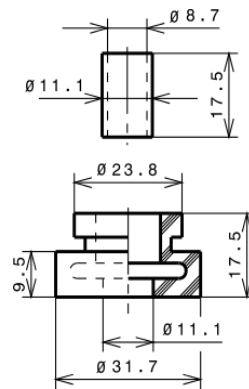
### STANDARD

Ø16 holes (170x70 net)



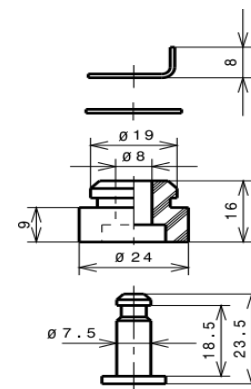
### AMERICAN FEET

Ø19 holes (165x101.6 net)



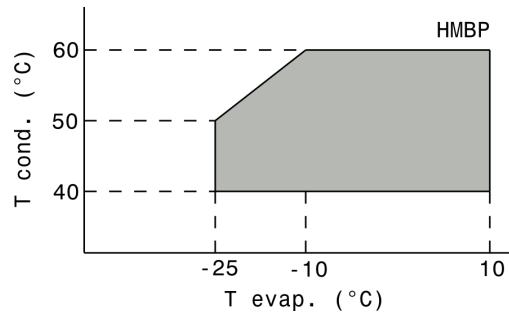
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R404A HMBP



# Technical Data Sheet

Compressor model **ML90TB**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R404A**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	8,85 cm <sup>3</sup>	Nominal Power	3/8 hp
Refrigerant	R404A	Diameter	25,40 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	17,47 mm	Voltage range	187-264 V
Expansion	Capillar/Valve	Net Weight	12,31 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	395 cm <sup>3</sup>	Locked Rotor Amps (LRA)	16,00 A
				Max. Cont. Current (MCC)	5,50 A
				Main W. resist. at 25°C	5,69 Ω
				Start W. resist. at 25°C	11,60 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.140 kCal/h	1.049 W
COP	1,98 W/W	1,61 W/W
EER	1,70 kCal/Wh	1,39 kCal/Wh
Input Power	670 W	653 W
Current	3,80 A	3,72 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	47- 56 μF 330 V		
Relay	Option 1		
Reference	2014 149.		
Pick-Up	7,80 A		
Drop-Out	6,65 A		
Protector	Option 1	Option 2	
Reference	MRP00AMK	T0425	
Current	11,70 A	11,50 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 61,00 °C	105,00 / 61,00 °C	

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	385	345	2,61	1,30	1,12
40	-20	500	379	2,70	1,54	1,32
40	-15	635	414	2,81	1,78	1,53
40	-10	790	450	2,93	2,04	1,75
40	-5	964	487	3,05	2,30	1,98
40	0	1.157	524	3,19	2,57	2,21
40	5	1.370	563	3,34	2,83	2,43
40	7,2	1.470	580	3,41	2,95	2,53
40	10	1.603	602	3,50	3,10	2,66

45	-25	350	350	2,62	1,16	1,00
45	-20	454	388	2,73	1,36	1,17
45	-15	577	427	2,85	1,57	1,35
45	-10	720	467	2,98	1,79	1,54
45	-5	882	507	3,13	2,02	1,74
45	0	1.064	549	3,28	2,25	1,94
45	5	1.265	591	3,45	2,49	2,14
45	7,2	1.360	610	3,53	2,59	2,23
45	10	1.486	634	3,64	2,72	2,34

50	-25	315	355	2,64	1,03	0,89
50	-20	407	397	2,76	1,19	1,03
50	-15	519	440	2,89	1,37	1,18
50	-10	650	483	3,04	1,56	1,34
50	-5	801	528	3,20	1,76	1,52
50	0	971	573	3,38	1,97	1,69
50	5	1.160	619	3,57	2,18	1,87
50	7,2	1.250	640	3,66	2,27	1,95
50	10	1.370	666	3,78	2,39	2,05

55	-25	280	360	2,65	0,90	0,78
55	-20	360	406	2,78	1,03	0,89
55	-15	460	452	2,93	1,18	1,02
55	-10	580	500	3,10	1,35	1,16
55	-5	719	548	3,28	1,52	1,31
55	0	878	598	3,48	1,71	1,47
55	5	1.056	648	3,70	1,90	1,63
55	7,2	1.140	670	3,80	1,98	1,70
55	10	1.253	699	3,93	2,09	1,79

60	-25	245	365	2,66	0,78	0,67
60	-20	314	415	2,81	0,88	0,76
60	-15	402	465	2,98	1,01	0,86
60	-10	510	517	3,16	1,15	0,99
60	-5	637	569	3,36	1,30	1,12
60	0	784	622	3,59	1,47	1,26
60	5	951	676	3,83	1,64	1,41
60	7,2	1.030	700	3,94	1,71	1,47
60	10	1.136	731	4,09	1,81	1,56

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	403	347	2,61	1,16	1,00
40	-20	528	381	2,71	1,38	1,20
40	-15	671	417	2,82	1,61	1,39
40	-10	833	453	2,94	1,84	1,59
40	-5	1.014	490	3,06	2,07	1,79
40	0	1.214	528	3,20	2,30	1,99
40	5	1.433	567	3,36	2,53	2,18
40	7,2	1.535	584	3,43	2,63	2,27
40	10	1.671	607	3,52	2,75	2,38

45	-25	362	352	2,63	1,03	0,89
45	-20	472	390	2,74	1,21	1,05
45	-15	601	429	2,86	1,40	1,21
45	-10	748	470	2,99	1,59	1,38
45	-5	915	511	3,14	1,79	1,55
45	0	1.100	553	3,30	1,99	1,72
45	5	1.305	596	3,47	2,19	1,89
45	7,2	1.401	615	3,55	2,28	1,97
45	10	1.528	639	3,66	2,39	2,07

50	-25	321	357	2,64	0,90	0,78
50	-20	417	399	2,76	1,04	0,90
50	-15	531	442	2,90	1,20	1,04
50	-10	664	486	3,05	1,36	1,18
50	-5	816	531	3,22	1,54	1,33
50	0	987	577	3,40	1,71	1,48
50	5	1.177	624	3,59	1,89	1,63
50	7,2	1.266	645	3,69	1,96	1,70
50	10	1.386	672	3,81	2,06	1,78

55	-25	280	362	2,66	0,77	0,67
55	-20	361	408	2,79	0,88	0,76
55	-15	461	455	2,94	1,01	0,87
55	-10	579	503	3,11	1,15	0,99
55	-5	717	552	3,30	1,30	1,12
55	0	873	602	3,50	1,45	1,25
55	5	1.049	653	3,72	1,61	1,39
55	7,2	1.132	675	3,82	1,68	1,45
55	10	1.243	704	3,96	1,77	1,53

60	-25	240	367	2,67	0,65	0,56
60	-20	306	417	2,82	0,73	0,63
60	-15	391	468	2,99	0,83	0,72
60	-10	495	520	3,17	0,95	0,82
60	-5	618	573	3,38	1,08	0,93
60	0	760	626	3,60	1,21	1,05
60	5	920	681	3,85	1,35	1,17
60	7,2	997	705	3,97	1,41	1,22
60	10	1.100	737	4,12	1,49	1,29

# Technical Data Sheet

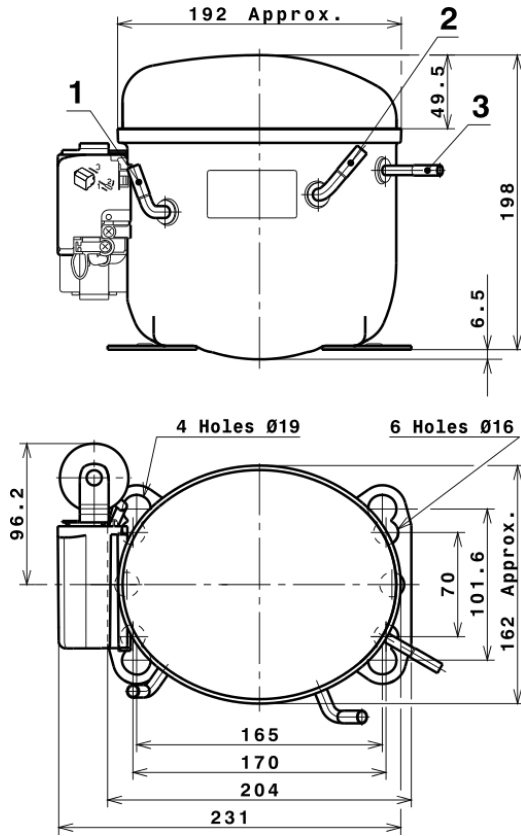
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.123,4126478547	340,7548900916	2,3181474384	41,753008087198
2	65,0692506749	1,7070186602	0,0018745925	1,4842036657486
3	-23,5460478342	5,0855222326	0,0229677064	-0,20462457186498
4	0,3587603633	0,0255644006	0,0003972658	0,01650788742581
5	-0,6112381783	0,1622330632	0,0008017919	-0,0039595139602085

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

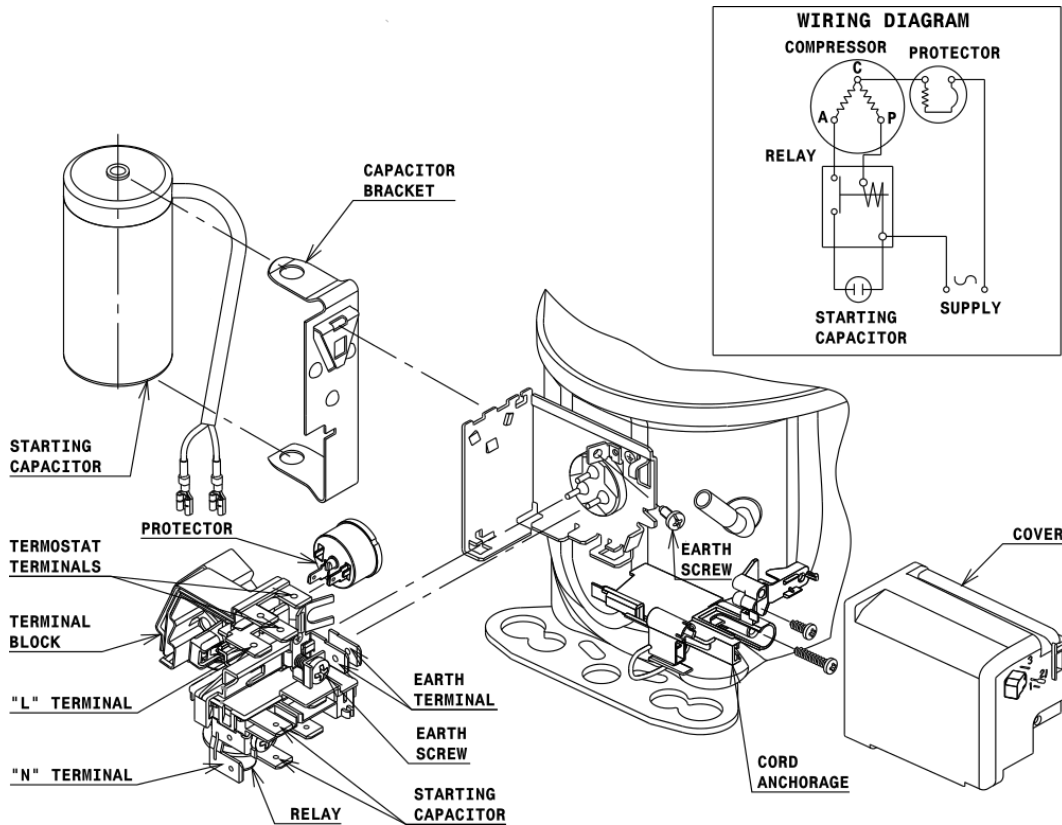


## DESIGNATION INTERNAL DIAM.

1	Suction	6,5 mm
2	Service	6,5 mm
3	Discharge	4,9 mm

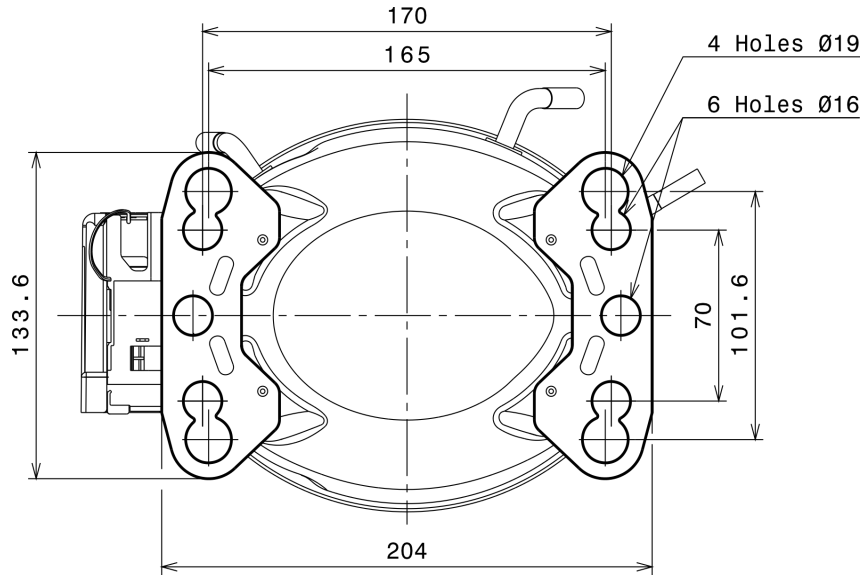
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



# Technical Data Sheet

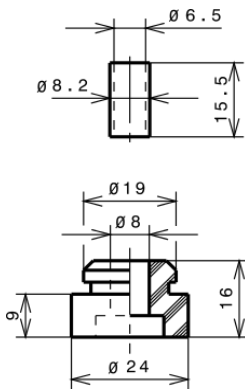
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

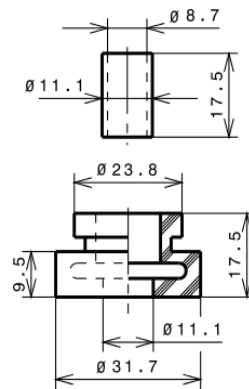
### STANDARD

Ø16 holes (170x70 net)



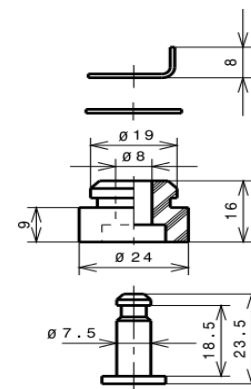
### AMERICAN FEET

Ø19 holes (165x101.6 net)



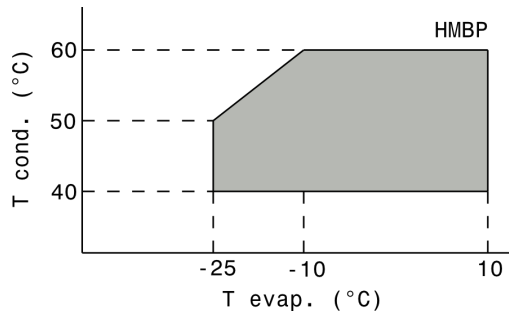
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R404A HMBP



# Technical Data Sheet

Compressor model **MPT12RA**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R404A**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	12,10 cm <sup>3</sup>	Nominal Power	3/8 hp
Refrigerant	R404A	Diameter	27,00 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	21,13 mm	Voltage range	198-255 V
Expansion	Capillar/Valve	Net Weight	12,20 Kg	Type	CSR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	400 cm <sup>3</sup>	Locked Rotor Amps (LRA)	18,50 A
				Max. Cont. Current (MCC)	5,30 A
				Main W. resist. at 25°C	5,19 Ω
				Start W. resist. at 25°C	7,67 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.685 kCal/h	1.559 W
COP	2,35 W/W	1,91 W/W
EER	2,02 kCal/Wh	1,65 kCal/Wh
Input Power	834 W	817 W
Current	3,84 A	3,76 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	64- 77 μF 330 V		
Run capacitor	20 μF 420 V		
Relay	Option 1		
Reference	2014 158. + NTC15Ω		
Pick-Up	9,05 A		
Drop-Out	7,70 A		
Protector	Option 1		
Reference	T0188		
Current	12,30 A		
Time check	7,5-14 seg		
Disc temp. (Open/Close)	115,00 / 61,00 °C		

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	594	470	2,18	1,47	1,26
40	-20	774	507	2,35	1,78	1,53
40	-15	978	544	2,52	2,09	1,80
40	-10	1.204	580	2,68	2,41	2,07
40	-5	1.453	616	2,85	2,74	2,36
40	0	1.726	652	3,01	3,08	2,65
40	5	2.020	687	3,17	3,42	2,94
40	7,2	2.158	702	3,24	3,57	3,07
40	10	2.338	721	3,33	3,77	3,24

45	-25	541	477	2,21	1,32	1,13
45	-20	705	520	2,41	1,58	1,36
45	-15	893	563	2,60	1,84	1,59
45	-10	1.103	605	2,80	2,12	1,82
45	-5	1.336	647	2,99	2,40	2,07
45	0	1.592	688	3,17	2,69	2,31
45	5	1.870	728	3,36	2,99	2,57
45	7,2	2.000	746	3,44	3,12	2,68
45	10	2.172	768	3,54	3,29	2,83

50	-25	489	485	2,25	1,17	1,01
50	-20	637	533	2,47	1,39	1,19
50	-15	808	582	2,69	1,61	1,39
50	-10	1.001	629	2,91	1,85	1,59
50	-5	1.218	677	3,12	2,09	1,80
50	0	1.458	724	3,34	2,34	2,01
50	5	1.720	770	3,55	2,60	2,23
50	7,2	1.843	790	3,64	2,71	2,33
50	10	2.005	816	3,76	2,86	2,46

55	-25	436	492	2,28	1,03	0,89
55	-20	568	547	2,53	1,21	1,04
55	-15	722	601	2,78	1,40	1,20
55	-10	900	654	3,02	1,60	1,38
55	-5	1.100	707	3,26	1,81	1,56
55	0	1.324	759	3,50	2,03	1,74
55	5	1.570	811	3,74	2,25	1,93
55	7,2	1.685	834	3,84	2,35	2,02
55	10	1.838	863	3,97	2,48	2,13

60	-25	384	500	2,31	0,89	0,77
60	-20	499	560	2,59	1,04	0,89
60	-15	637	619	2,86	1,20	1,03
60	-10	799	679	3,13	1,37	1,18
60	-5	983	737	3,40	1,55	1,33
60	0	1.189	795	3,66	1,74	1,50
60	5	1.419	853	3,93	1,94	1,66
60	7,2	1.528	878	4,04	2,02	1,74
60	10	1.672	910	4,19	2,14	1,84

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	622	472	2,19	1,32	1,14
40	-20	815	510	2,36	1,60	1,38
40	-15	1.031	547	2,53	1,88	1,63
40	-10	1.268	584	2,70	2,17	1,88
40	-5	1.528	620	2,87	2,46	2,13
40	0	1.809	656	3,03	2,76	2,38
40	5	2.113	692	3,19	3,05	2,64
40	7,2	2.253	707	3,26	3,19	2,75
40	10	2.438	727	3,35	3,35	2,90

45	-25	560	480	2,22	1,17	1,01
45	-20	733	523	2,42	1,40	1,21
45	-15	928	566	2,62	1,64	1,42
45	-10	1.145	609	2,81	1,88	1,63
45	-5	1.384	651	3,01	2,13	1,84
45	0	1.645	693	3,20	2,38	2,05
45	5	1.928	734	3,38	2,63	2,27
45	7,2	2.060	752	3,47	2,74	2,37
45	10	2.233	775	3,57	2,88	2,49

50	-25	498	487	2,26	1,02	0,88
50	-20	651	536	2,48	1,21	1,05
50	-15	825	585	2,71	1,41	1,22
50	-10	1.022	633	2,93	1,61	1,39
50	-5	1.241	681	3,14	1,82	1,57
50	0	1.481	729	3,36	2,03	1,76
50	5	1.744	776	3,57	2,25	1,94
50	7,2	1.866	796	3,67	2,34	2,03
50	10	2.028	822	3,79	2,47	2,13

55	-25	437	495	2,29	0,88	0,76
55	-20	569	550	2,54	1,03	0,89
55	-15	723	604	2,79	1,20	1,03
55	-10	899	658	3,04	1,37	1,18
55	-5	1.097	712	3,28	1,54	1,33
55	0	1.317	765	3,52	1,72	1,49
55	5	1.559	817	3,76	1,91	1,65
55	7,2	1.673	840	3,87	1,99	1,72
55	10	1.823	870	4,00	2,10	1,81

60	-25	375	502	2,33	0,75	0,65
60	-20	487	563	2,60	0,86	0,75
60	-15	620	623	2,88	1,00	0,86
60	-10	776	683	3,15	1,14	0,98
60	-5	953	742	3,42	1,28	1,11
60	0	1.153	801	3,69	1,44	1,24
60	5	1.375	859	3,95	1,60	1,38
60	7,2	1.479	885	4,07	1,67	1,44
60	10	1.619	917	4,22	1,76	1,52



# Technical Data Sheet

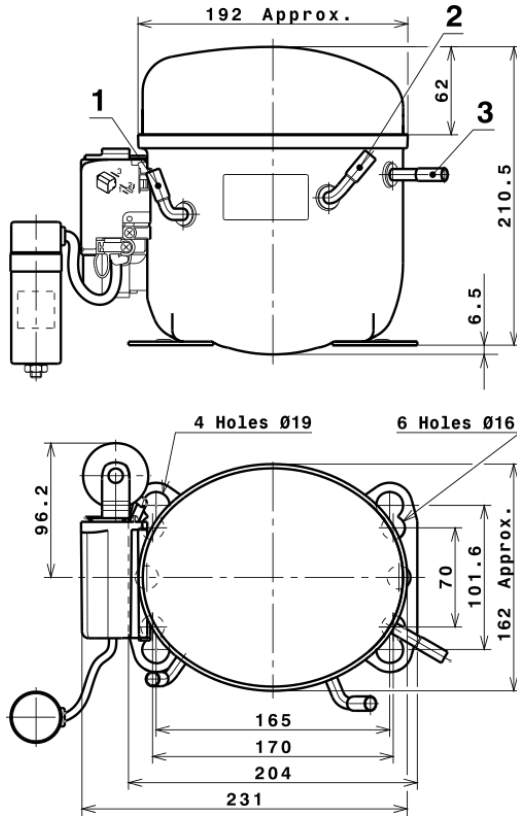
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	3.123,5715199558	377,7345835684	1,7635894083	61,198874875094
2	91,3414162096	-1,7883684705	-0,0080465481	2,0499033740154
3	-34,0737733604	7,4664406913	0,0339790807	-0,27684296606097
4	0,4169323808	-0,0012534812	-0,0000102950	0,020336021367936
5	-0,8641069427	0,2368758885	0,0010766198	-0,0049608801811585

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

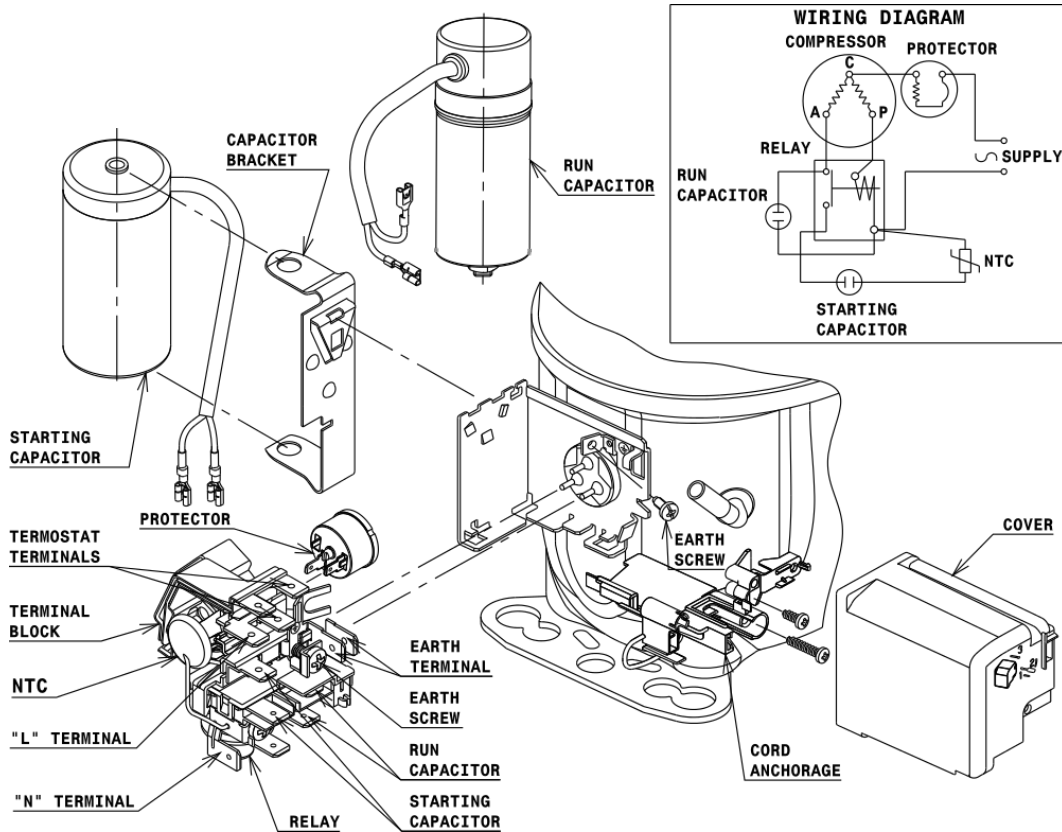


## DESIGNATION INTERNAL DIAM.

DESIGNATION	INTERNAL DIAM.
1 Suction	8,1 mm
2 Service	8,1 mm
3 Discharge	6,5 mm

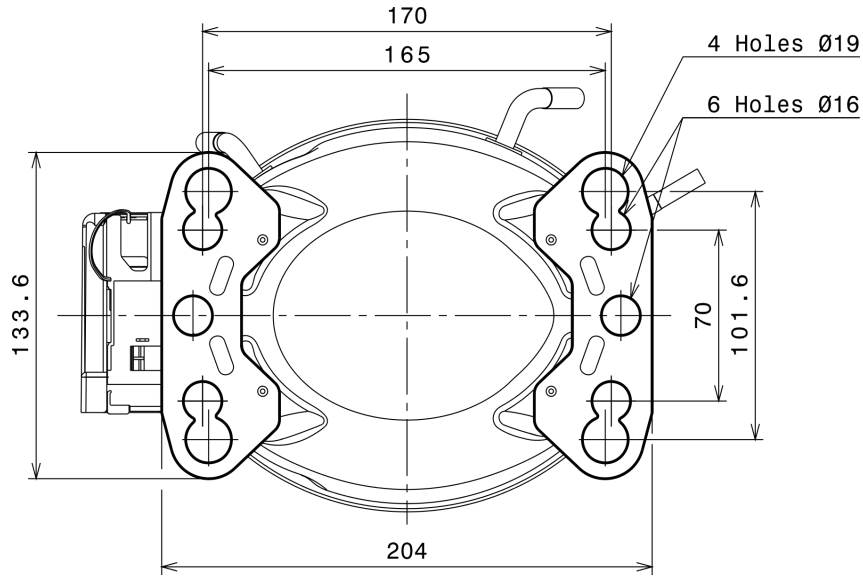
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSR CONNECTION (CURRENT RELAY + NTC) (L, P ranges)



# Technical Data Sheet

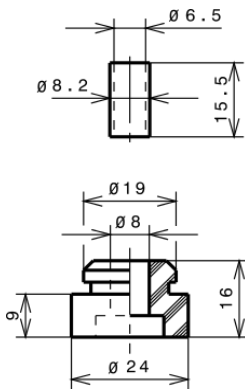
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

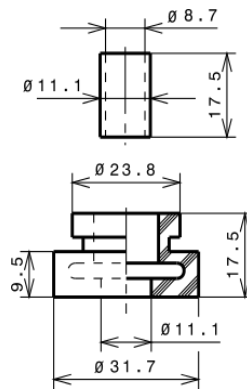
### STANDARD

Ø16 holes (170x70 net)



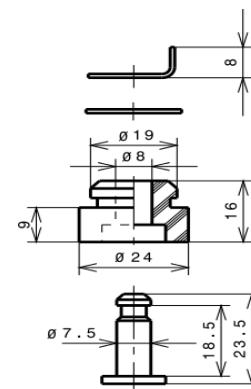
### AMERICAN FEET

Ø19 holes (165x101.6 net)



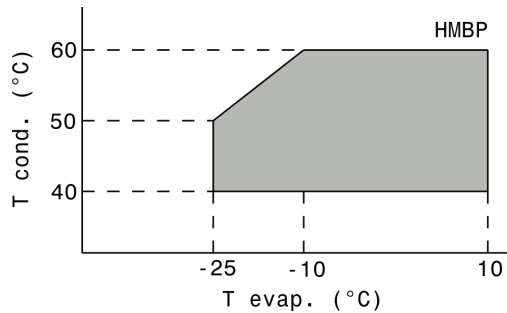
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R404A HMBP



# Technical Data Sheet

Compressor model **MPT14RA**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R404A**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High Back Pressure	Displacement	14,32 cm <sup>3</sup>	Nominal Power	1/2 hp
Refrigerant	R404A	Diameter	29,37 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-15,0 °C to 10,0 °C	Stroke	21,13 mm	Voltage range	198-255 V
Expansion	Capillar/Valve	Net Weight	12,25 Kg	Type	CSR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	400 cm <sup>3</sup>	Locked Rotor Amps (LRA)	21,00 A
				Max. Cont. Current (MCC)	6,50 A
				Main W. resist. at 25°C	4,50 Ω
				Start W. resist. at 25°C	5,75 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.900 kCal/h	1.750 W
COP	2,20 W/W	1,78 W/W
EER	1,89 kCal/Wh	1,54 kCal/Wh
Input Power	1.004 W	984 W
Current	4,61 A	4,52 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HBP (D)	CECOMAF HBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	64- 77 μF 330 V		
Run capacitor	25 μF 420 V		
Relay	Option 1		
Reference	2014 166. + NTC15Ω		
Pick-Up	11,00 A		
Drop-Out	9,35 A		
Protector	Option 1	Option 2	
Reference	MRA38134	T0348	
Current	15,80 A	15,40 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 52,00 °C	105,00 / 52,00 °C	

# Technical Data Sheet

## ASHRAE

Tc	Te	Cooling Capacity	Consumption	Current	COP	EER
°C	°C	kCal/h	W	A	W/W	kCal/Wh
40	-15	1.026	665	3,06	1,79	1,54
40	-10	1.267	720	3,32	2,05	1,76
40	-5	1.540	775	3,57	2,31	1,99
40	0	1.845	829	3,82	2,59	2,23
40	5	2.182	882	4,06	2,88	2,47
40	7,2	2.341	905	4,16	3,01	2,59
40	10	2.552	934	4,30	3,18	2,73

45	-15	947	683	3,14	1,61	1,39
45	-10	1.172	742	3,41	1,84	1,58
45	-5	1.430	799	3,68	2,08	1,79
45	0	1.720	857	3,94	2,33	2,01
45	5	2.042	913	4,20	2,60	2,24
45	7,2	2.194	938	4,31	2,72	2,34
45	10	2.396	969	4,45	2,88	2,47

50	-15	868	701	3,23	1,44	1,24
50	-10	1.078	763	3,51	1,64	1,41
50	-5	1.320	824	3,80	1,86	1,60
50	0	1.595	885	4,07	2,10	1,80
50	5	1.902	945	4,34	2,34	2,01
50	7,2	2.047	971	4,46	2,45	2,11
50	10	2.241	1.004	4,61	2,60	2,23

55	-15	789	719	3,31	1,28	1,10
55	-10	984	784	3,61	1,46	1,25
55	-5	1.211	849	3,91	1,66	1,43
55	0	1.470	913	4,20	1,87	1,61
55	5	1.762	976	4,49	2,10	1,80
55	7,2	1.900	1.004	4,61	2,20	1,89
55	10	2.085	1.039	4,77	2,33	2,01

60	-15	710	737	3,39	1,12	0,96
60	-10	889	806	3,71	1,28	1,10
60	-5	1.101	874	4,02	1,47	1,26
60	0	1.345	941	4,33	1,66	1,43
60	5	1.621	1.008	4,63	1,87	1,61
60	7,2	1.753	1.037	4,76	1,97	1,69
60	10	1.930	1.074	4,92	2,09	1,80

## CECOMAF

Tc	Te	Cooling Capacity	Consumption	Current	COP	EER
°C	°C	W	W	A	W/W	kCal/Wh
40	-15	1.075	669	3,08	1,61	1,39
40	-10	1.331	725	3,34	1,84	1,59
40	-5	1.617	780	3,59	2,07	1,79
40	0	1.935	834	3,84	2,32	2,00
40	5	2.283	888	4,09	2,57	2,22
40	7,2	2.446	912	4,20	2,68	2,32
40	10	2.663	942	4,33	2,83	2,44

45	-15	979	687	3,16	1,43	1,23
45	-10	1.215	746	3,44	1,63	1,41
45	-5	1.481	805	3,71	1,84	1,59
45	0	1.778	863	3,97	2,06	1,78
45	5	2.106	920	4,23	2,29	1,98
45	7,2	2.260	945	4,35	2,39	2,07
45	10	2.464	977	4,49	2,52	2,18

50	-15	884	705	3,25	1,25	1,08
50	-10	1.099	768	3,54	1,43	1,24
50	-5	1.344	830	3,82	1,62	1,40
50	0	1.621	891	4,10	1,82	1,57
50	5	1.928	952	4,38	2,03	1,75
50	7,2	2.073	978	4,50	2,12	1,83
50	10	2.266	1.012	4,65	2,24	1,93

55	-15	789	723	3,33	1,09	0,94
55	-10	983	789	3,63	1,25	1,08
55	-5	1.208	855	3,93	1,41	1,22
55	0	1.464	919	4,23	1,59	1,38
55	5	1.750	984	4,52	1,78	1,54
55	7,2	1.886	1.012	4,64	1,86	1,61
55	10	2.068	1.047	4,80	1,97	1,71

60	-15	694	741	3,41	0,94	0,81
60	-10	867	811	3,73	1,07	0,92
60	-5	1.071	879	4,05	1,22	1,05
60	0	1.307	948	4,36	1,38	1,19
60	5	1.573	1.015	4,66	1,55	1,34
60	7,2	1.700	1.045	4,79	1,63	1,41
60	10	1.870	1.082	4,96	1,73	1,49

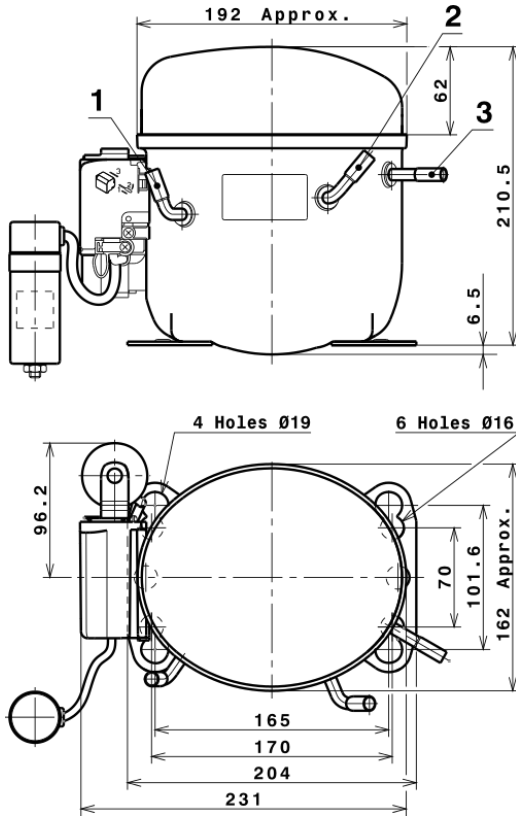
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	3.198,2336033645	625,4757856499	2,9040308312	59,970790248955
2	100,6583652073	5,8986636105	0,0284352343	2,0399628841731
3	-32,9029925749	5,8527884589	0,0263895496	-0,16718314570882
4	0,5844161735	0,0028317983	-0,0000414355	0,030625240676891
5	-0,8953568390	0,1425238691	0,0006099005	0,0010188842479041

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

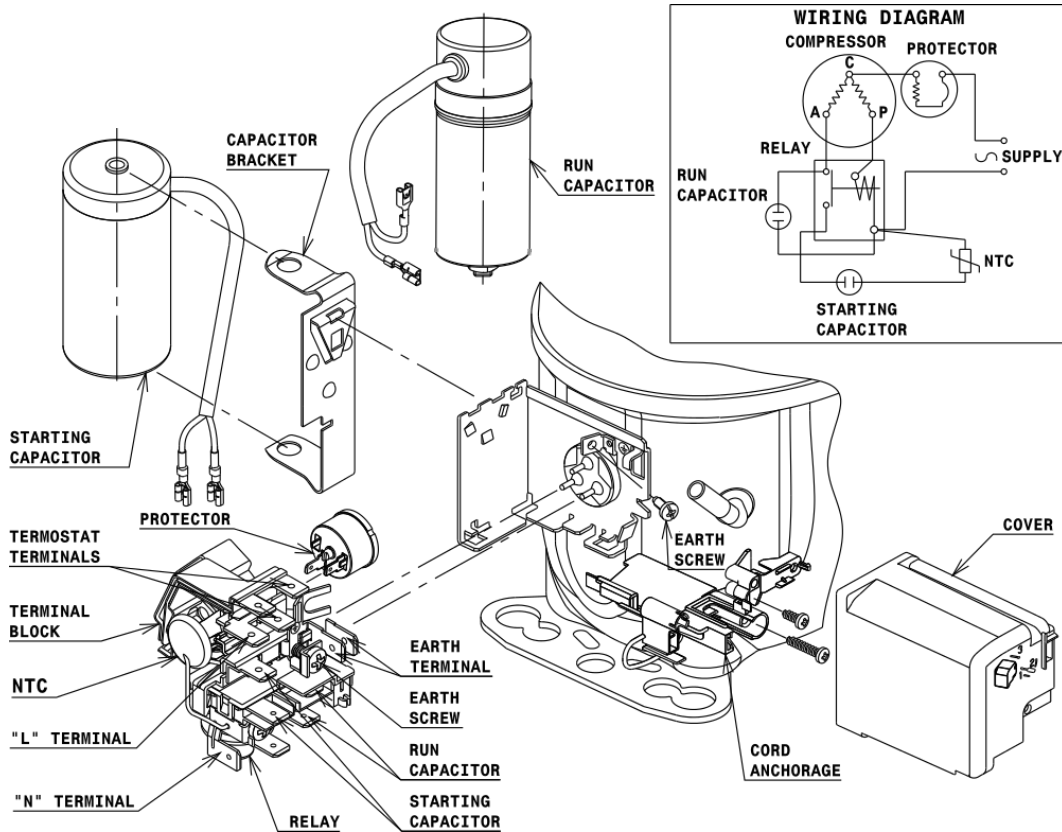


## DESIGNATION INTERNAL DIAM.

1	Suction	8,1 mm
2	Service	8,1 mm
3	Discharge	6,5 mm

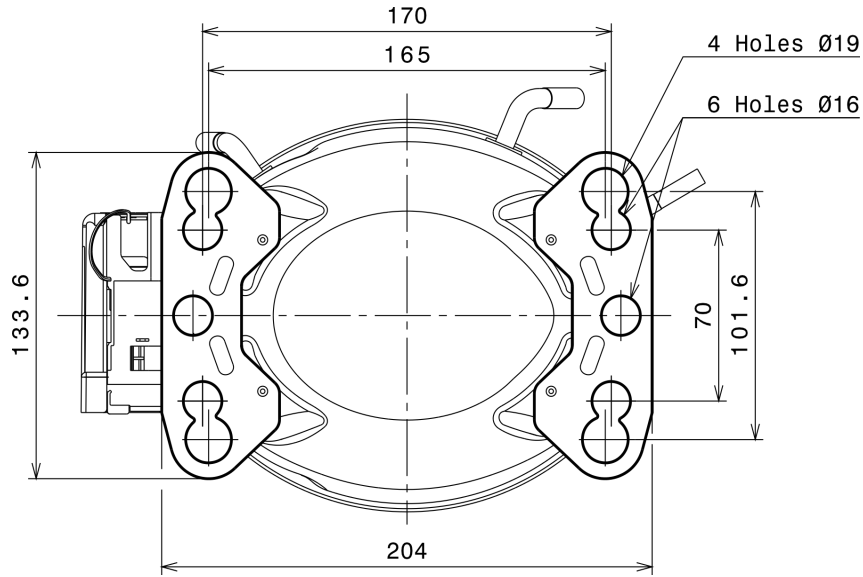
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSR CONNECTION (CURRENT RELAY + NTC) (L, P ranges)



# Technical Data Sheet

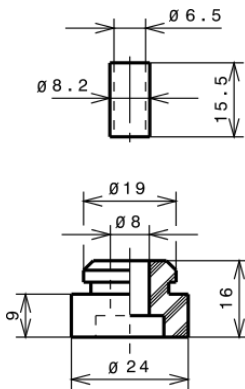
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

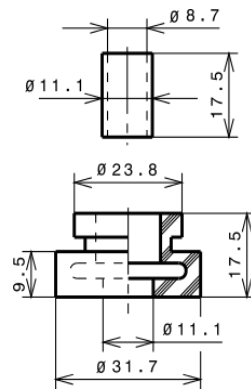
### STANDARD

Ø16 holes (170x70 net)



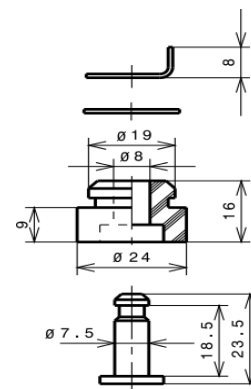
### AMERICAN FEET

Ø19 holes (165x101.6 net)



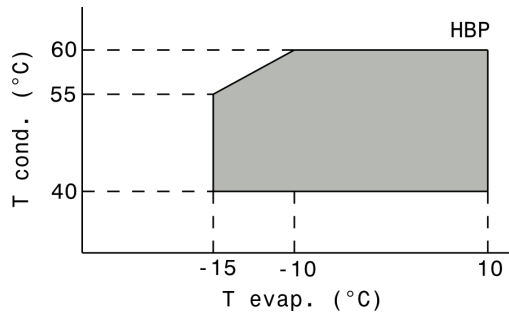
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R404A HBP



# Technical Data Sheet

Compressor model **MX16TBa**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R404A**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	16,03 cm <sup>3</sup>	Nominal Power	7/8 hp
Refrigerant	R404A	Diameter	32,60 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	19,20 mm	Voltage range	187-255 V
Expansion	Capillar/Valve	Net Weight	16,33 Kg	Type	CSR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	500 cm <sup>3</sup>	Locked Rotor Amps (LRA)	34,50 A
				Max. Cont. Current (MCC)	9,00 A
				Main W. resist. at 25°C	2,34 Ω
				Start W. resist. at 25°C	7,22 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	2.030 kCal/h	1.868 W
COP	2,15 W/W	1,74 W/W
EER	1,85 kCal/Wh	1,50 kCal/Wh
Input Power	1.100 W	1.074 W
Current	5,40 A	5,28 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	88-108 μF 330 V		
Run capacitor	16 μF 420 V		
Relay	Option 1		
Reference	2014 180. + NTC15Ω		
Pick-Up	16.70 A		
Drop-Out	14.00 A		
Protector	Option 1		
Reference	T0260		
Current	22,00 A		
Time check	7,5-14 seg		
Disc temp. (Open/Close)	105,00 / 52,00 °C		



# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	668	576	3,10	1,35	1,16
40	-20	884	637	3,36	1,61	1,39
40	-15	1.134	697	3,61	1,89	1,63
40	-10	1.417	756	3,87	2,18	1,87
40	-5	1.733	813	4,12	2,48	2,13
40	0	2.083	870	4,37	2,78	2,39
40	5	2.466	926	4,61	3,10	2,66
40	7,2	2.645	950	4,72	3,24	2,78
40	10	2.882	980	4,86	3,42	2,94

45	-25	605	580	3,12	1,21	1,04
45	-20	799	648	3,40	1,43	1,23
45	-15	1.027	715	3,69	1,67	1,44
45	-10	1.288	781	3,98	1,92	1,65
45	-5	1.582	846	4,26	2,17	1,87
45	0	1.910	910	4,54	2,44	2,10
45	5	2.271	973	4,82	2,71	2,33
45	7,2	2.440	1.000	4,95	2,84	2,44
45	10	2.665	1.034	5,10	3,00	2,58

50	-25	543	584	3,13	1,08	0,93
50	-20	715	659	3,45	1,26	1,08
50	-15	920	733	3,77	1,46	1,25
50	-10	1.159	807	4,09	1,67	1,44
50	-5	1.431	879	4,41	1,89	1,63
50	0	1.737	950	4,72	2,13	1,83
50	5	2.075	1.020	5,03	2,37	2,04
50	7,2	2.235	1.050	5,17	2,48	2,13
50	10	2.448	1.088	5,35	2,62	2,25

55	-25	480	588	3,15	0,95	0,82
55	-20	630	670	3,50	1,09	0,94
55	-15	813	752	3,85	1,26	1,08
55	-10	1.030	832	4,20	1,44	1,24
55	-5	1.280	911	4,55	1,63	1,40
55	0	1.563	989	4,90	1,84	1,58
55	5	1.880	1.066	5,25	2,05	1,76
55	7,2	2.030	1.100	5,40	2,15	1,85
55	10	2.230	1.142	5,59	2,27	1,95

60	-25	418	592	3,17	0,82	0,71
60	-20	545	682	3,55	0,93	0,80
60	-15	707	770	3,93	1,07	0,92
60	-10	901	857	4,31	1,22	1,05
60	-5	1.129	944	4,69	1,39	1,20
60	0	1.390	1.029	5,08	1,57	1,35
60	5	1.685	1.113	5,46	1,76	1,51
60	7,2	1.825	1.150	5,63	1,85	1,59
60	10	2.013	1.196	5,84	1,96	1,68

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	699	579	3,11	1,21	1,04
40	-20	932	641	3,37	1,45	1,26
40	-15	1.196	701	3,63	1,71	1,47
40	-10	1.493	760	3,89	1,96	1,70
40	-5	1.822	819	4,14	2,23	1,92
40	0	2.184	876	4,39	2,49	2,15
40	5	2.578	933	4,65	2,76	2,39
40	7,2	2.762	957	4,75	2,89	2,49
40	10	3.005	988	4,89	3,04	2,63

45	-25	626	583	3,13	1,07	0,93
45	-20	831	652	3,42	1,28	1,10
45	-15	1.069	719	3,71	1,49	1,28
45	-10	1.338	786	4,00	1,70	1,47
45	-5	1.640	852	4,29	1,93	1,66
45	0	1.975	916	4,57	2,16	1,86
45	5	2.341	980	4,86	2,39	2,06
45	7,2	2.513	1.008	4,98	2,49	2,15
45	10	2.740	1.043	5,14	2,63	2,27

50	-25	554	587	3,15	0,94	0,81
50	-20	731	663	3,47	1,10	0,95
50	-15	941	738	3,79	1,28	1,10
50	-10	1.183	812	4,11	1,46	1,26
50	-5	1.458	884	4,43	1,65	1,42
50	0	1.765	956	4,75	1,85	1,59
50	5	2.105	1.027	5,07	2,05	1,77
50	7,2	2.264	1.058	5,21	2,14	1,85
50	10	2.476	1.097	5,39	2,26	1,95

55	-25	481	591	3,16	0,81	0,70
55	-20	631	674	3,52	0,94	0,81
55	-15	814	756	3,87	1,08	0,93
55	-10	1.029	837	4,22	1,23	1,06
55	-5	1.276	917	4,58	1,39	1,20
55	0	1.556	996	4,93	1,56	1,35
55	5	1.868	1.074	5,28	1,74	1,50
55	7,2	2.015	1.108	5,44	1,82	1,57
55	10	2.212	1.152	5,64	1,92	1,66

60	-25	408	595	3,18	0,69	0,59
60	-20	531	685	3,56	0,77	0,67
60	-15	686	775	3,95	0,89	0,77
60	-10	874	863	4,34	1,01	0,88
60	-5	1.094	950	4,72	1,15	0,99
60	0	1.346	1.036	5,11	1,30	1,12
60	5	1.631	1.122	5,50	1,45	1,26
60	7,2	1.766	1.159	5,67	1,52	1,32
60	10	1.948	1.206	5,89	1,62	1,40

# Technical Data Sheet

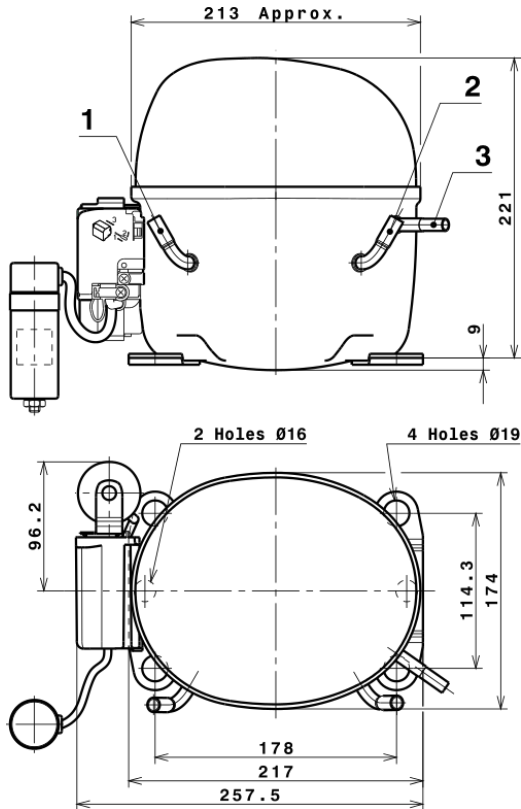
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	3.858,8306007493	571,9391022687	2,9941275436	76,919802906595
2	119,1362352478	0,2464046571	-0,0001097960	2,7310583391372
3	-43,3264055390	8,2763268823	0,0377198978	-0,41065347327799
4	0,6125357333	-0,0089992816	0,0000564895	0,028502211079764
5	-1,1463653954	0,2981028144	0,0013694399	-0,0085989525889686

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

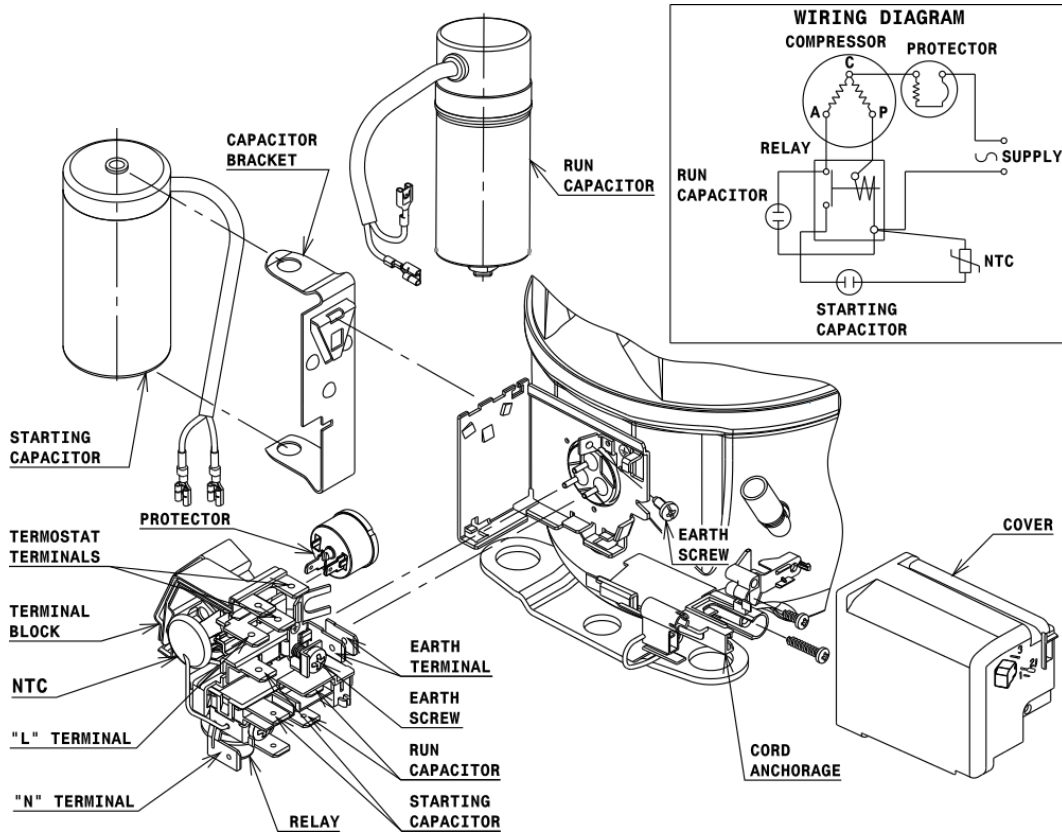


## DESIGNATION INTERNAL DIAM.

1	Service	9,7 mm
2	Suction	9,7 mm
3	Discharge	6,5 mm

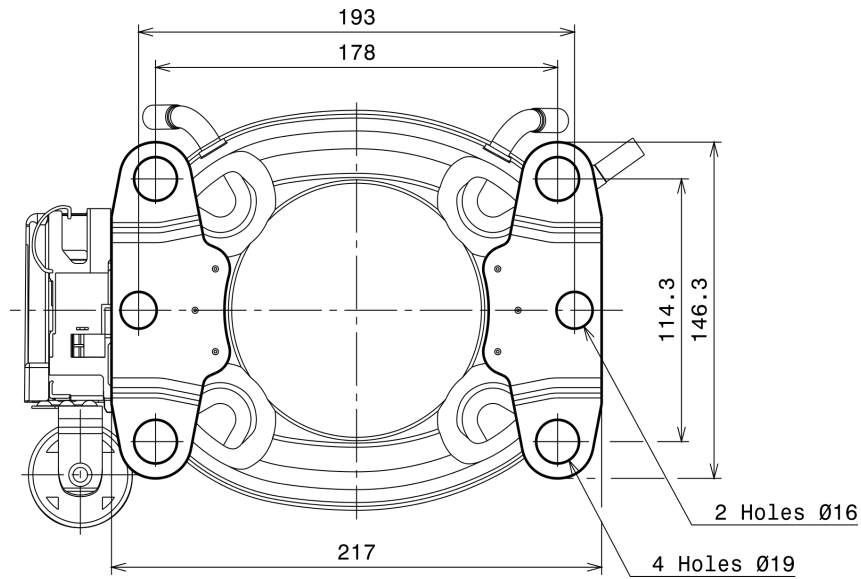
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSR CONNECTION (CURRENT RELAY + NTC) (X range)



# Technical Data Sheet

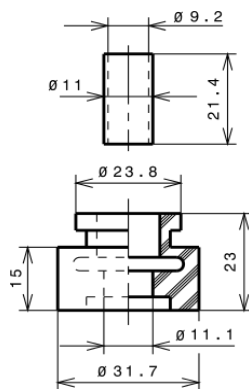
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

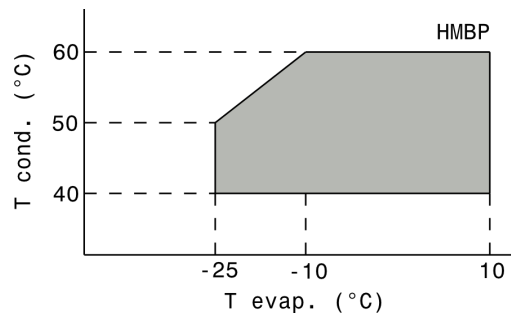
### STANDARD

Ø19 holes (178x114.3 net)



## SOA

SOA R404A HMBP



# Technical Data Sheet

Compressor model **MX18TBa**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R404A**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	18,40 cm <sup>3</sup>	Nominal Power	7/8 hp
Refrigerant	R404A	Diameter	34,93 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	19,20 mm	Voltage range	187-255 V
Expansion	Capillar/Valve	Net Weight	16,33 Kg	Type	CSR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	500 cm <sup>3</sup>	Locked Rotor Amps (LRA)	34,50 A
				Max. Cont. Current (MCC)	9,00 A
				Main W. resist. at 25°C	2,34 Ω
				Start W. resist. at 25°C	7,22 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	2.330 kCal/h	2.143 W
COP	2,18 W/W	1,76 W/W
EER	1,87 kCal/Wh	1,52 kCal/Wh
Input Power	1.245 W	1.219 W
Current	6,50 A	6,37 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	88-108 μF 330 V			
Run capacitor	16 μF 420 V			
Relay	Option 1			
Reference	2014 180. + NTC15Ω			
Pick-Up	16.70 A			
Drop-Out	14.00 A			
Protector	Option 1			
Reference	T0260			
Current	22,00 A			
Time check	7,5-14 seg			
Disc temp. (Open/Close)	105,00 / 52,00 °C			

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	775	684	4,04	1,32	1,13
40	-20	1.009	759	4,33	1,55	1,33
40	-15	1.282	832	4,63	1,79	1,54
40	-10	1.594	901	4,92	2,06	1,77
40	-5	1.944	968	5,21	2,34	2,01
40	0	2.332	1.031	5,49	2,63	2,26
40	5	2.760	1.092	5,77	2,94	2,53
40	7,2	2.960	1.118	5,89	3,08	2,65
40	10	3.226	1.149	6,04	3,26	2,81

45	-25	700	680	4,03	1,20	1,03
45	-20	913	763	4,35	1,39	1,20
45	-15	1.165	842	4,67	1,61	1,38
45	-10	1.456	919	4,99	1,84	1,58
45	-5	1.785	993	5,32	2,09	1,80
45	0	2.153	1.064	5,64	2,35	2,02
45	5	2.559	1.131	5,95	2,63	2,26
45	7,2	2.750	1.160	6,09	2,76	2,37
45	10	3.004	1.196	6,26	2,92	2,51

50	-25	625	677	4,01	1,07	0,92
50	-20	817	766	4,36	1,24	1,07
50	-15	1.048	853	4,72	1,43	1,23
50	-10	1.318	937	5,07	1,64	1,41
50	-5	1.626	1.018	5,43	1,86	1,60
50	0	1.973	1.096	5,78	2,09	1,80
50	5	2.358	1.171	6,14	2,34	2,01
50	7,2	2.540	1.203	6,29	2,46	2,11
50	10	2.782	1.242	6,49	2,60	2,24

55	-25	550	673	4,00	0,95	0,82
55	-20	721	770	4,38	1,09	0,94
55	-15	931	864	4,76	1,25	1,08
55	-10	1.180	955	5,15	1,44	1,24
55	-5	1.467	1.043	5,54	1,64	1,41
55	0	1.793	1.128	5,93	1,85	1,59
55	5	2.157	1.210	6,33	2,07	1,78
55	7,2	2.330	1.245	6,50	2,18	1,87
55	10	2.560	1.289	6,72	2,31	1,99

60	-25	475	670	3,99	0,83	0,71
60	-20	625	774	4,39	0,94	0,81
60	-15	814	875	4,81	1,08	0,93
60	-10	1.042	973	5,23	1,25	1,07
60	-5	1.308	1.068	5,66	1,42	1,22
60	0	1.613	1.160	6,09	1,62	1,39
60	5	1.957	1.249	6,52	1,82	1,57
60	7,2	2.120	1.288	6,71	1,92	1,65
60	10	2.339	1.335	6,96	2,04	1,75

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	812	687	4,05	1,18	1,02
40	-20	1.064	763	4,35	1,39	1,20
40	-15	1.353	837	4,65	1,62	1,40
40	-10	1.681	907	4,94	1,85	1,60
40	-5	2.045	974	5,23	2,10	1,81
40	0	2.447	1.038	5,52	2,36	2,04
40	5	2.887	1.100	5,80	2,62	2,27
40	7,2	3.092	1.126	5,93	2,75	2,37
40	10	3.364	1.159	6,08	2,90	2,51

45	-25	725	684	4,04	1,06	0,92
45	-20	950	767	4,37	1,24	1,07
45	-15	1.213	847	4,69	1,43	1,24
45	-10	1.513	925	5,02	1,64	1,41
45	-5	1.851	999	5,35	1,85	1,60
45	0	2.226	1.071	5,67	2,08	1,80
45	5	2.639	1.140	5,99	2,32	2,00
45	7,2	2.832	1.169	6,13	2,42	2,09
45	10	3.089	1.205	6,31	2,56	2,21

50	-25	638	680	4,03	0,94	0,81
50	-20	836	771	4,38	1,09	0,94
50	-15	1.072	858	4,74	1,25	1,08
50	-10	1.346	943	5,10	1,43	1,23
50	-5	1.657	1.025	5,46	1,62	1,40
50	0	2.005	1.103	5,82	1,82	1,57
50	5	2.391	1.179	6,18	2,03	1,75
50	7,2	2.573	1.212	6,34	2,12	1,83
50	10	2.814	1.252	6,54	2,25	1,94

55	-25	551	677	4,01	0,81	0,70
55	-20	723	774	4,40	0,93	0,81
55	-15	932	869	4,78	1,07	0,93
55	-10	1.178	961	5,18	1,23	1,06
55	-5	1.463	1.050	5,57	1,39	1,20
55	0	1.784	1.136	5,97	1,57	1,36
55	5	2.143	1.219	6,37	1,76	1,52
55	7,2	2.313	1.255	6,55	1,84	1,59
55	10	2.540	1.299	6,77	1,96	1,69

60	-25	464	673	4,00	0,69	0,60
60	-20	609	778	4,41	0,78	0,68
60	-15	791	880	4,83	0,90	0,78
60	-10	1.011	979	5,26	1,03	0,89
60	-5	1.268	1.075	5,69	1,18	1,02
60	0	1.563	1.168	6,13	1,34	1,16
60	5	1.896	1.259	6,57	1,51	1,30
60	7,2	2.054	1.297	6,76	1,58	1,37
60	10	2.265	1.346	7,01	1,68	1,45

# Technical Data Sheet

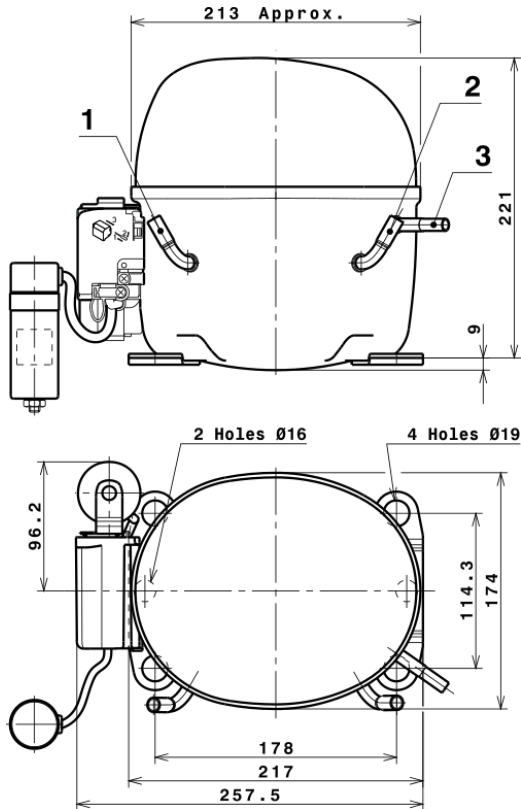
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	4.220,8136392240	801,5486945211	4,2920427539	81,678773219533
2	127,1818913887	1,5668344883	0,0061832816	2,8345588078294
3	-45,9665169863	6,7171431916	0,0335289331	-0,35204857527005
4	0,7093589286	-0,0475990012	0,0001456453	0,032939649402571
5	-1,1394065704	0,2975172059	0,0014519012	-0,0043231014209744

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

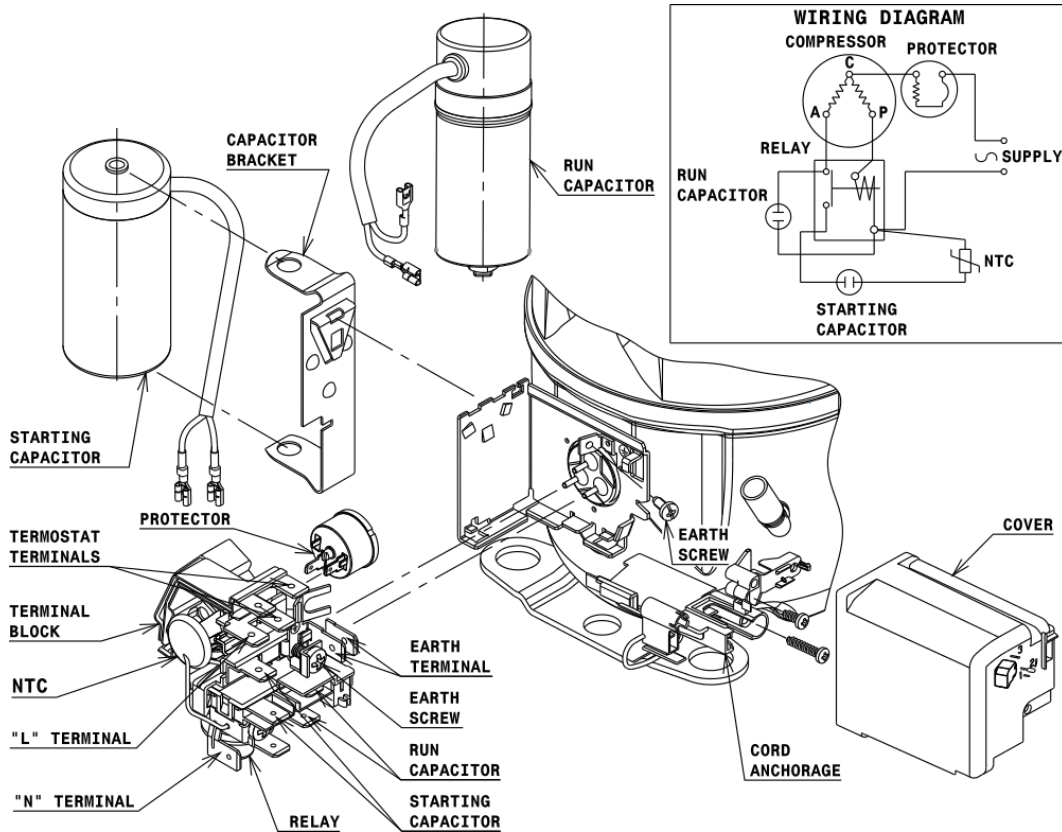


## DESIGNATION INTERNAL DIAM.

1	Service	9,7 mm
2	Suction	9,7 mm
3	Discharge	6,5 mm

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

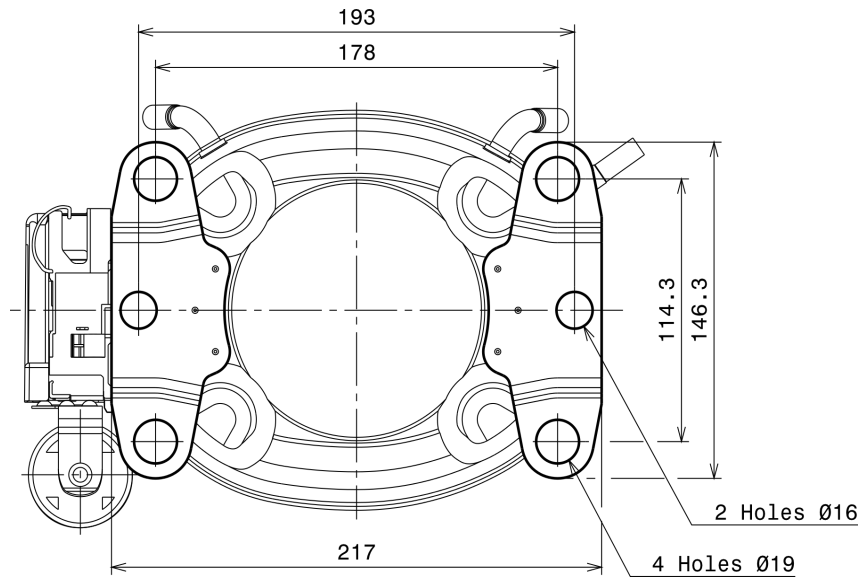
### CSR CONNECTION (CURRENT RELAY + NTC) (X range)





# Technical Data Sheet

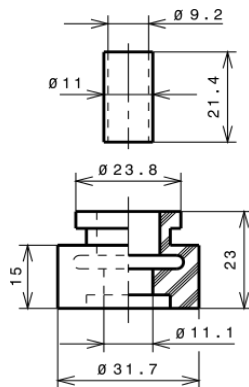
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

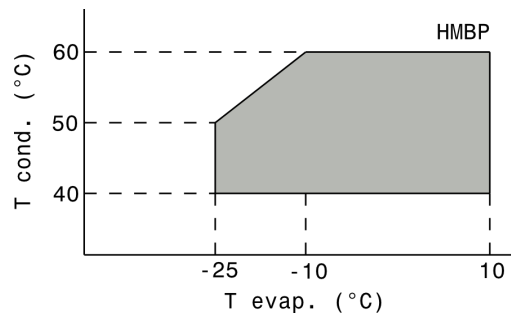
### STANDARD

Ø19 holes (178x114.3 net)



## SOA

SOA R404A HMBP



# Technical Data Sheet

Compressor model **MX21TBa**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R404A**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	20,72 cm <sup>3</sup>	Nominal Power	1 hp
Refrigerant	R404A	Diameter	34,93 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	21,62 mm	Voltage range	198-255 V
Expansion	Capillar/Valve	Net Weight	16,52 Kg	Type	CSR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	500 cm <sup>3</sup>	Locked Rotor Amps (LRA)	37,00 A
				Max. Cont. Current (MCC)	9,60 A
				Main W. resist. at 25°C	2,14 Ω
				Start W. resist. at 25°C	6,24 Ω

## NOMINAL PERFORMANCE

## APPROVALS

	ASHRAE	CECOMAF
Cooling Capacity	2.620 kCal/h	2.409 W
COP	2,15 W/W	1,74 W/W
EER	1,85 kCal/Wh	1,50 kCal/Wh
Input Power	1.415 W	1.384 W
Current	7,10 A	6,93 A

## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	88-108 μF 330 V			
Run capacitor	20 μF 420 V			
Relay	Option 1			
Reference	2014 184. + NTC15Ω			
Pick-Up	18,7 A			
Drop-Out	15,6 A			
Protector	Option 1			
Reference	T0534			
Current	20,00 A			
Time check	7,5-14 seg			
Disc temp. (Open/Close)	105,00 / 52,00 °C			

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	853	733	3,77	1,35	1,16
40	-20	1.119	813	4,12	1,60	1,38
40	-15	1.430	892	4,48	1,86	1,60
40	-10	1.785	970	4,85	2,14	1,84
40	-5	2.183	1.046	5,21	2,43	2,09
40	0	2.626	1.121	5,58	2,72	2,34
40	5	3.112	1.195	5,95	3,03	2,60
40	7,2	3.340	1.228	6,11	3,16	2,72
40	10	3.642	1.268	6,32	3,34	2,87

45	-25	775	750	3,85	1,20	1,03
45	-20	1.017	837	4,23	1,41	1,21
45	-15	1.302	923	4,63	1,64	1,41
45	-10	1.631	1.008	5,03	1,88	1,62
45	-5	2.005	1.092	5,43	2,14	1,84
45	0	2.422	1.174	5,84	2,40	2,06
45	5	2.883	1.255	6,25	2,67	2,30
45	7,2	3.100	1.290	6,44	2,79	2,40
45	10	3.388	1.334	6,67	2,95	2,54

50	-25	698	768	3,92	1,06	0,91
50	-20	914	862	4,35	1,23	1,06
50	-15	1.174	955	4,78	1,43	1,23
50	-10	1.478	1.047	5,21	1,64	1,41
50	-5	1.826	1.137	5,66	1,87	1,61
50	0	2.218	1.226	6,11	2,10	1,81
50	5	2.654	1.314	6,56	2,35	2,02
50	7,2	2.860	1.353	6,77	2,46	2,11
50	10	3.134	1.401	7,02	2,60	2,24

55	-25	620	785	4,00	0,92	0,79
55	-20	811	886	4,46	1,06	0,92
55	-15	1.046	986	4,92	1,23	1,06
55	-10	1.325	1.085	5,40	1,42	1,22
55	-5	1.648	1.182	5,88	1,62	1,39
55	0	2.015	1.279	6,38	1,83	1,58
55	5	2.425	1.374	6,88	2,05	1,77
55	7,2	2.620	1.415	7,10	2,15	1,85
55	10	2.880	1.467	7,38	2,28	1,96

60	-25	543	803	4,08	0,79	0,68
60	-20	708	911	4,57	0,90	0,78
60	-15	918	1.018	5,07	1,05	0,90
60	-10	1.172	1.123	5,59	1,21	1,04
60	-5	1.469	1.228	6,12	1,39	1,20
60	0	1.811	1.331	6,65	1,58	1,36
60	5	2.196	1.433	7,20	1,78	1,53
60	7,2	2.380	1.478	7,44	1,87	1,61
60	10	2.626	1.534	7,75	1,99	1,71

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	893	737	3,79	1,21	1,05
40	-20	1.180	817	4,14	1,44	1,25
40	-15	1.510	897	4,51	1,68	1,45
40	-10	1.882	976	4,87	1,93	1,67
40	-5	2.297	1.053	5,24	2,18	1,88
40	0	2.755	1.129	5,62	2,44	2,11
40	5	3.255	1.204	5,99	2,70	2,34
40	7,2	3.489	1.237	6,16	2,82	2,44
40	10	3.798	1.278	6,37	2,97	2,57

45	-25	802	754	3,86	1,06	0,92
45	-20	1.058	842	4,26	1,26	1,09
45	-15	1.355	929	4,65	1,46	1,26
45	-10	1.696	1.014	5,06	1,67	1,44
45	-5	2.079	1.099	5,47	1,89	1,63
45	0	2.505	1.182	5,88	2,12	1,83
45	5	2.973	1.264	6,30	2,35	2,03
45	7,2	3.193	1.300	6,49	2,46	2,12
45	10	3.484	1.345	6,73	2,59	2,24

50	-25	712	772	3,94	0,92	0,80
50	-20	935	867	4,37	1,08	0,93
50	-15	1.201	960	4,80	1,25	1,08
50	-10	1.510	1.053	5,24	1,43	1,24
50	-5	1.861	1.145	5,69	1,63	1,40
50	0	2.255	1.235	6,15	1,83	1,58
50	5	2.691	1.324	6,61	2,03	1,76
50	7,2	2.897	1.363	6,82	2,13	1,84
50	10	3.171	1.412	7,08	2,25	1,94

55	-25	621	789	4,02	0,79	0,68
55	-20	812	891	4,48	0,91	0,79
55	-15	1.047	992	4,95	1,05	0,91
55	-10	1.323	1.092	5,43	1,21	1,05
55	-5	1.643	1.190	5,92	1,38	1,19
55	0	2.005	1.288	6,42	1,56	1,35
55	5	2.409	1.384	6,93	1,74	1,50
55	7,2	2.601	1.426	7,16	1,82	1,58
55	10	2.857	1.479	7,45	1,93	1,67

60	-25	530	807	4,10	0,66	0,57
60	-20	690	916	4,59	0,75	0,65
60	-15	892	1.024	5,10	0,87	0,75
60	-10	1.137	1.131	5,62	1,01	0,87
60	-5	1.425	1.236	6,16	1,15	1,00
60	0	1.755	1.340	6,70	1,31	1,13
60	5	2.128	1.444	7,26	1,47	1,27
60	7,2	2.305	1.489	7,50	1,55	1,34
60	10	2.543	1.546	7,82	1,65	1,42

# Technical Data Sheet

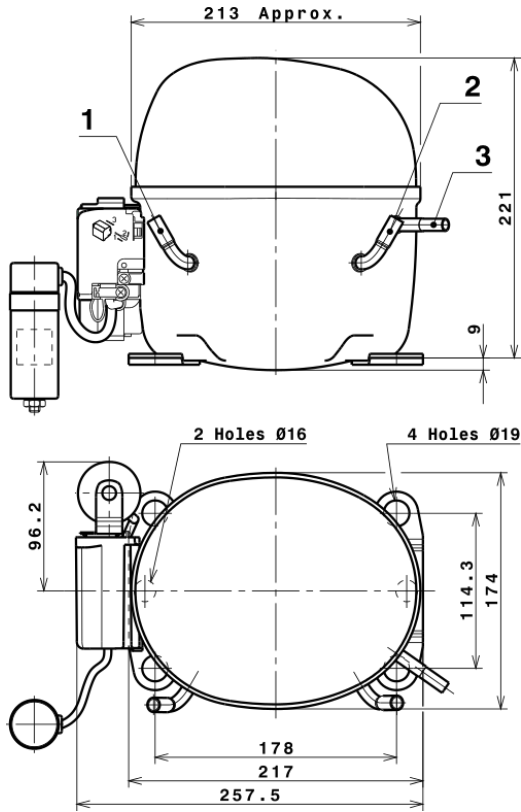
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	4.760,8389400612	726,8546976497	3,4327670063	92,334606883747
2	146,7705716795	4,4296584541	0,0154432803	3,302560506221
3	-51,9811557001	10,9210148681	0,0581754481	-0,40570387879372
4	0,8075496888	-0,0096296998	0,0002820418	0,037387132506048
5	-1,3471951004	0,2926832034	0,0016863924	-0,0068717596984554

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

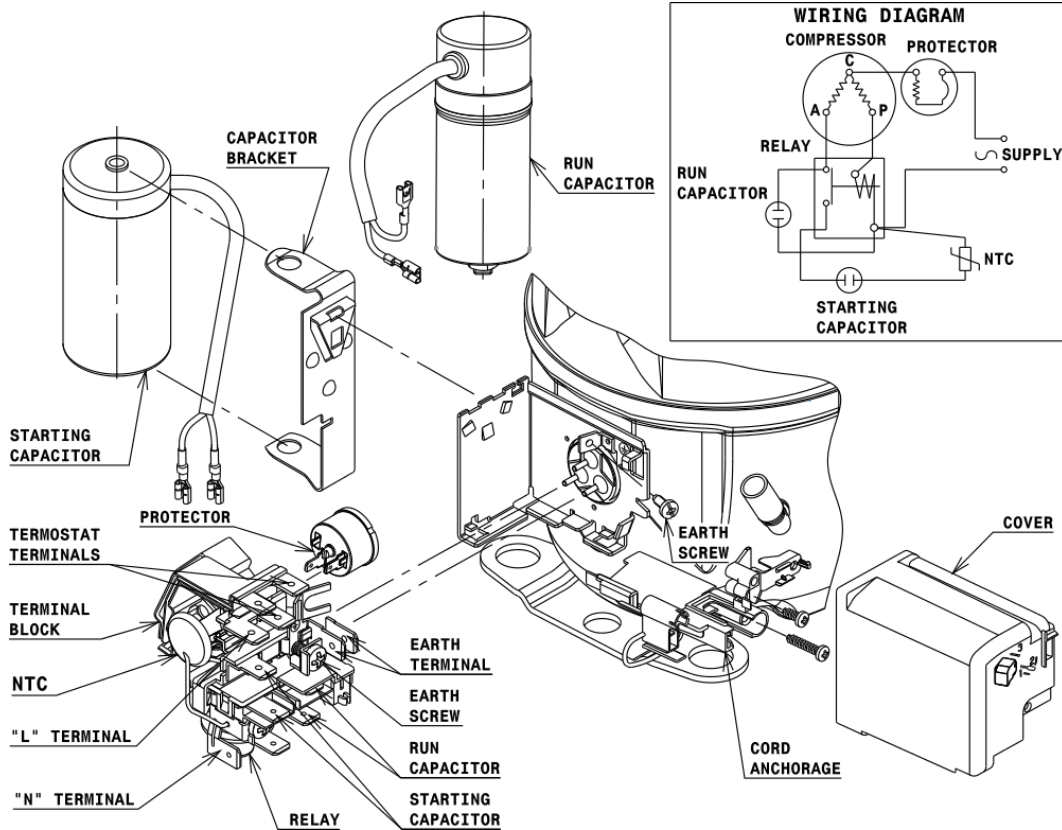


## DESIGNATION INTERNAL DIAM.

1	Service	9,7 mm
2	Suction	9,7 mm
3	Discharge	6,5 mm

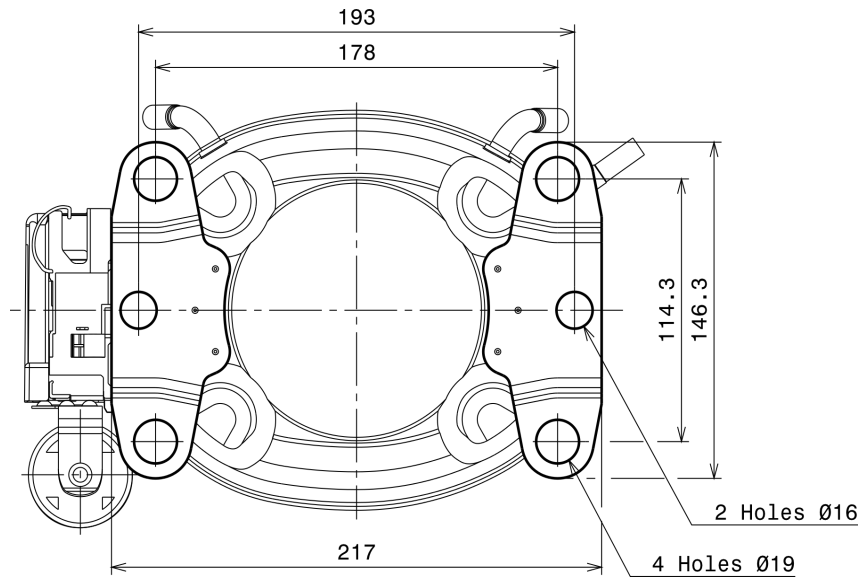
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSR CONNECTION (CURRENT RELAY + NTC) (X range)



# Technical Data Sheet

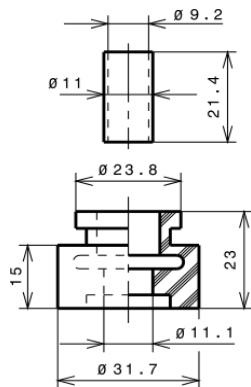
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

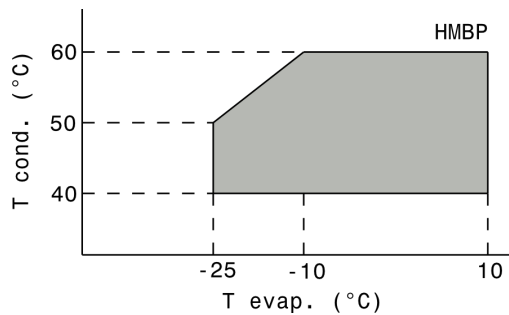
### STANDARD

Ø19 holes (178x114.3 net)



## SOA

SOA R404A HMBP



# Technical Data Sheet

Compressor model **MS26T3\_V**  
Voltage **400/440V 50/60Hz ~3**  
Refrigerant **R404A**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	25,93 cm <sup>3</sup>	Nominal Power	1 3/8 hp
Refrigerant	R404A	Diameter	39,98 mm	Voltage/Frequency	400V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	20,65 mm	Voltage range	340-440 V
Expansion	Capillar/Valve	Net Weight	18,60 Kg	Type	3PHASE
Comp. Cooling	Fan cooled	Oil type	ISO VG 46 ESTER	Phase number	3 PH
Max. ambient temp.	43,0 °C	Oil charge	887 cm <sup>3</sup>	Locked Rotor Amps (LRA)	15,70 A
				Max. Cont. Current (MCC)	4,80 A
				Main W. resist. at 25°C	10,18 Ω
				Start W. resist. at 25°C	14,03 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	3.450 kCal/h	3.166 W
COP	2,45 W/W	1,98 W/W
EER	2,10 kCal/Wh	1,71 kCal/Wh
Input Power	1.640 W	1.597 W
Current	3,05 A	2,99 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	400 V 50 Hz	400 V 50 Hz

## ELECTRICAL COMPONENTS

Relay				
Reference				
Voltage				
Resistance				
Protector	Option 1			
Reference	INTERNAL			
Current				
Time check				
Disc temp. (Open/Close)				

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	1.105	805	2,01	1,60	1,37
40	-20	1.482	908	2,13	1,90	1,63
40	-15	1.914	1.007	2,24	2,21	1,90
40	-10	2.401	1.102	2,35	2,54	2,18
40	-5	2.944	1.192	2,46	2,87	2,47
40	0	3.542	1.277	2,56	3,23	2,77
40	5	4.195	1.358	2,67	3,59	3,09
40	7,2	4.500	1.393	2,71	3,76	3,23
40	10	4.903	1.435	2,77	3,97	3,42

45	-25	960	785	1,99	1,42	1,22
45	-20	1.305	904	2,12	1,68	1,44
45	-15	1.705	1.019	2,25	1,95	1,67
45	-10	2.161	1.130	2,38	2,23	1,91
45	-5	2.672	1.235	2,51	2,52	2,16
45	0	3.238	1.337	2,64	2,82	2,42
45	5	3.859	1.434	2,77	3,13	2,69
45	7,2	4.150	1.475	2,82	3,27	2,81
45	10	4.536	1.526	2,89	3,46	2,97

50	-25	815	765	1,97	1,24	1,07
50	-20	1.128	900	2,12	1,46	1,25
50	-15	1.497	1.031	2,27	1,69	1,45
50	-10	1.920	1.157	2,42	1,93	1,66
50	-5	2.399	1.279	2,57	2,18	1,88
50	0	2.934	1.396	2,72	2,44	2,10
50	5	3.523	1.509	2,87	2,71	2,33
50	7,2	3.800	1.558	2,93	2,84	2,44
50	10	4.168	1.618	3,02	3,00	2,58

55	-25	670	745	1,95	1,05	0,90
55	-20	951	896	2,11	1,23	1,06
55	-15	1.288	1.043	2,28	1,44	1,24
55	-10	1.680	1.185	2,45	1,65	1,42
55	-5	2.127	1.323	2,62	1,87	1,61
55	0	2.630	1.456	2,80	2,10	1,81
55	5	3.187	1.585	2,97	2,34	2,01
55	7,2	3.450	1.640	3,05	2,45	2,10
55	10	3.800	1.709	3,15	2,59	2,22

60	-25	525	725	1,93	0,84	0,72
60	-20	775	892	2,11	1,01	0,87
60	-15	1.079	1.055	2,29	1,19	1,02
60	-10	1.440	1.213	2,48	1,38	1,19
60	-5	1.855	1.366	2,68	1,58	1,36
60	0	2.325	1.516	2,88	1,78	1,53
60	5	2.851	1.660	3,08	2,00	1,72
60	7,2	3.100	1.723	3,17	2,09	1,80
60	10	3.432	1.800	3,28	2,22	1,91

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	1.155	810	2,02	1,43	1,23
40	-20	1.560	914	2,13	1,71	1,48
40	-15	2.018	1.013	2,25	1,99	1,72
40	-10	2.530	1.108	2,36	2,28	1,97
40	-5	3.095	1.199	2,47	2,58	2,23
40	0	3.714	1.286	2,58	2,89	2,49
40	5	4.386	1.368	2,68	3,21	2,77
40	7,2	4.699	1.403	2,73	3,35	2,89
40	10	5.112	1.446	2,78	3,53	3,05

45	-25	994	789	2,00	1,26	1,09
45	-20	1.358	909	2,13	1,49	1,29
45	-15	1.775	1.025	2,26	1,73	1,50
45	-10	2.246	1.136	2,39	1,98	1,71
45	-5	2.770	1.243	2,52	2,23	1,92
45	0	3.348	1.346	2,65	2,49	2,15
45	5	3.979	1.444	2,78	2,76	2,38
45	7,2	4.274	1.486	2,84	2,88	2,48
45	10	4.664	1.538	2,91	3,03	2,62

50	-25	833	769	1,98	1,08	0,94
50	-20	1.155	905	2,12	1,28	1,10
50	-15	1.532	1.037	2,27	1,48	1,28
50	-10	1.962	1.164	2,42	1,68	1,46
50	-5	2.445	1.287	2,58	1,90	1,64
50	0	2.982	1.406	2,73	2,12	1,83
50	5	3.573	1.521	2,88	2,35	2,03
50	7,2	3.850	1.569	2,95	2,45	2,12
50	10	4.217	1.631	3,04	2,59	2,23

55	-25	671	749	1,95	0,90	0,77
55	-20	953	901	2,12	1,06	0,91
55	-15	1.289	1.049	2,29	1,23	1,06
55	-10	1.678	1.192	2,46	1,41	1,22
55	-5	2.120	1.331	2,63	1,59	1,38
55	0	2.617	1.466	2,81	1,78	1,54
55	5	3.166	1.597	2,99	1,98	1,71
55	7,2	3.425	1.653	3,07	2,07	1,79
55	10	3.769	1.723	3,17	2,19	1,89

60	-25	510	729	1,93	0,70	0,60
60	-20	751	897	2,11	0,84	0,72
60	-15	1.046	1.061	2,30	0,99	0,85
60	-10	1.394	1.220	2,49	1,14	0,99
60	-5	1.796	1.375	2,69	1,31	1,13
60	0	2.251	1.526	2,89	1,47	1,27
60	5	2.760	1.673	3,10	1,65	1,43
60	7,2	3.000	1.736	3,19	1,73	1,49
60	10	3.322	1.815	3,30	1,83	1,58



# Technical Data Sheet

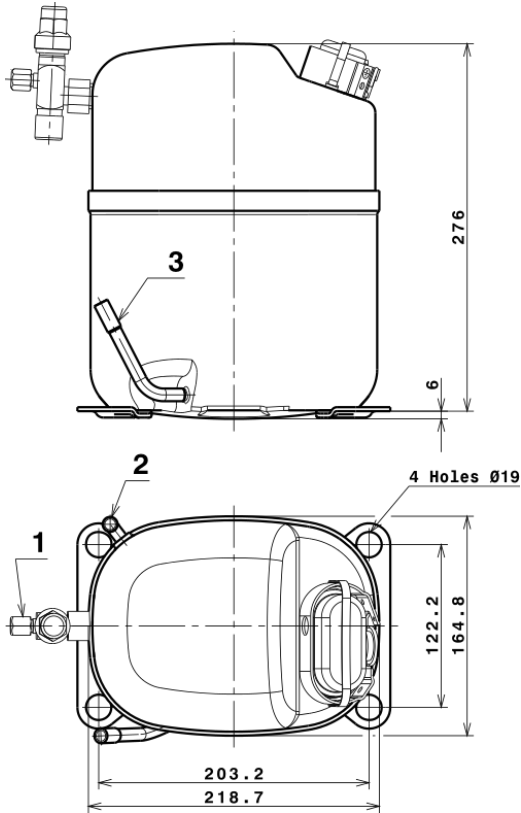
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	6.632,6422049871	827,8989997348	1,8930527509	133,6286092868
2	194,7566927327	-8,4311599763	-0,0107204637	4,3202232344381
3	-75,4604345434	12,4310492235	0,0177738955	-0,76781032708348
4	1,0129330345	-0,0720347116	0,0000852072	0,047751067109128
5	-1,7387615043	0,6619932733	0,0008862736	-0,0063050986313255

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

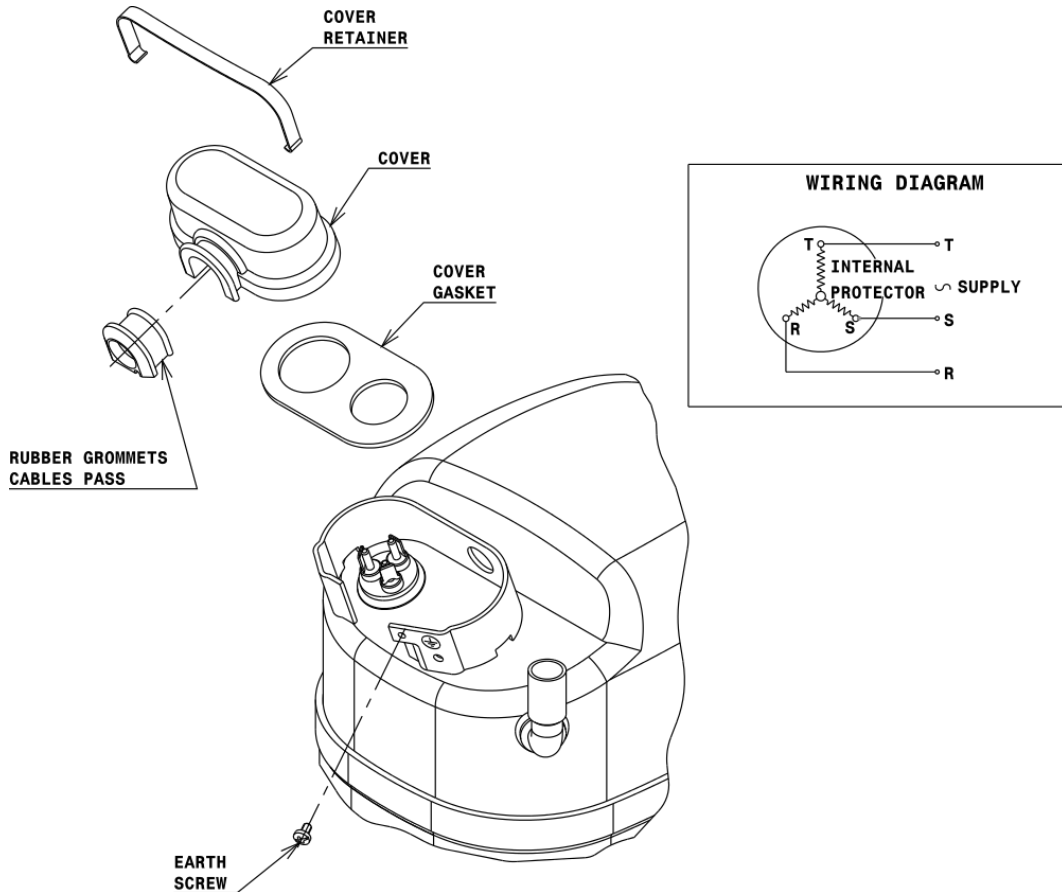
## COMPRESSOR DIMENSIONS



	DESIGNATION	INTERNAL DIAM.
1	Service Valve	5/8" SAE
2	Service	9,7 mm
3	Discharge	8,0 mm

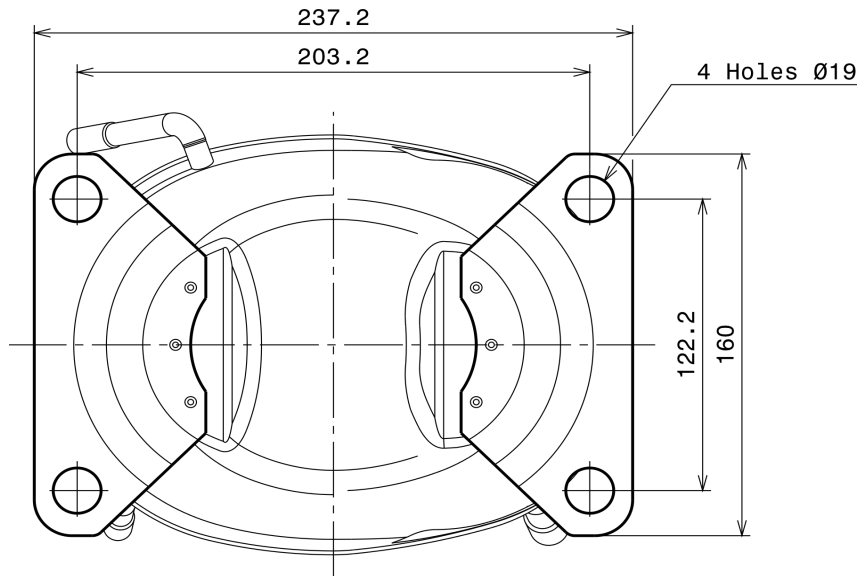
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### 3PH CONNECTION (S range)



# Technical Data Sheet

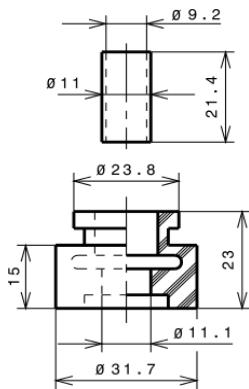
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

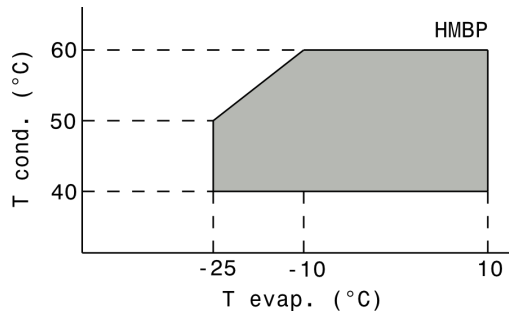
### STANDARD

Ø19 holes (203.2x122.2 net)



## SOA

SOA R404A HMBP



# Technical Data Sheet

Compressor model **MS34T3\_V**  
Voltage **400/440V 50/60Hz ~3**  
Refrigerant **R404A**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	34,42 cm <sup>3</sup>	Nominal Power	1 5/8 hp
Refrigerant	R404A	Diameter	42,86 mm	Voltage/Frequency	400V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	23,85 mm	Voltage range	340-440 V
Expansion	Capillar/Valve	Net Weight	22,80 Kg	Type	3PHASE
Comp. Cooling	Fan cooled	Oil type	ISO VG 46 ESTER	Phase number	3 PH
Max. ambient temp.	43,0 °C	Oil charge	887 cm <sup>3</sup>	Locked Rotor Amps (LRA)	20,00 A
				Max. Cont. Current (MCC)	6,40 A
				Main W. resist. at 25°C	7,40 Ω
				Start W. resist. at 25°C	10,10 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	4.550 kCal/h	4.205 W
COP	2,20 W/W	1,79 W/W
EER	1,89 kCal/Wh	1,55 kCal/Wh
Input Power	2.405 W	2.345 W
Current	4,60 A	4,50 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	400 V 50 Hz	400 V 50 Hz

## ELECTRICAL COMPONENTS

Relay				
Reference				
Voltage				
Resistance				
Protector	Option 1			
Reference	INTERNAL			
Current				
Time check				
Disc temp. (Open/Close)				

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	1.150	895	2,40	1,49	1,28
40	-20	1.721	1.072	2,63	1,87	1,61
40	-15	2.349	1.243	2,85	2,20	1,89
40	-10	3.034	1.409	3,08	2,50	2,15
40	-5	3.776	1.570	3,31	2,80	2,41
40	0	4.575	1.725	3,53	3,08	2,65
40	5	5.430	1.876	3,76	3,37	2,90
40	7,2	5.825	1.940	3,86	3,49	3,00
40	10	6.343	2.020	3,98	3,65	3,14

45	-25	1.100	985	2,52	1,30	1,12
45	-20	1.613	1.172	2,76	1,60	1,38
45	-15	2.183	1.353	3,00	1,88	1,61
45	-10	2.809	1.529	3,25	2,14	1,84
45	-5	3.493	1.700	3,50	2,39	2,05
45	0	4.234	1.866	3,74	2,64	2,27
45	5	5.031	2.026	3,99	2,89	2,48
45	7,2	5.400	2.095	4,10	3,00	2,58
45	10	5.885	2.181	4,23	3,14	2,70

50	-25	1.050	1.075	2,63	1,14	0,98
50	-20	1.505	1.272	2,89	1,38	1,18
50	-15	2.016	1.463	3,16	1,60	1,38
50	-10	2.585	1.650	3,42	1,82	1,57
50	-5	3.210	1.831	3,69	2,04	1,75
50	0	3.892	2.006	3,96	2,26	1,94
50	5	4.632	2.177	4,23	2,47	2,13
50	7,2	4.975	2.250	4,35	2,57	2,21
50	10	5.428	2.342	4,50	2,70	2,32

55	-25	1.000	1.165	2,75	1,00	0,86
55	-20	1.396	1.372	3,03	1,18	1,02
55	-15	1.850	1.574	3,31	1,37	1,18
55	-10	2.360	1.770	3,60	1,55	1,33
55	-5	2.927	1.961	3,89	1,74	1,49
55	0	3.551	2.147	4,18	1,92	1,65
55	5	4.232	2.327	4,47	2,12	1,82
55	7,2	4.550	2.405	4,60	2,20	1,89
55	10	4.970	2.502	4,76	2,31	1,99

60	-25	950	1.255	2,87	0,88	0,76
60	-20	1.288	1.472	3,17	1,02	0,88
60	-15	1.683	1.684	3,47	1,16	1,00
60	-10	2.135	1.890	3,78	1,31	1,13
60	-5	2.644	2.091	4,09	1,47	1,26
60	0	3.210	2.287	4,41	1,63	1,40
60	5	3.833	2.478	4,72	1,80	1,55
60	7,2	4.125	2.560	4,86	1,87	1,61
60	10	4.513	2.663	5,04	1,97	1,69

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	1.208	900	2,41	1,34	1,16
40	-20	1.816	1.078	2,64	1,69	1,46
40	-15	2.479	1.250	2,86	1,98	1,71
40	-10	3.197	1.418	3,09	2,25	1,95
40	-5	3.969	1.580	3,32	2,51	2,17
40	0	4.797	1.737	3,55	2,76	2,39
40	5	5.678	1.890	3,78	3,01	2,60
40	7,2	6.084	1.955	3,88	3,11	2,69
40	10	6.615	2.037	4,01	3,25	2,81

45	-25	1.139	991	2,52	1,15	0,99
45	-20	1.677	1.178	2,77	1,42	1,23
45	-15	2.270	1.361	3,01	1,67	1,44
45	-10	2.917	1.539	3,26	1,90	1,64
45	-5	3.619	1.711	3,51	2,11	1,83
45	0	4.376	1.879	3,76	2,33	2,01
45	5	5.187	2.041	4,01	2,54	2,20
45	7,2	5.562	2.111	4,12	2,63	2,28
45	10	6.053	2.199	4,26	2,75	2,38

50	-25	1.070	1.081	2,64	0,99	0,86
50	-20	1.538	1.279	2,90	1,20	1,04
50	-15	2.060	1.472	3,17	1,40	1,21
50	-10	2.637	1.660	3,44	1,59	1,37
50	-5	3.269	1.843	3,71	1,77	1,53
50	0	3.955	2.020	3,98	1,96	1,69
50	5	4.696	2.193	4,25	2,14	1,85
50	7,2	5.039	2.267	4,37	2,22	1,92
50	10	5.492	2.360	4,53	2,33	2,01

55	-25	1.002	1.172	2,76	0,86	0,74
55	-20	1.399	1.380	3,04	1,01	0,88
55	-15	1.850	1.583	3,33	1,17	1,01
55	-10	2.357	1.781	3,62	1,32	1,14
55	-5	2.918	1.974	3,91	1,48	1,28
55	0	3.534	2.162	4,20	1,63	1,41
55	5	4.205	2.345	4,50	1,79	1,55
55	7,2	4.517	2.423	4,63	1,86	1,61
55	10	4.930	2.522	4,80	1,95	1,69

60	-25	933	1.262	2,88	0,74	0,64
60	-20	1.260	1.481	3,18	0,85	0,74
60	-15	1.641	1.694	3,49	0,97	0,84
60	-10	2.077	1.902	3,80	1,09	0,94
60	-5	2.568	2.105	4,11	1,22	1,05
60	0	3.113	2.303	4,43	1,35	1,17
60	5	3.713	2.496	4,75	1,49	1,29
60	7,2	3.995	2.580	4,89	1,55	1,34
60	10	4.368	2.684	5,07	1,63	1,41

# Technical Data Sheet

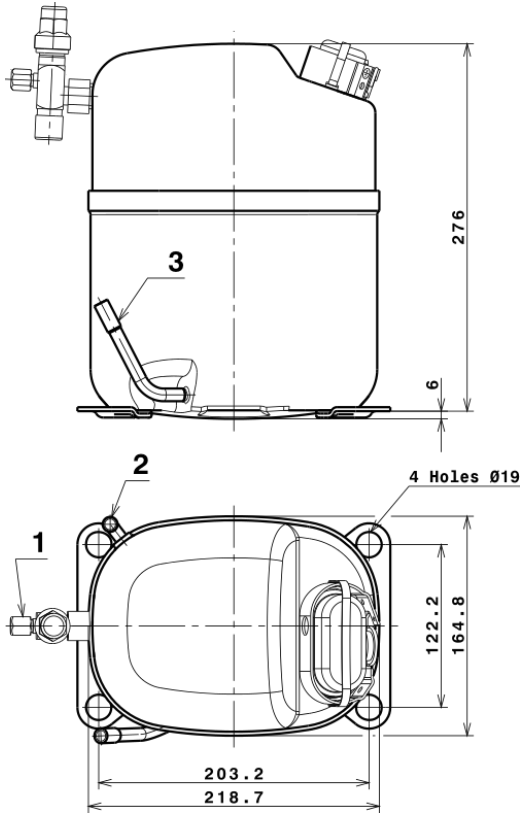
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	8.175,6637182683	621,1868047576	1,7420469034	158,57533461885
2	282,8128334190	15,6333436289	0,0137369364	6,4693827013853
3	-87,6896021455	29,2299770298	0,0466884256	-0,640336832135
4	1,0347743591	-0,0802503598	0,0001052150	0,052058363166417
5	-2,9251034425	0,4278182116	0,0008991593	-0,028028273258446

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

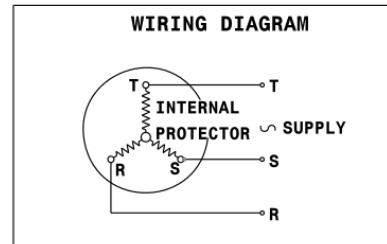
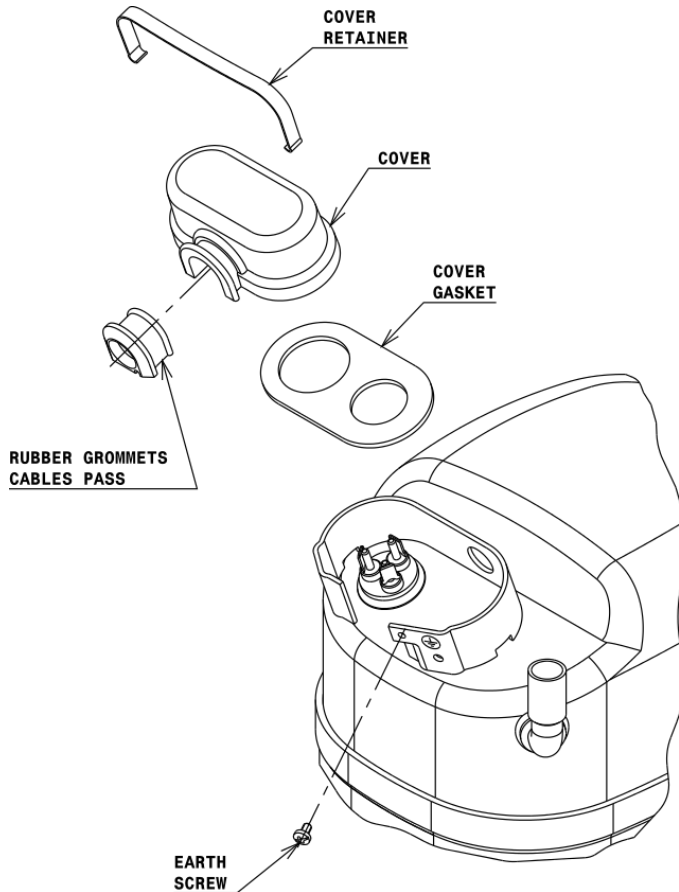


## DESIGNATION INTERNAL DIAM.

DESIGNATION	INTERNAL DIAM.
1 Service Valve	5/8" SAE
2 Service	9,7 mm
3 Discharge	8,0 mm

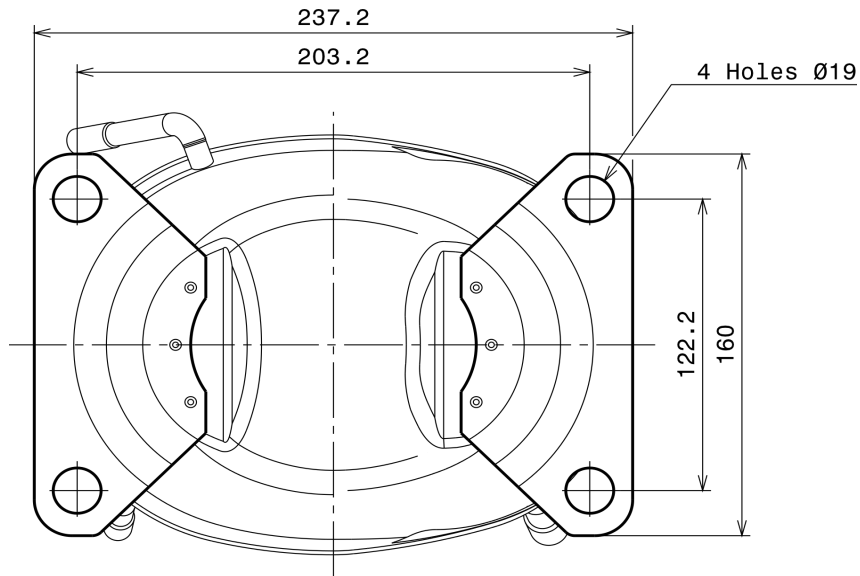
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### 3PH CONNECTION (S range)



# Technical Data Sheet

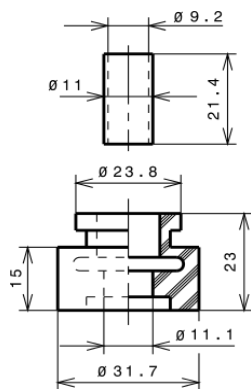
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

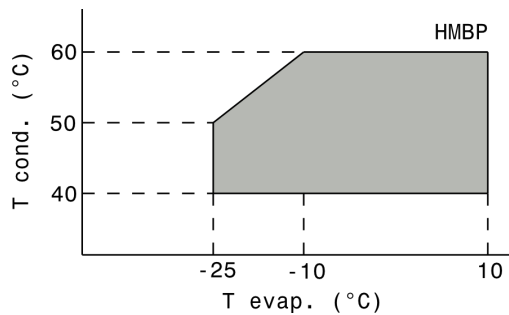
### STANDARD

Ø19 holes (203.2x122.2 net)



## SOA

SOA R404A HMBP





# Technical Data Sheet

Compressor model **GL45TB**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	4,56 cm <sup>3</sup>	Nominal Power	1/6 hp
Refrigerant	R134a	Diameter	19,09 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	15,93 mm	Voltage range	187-255 V
Expansion	Capillar/Valve	Net Weight	8,04 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	260 cm <sup>3</sup>	Locked Rotor Amps (LRA)	6,50 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	2,00 A
				Main W. resist. at 25°C	22,70 Ω
				Start W. resist. at 25°C	39,50 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	352 kCal/h	341 W
COP	1,86 W/W	1,61 W/W
EER	1,60 kCal/Wh	1,39 kCal/Wh
Input Power	220 W	212 W
Current	1,20 A	1,17 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	47- 56 μF 330 V		
Relay	Option 1		
Reference	2014 108.		
Pick-Up	2,70 A		
Drop-Out	2,30 A		
Protector	Option 1	Option 2	
Reference	MRT77AMK	T0068	
Current	5,80 A	5,80 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 61,00 °C	105,00 / 62,00 °C	

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	96	108	0,88	1,03	0,89
40	-20	130	116	0,90	1,30	1,12
40	-15	172	126	0,92	1,59	1,37
40	-10	221	136	0,95	1,89	1,62
40	-5	277	148	0,98	2,18	1,88
40	0	341	160	1,01	2,47	2,13
40	5	412	174	1,05	2,75	2,37
40	7,2	445	180	1,07	2,88	2,47
40	10	490	188	1,10	3,03	2,60

45	-25	88	108	0,88	0,95	0,81
45	-20	119	119	0,91	1,17	1,00
45	-15	157	130	0,93	1,40	1,21
45	-10	202	143	0,97	1,65	1,42
45	-5	255	156	1,00	1,90	1,63
45	0	315	171	1,04	2,15	1,85
45	5	382	186	1,09	2,39	2,05
45	7,2	414	193	1,11	2,49	2,14
45	10	457	203	1,14	2,62	2,25

50	-25	80	108	0,88	0,86	0,74
50	-20	107	121	0,91	1,04	0,89
50	-15	142	134	0,94	1,23	1,06
50	-10	184	149	0,98	1,44	1,23
50	-5	233	164	1,03	1,65	1,42
50	0	289	181	1,08	1,86	1,60
50	5	353	199	1,13	2,07	1,78
50	7,2	383	207	1,16	2,16	1,85
50	10	424	217	1,19	2,27	1,95

55	-25	72	108	0,88	0,78	0,67
55	-20	96	123	0,92	0,91	0,78
55	-15	127	138	0,96	1,07	0,92
55	-10	165	155	1,00	1,24	1,06
55	-5	211	173	1,05	1,42	1,22
55	0	263	191	1,11	1,60	1,38
55	5	323	211	1,17	1,78	1,53
55	7,2	352	220	1,20	1,86	1,60
55	10	391	232	1,24	1,96	1,69

60	-25	64	108	0,88	0,69	0,59
60	-20	84	125	0,92	0,78	0,67
60	-15	112	142	0,97	0,91	0,78
60	-10	146	161	1,02	1,06	0,91
60	-5	188	181	1,08	1,21	1,04
60	0	237	202	1,14	1,37	1,18
60	5	294	223	1,21	1,53	1,32
60	7,2	321	233	1,25	1,60	1,38
60	10	358	246	1,29	1,69	1,45

65	-25	56	108	0,88	0,60	0,52
65	-20	73	127	0,93	0,67	0,57
65	-15	96	147	0,98	0,77	0,66
65	-10	128	167	1,04	0,89	0,76
65	-5	166	189	1,10	1,02	0,88
65	0	212	212	1,17	1,16	1,00
65	5	264	236	1,25	1,30	1,12
65	7,2	290	247	1,29	1,37	1,18
65	10	325	261	1,35	1,45	1,25

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	103	109	0,88	0,95	0,82
40	-20	141	117	0,90	1,20	1,04
40	-15	186	127	0,92	1,47	1,27
40	-10	239	137	0,95	1,74	1,51
40	-5	299	149	0,98	2,01	1,74
40	0	367	161	1,02	2,28	1,97
40	5	443	175	1,06	2,53	2,19
40	7,2	479	181	1,08	2,64	2,28
40	10	527	189	1,10	2,78	2,40

45	-25	94	109	0,88	0,87	0,75
45	-20	128	119	0,91	1,07	0,93
45	-15	169	131	0,94	1,29	1,12
45	-10	217	143	0,97	1,52	1,31
45	-5	274	157	1,01	1,74	1,51
45	0	338	172	1,05	1,97	1,70
45	5	409	187	1,09	2,18	1,89
45	7,2	443	195	1,12	2,28	1,97
45	10	488	204	1,15	2,39	2,07

50	-25	85	109	0,88	0,79	0,68
50	-20	115	121	0,91	0,94	0,82
50	-15	151	135	0,95	1,12	0,97
50	-10	196	150	0,99	1,31	1,13
50	-5	248	165	1,03	1,50	1,30
50	0	308	182	1,08	1,69	1,46
50	5	375	200	1,13	1,88	1,62
50	7,2	407	208	1,16	1,96	1,69
50	10	450	219	1,20	2,06	1,78

55	-25	76	109	0,88	0,70	0,61
55	-20	101	123	0,92	0,82	0,71
55	-15	134	139	0,96	0,96	0,83
55	-10	174	156	1,00	1,12	0,97
55	-5	223	174	1,05	1,28	1,11
55	0	278	193	1,11	1,45	1,25
55	5	341	212	1,17	1,61	1,39
55	7,2	372	221	1,20	1,68	1,45
55	10	412	233	1,25	1,77	1,53

60	-25	67	109	0,88	0,62	0,53
60	-20	88	125	0,92	0,70	0,61
60	-15	117	143	0,97	0,82	0,70
60	-10	153	162	1,02	0,94	0,82
60	-5	197	182	1,08	1,08	0,93
60	0	248	203	1,14	1,22	1,06
60	5	308	225	1,22	1,37	1,18
60	7,2	336	235	1,25	1,43	1,24
60	10	374	248	1,30	1,51	1,31

65	-25	58	109	0,88	0,53	0,46
65	-20	75	127	0,93	0,59	0,51
65	-15	99	147	0,98	0,67	0,58
65	-10	132	168	1,04	0,78	0,67
65	-5	171	190	1,10	0,90	0,78
65	0	219	213	1,18	1,03	0,89
65	5	274	237	1,26	1,15	1,00
65	7,2	300	248	1,30	1,21	1,05
65	10	336	262	1,35	1,28	1,11

# Technical Data Sheet

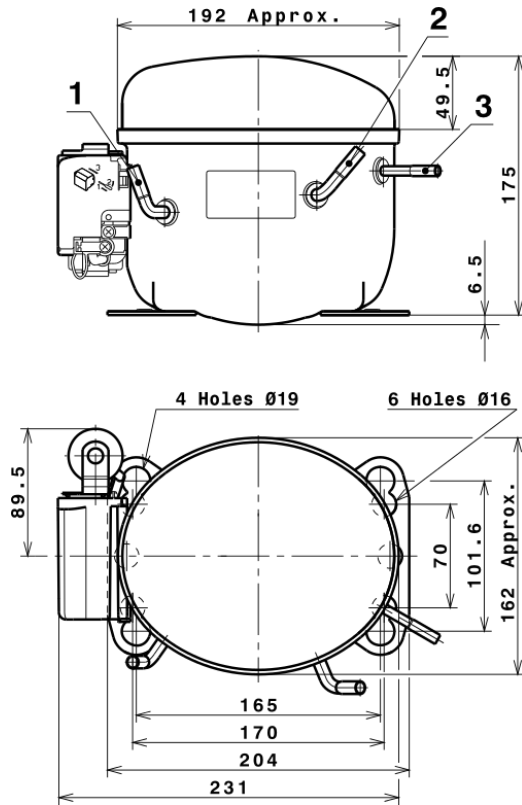
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	606,4606541133	79,7475540728	0,7439537697	10,534537052034
2	21,0126531696	-0,6968964259	-0,0026171401	0,40392313008291
3	-6,0917432950	2,1421858866	0,0069807143	-0,061353765979711
4	0,1499819005	0,0221127372	0,0001242199	0,0043121878449157
5	-0,1704277782	0,0856874355	0,0002792286	-0,0015567142576566

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

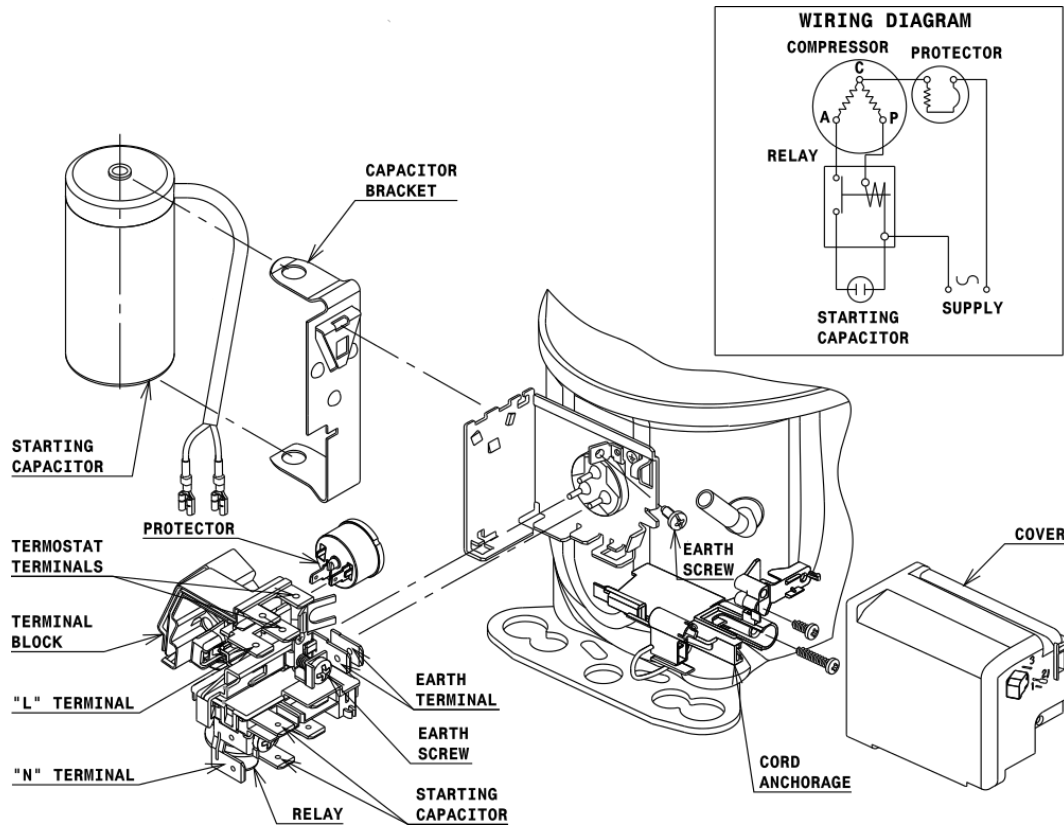


## DESIGNATION INTERNAL DIAM.

DESIGNATION	INTERNAL DIAM.
1 Suction	6,5 mm
2 Service	6,5 mm
3 Discharge	4,9 mm

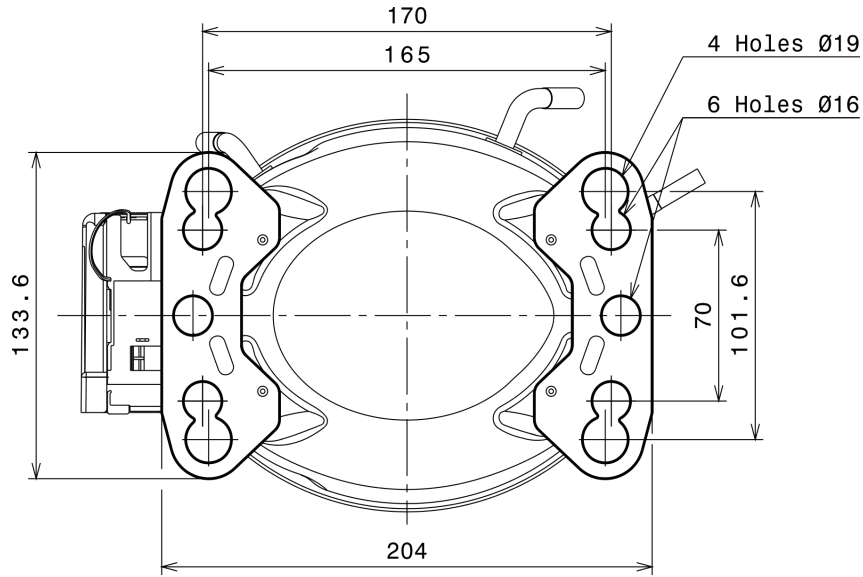
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



# Technical Data Sheet

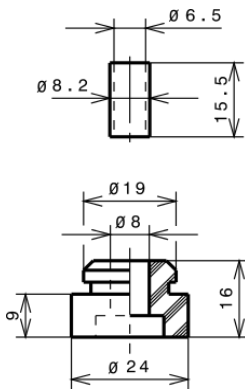
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

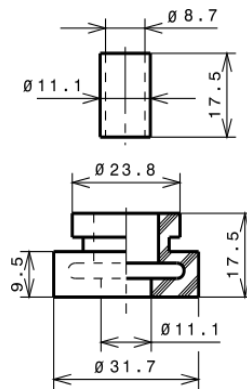
### STANDARD

$\varnothing 16$  holes (170x70 net)



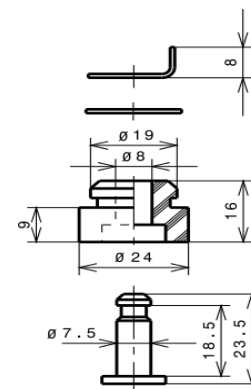
### AMERICAN FEET

$\varnothing 19$  holes (165x101.6 net)



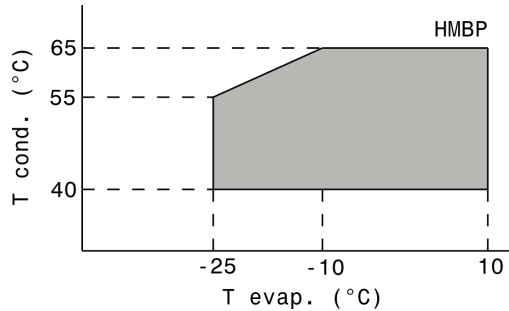
### SNAP-ON

$\varnothing 16$  holes (170x70 net)



## SOA

SOA R134a HMBP



# Technical Data Sheet

Compressor model **GL60TB**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	5,68 cm <sup>3</sup>	Nominal Power	1/5 hp
Refrigerant	R134a	Diameter	22,00 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	14,92 mm	Voltage range	187-264 V
Expansion	Capillar/Valve	Net Weight	8,65 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	260 cm <sup>3</sup>	Locked Rotor Amps (LRA)	8,30 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	2,30 A
				Main W. resist. at 25°C	16,00 Ω
				Start W. resist. at 25°C	36,00 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	450 kCal/h	436 W
COP	2,09 W/W	1,81 W/W
EER	1,80 kCal/Wh	1,56 kCal/Wh
Input Power	250 W	242 W
Current	1,50 A	1,46 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	47- 56 μF 330 V		
Relay	Option 1		
Reference	2014 118.		
Pick-Up	3.75 A		
Drop-Out	3.20 A		
Protector	Option 1	Option 2	Option 3
Reference	MRP63AMK	T0069	AE26FHY
Current	7,10 A	7,10 A	7,10 A
Time check	7,5-14 seg	7,5-14 seg	7,5-14 seg
Disc temp. (Open/Close)	105,00 / 61,00 °C	105,00 / 62,00 °C	105,00 / 62,00 °C

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	120	125	1,10	1,12	0,96
40	-20	162	137	1,12	1,37	1,18
40	-15	212	150	1,15	1,65	1,42
40	-10	273	164	1,19	1,93	1,66
40	-5	342	179	1,23	2,22	1,91
40	0	421	195	1,28	2,51	2,16
40	5	508	212	1,34	2,79	2,40
40	7,2	550	220	1,37	2,91	2,50
40	10	606	230	1,42	3,06	2,63

45	-25	110	125	1,10	1,02	0,88
45	-20	148	139	1,13	1,24	1,07
45	-15	195	153	1,16	1,48	1,28
45	-10	252	169	1,20	1,74	1,49
45	-5	317	185	1,25	1,99	1,71
45	0	392	203	1,31	2,25	1,93
45	5	477	221	1,38	2,50	2,15
45	7,2	517	230	1,41	2,61	2,25
45	10	570	241	1,46	2,75	2,36

50	-25	100	125	1,10	0,93	0,80
50	-20	134	140	1,13	1,12	0,96
50	-15	178	156	1,17	1,33	1,14
50	-10	231	173	1,22	1,55	1,33
50	-5	293	191	1,27	1,78	1,53
50	0	364	211	1,34	2,01	1,73
50	5	445	231	1,42	2,24	1,93
50	7,2	483	240	1,46	2,34	2,01
50	10	535	252	1,51	2,47	2,12

55	-25	90	125	1,10	0,84	0,72
55	-20	121	142	1,13	0,99	0,85
55	-15	161	159	1,18	1,17	1,01
55	-10	210	178	1,23	1,37	1,18
55	-5	268	198	1,29	1,58	1,36
55	0	336	218	1,37	1,79	1,54
55	5	413	240	1,46	2,00	1,72
55	7,2	450	250	1,50	2,09	1,80
55	10	499	263	1,56	2,21	1,90

60	-25	80	125	1,10	0,74	0,64
60	-20	107	143	1,14	0,87	0,75
60	-15	144	162	1,19	1,03	0,88
60	-10	189	183	1,24	1,20	1,04
60	-5	244	204	1,31	1,39	1,20
60	0	308	226	1,40	1,58	1,36
60	5	381	249	1,50	1,78	1,53
60	7,2	417	260	1,55	1,86	1,60
60	10	464	274	1,61	1,97	1,70

65	-25	70	125	1,10	0,65	0,56
65	-20	94	145	1,14	0,75	0,65
65	-15	126	166	1,19	0,89	0,76
65	-10	168	187	1,26	1,04	0,90
65	-5	220	210	1,34	1,22	1,04
65	0	280	234	1,43	1,39	1,20
65	5	350	259	1,54	1,57	1,35
65	7,2	383	270	1,59	1,65	1,42
65	10	429	285	1,67	1,75	1,51

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	129	126	1,10	1,03	0,89
40	-20	175	138	1,13	1,27	1,10
40	-15	230	151	1,16	1,52	1,32
40	-10	295	165	1,19	1,79	1,54
40	-5	369	180	1,24	2,05	1,77
40	0	453	196	1,29	2,31	2,00
40	5	547	214	1,35	2,56	2,22
40	7,2	592	221	1,38	2,67	2,31
40	10	651	232	1,42	2,81	2,43

45	-25	118	126	1,10	0,94	0,81
45	-20	159	139	1,13	1,14	0,99
45	-15	210	154	1,16	1,36	1,18
45	-10	270	170	1,21	1,59	1,38
45	-5	341	186	1,26	1,83	1,58
45	0	421	204	1,32	2,06	1,78
45	5	510	223	1,39	2,29	1,98
45	7,2	553	231	1,42	2,39	2,06
45	10	610	243	1,47	2,51	2,17

50	-25	107	126	1,10	0,85	0,73
50	-20	143	141	1,13	1,02	0,88
50	-15	190	157	1,17	1,21	1,05
50	-10	246	174	1,22	1,41	1,22
50	-5	312	193	1,28	1,62	1,40
50	0	388	212	1,34	1,83	1,58
50	5	473	232	1,42	2,04	1,76
50	7,2	514	242	1,46	2,13	1,84
50	10	569	254	1,52	2,24	1,94

55	-25	95	126	1,10	0,76	0,65
55	-20	128	142	1,14	0,90	0,78
55	-15	170	160	1,18	1,06	0,92
55	-10	222	179	1,23	1,24	1,07
55	-5	284	199	1,30	1,43	1,23
55	0	355	220	1,37	1,62	1,40
55	5	436	242	1,46	1,81	1,56
55	7,2	475	252	1,51	1,89	1,63
55	10	527	265	1,57	1,99	1,72

60	-25	84	126	1,10	0,67	0,58
60	-20	112	144	1,14	0,78	0,67
60	-15	150	163	1,19	0,92	0,79
60	-10	198	184	1,25	1,08	0,93
60	-5	255	205	1,32	1,25	1,08
60	0	323	228	1,40	1,42	1,22
60	5	399	251	1,50	1,59	1,37
60	7,2	436	262	1,55	1,67	1,44
60	10	486	276	1,62	1,76	1,52

65	-25	73	126	1,10	0,58	0,50
65	-20	97	146	1,14	0,66	0,57
65	-15	130	166	1,20	0,78	0,68
65	-10	174	188	1,26	0,92	0,80
65	-5	227	211	1,34	1,07	0,93
65	0	290	235	1,44	1,23	1,06
65	5	362	260	1,55	1,39	1,20
65	7,2	398	272	1,60	1,46	1,26
65	10	445	286	1,68	1,55	1,34

# Technical Data Sheet

## EN12900

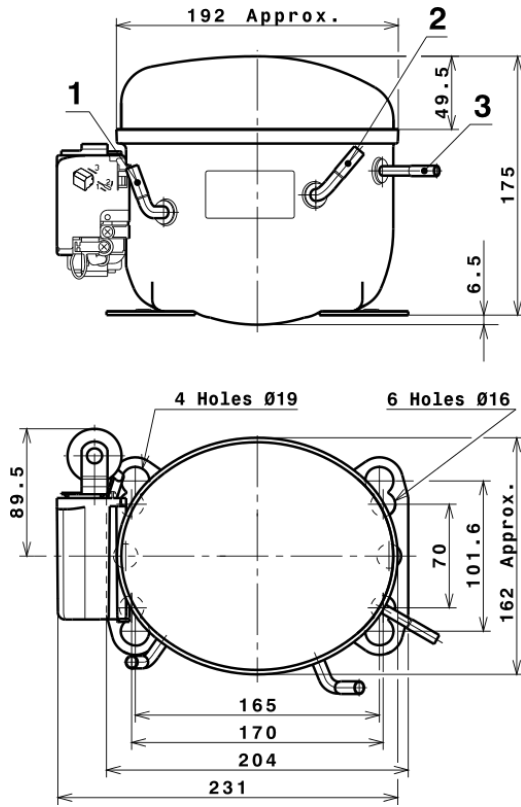
X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	717,1668397225	137,1344636270	1,0146954944	12,149276886968
2	24,7205152789	0,9100614788	0,0023485375	0,46684746995779
3	-6,7372286911	1,6066394149	0,0069968749	-0,05464007424347
4	0,1911196929	0,0225251423	0,0002411652	0,00549820818523
5	-0,1779367056	0,0642655766	0,0002798750	-0,001063807492824

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

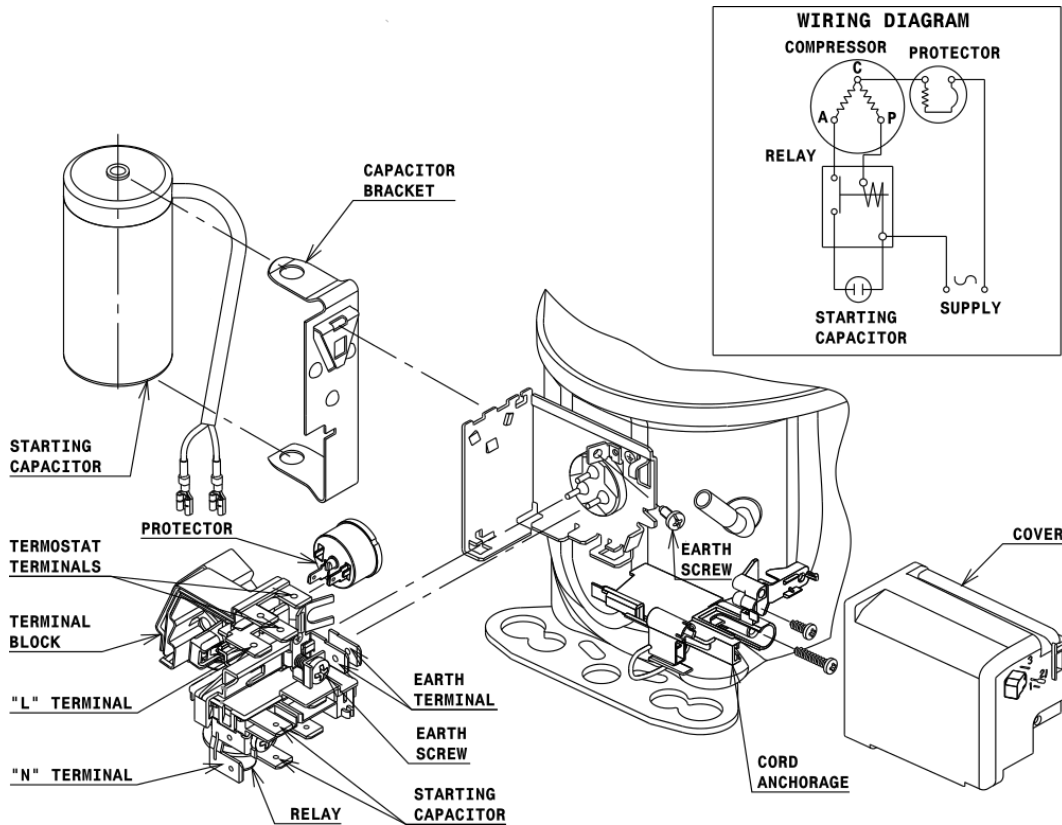


## DESIGNATION INTERNAL DIAM.

1	Suction	6,5 mm
2	Service	6,5 mm
3	Discharge	4,9 mm

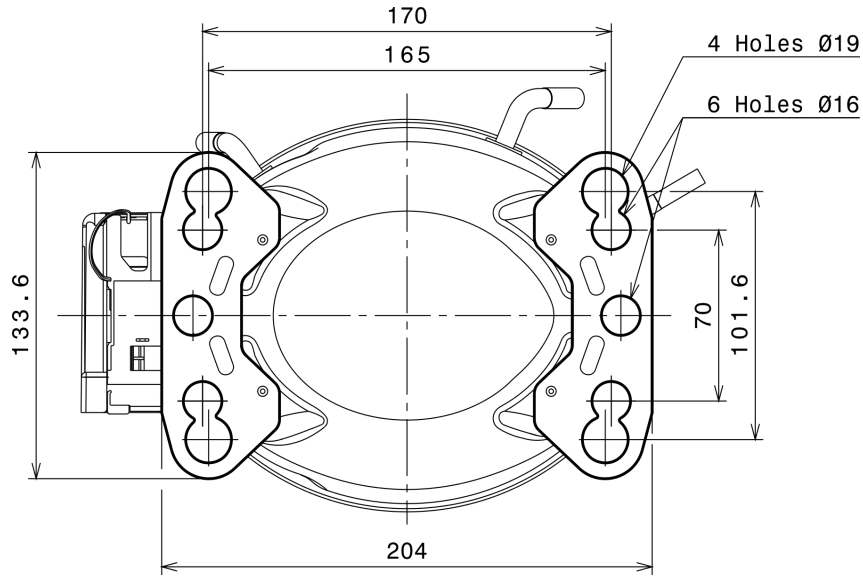
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



# Technical Data Sheet

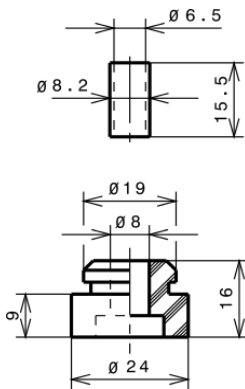
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

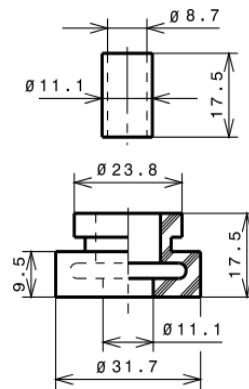
### STANDARD

Ø16 holes (170x70 net)



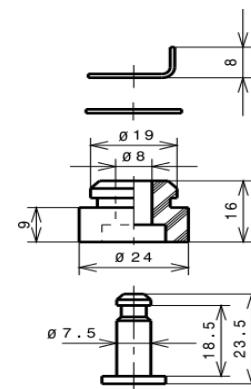
### AMERICAN FEET

Ø19 holes (165x101.6 net)



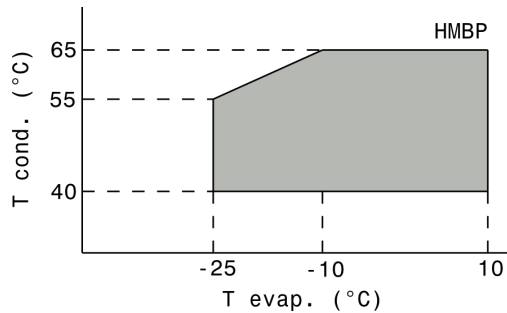
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R134a HMBP



# Technical Data Sheet

Compressor model **GL80TB**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	7,57 cm <sup>3</sup>	Nominal Power	1/5 hp
Refrigerant	R134a	Diameter	25,40 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	14,92 mm	Voltage range	187-264 V
Expansion	Capillar/Valve	Net Weight	9,19 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	295 cm <sup>3</sup>	Locked Rotor Amps (LRA)	9,80 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	2,90 A
				Main W. resist. at 25°C	12,00 Ω
				Start W. resist. at 25°C	34,50 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	570 kCal/h	553 W
COP	2,10 W/W	1,81 W/W
EER	1,81 kCal/Wh	1,57 kCal/Wh
Input Power	315 W	305 W
Current	1,85 A	1,81 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	47- 56 μF 330 V		
Relay	Option 1		
Reference	2014 127.		
Pick-Up	4,80 A		
Drop-Out	4,10 A		
Protector	Option 1	Option 2	
Reference	T0137	AE39FHS	
Current	9,50 A	9,20 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	110,00 / 61,00 °C	105,00 / 62,00 °C	

# Technical Data Sheet

## ASHRAE

Tc	Te	Cooling Capacity	Consumption W	Current A	COP W/W	EER kCal/Wh
°C	°C	kCal/h				
40	-25	150	150	1,30	1,16	1,00
40	-20	206	167	1,34	1,44	1,24
40	-15	274	184	1,38	1,73	1,49
40	-10	352	202	1,43	2,03	1,74
40	-5	441	220	1,48	2,34	2,01
40	0	541	238	1,54	2,65	2,27
40	5	653	257	1,61	2,96	2,54
40	7,2	705	265	1,64	3,09	2,66
40	10	775	276	1,68	3,27	2,81

45	-25	135	150	1,30	1,05	0,90
45	-20	187	169	1,34	1,28	1,10
45	-15	249	189	1,39	1,53	1,32
45	-10	323	209	1,45	1,79	1,54
45	-5	408	230	1,52	2,06	1,77
45	0	503	251	1,59	2,33	2,01
45	5	610	272	1,67	2,60	2,24
45	7,2	660	282	1,71	2,73	2,34
45	10	727	294	1,76	2,88	2,47

50	-25	120	150	1,30	0,93	0,80
50	-20	167	172	1,35	1,13	0,97
50	-15	225	194	1,41	1,35	1,16
50	-10	294	217	1,48	1,57	1,35
50	-5	374	240	1,55	1,81	1,56
50	0	465	264	1,64	2,05	1,76
50	5	567	288	1,73	2,29	1,97
50	7,2	615	298	1,78	2,40	2,06
50	10	680	312	1,84	2,53	2,18

55	-25	105	150	1,30	0,81	0,70
55	-20	147	175	1,36	0,98	0,84
55	-15	201	200	1,42	1,17	1,01
55	-10	265	225	1,50	1,37	1,18
55	-5	340	251	1,59	1,58	1,36
55	0	427	277	1,69	1,79	1,54
55	5	524	303	1,80	2,01	1,73
55	7,2	570	315	1,85	2,10	1,81
55	10	632	330	1,92	2,23	1,91

60	-25	90	150	1,30	0,70	0,60
60	-20	128	177	1,36	0,84	0,72
60	-15	176	205	1,44	1,00	0,86
60	-10	236	233	1,53	1,18	1,01
60	-5	307	261	1,63	1,37	1,17
60	0	388	290	1,74	1,56	1,34
60	5	481	319	1,87	1,75	1,51
60	7,2	525	332	1,93	1,84	1,58
60	10	584	348	2,01	1,95	1,68

65	-25	75	150	1,30	0,58	0,50
65	-20	108	180	1,37	0,70	0,60
65	-15	152	210	1,45	0,84	0,72
65	-10	207	241	1,55	1,00	0,86
65	-5	273	271	1,67	1,17	1,01
65	0	350	303	1,80	1,34	1,16
65	5	438	334	1,94	1,52	1,31
65	7,2	480	348	2,01	1,60	1,38
65	10	537	366	2,10	1,70	1,47

## CECOMAF

Tc	Te	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
°C	°C					
40	-25	162	151	1,30	1,07	0,93
40	-20	223	168	1,34	1,33	1,15
40	-15	296	185	1,38	1,60	1,38
40	-10	380	203	1,43	1,87	1,62
40	-5	476	221	1,49	2,16	1,86
40	0	584	239	1,55	2,44	2,11
40	5	703	258	1,62	2,72	2,35
40	7,2	759	267	1,65	2,84	2,46
40	10	833	278	1,69	3,00	2,59

45	-25	145	151	1,30	0,96	0,83
45	-20	201	170	1,35	1,18	1,02
45	-15	268	190	1,40	1,41	1,22
45	-10	347	211	1,46	1,65	1,42
45	-5	437	231	1,52	1,89	1,63
45	0	539	252	1,59	2,14	1,85
45	5	653	274	1,68	2,38	2,06
45	7,2	706	283	1,71	2,49	2,15
45	10	778	296	1,77	2,63	2,27

50	-25	128	151	1,30	0,85	0,73
50	-20	178	173	1,35	1,03	0,89
50	-15	240	196	1,41	1,23	1,06
50	-10	314	218	1,48	1,44	1,24
50	-5	399	242	1,56	1,65	1,42
50	0	495	265	1,64	1,86	1,61
50	5	603	290	1,74	2,08	1,80
50	7,2	654	300	1,78	2,18	1,88
50	10	723	314	1,85	2,30	1,99

55	-25	111	151	1,30	0,74	0,64
55	-20	156	176	1,36	0,89	0,77
55	-15	212	201	1,43	1,06	0,91
55	-10	280	226	1,50	1,24	1,07
55	-5	360	252	1,59	1,43	1,23
55	0	451	278	1,69	1,62	1,40
55	5	553	305	1,81	1,81	1,57
55	7,2	602	317	1,86	1,90	1,64
55	10	667	332	1,93	2,01	1,74

60	-25	94	151	1,30	0,63	0,54
60	-20	134	178	1,37	0,75	0,65
60	-15	185	206	1,44	0,90	0,77
60	-10	247	234	1,53	1,05	0,91
60	-5	321	263	1,63	1,22	1,06
60	0	406	292	1,75	1,39	1,20
60	5	503	321	1,88	1,57	1,36
60	7,2	550	334	1,94	1,65	1,42
60	10	612	350	2,02	1,75	1,51

65	-25	77	151	1,30	0,51	0,44
65	-20	111	181	1,37	0,62	0,53
65	-15	157	211	1,46	0,74	0,64
65	-10	214	242	1,56	0,88	0,76
65	-5	282	273	1,67	1,03	0,89
65	0	362	305	1,80	1,19	1,03
65	5	454	336	1,95	1,35	1,16
65	7,2	498	351	2,02	1,42	1,23
65	10	557	369	2,12	1,51	1,30

# Technical Data Sheet

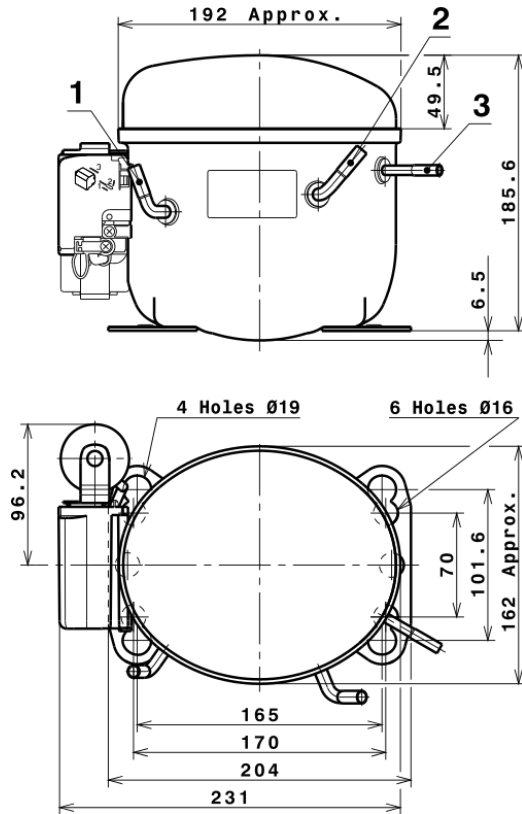
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	940,1441880266	138,5205230160	1,0863292902	16,135945297925
2	31,5234680327	-0,3865664156	-0,0028355849	0,59305115752632
3	-9,0987251294	2,6777323582	0,0116057275	-0,082486066001972
4	0,2268823639	0,0095498965	0,0002426833	0,0065768526334814
5	-0,2289041953	0,1071092943	0,0004642291	-0,0013700868554833

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

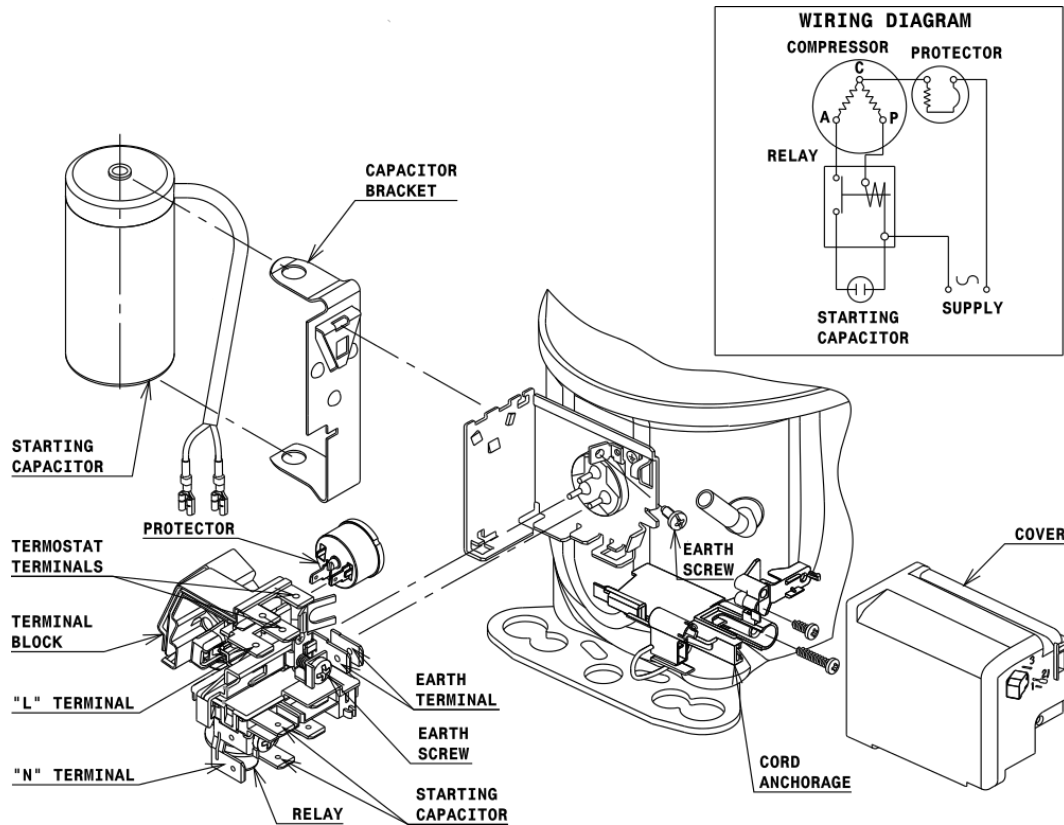


## DESIGNATION INTERNAL DIAM.

1	Suction	6,5 mm
2	Service	6,5 mm
3	Discharge	4,9 mm

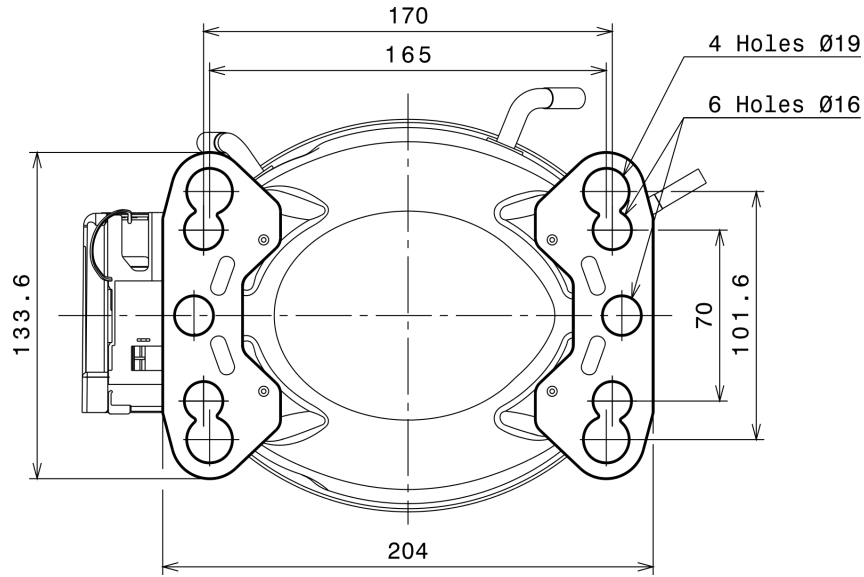
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



# Technical Data Sheet

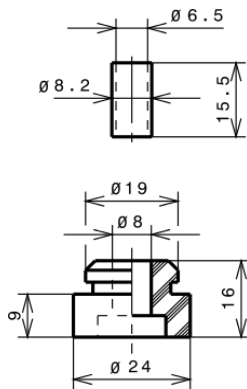
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

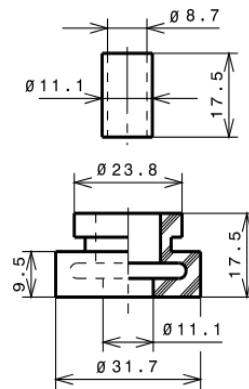
### STANDARD

Ø16 holes (170x70 net)



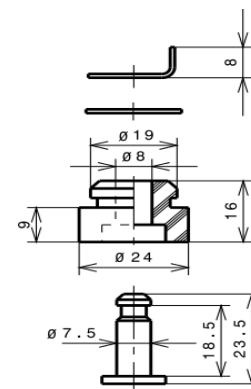
### AMERICAN FEET

Ø19 holes (165x101.6 net)



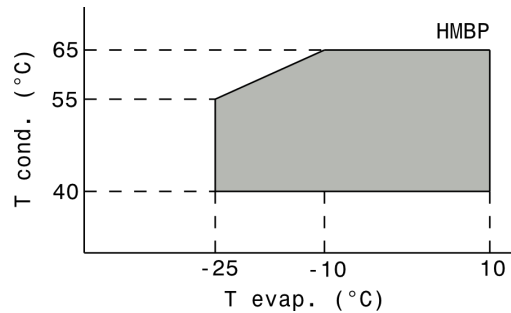
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R134a HMBP



# Technical Data Sheet

Compressor model **GL90TB**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	8,85 cm <sup>3</sup>	Nominal Power	1/4 hp
Refrigerant	R134a	Diameter	25,40 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	17,47 mm	Voltage range	187-264 V
Expansion	Capillar/Valve	Net Weight	9,66 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	295 cm <sup>3</sup>	Locked Rotor Amps (LRA)	12,00 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	3,00 A
				Main W. resist. at 25°C	11,30 Ω
				Start W. resist. at 25°C	27,80 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	680 kCal/h	660 W
COP	2,20 W/W	1,90 W/W
EER	1,89 kCal/Wh	1,64 kCal/Wh
Input Power	360 W	348 W
Current	2,10 A	2,04 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	47- 56 μF 330 V		
Relay	Option 1		
Reference	2014 138.		
Pick-Up	6,10 A		
Drop-Out	5,20 A		
Protector	Option 1	Option 2	
Reference	T0057	AE39FHY	
Current	8,50 A	9,00 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 61,00 °C	105,00 / 62,00 °C	



# Technical Data Sheet

## ASHRAE

Tc	Te	Cooling Capacity	Consumption	Current	COP	EER
°C	°C	kCal/h	W	A	W/W	kCal/Wh
40	-25	175	165	1,40	1,23	1,06
40	-20	242	186	1,45	1,51	1,30
40	-15	322	208	1,51	1,81	1,55
40	-10	416	230	1,58	2,11	1,81
40	-5	523	252	1,66	2,41	2,07
40	0	643	276	1,74	2,71	2,33
40	5	777	299	1,83	3,02	2,60
40	7,2	840	310	1,88	3,15	2,71
40	10	924	324	1,94	3,32	2,85

45	-25	162	165	1,40	1,14	0,98
45	-20	222	189	1,46	1,37	1,18
45	-15	296	213	1,53	1,62	1,39
45	-10	384	237	1,61	1,88	1,62
45	-5	485	263	1,69	2,15	1,84
45	0	599	289	1,79	2,41	2,08
45	5	726	315	1,90	2,68	2,31
45	7,2	787	327	1,95	2,80	2,41
45	10	867	342	2,02	2,95	2,54

50	-25	148	165	1,40	1,05	0,90
50	-20	203	191	1,47	1,23	1,06
50	-15	271	218	1,55	1,44	1,24
50	-10	352	245	1,63	1,67	1,44
50	-5	447	273	1,73	1,90	1,64
50	0	554	301	1,84	2,14	1,84
50	5	676	330	1,96	2,38	2,05
50	7,2	733	343	2,02	2,48	2,14
50	10	810	360	2,10	2,62	2,25

55	-25	135	165	1,40	0,95	0,82
55	-20	183	194	1,47	1,10	0,95
55	-15	245	223	1,56	1,28	1,10
55	-10	320	253	1,66	1,47	1,26
55	-5	408	283	1,77	1,68	1,44
55	0	510	314	1,90	1,89	1,62
55	5	625	346	2,03	2,10	1,81
55	7,2	680	360	2,10	2,20	1,89
55	10	754	378	2,19	2,32	1,99

60	-25	122	165	1,40	0,86	0,74
60	-20	164	196	1,48	0,97	0,83
60	-15	219	228	1,58	1,12	0,96
60	-10	288	261	1,69	1,28	1,10
60	-5	370	294	1,81	1,47	1,26
60	0	466	327	1,95	1,65	1,42
60	5	575	361	2,11	1,85	1,59
60	7,2	627	377	2,18	1,93	1,66
60	10	697	396	2,28	2,05	1,76

65	-25	108	165	1,40	0,76	0,66
65	-20	144	199	1,49	0,84	0,72
65	-15	193	233	1,59	0,96	0,83
65	-10	256	269	1,72	1,11	0,95
65	-5	332	304	1,85	1,27	1,09
65	0	421	340	2,01	1,44	1,24
65	5	524	377	2,18	1,62	1,39
65	7,2	573	393	2,26	1,70	1,46
65	10	640	414	2,38	1,80	1,54

## CECOMAF

Tc	Te	Cooling Capacity	Consumption	Current	COP	EER
°C	°C	W	W	A	W/W	kCal/Wh
40	-25	189	166	1,40	1,14	0,98
40	-20	261	187	1,46	1,40	1,21
40	-15	348	209	1,52	1,67	1,44
40	-10	449	231	1,59	1,95	1,68
40	-5	564	254	1,66	2,22	1,92
40	0	693	277	1,75	2,50	2,16
40	5	837	301	1,84	2,78	2,40
40	7,2	904	312	1,89	2,90	2,50
40	10	994	326	1,94	3,05	2,64

45	-25	173	166	1,40	1,04	0,90
45	-20	239	190	1,46	1,26	1,09
45	-15	319	214	1,53	1,49	1,29
45	-10	412	239	1,61	1,73	1,49
45	-5	520	264	1,70	1,97	1,70
45	0	642	290	1,80	2,21	1,91
45	5	778	317	1,91	2,45	2,12
45	7,2	842	329	1,96	2,56	2,21
45	10	928	344	2,03	2,70	2,33

50	-25	158	166	1,40	0,95	0,82
50	-20	216	192	1,47	1,13	0,97
50	-15	289	219	1,55	1,32	1,14
50	-10	375	247	1,64	1,52	1,32
50	-5	476	275	1,74	1,73	1,50
50	0	590	303	1,85	1,95	1,68
50	5	719	333	1,97	2,16	1,87
50	7,2	780	346	2,03	2,26	1,95
50	10	862	362	2,11	2,38	2,06

55	-25	143	166	1,40	0,86	0,74
55	-20	194	195	1,48	1,00	0,86
55	-15	259	224	1,57	1,16	1,00
55	-10	338	254	1,66	1,33	1,15
55	-5	432	285	1,78	1,51	1,31
55	0	539	316	1,90	1,70	1,47
55	5	660	348	2,04	1,90	1,64
55	7,2	718	362	2,11	1,98	1,71
55	10	796	381	2,20	2,09	1,81

60	-25	128	166	1,40	0,77	0,66
60	-20	172	197	1,49	0,87	0,75
60	-15	229	230	1,58	1,00	0,86
60	-10	301	262	1,69	1,15	0,99
60	-5	387	296	1,82	1,31	1,13
60	0	488	329	1,96	1,48	1,28
60	5	602	364	2,12	1,65	1,43
60	7,2	656	379	2,19	1,73	1,50
60	10	730	399	2,29	1,83	1,58

65	-25	112	166	1,40	0,68	0,59
65	-20	149	200	1,49	0,75	0,64
65	-15	200	235	1,60	0,85	0,74
65	-10	264	270	1,72	0,98	0,85
65	-5	343	306	1,86	1,12	0,97
65	0	436	342	2,02	1,27	1,10
65	5	543	379	2,19	1,43	1,24
65	7,2	594	396	2,28	1,50	1,30
65	10	664	417	2,39	1,59	1,38

# Technical Data Sheet

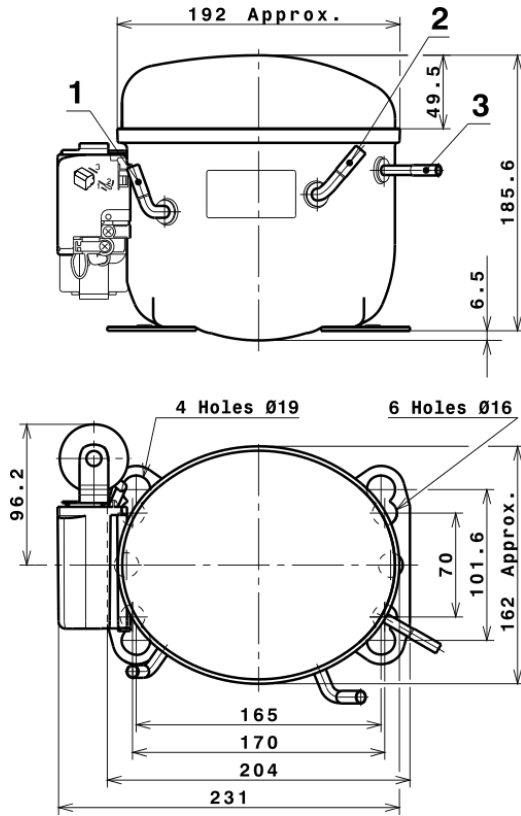
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.108,0205830309	177,3568099702	1,2656279676	18,925390568274
2	38,8815135982	0,6558281857	0,0013045039	0,73865613283421
3	-10,5849037382	2,6777323582	0,0122866300	-0,091891749657412
4	0,2760196588	0,0137721604	0,0002851524	0,0079776951788833
5	-0,3001843003	0,1071092943	0,0004914652	-0,0023032739683551

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

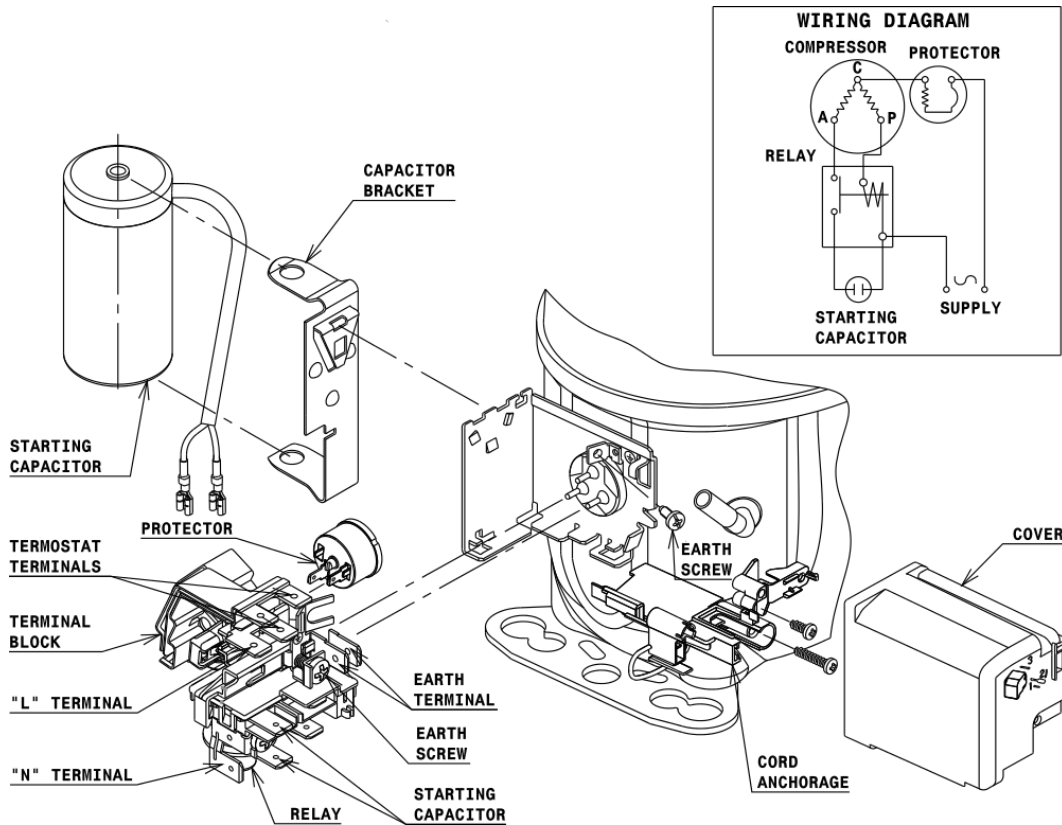


## DESIGNATION INTERNAL DIAM.

1	Suction	6,5 mm
2	Service	6,5 mm
3	Discharge	4,9 mm

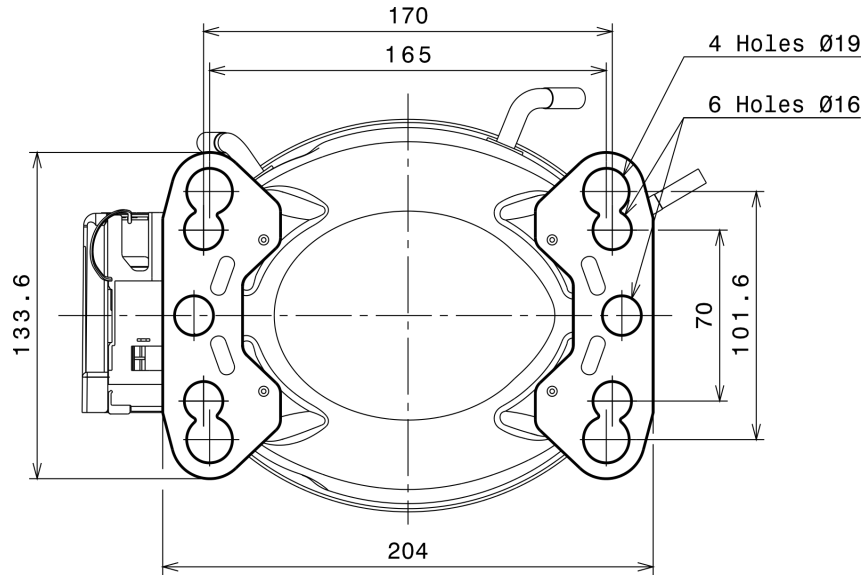
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



# Technical Data Sheet

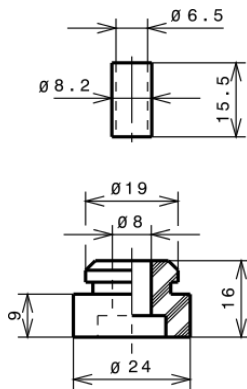
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

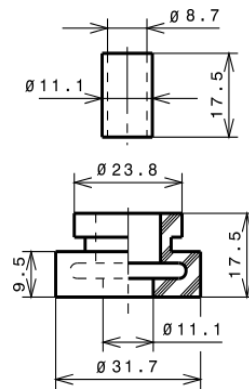
### STANDARD

Ø16 holes (170x70 net)



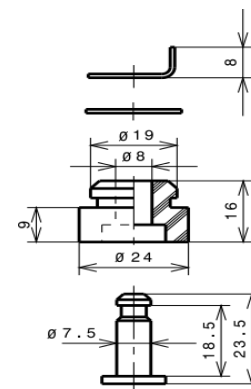
### AMERICAN FEET

Ø19 holes (165x101.6 net)



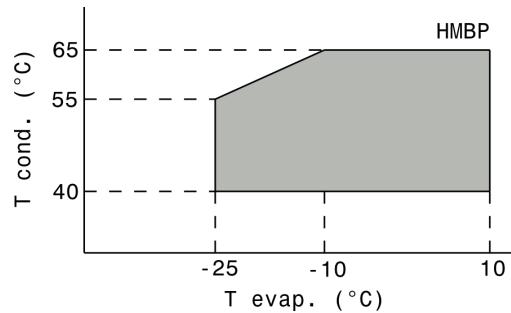
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R134a HMBP



# Technical Data Sheet

Compressor model **GLY12RAa**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High Back Pressure	Displacement	10,70 cm <sup>3</sup>	Nominal Power	3/8 hp
Refrigerant	R134a	Diameter	25,40 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-15,0 °C to 10,0 °C	Stroke	21,12 mm	Voltage range	198-255 V
Expansion	Capillar/Valve	Net Weight	10,23 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	345 cm <sup>3</sup>	Locked Rotor Amps (LRA)	14,80 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	3,60 A
				Main W. resist. at 25°C	8,43 Ω
				Start W. resist. at 25°C	31,30 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	900 kCal/h	867 W
COP	2,30 W/W	1,97 W/W
EER	1,98 kCal/Wh	1,70 kCal/Wh
Input Power	455 W	441 W
Current	2,56 A	2,51 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HBP (D)	CECOMAF HBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	47- 56 µF 330 V			
Relay	Option 1			
Reference	2014 138.			
Pick-Up	6,10 A			
Drop-Out	5,20 A			
Protector	Option 1	Option 2		
Reference	T0181	AE39FS		
Current	11,10 A	11,00 A		
Time check	7,5-14 seg	7,5-14 seg		
Disc temp. (Open/Close)	105,00 / 61,00 °C	110,00 / 62,00 °C		

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-15	408	263	1,89	1,80	1,55
40	-10	512	293	1,98	2,04	1,75
40	-5	642	322	2,08	2,32	1,99
40	0	797	351	2,18	2,64	2,27
40	5	977	380	2,28	3,00	2,58
40	7,2	1.065	392	2,32	3,16	2,72
40	10	1.184	408	2,38	3,38	2,90

45	-15	382	269	1,90	1,65	1,42
45	-10	480	302	2,01	1,85	1,59
45	-5	603	335	2,12	2,10	1,80
45	0	751	367	2,23	2,38	2,05
45	5	925	399	2,35	2,70	2,32
45	7,2	1.010	413	2,40	2,84	2,45
45	10	1.125	431	2,47	3,04	2,61

50	-15	356	274	1,92	1,51	1,30
50	-10	447	311	2,04	1,67	1,44
50	-5	564	347	2,17	1,89	1,62
50	0	706	383	2,29	2,14	1,84
50	5	873	418	2,42	2,43	2,09
50	7,2	955	434	2,48	2,56	2,20
50	10	1.066	454	2,55	2,73	2,35

55	-15	330	280	1,94	1,37	1,18
55	-10	414	320	2,07	1,51	1,30
55	-5	524	360	2,21	1,70	1,46
55	0	660	399	2,35	1,92	1,65
55	5	821	438	2,49	2,18	1,87
55	7,2	900	455	2,56	2,30	1,98
55	10	1.008	477	2,64	2,46	2,11

60	-15	304	286	1,96	1,24	1,06
60	-10	382	329	2,10	1,35	1,16
60	-5	485	372	2,25	1,52	1,30
60	0	614	415	2,41	1,72	1,48
60	5	769	457	2,57	1,95	1,68
60	7,2	845	476	2,64	2,06	1,78
60	10	949	500	2,73	2,21	1,90

65	-15	278	291	1,98	1,11	0,95
65	-10	349	338	2,13	1,20	1,03
65	-5	446	385	2,30	1,35	1,16
65	0	569	431	2,47	1,53	1,32
65	5	717	477	2,65	1,75	1,50
65	7,2	790	497	2,72	1,85	1,59
65	10	890	522	2,83	1,98	1,70

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-15	439	264	1,89	1,66	1,44
40	-10	552	294	1,99	1,88	1,62
40	-5	692	324	2,09	2,14	1,85
40	0	859	353	2,19	2,43	2,10
40	5	1.052	382	2,29	2,76	2,38
40	7,2	1.146	395	2,33	2,91	2,51
40	10	1.273	410	2,39	3,10	2,68

45	-15	409	270	1,91	1,52	1,31
45	-10	514	303	2,02	1,70	1,46
45	-5	646	336	2,13	1,92	1,66
45	0	805	369	2,24	2,18	1,88
45	5	991	402	2,36	2,47	2,13
45	7,2	1.081	416	2,41	2,60	2,25
45	10	1.203	434	2,48	2,78	2,40

50	-15	379	276	1,93	1,37	1,19
50	-10	476	313	2,05	1,52	1,32
50	-5	600	349	2,17	1,72	1,49
50	0	751	385	2,30	1,95	1,68
50	5	929	421	2,43	2,21	1,91
50	7,2	1.016	437	2,49	2,33	2,01
50	10	1.134	457	2,57	2,48	2,14

55	-15	349	282	1,94	1,24	1,07
55	-10	438	322	2,08	1,36	1,18
55	-5	555	362	2,22	1,53	1,32
55	0	698	401	2,36	1,74	1,50
55	5	867	441	2,51	1,97	1,70
55	7,2	951	458	2,57	2,08	1,79
55	10	1.064	480	2,66	2,22	1,92

60	-15	319	287	1,96	1,11	0,96
60	-10	400	331	2,11	1,21	1,05
60	-5	509	374	2,26	1,36	1,17
60	0	644	418	2,42	1,54	1,33
60	5	806	460	2,58	1,75	1,51
60	7,2	885	479	2,65	1,85	1,60
60	10	994	503	2,75	1,98	1,71

65	-15	289	293	1,98	0,99	0,85
65	-10	362	340	2,14	1,07	0,92
65	-5	463	387	2,31	1,20	1,03
65	0	590	434	2,48	1,36	1,18
65	5	744	480	2,66	1,55	1,34
65	7,2	820	500	2,74	1,64	1,42
65	10	925	526	2,84	1,76	1,52

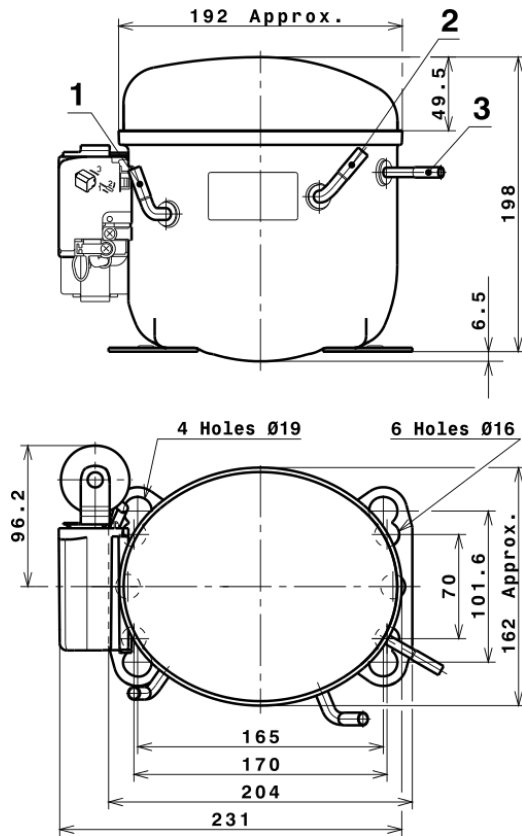
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.293,8096317008	229,5430318710	1,7179750937	21,36866466094
2	48,9700441985	0,3292808100	-0,0011113183	0,87719174519458
3	-11,1544776051	3,3144506462	0,0123491307	-0,06330327868686
4	0,5283064870	-0,0028255838	0,0001074127	0,015482000001125
5	-0,3337922414	0,1432205060	0,0005716989	-0,00067445432764572

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

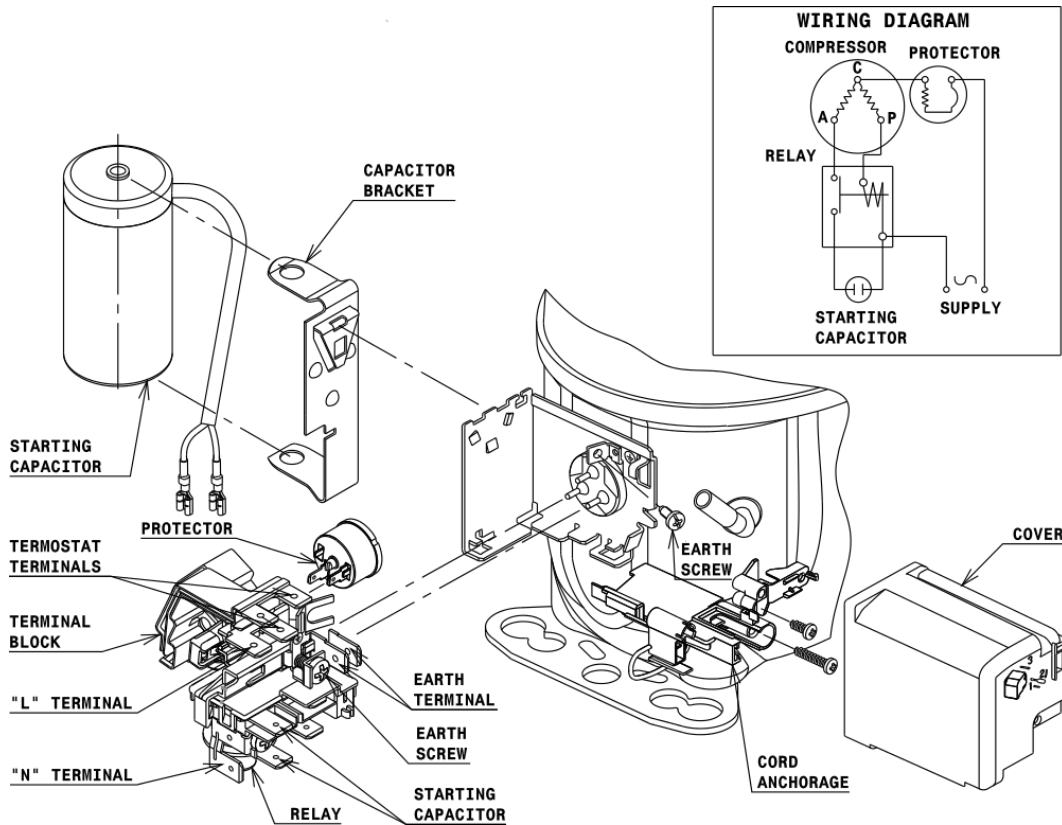


## DESIGNATION INTERNAL DIAM.

1	Suction	8,1 mm
2	Service	8,1 mm
3	Discharge	6,5 mm

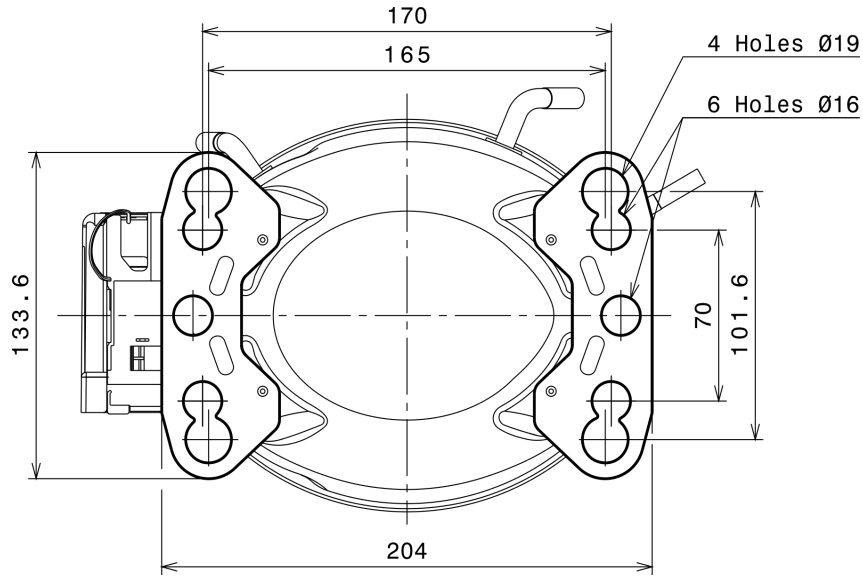
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



# Technical Data Sheet

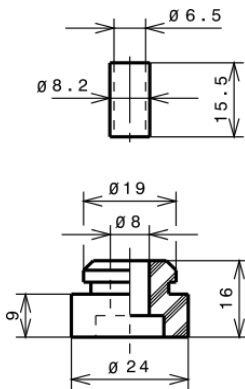
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

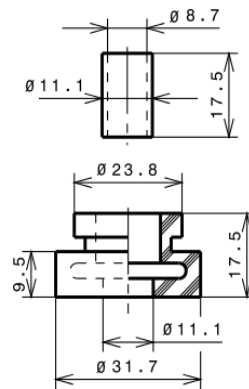
### STANDARD

Ø16 holes (170x70 net)



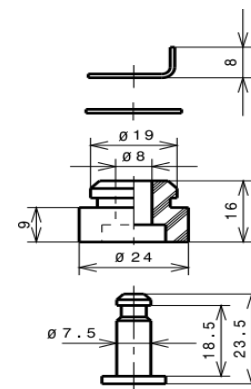
### AMERICAN FEET

Ø19 holes (165x101.6 net)



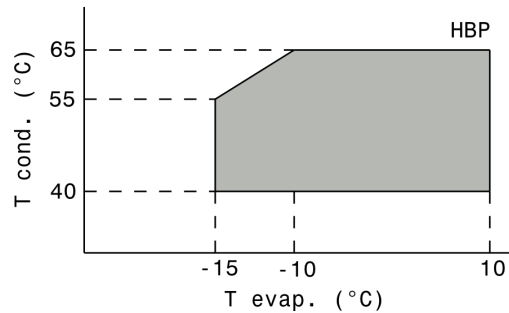
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R134a HBP





# Technical Data Sheet

Compressor model **GP14TB**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High Back Pressure	Displacement	14,17 cm <sup>3</sup>	Nominal Power	3/8 hp
Refrigerant	R134a	Diameter	31,19 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-15,0 °C to 10,0 °C	Stroke	18,54 mm	Voltage range	187-255 V
Expansion	Capillar/Valve	Net Weight	11,29 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	400 cm <sup>3</sup>	Locked Rotor Amps (LRA)	18,00 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	5,20 A
				Main W. resist. at 25°C	6,00 Ω
				Start W. resist. at 25°C	24,00 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.030 kCal/h	998 W
COP	2,03 W/W	1,76 W/W
EER	1,75 kCal/Wh	1,52 kCal/Wh
Input Power	590 W	568 W
Current	3,40 A	3,29 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HBP (D)	CECOMAF HBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	47- 56 μF 330 V		
Relay	Option 1		
Reference	2014 149.		
Pick-Up	7,80 A		
Drop-Out	6,65 A		
Protector	Option 1	Option 2	
Reference	MRP00AMK	T0425	
Current	11,70 A	11,50 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 61,00 °C	105,00 / 61,00 °C	

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-15	489	328	2,40	1,73	1,49
40	-10	634	366	2,50	2,01	1,73
40	-5	800	406	2,62	2,29	1,97
40	0	986	448	2,77	2,56	2,20
40	5	1.193	491	2,94	2,82	2,43
40	7,2	1.291	511	3,02	2,94	2,53
40	10	1.421	536	3,14	3,08	2,65

45	-15	444	335	2,42	1,54	1,33
45	-10	580	378	2,53	1,79	1,54
45	-5	736	422	2,68	2,03	1,74
45	0	913	468	2,85	2,27	1,95
45	5	1.111	516	3,04	2,50	2,15
45	7,2	1.204	537	3,14	2,61	2,24
45	10	1.329	565	3,27	2,73	2,35

50	-15	398	341	2,43	1,36	1,17
50	-10	525	389	2,57	1,57	1,35
50	-5	672	438	2,73	1,79	1,54
50	0	839	488	2,93	2,00	1,72
50	5	1.028	540	3,15	2,21	1,90
50	7,2	1.117	564	3,27	2,30	1,98
50	10	1.236	594	3,42	2,42	2,08

55	-15	353	348	2,45	1,18	1,01
55	-10	470	400	2,60	1,37	1,18
55	-5	608	453	2,79	1,56	1,34
55	0	766	508	3,01	1,75	1,51
55	5	945	565	3,27	1,95	1,67
55	7,2	1.030	590	3,40	2,03	1,75
55	10	1.144	623	3,58	2,14	1,84

60	-15	308	355	2,47	1,01	0,87
60	-10	415	411	2,64	1,18	1,01
60	-5	544	469	2,85	1,35	1,16
60	0	693	528	3,10	1,53	1,31
60	5	862	589	3,39	1,70	1,46
60	7,2	943	616	3,54	1,78	1,53
60	10	1.052	652	3,74	1,88	1,61

65	-15	262	361	2,49	0,84	0,73
65	-10	361	422	2,68	0,99	0,85
65	-5	480	484	2,91	1,15	0,99
65	0	619	548	3,19	1,31	1,13
65	5	779	613	3,52	1,48	1,27
65	7,2	856	643	3,69	1,55	1,33
65	10	960	680	3,91	1,64	1,41

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-15	527	330	2,40	1,60	1,38
40	-10	684	368	2,51	1,86	1,60
40	-5	863	409	2,63	2,11	1,82
40	0	1.063	451	2,78	2,36	2,04
40	5	1.285	495	2,95	2,60	2,24
40	7,2	1.389	514	3,04	2,70	2,33
40	10	1.528	540	3,15	2,83	2,45

45	-15	476	337	2,42	1,41	1,22
45	-10	622	380	2,54	1,64	1,41
45	-5	789	424	2,68	1,86	1,61
45	0	978	471	2,86	2,08	1,80
45	5	1.189	519	3,06	2,29	1,98
45	7,2	1.289	541	3,16	2,38	2,06
45	10	1.422	569	3,29	2,50	2,16

50	-15	424	343	2,44	1,24	1,07
50	-10	559	391	2,57	1,43	1,24
50	-5	716	440	2,74	1,63	1,41
50	0	894	491	2,94	1,82	1,57
50	5	1.094	544	3,17	2,01	1,74
50	7,2	1.188	567	3,29	2,09	1,81
50	10	1.315	598	3,44	2,20	1,90

55	-15	373	350	2,46	1,07	0,92
55	-10	497	402	2,61	1,24	1,07
55	-5	643	456	2,80	1,41	1,22
55	0	810	511	3,02	1,58	1,37
55	5	998	568	3,29	1,76	1,52
55	7,2	1.088	594	3,42	1,83	1,58
55	10	1.208	627	3,60	1,93	1,67

60	-15	322	357	2,47	0,90	0,78
60	-10	435	413	2,65	1,05	0,91
60	-5	569	471	2,86	1,21	1,04
60	0	725	531	3,11	1,37	1,18
60	5	902	593	3,41	1,52	1,32
60	7,2	987	620	3,56	1,59	1,38
60	10	1.101	656	3,76	1,68	1,45

65	-15	271	363	2,49	0,75	0,65
65	-10	373	424	2,68	0,88	0,76
65	-5	496	487	2,92	1,02	0,88
65	0	641	551	3,21	1,16	1,00
65	5	807	617	3,54	1,31	1,13
65	7,2	887	647	3,71	1,37	1,18
65	10	995	685	3,94	1,45	1,25

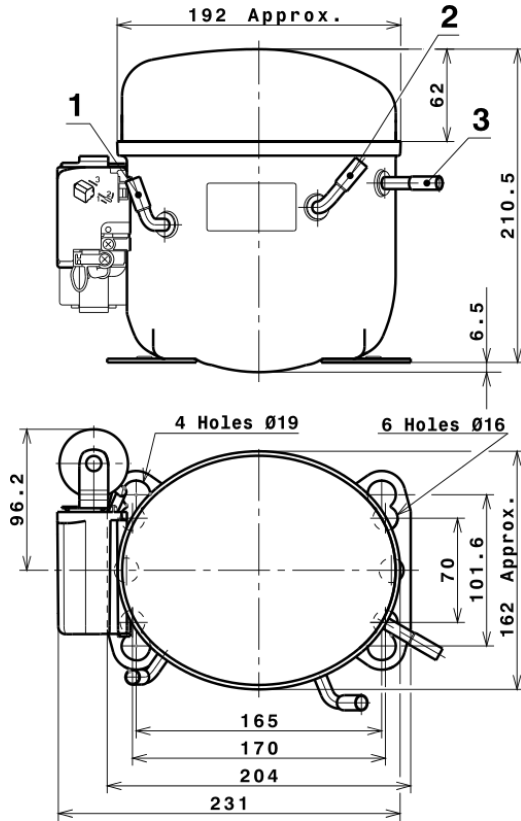
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.739,6610493759	297,3650818317	2,0104649476	30,463783645914
2	60,4035792144	1,5747209806	-0,0049746840	1,0917843070926
3	-17,2742770306	4,1269056092	0,0194855073	-0,17643711314326
4	0,4264911611	0,0394396991	0,0008492081	0,013073252033181
5	-0,4657276463	0,1836648402	0,0010550776	-0,0024917515059774

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

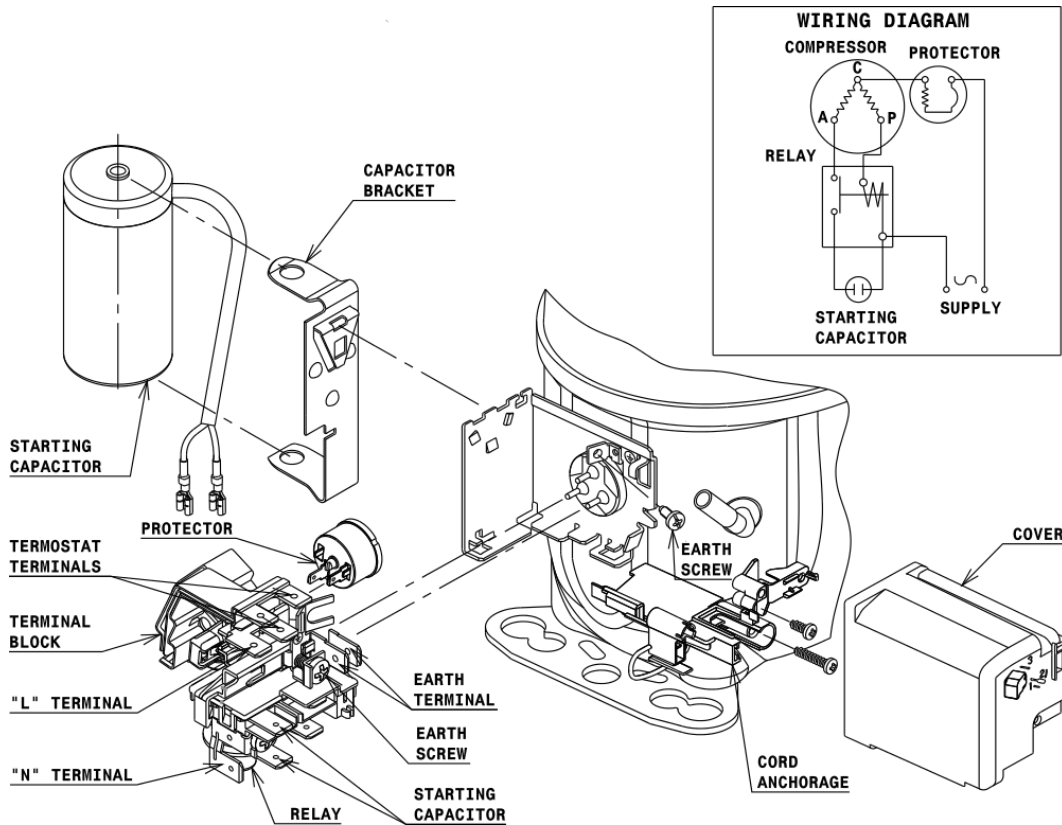


## DESIGNATION INTERNAL DIAM.

1	Suction	8,1 mm
2	Service	8,1 mm
3	Discharge	6,5 mm

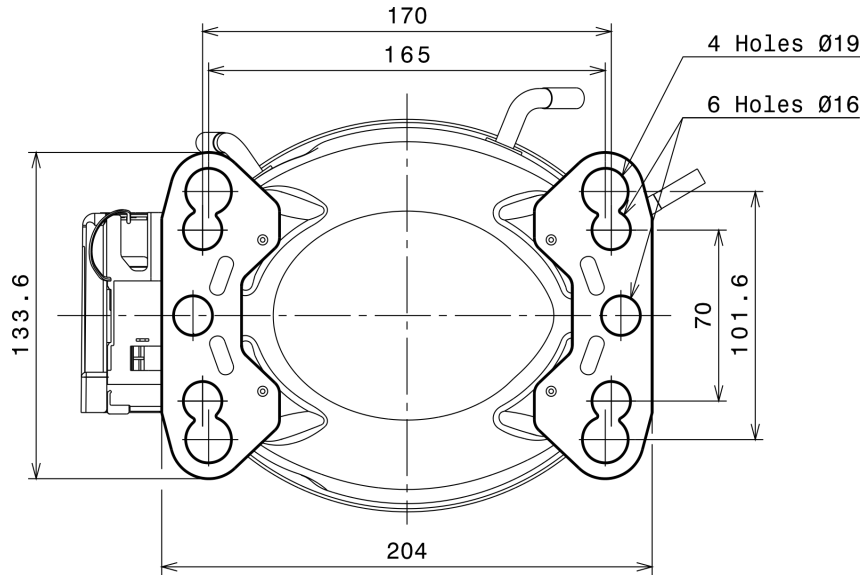
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



# Technical Data Sheet

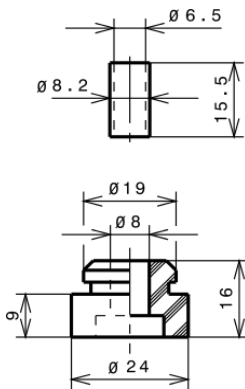
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

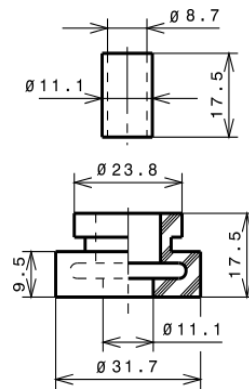
### STANDARD

Ø16 holes (170x70 net)



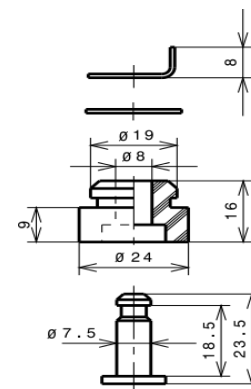
### AMERICAN FEET

Ø19 holes (165x101.6 net)



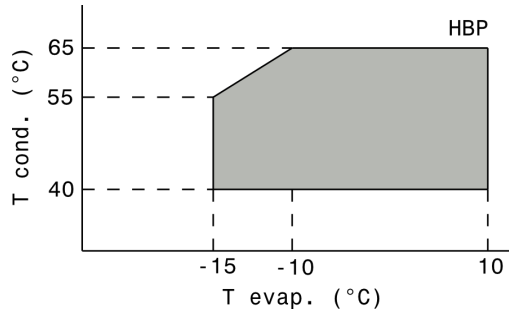
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R134a HBP



# Technical Data Sheet

Compressor model **GP16TB**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R134a**

## APPLICATION

Application High Back Pressure  
Refrigerant R134a  
Evaporating Temp. -15,0 °C to 10,0 °C  
Expansion Capillar/Valve  
Comp. Cooling Fan cooled  
Max. ambient temp. 43,0 °C  
Compatible refriger. R1234yf

## COMPRESSOR

Displacement 16,15 cm<sup>3</sup>  
Diameter 31,19 mm  
Stroke 21,13 mm  
Net Weight 11,93 Kg  
Oil type ISO VG 32 ESTER  
Oil charge 400 cm<sup>3</sup>

## MOTOR

Nominal Power 3/8 hp  
Voltage/Frequency 220-240V 50Hz  
Voltage range 198-255 V  
Type CSIR  
Phase number 1 PH  
Locked Rotor Amps (LRA) 20,00 A  
Max. Cont. Current (MCC) 5,00 A  
Main W. resist. at 25°C 4,83 Ω  
Start W. resist. at 25°C 20,22 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.240 kCal/h	1.204 W
COP	2,09 W/W	1,80 W/W
EER	1,80 kCal/Wh	1,55 kCal/Wh
Input Power	690 W	670 W
Current	4,00 A	3,92 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HBP (D)	CECOMAF HBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	72- 88 μF 330 V		
Relay	Option 1		
Reference	2014 158.		
Pick-Up	9,05 A		
Drop-Out	7,70 A		
Protector	Option 1	Option 2	
Reference	MRA38133	T0267	
Current	11,50 A	11,00 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 52,00 °C	105,00 / 52,00 °C	

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-15	560	400	3,01	1,63	1,40
40	-10	740	448	3,16	1,92	1,65
40	-5	945	495	3,30	2,22	1,91
40	0	1.175	539	3,45	2,53	2,18
40	5	1.430	582	3,60	2,86	2,46
40	7,2	1.550	600	3,66	3,00	2,58
40	10	1.710	622	3,75	3,19	2,75

45	-15	523	410	3,04	1,48	1,28
45	-10	688	463	3,20	1,73	1,49
45	-5	878	514	3,37	1,99	1,71
45	0	1.093	563	3,53	2,26	1,94
45	5	1.333	610	3,70	2,54	2,19
45	7,2	1.447	630	3,77	2,67	2,30
45	10	1.598	655	3,87	2,84	2,44

50	-15	487	420	3,07	1,35	1,16
50	-10	637	477	3,25	1,55	1,33
50	-5	812	533	3,43	1,77	1,52
50	0	1.012	586	3,62	2,01	1,73
50	5	1.237	638	3,80	2,25	1,94
50	7,2	1.343	660	3,89	2,37	2,04
50	10	1.486	687	3,99	2,51	2,16

55	-15	450	430	3,10	1,22	1,05
55	-10	585	492	3,29	1,38	1,19
55	-5	745	552	3,50	1,57	1,35
55	0	930	610	3,70	1,77	1,52
55	5	1.140	666	3,91	1,99	1,71
55	7,2	1.240	690	4,00	2,09	1,80
55	10	1.374	720	4,12	2,22	1,91

60	-15	413	440	3,13	1,09	0,94
60	-10	533	507	3,34	1,22	1,05
60	-5	678	571	3,56	1,38	1,19
60	0	848	634	3,79	1,56	1,34
60	5	1.043	694	4,02	1,75	1,50
60	7,2	1.137	720	4,12	1,84	1,58
60	10	1.263	753	4,25	1,95	1,68

65	-15	377	450	3,16	0,97	0,84
65	-10	482	521	3,39	1,08	0,92
65	-5	612	590	3,63	1,21	1,04
65	0	767	657	3,87	1,36	1,17
65	5	946	722	4,13	1,52	1,31
65	7,2	1.033	750	4,24	1,60	1,38
65	10	1.151	785	4,38	1,71	1,47

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-15	603	402	3,02	1,50	1,30
40	-10	798	451	3,16	1,77	1,53
40	-5	1.019	498	3,31	2,05	1,77
40	0	1.266	543	3,46	2,33	2,02
40	5	1.540	586	3,61	2,63	2,27
40	7,2	1.668	604	3,68	2,76	2,39
40	10	1.839	627	3,76	2,94	2,54

45	-15	561	412	3,05	1,36	1,18
45	-10	738	466	3,21	1,59	1,37
45	-5	942	517	3,38	1,82	1,57
45	0	1.172	566	3,54	2,07	1,79
45	5	1.428	614	3,71	2,33	2,01
45	7,2	1.549	634	3,79	2,44	2,11
45	10	1.710	659	3,88	2,59	2,24

50	-15	518	422	3,08	1,23	1,06
50	-10	679	480	3,26	1,41	1,22
50	-5	865	536	3,44	1,61	1,39
50	0	1.077	590	3,63	1,83	1,58
50	5	1.316	642	3,82	2,05	1,77
50	7,2	1.429	664	3,90	2,15	1,86
50	10	1.581	692	4,01	2,28	1,97

55	-15	476	432	3,11	1,10	0,95
55	-10	619	495	3,30	1,25	1,08
55	-5	788	555	3,51	1,42	1,23
55	0	983	614	3,71	1,60	1,38
55	5	1.204	670	3,92	1,80	1,55
55	7,2	1.310	694	4,02	1,89	1,63
55	10	1.451	725	4,14	2,00	1,73

60	-15	434	442	3,14	0,98	0,85
60	-10	559	509	3,35	1,10	0,95
60	-5	711	574	3,57	1,24	1,07
60	0	888	637	3,80	1,39	1,20
60	5	1.092	698	4,03	1,56	1,35
60	7,2	1.190	725	4,14	1,64	1,42
60	10	1.322	757	4,27	1,75	1,51

65	-15	391	452	3,17	0,86	0,75
65	-10	499	524	3,40	0,95	0,82
65	-5	634	593	3,64	1,07	0,92
65	0	794	661	3,89	1,20	1,04
65	5	980	727	4,14	1,35	1,17
65	7,2	1.071	755	4,26	1,42	1,23
65	10	1.193	790	4,40	1,51	1,30

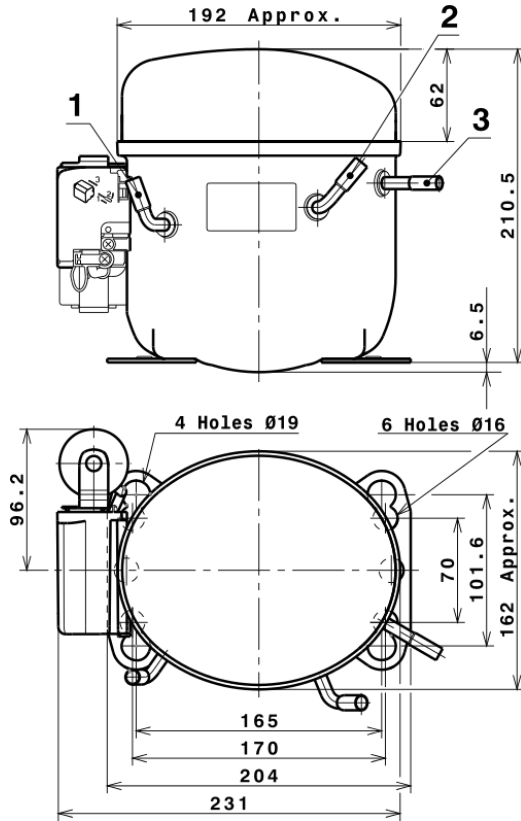
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.024,5025626687	362,2135251972	2,7822962813	35,043251978065
2	80,1202123638	1,6761773102	0,0008596805	1,4888457190122
3	-19,3796215808	4,8620584218	0,0179891829	-0,17888845387552
4	0,5162022127	-0,0346975284	0,0001120089	0,015772277844526
5	-0,7159814125	0,1869439274	0,0007828558	-0,0067118064402046

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

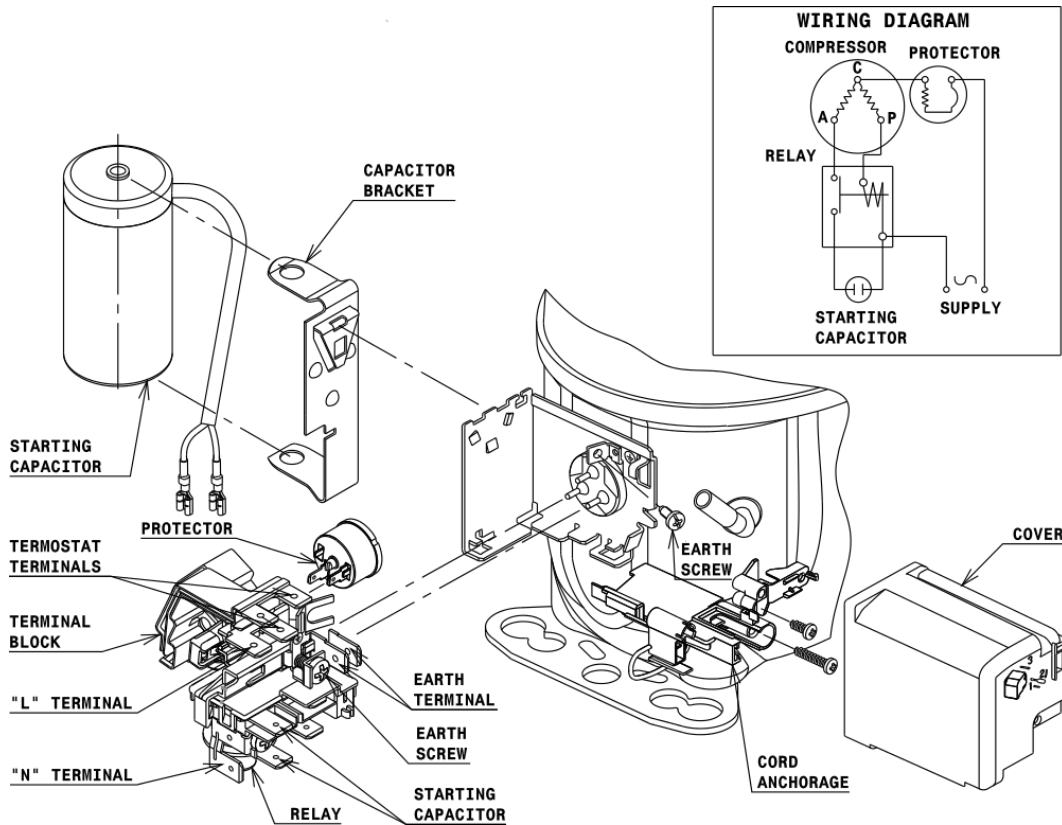


## DESIGNATION INTERNAL DIAM.

1	Suction	8,1 mm
2	Service	8,1 mm
3	Discharge	6,5 mm

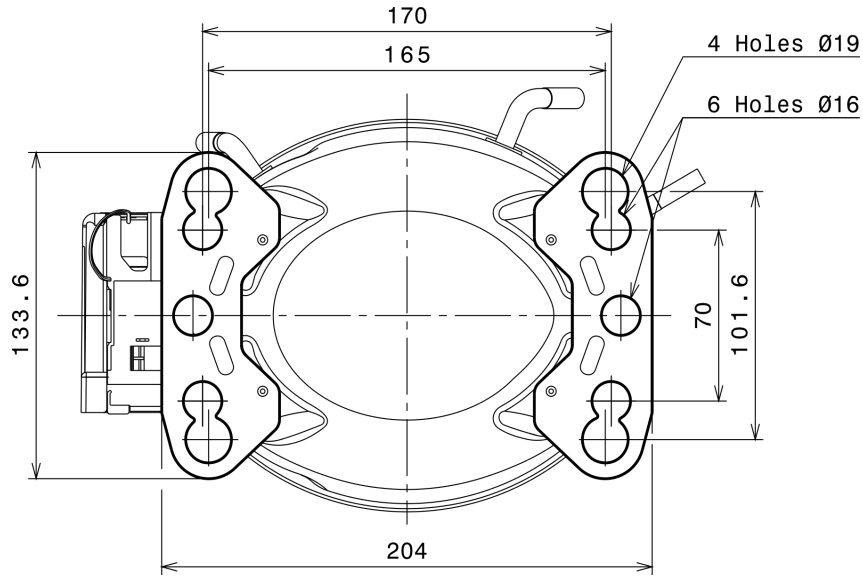
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



# Technical Data Sheet

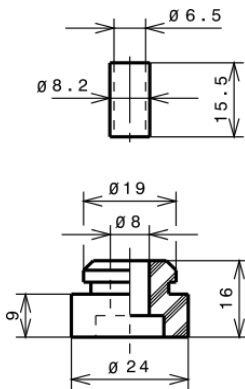
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

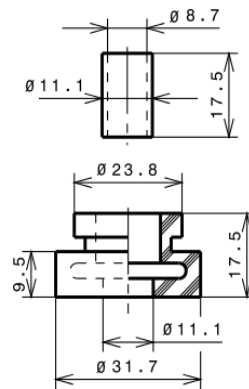
### STANDARD

Ø16 holes (170x70 net)



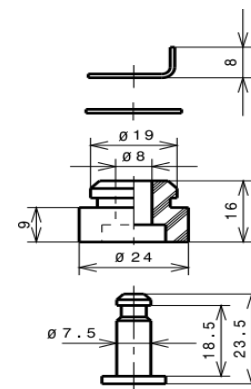
### AMERICAN FEET

Ø19 holes (165x101.6 net)



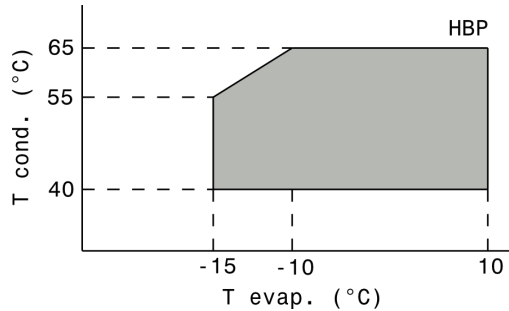
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R134a HBP





# Technical Data Sheet

Compressor model **GX18TB**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	18,40 cm <sup>3</sup>	Nominal Power	1/2 hp
Refrigerant	R134a	Diameter	34,93 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	19,20 mm	Voltage range	198-255 V
Expansion	Capillar/Valve	Net Weight	15,44 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	500 cm <sup>3</sup>	Locked Rotor Amps (LRA)	24,00 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	6,60 A
				Main W. resist. at 25°C	3,40 Ω
				Start W. resist. at 25°C	26,00 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.430 kCal/h	1.389 W
COP	2,20 W/W	1,90 W/W
EER	1,89 kCal/Wh	1,64 kCal/Wh
Input Power	755 W	732 W
Current	4,60 A	4,50 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	64- 77 μF 330 V		
Relay	Option 1		
Reference	2014 170.		
Pick-Up	12,10 A		
Drop-Out	10,30 A		
Protector	Option 1	Option 2	
Reference	MRA38134	T0348	
Current	15,80 A	15,40 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 52,00 °C	105,00 / 52,00 °C	

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	372	350	3,18	1,24	1,06
40	-20	512	397	3,31	1,50	1,29
40	-15	679	445	3,45	1,78	1,53
40	-10	874	491	3,60	2,07	1,78
40	-5	1.095	538	3,76	2,37	2,04
40	0	1.344	584	3,92	2,68	2,30
40	5	1.620	630	4,09	2,99	2,57
40	7,2	1.750	650	4,17	3,13	2,69
40	10	1.923	675	4,27	3,31	2,85

45	-25	338	347	3,17	1,13	0,97
45	-20	467	400	3,32	1,36	1,17
45	-15	623	453	3,48	1,60	1,37
45	-10	806	506	3,65	1,85	1,59
45	-5	1.016	558	3,83	2,12	1,82
45	0	1.254	611	4,02	2,39	2,05
45	5	1.518	662	4,22	2,67	2,29
45	7,2	1.643	685	4,31	2,79	2,40
45	10	1.810	714	4,43	2,95	2,54

50	-25	304	343	3,16	1,03	0,89
50	-20	421	403	3,33	1,22	1,05
50	-15	566	462	3,51	1,43	1,23
50	-10	738	520	3,70	1,65	1,42
50	-5	937	579	3,90	1,88	1,62
50	0	1.163	637	4,12	2,12	1,83
50	5	1.417	695	4,35	2,37	2,04
50	7,2	1.537	720	4,45	2,48	2,13
50	10	1.697	752	4,59	2,62	2,26

55	-25	270	340	3,15	0,92	0,79
55	-20	376	405	3,33	1,08	0,93
55	-15	509	470	3,54	1,26	1,08
55	-10	670	535	3,75	1,46	1,25
55	-5	858	599	3,98	1,66	1,43
55	0	1.073	663	4,22	1,88	1,62
55	5	1.315	727	4,48	2,10	1,81
55	7,2	1.430	755	4,60	2,20	1,89
55	10	1.584	790	4,75	2,33	2,00

60	-25	236	337	3,14	0,82	0,70
60	-20	331	408	3,34	0,94	0,81
60	-15	453	479	3,56	1,10	0,95
60	-10	602	550	3,80	1,27	1,10
60	-5	779	620	4,06	1,46	1,26
60	0	982	690	4,33	1,66	1,42
60	5	1.213	759	4,62	1,86	1,60
60	7,2	1.323	790	4,75	1,95	1,68
60	10	1.471	829	4,93	2,06	1,78

65	-25	202	333	3,13	0,70	0,61
65	-20	286	411	3,35	0,81	0,70
65	-15	396	487	3,59	0,95	0,81
65	-10	534	564	3,85	1,10	0,95
65	-5	699	640	4,13	1,27	1,09
65	0	892	716	4,44	1,45	1,25
65	5	1.111	792	4,76	1,63	1,40
65	7,2	1.217	825	4,91	1,72	1,47
65	10	1.358	867	5,10	1,82	1,57

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	401	352	3,18	1,14	0,98
40	-20	553	400	3,32	1,38	1,20
40	-15	734	447	3,46	1,64	1,42
40	-10	944	494	3,61	1,91	1,65
40	-5	1.182	541	3,77	2,18	1,89
40	0	1.449	588	3,94	2,47	2,13
40	5	1.744	634	4,11	2,75	2,38
40	7,2	1.883	654	4,19	2,88	2,49
40	10	2.068	680	4,29	3,04	2,63

45	-25	362	348	3,17	1,04	0,90
45	-20	501	402	3,33	1,25	1,08
45	-15	669	456	3,49	1,47	1,27
45	-10	865	509	3,66	1,70	1,47
45	-5	1.090	562	3,84	1,94	1,68
45	0	1.344	614	4,03	2,19	1,89
45	5	1.626	666	4,24	2,44	2,11
45	7,2	1.759	689	4,33	2,55	2,20
45	10	1.936	719	4,45	2,70	2,33

50	-25	324	345	3,16	0,94	0,81
50	-20	450	405	3,33	1,11	0,96
50	-15	604	464	3,52	1,30	1,12
50	-10	787	523	3,71	1,50	1,30
50	-5	998	582	3,92	1,71	1,48
50	0	1.239	641	4,14	1,93	1,67
50	5	1.507	699	4,37	2,16	1,86
50	7,2	1.635	725	4,47	2,26	1,95
50	10	1.805	757	4,61	2,38	2,06

55	-25	286	342	3,15	0,84	0,72
55	-20	398	407	3,34	0,98	0,84
55	-15	539	473	3,54	1,14	0,98
55	-10	709	538	3,76	1,32	1,14
55	-5	907	603	3,99	1,50	1,30
55	0	1.133	667	4,24	1,70	1,47
55	5	1.389	732	4,50	1,90	1,64
55	7,2	1.510	760	4,62	1,99	1,72
55	10	1.673	796	4,78	2,10	1,82

60	-25	247	338	3,15	0,73	0,63
60	-20	346	410	3,35	0,84	0,73
60	-15	474	482	3,57	0,98	0,85
60	-10	630	553	3,81	1,14	0,99
60	-5	815	623	4,07	1,31	1,13
60	0	1.028	694	4,35	1,48	1,28
60	5	1.270	764	4,64	1,66	1,44
60	7,2	1.386	795	4,77	1,74	1,51
60	10	1.541	834	4,95	1,85	1,60

65	-25	209	335	3,14	0,62	0,54
65	-20	295	413	3,36	0,71	0,62
65	-15	409	490	3,60	0,83	0,72
65	-10	552	567	3,86	0,97	0,84
65	-5	723	644	4,15	1,12	0,97
65	0	923	721	4,46	1,28	1,11
65	5	1.152	797	4,78	1,45	1,25
65	7,2	1.262	830	4,93	1,52	1,31
65	10	1.409	873	5,13	1,61	1,39

# Technical Data Sheet

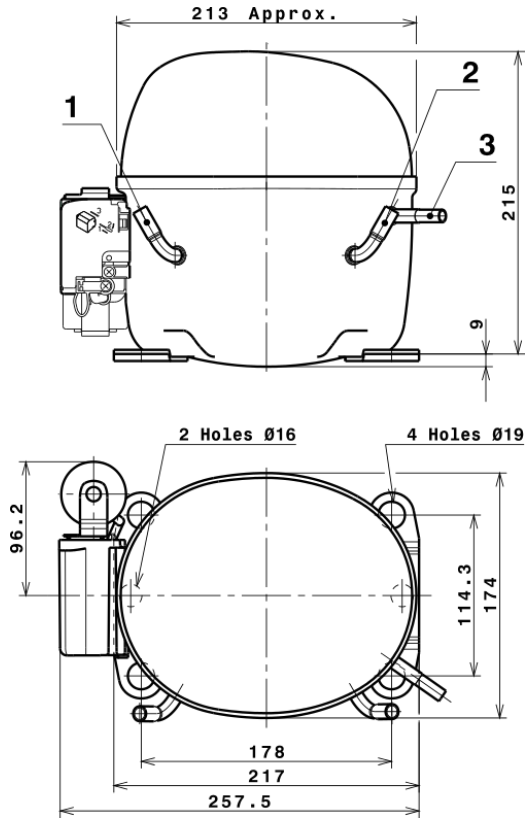
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2,295,5046498451	384,0621384564	3,0415052252	39,040938030717
2	77,7882719762	-0,1599981595	-0,0011441588	1,4590138473417
3	-21,6300258424	5,4700420579	0,0230481927	-0,17946437528525
4	0,5625582919	-0,0015453688	0,0003354237	0,016322879465159
5	-0,5566633547	0,2462067256	0,0009976324	-0,0030684753068318

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

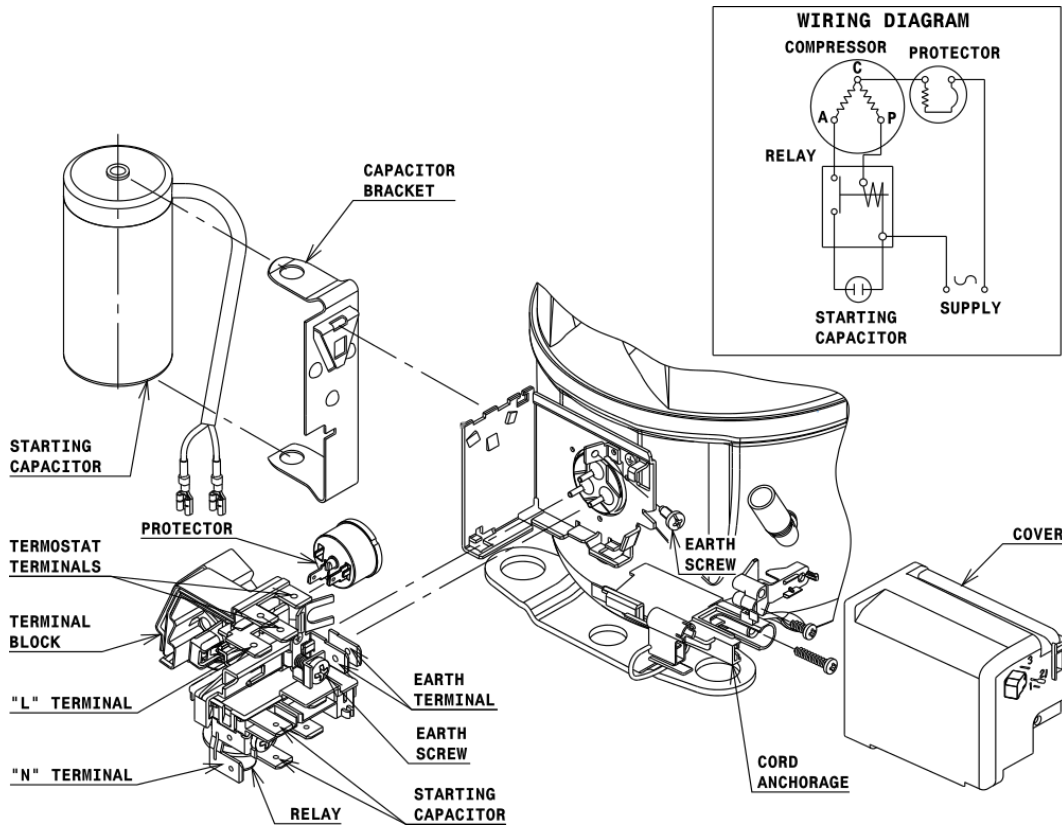


## DESIGNATION INTERNAL DIAM.

DESIGNATION	INTERNAL DIAM.
1 Service	8,1 mm
2 Suction	8,1 mm
3 Discharge	6,5 mm

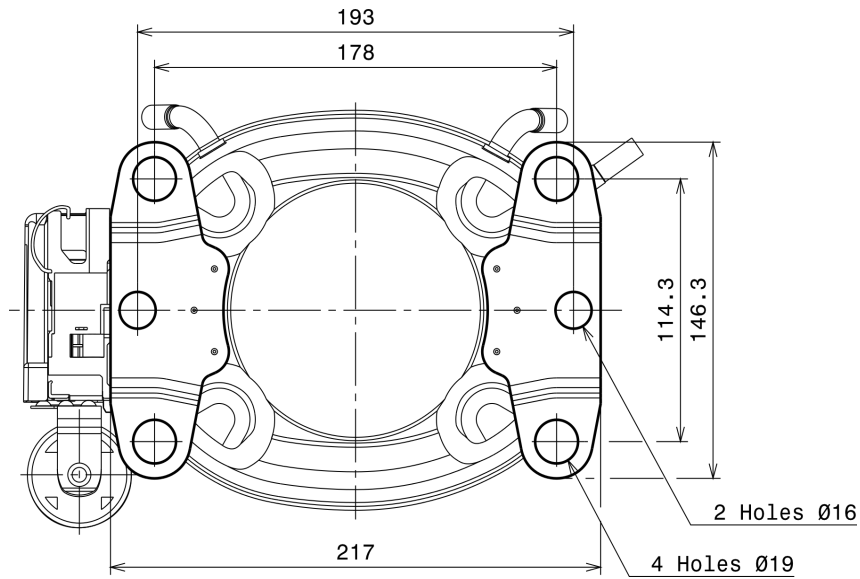
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (X range)



# Technical Data Sheet

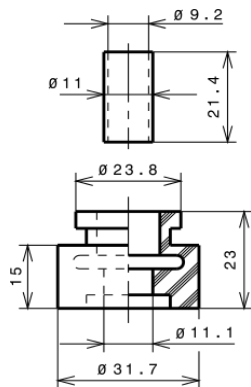
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

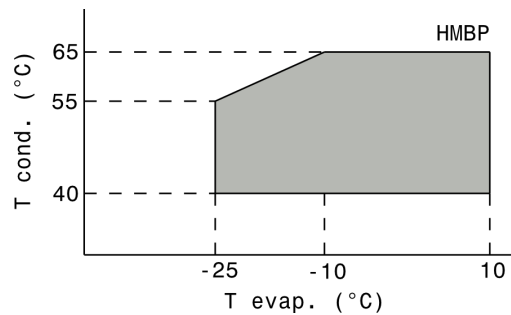
### STANDARD

Ø19 holes (178x114.3 net)



## SOA

SOA R134a HMBP



# Technical Data Sheet

Compressor model **GX21TB**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	20,72 cm <sup>3</sup>	Nominal Power	5/8 hp
Refrigerant	R134a	Diameter	34,93 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	21,62 mm	Voltage range	187-255 V
Expansion	Capillar/Valve	Net Weight	16,13 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	500 cm <sup>3</sup>	Locked Rotor Amps (LRA)	26,00 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	7,70 A
				Main W. resist. at 25°C	2,70 Ω
				Start W. resist. at 25°C	22,50 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.595 kCal/h	1.549 W
COP	2,18 W/W	1,88 W/W
EER	1,88 kCal/Wh	1,63 kCal/Wh
Input Power	850 W	823 W
Current	5,30 A	5,19 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	72- 88 μF 330 V		
Relay	Option 1		
Reference	2014 180.		
Pick-Up	16,70 A		
Drop-Out	14,00 A		
Protector	Option 1	Option 2	
Reference	MRA38128	T0535	
Current	17,00 A	17,00 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 52,00 °C	105,00 / 52,00 °C	

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	420	385	3,70	1,27	1,09
40	-20	576	438	3,85	1,53	1,32
40	-15	762	491	4,00	1,81	1,55
40	-10	979	544	4,17	2,09	1,80
40	-5	1.227	598	4,34	2,39	2,05
40	0	1.505	652	4,53	2,69	2,31
40	5	1.814	706	4,73	2,99	2,57
40	7,2	1.960	730	4,82	3,12	2,68
40	10	2.154	761	4,94	3,29	2,83

45	-25	382	385	3,70	1,15	0,99
45	-20	525	444	3,86	1,37	1,18
45	-15	698	503	4,04	1,61	1,39
45	-10	902	563	4,23	1,86	1,60
45	-5	1.137	623	4,43	2,12	1,83
45	0	1.402	683	4,64	2,39	2,05
45	5	1.698	743	4,87	2,66	2,29
45	7,2	1.838	770	4,97	2,78	2,39
45	10	2.025	804	5,11	2,93	2,52

50	-25	343	385	3,70	1,04	0,89
50	-20	473	450	3,88	1,22	1,05
50	-15	634	516	4,08	1,43	1,23
50	-10	825	581	4,29	1,65	1,42
50	-5	1.047	647	4,51	1,88	1,62
50	0	1.299	714	4,76	2,12	1,82
50	5	1.582	781	5,02	2,36	2,03
50	7,2	1.717	810	5,13	2,46	2,12
50	10	1.896	848	5,29	2,60	2,24

55	-25	305	385	3,70	0,92	0,79
55	-20	422	456	3,90	1,08	0,92
55	-15	570	528	4,12	1,25	1,08
55	-10	748	600	4,35	1,45	1,25
55	-5	957	672	4,60	1,66	1,42
55	0	1.196	745	4,88	1,87	1,61
55	5	1.466	818	5,17	2,09	1,79
55	7,2	1.595	850	5,30	2,18	1,88
55	10	1.767	891	5,48	2,31	1,98

60	-25	267	385	3,70	0,81	0,69
60	-20	371	463	3,92	0,93	0,80
60	-15	506	540	4,15	1,09	0,94
60	-10	671	619	4,41	1,26	1,08
60	-5	867	697	4,69	1,45	1,24
60	0	1.093	776	5,00	1,64	1,41
60	5	1.350	855	5,32	1,84	1,58
60	7,2	1.473	890	5,47	1,93	1,66
60	10	1.638	935	5,67	2,04	1,75

65	-25	228	385	3,70	0,69	0,59
65	-20	320	469	3,93	0,79	0,68
65	-15	441	553	4,19	0,93	0,80
65	-10	594	637	4,48	1,08	0,93
65	-5	777	722	4,79	1,25	1,08
65	0	990	807	5,12	1,43	1,23
65	5	1.235	892	5,48	1,61	1,38
65	7,2	1.352	930	5,65	1,69	1,45
65	10	1.509	978	5,87	1,79	1,54

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	452	387	3,71	1,17	1,01
40	-20	622	440	3,85	1,41	1,22
40	-15	824	493	4,01	1,67	1,44
40	-10	1.058	547	4,18	1,93	1,67
40	-5	1.324	601	4,35	2,20	1,90
40	0	1.623	656	4,54	2,48	2,14
40	5	1.954	710	4,74	2,75	2,38
40	7,2	2.109	735	4,84	2,87	2,48
40	10	2.316	766	4,96	3,03	2,61

45	-25	409	387	3,71	1,06	0,91
45	-20	564	446	3,87	1,26	1,09
45	-15	750	506	4,05	1,48	1,28
45	-10	969	566	4,24	1,71	1,48
45	-5	1.220	626	4,44	1,95	1,68
45	0	1.503	687	4,66	2,19	1,89
45	5	1.819	748	4,89	2,43	2,10
45	7,2	1.968	775	4,99	2,54	2,19
45	10	2.166	809	5,13	2,68	2,31

50	-25	366	387	3,71	0,95	0,82
50	-20	505	453	3,89	1,12	0,96
50	-15	677	518	4,09	1,31	1,13
50	-10	880	585	4,30	1,51	1,30
50	-5	1.116	651	4,53	1,71	1,48
50	0	1.384	718	4,77	1,93	1,66
50	5	1.684	785	5,03	2,14	1,85
50	7,2	1.826	815	5,16	2,24	1,94
50	10	2.016	853	5,31	2,36	2,04

55	-25	323	387	3,71	0,83	0,72
55	-20	447	459	3,91	0,97	0,84
55	-15	603	531	4,12	1,14	0,98
55	-10	791	603	4,36	1,31	1,13
55	-5	1.012	676	4,62	1,50	1,29
55	0	1.264	749	4,89	1,69	1,46
55	5	1.549	823	5,19	1,88	1,63
55	7,2	1.685	855	5,32	1,97	1,70
55	10	1.866	897	5,50	2,08	1,80

60	-25	280	387	3,71	0,72	0,62
60	-20	388	465	3,92	0,83	0,72
60	-15	529	543	4,16	0,97	0,84
60	-10	702	622	4,43	1,13	0,97
60	-5	907	701	4,71	1,29	1,12
60	0	1.145	781	5,02	1,47	1,27
60	5	1.414	861	5,34	1,64	1,42
60	7,2	1.543	896	5,50	1,72	1,49
60	10	1.716	941	5,70	1,82	1,58

65	-25	236	387	3,71	0,61	0,53
65	-20	330	471	3,94	0,70	0,60
65	-15	455	556	4,20	0,82	0,71
65	-10	613	641	4,49	0,96	0,83
65	-5	803	726	4,80	1,11	0,96
65	0	1.025	812	5,14	1,26	1,09
65	5	1.279	898	5,51	1,42	1,23
65	7,2	1.401	936	5,68	1,50	1,29
65	10	1.566	984	5,90	1,59	1,37

# Technical Data Sheet

## EN12900

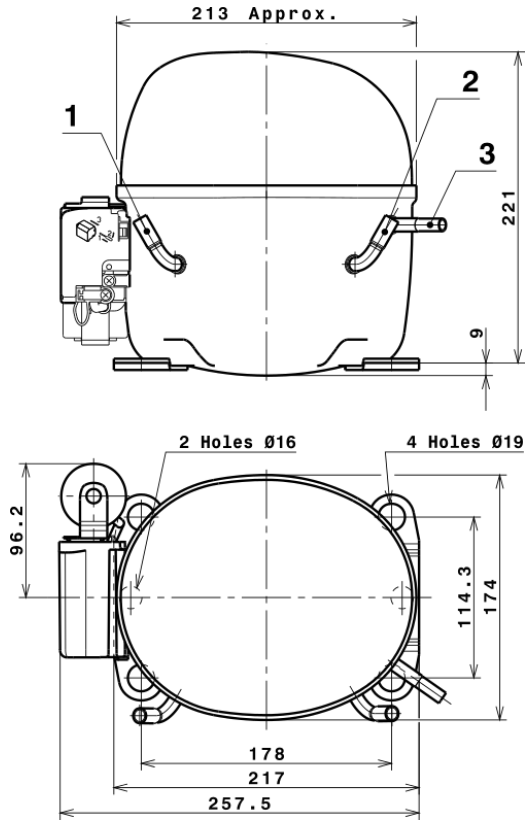
X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2,585,8644075133	415,6298711277	3,5185455964	44,11338777195
2	87,5538421564	1,1045931484	0,0020802748	1,64700878339
3	-24,5910124737	6,4265576597	0,0264046219	-0,21053421219772
4	0,6329074718	0,0122324329	0,0004192823	0,018344468723747
5	-0,6357346088	0,2570623064	0,0010561849	-0,0037922690674376

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

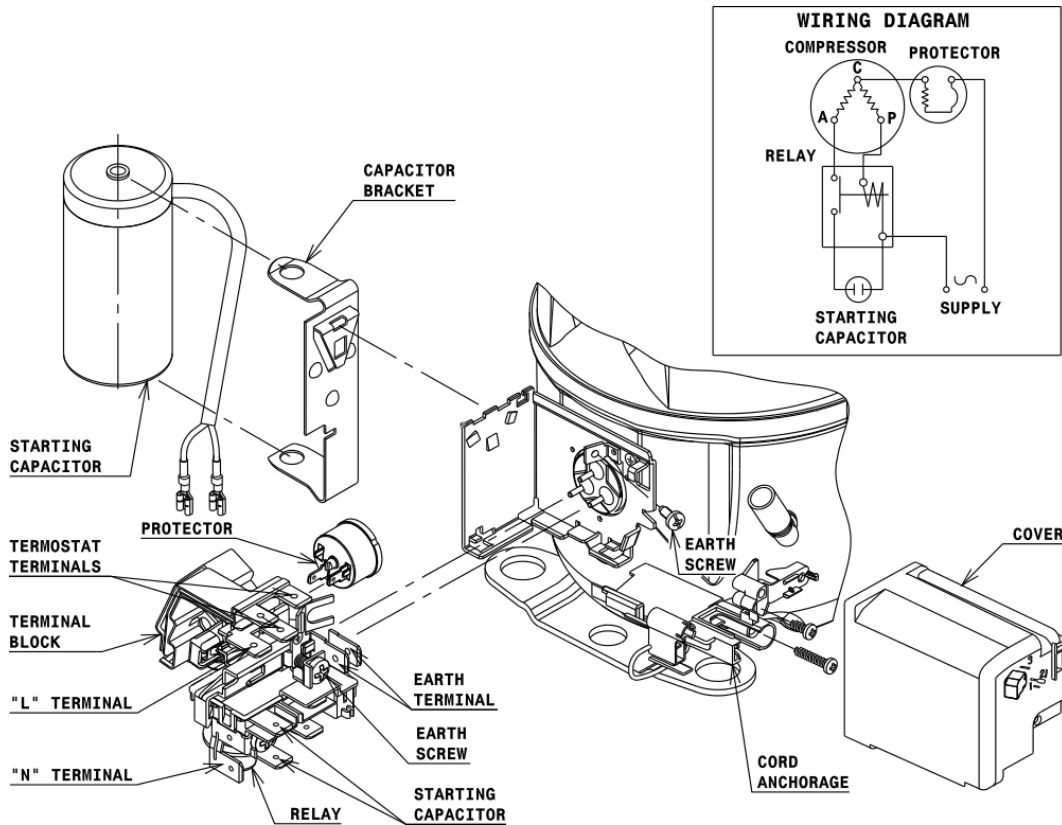


## DESIGNATION INTERNAL DIAM.

DESIGNATION	INTERNAL DIAM.
1 Service	9,7 mm
2 Suction	9,7 mm
3 Discharge	6,5 mm

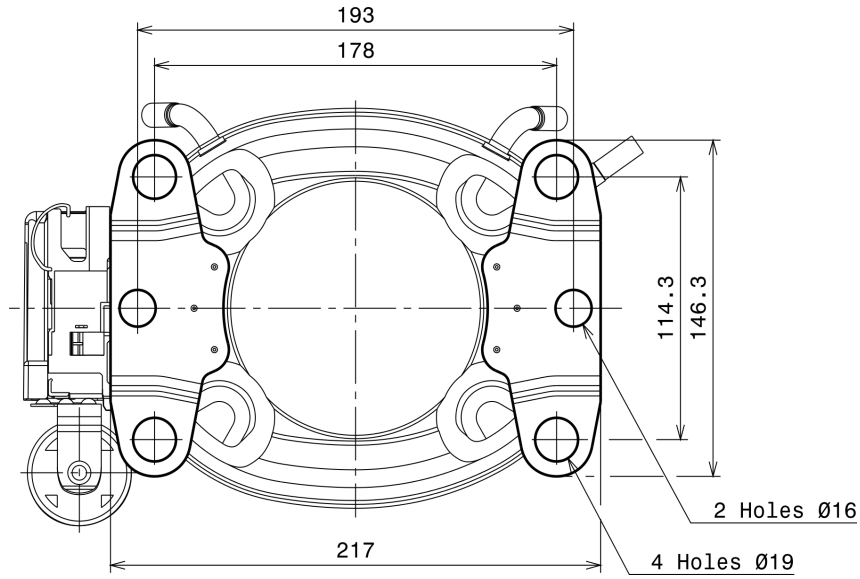
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (X range)



# Technical Data Sheet

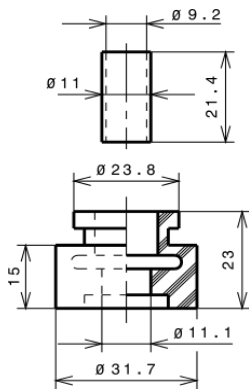
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

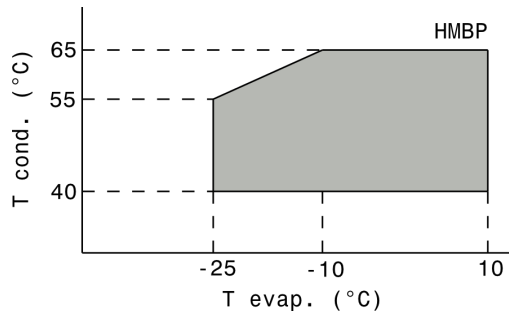
### STANDARD

Ø19 holes (178x114.3 net)



## SOA

SOA R134a HMBP



# Technical Data Sheet

Compressor model **GX23TB**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	23,20 cm <sup>3</sup>	Nominal Power	5/8 hp
Refrigerant	R134a	Diameter	34,93 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	24,20 mm	Voltage range	187-255 V
Expansion	Capillar/Valve	Net Weight	16,33 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	500 cm <sup>3</sup>	Locked Rotor Amps (LRA)	29,00 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	8,50 A
				Main W. resist. at 25°C	2,70 Ω
				Start W. resist. at 25°C	15,50 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.780 kCal/h	1.729 W
COP	2,18 W/W	1,88 W/W
EER	1,87 kCal/Wh	1,63 kCal/Wh
Input Power	950 W	919 W
Current	5,80 A	5,67 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	72- 88 μF 330 V		
Relay	Option 1		
Reference	2014 180.		
Pick-Up	16,70 A		
Drop-Out	14,00 A		
Protector	Option 1	Option 2	
Reference	MRA38152	T0260	
Current	27,50 A	22,00 A	
Time check	2,8-5,2 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 52,00 °C	105,00 / 52,00 °C	

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	470	440	3,90	1,24	1,07
40	-20	636	493	4,08	1,50	1,29
40	-15	836	548	4,27	1,77	1,52
40	-10	1.071	605	4,46	2,06	1,77
40	-5	1.340	663	4,67	2,35	2,02
40	0	1.643	722	4,89	2,65	2,28
40	5	1.981	783	5,13	2,94	2,53
40	7,2	2.140	810	5,23	3,07	2,64
40	10	2.352	845	5,37	3,24	2,78

45	-25	429	440	3,90	1,13	0,98
45	-20	583	501	4,10	1,35	1,16
45	-15	771	563	4,32	1,59	1,37
45	-10	993	627	4,54	1,84	1,59
45	-5	1.250	692	4,78	2,10	1,81
45	0	1.541	758	5,03	2,36	2,03
45	5	1.866	826	5,30	2,63	2,26
45	7,2	2.020	857	5,42	2,74	2,36
45	10	2.226	896	5,58	2,89	2,48

50	-25	389	440	3,90	1,03	0,88
50	-20	530	508	4,13	1,21	1,04
50	-15	706	577	4,37	1,42	1,22
50	-10	916	648	4,62	1,64	1,41
50	-5	1.160	721	4,89	1,87	1,61
50	0	1.439	794	5,17	2,11	1,81
50	5	1.751	870	5,47	2,34	2,01
50	7,2	1.900	903	5,61	2,45	2,10
50	10	2.099	947	5,79	2,58	2,22

55	-25	348	440	3,90	0,92	0,79
55	-20	477	515	4,15	1,08	0,93
55	-15	640	592	4,42	1,26	1,08
55	-10	838	670	4,70	1,45	1,25
55	-5	1.070	750	5,00	1,66	1,43
55	0	1.336	831	5,31	1,87	1,61
55	5	1.637	913	5,65	2,08	1,79
55	7,2	1.780	950	5,80	2,18	1,87
55	10	1.972	997	6,00	2,30	1,98

60	-25	307	440	3,90	0,81	0,70
60	-20	424	522	4,18	0,94	0,81
60	-15	575	606	4,47	1,10	0,95
60	-10	760	692	4,78	1,28	1,10
60	-5	980	779	5,11	1,46	1,26
60	0	1.234	867	5,46	1,66	1,42
60	5	1.522	957	5,83	1,85	1,59
60	7,2	1.660	997	6,00	1,94	1,67
60	10	1.845	1.048	6,22	2,05	1,76

65	-25	267	440	3,90	0,70	0,61
65	-20	371	530	4,20	0,81	0,70
65	-15	510	621	4,52	0,95	0,82
65	-10	683	713	4,86	1,11	0,96
65	-5	890	808	5,22	1,28	1,10
65	0	1.132	903	5,61	1,46	1,25
65	5	1.408	1.000	6,01	1,64	1,41
65	7,2	1.540	1.043	6,20	1,72	1,48
65	10	1.718	1.099	6,44	1,82	1,56

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	506	442	3,91	1,14	0,99
40	-20	687	496	4,09	1,39	1,20
40	-15	904	551	4,28	1,64	1,42
40	-10	1.157	608	4,48	1,90	1,64
40	-5	1.446	666	4,69	2,17	1,87
40	0	1.771	726	4,91	2,44	2,11
40	5	2.133	788	5,15	2,71	2,34
40	7,2	2.303	815	5,25	2,83	2,44
40	10	2.530	851	5,39	2,97	2,57

45	-25	460	442	3,91	1,04	0,90
45	-20	626	503	4,11	1,24	1,08
45	-15	829	566	4,33	1,46	1,26
45	-10	1.067	630	4,55	1,69	1,46
45	-5	1.341	696	4,79	1,93	1,67
45	0	1.652	763	5,05	2,17	1,87
45	5	1.998	831	5,32	2,40	2,08
45	7,2	2.162	862	5,44	2,51	2,17
45	10	2.381	902	5,60	2,64	2,28

50	-25	414	442	3,91	0,94	0,81
50	-20	566	511	4,14	1,11	0,96
50	-15	753	581	4,38	1,30	1,12
50	-10	976	652	4,63	1,50	1,29
50	-5	1.236	725	4,90	1,71	1,47
50	0	1.532	799	5,19	1,92	1,66
50	5	1.864	875	5,49	2,13	1,84
50	7,2	2.021	909	5,63	2,22	1,92
50	10	2.231	953	5,81	2,34	2,02

55	-25	368	442	3,91	0,83	0,72
55	-20	505	518	4,16	0,97	0,84
55	-15	677	595	4,43	1,14	0,98
55	-10	886	674	4,71	1,32	1,14
55	-5	1.131	754	5,02	1,50	1,30
55	0	1.412	836	5,33	1,69	1,46
55	5	1.729	919	5,67	1,88	1,63
55	7,2	1.880	956	5,83	1,97	1,70
55	10	2.082	1.004	6,03	2,07	1,79

60	-25	322	442	3,91	0,73	0,63
60	-20	444	525	4,19	0,85	0,73
60	-15	602	610	4,48	0,99	0,85
60	-10	796	696	4,80	1,14	0,99
60	-5	1.026	783	5,13	1,31	1,13
60	0	1.292	872	5,48	1,48	1,28
60	5	1.595	963	5,85	1,66	1,43
60	7,2	1.739	1.003	6,02	1,73	1,50
60	10	1.933	1.055	6,25	1,83	1,58

65	-25	276	442	3,91	0,62	0,54
65	-20	383	533	4,21	0,72	0,62
65	-15	526	624	4,53	0,84	0,73
65	-10	706	718	4,88	0,98	0,85
65	-5	921	812	5,24	1,13	0,98
65	0	1.172	909	5,63	1,29	1,11
65	5	1.460	1.007	6,04	1,45	1,25
65	7,2	1.598	1.050	6,23	1,52	1,31
65	10	1.784	1.106	6,47	1,61	1,39

# Technical Data Sheet

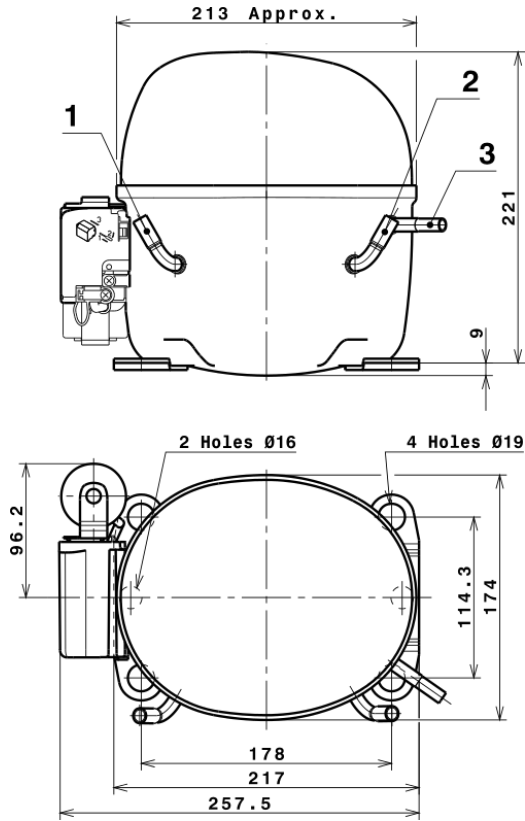
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.738,4634550676	445,2914692114	3,7306579321	45,860752315079
2	92,5369166424	0,6411023956	0,0010373492	1,7223260740785
3	-24,7434752896	7,4976506030	0,0307858985	-0,17314079725378
4	0,7096321571	0,0366708889	0,0003764945	0,020552546497028
5	-0,6187960593	0,2999060241	0,0012314359	-0,0022156660758304

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

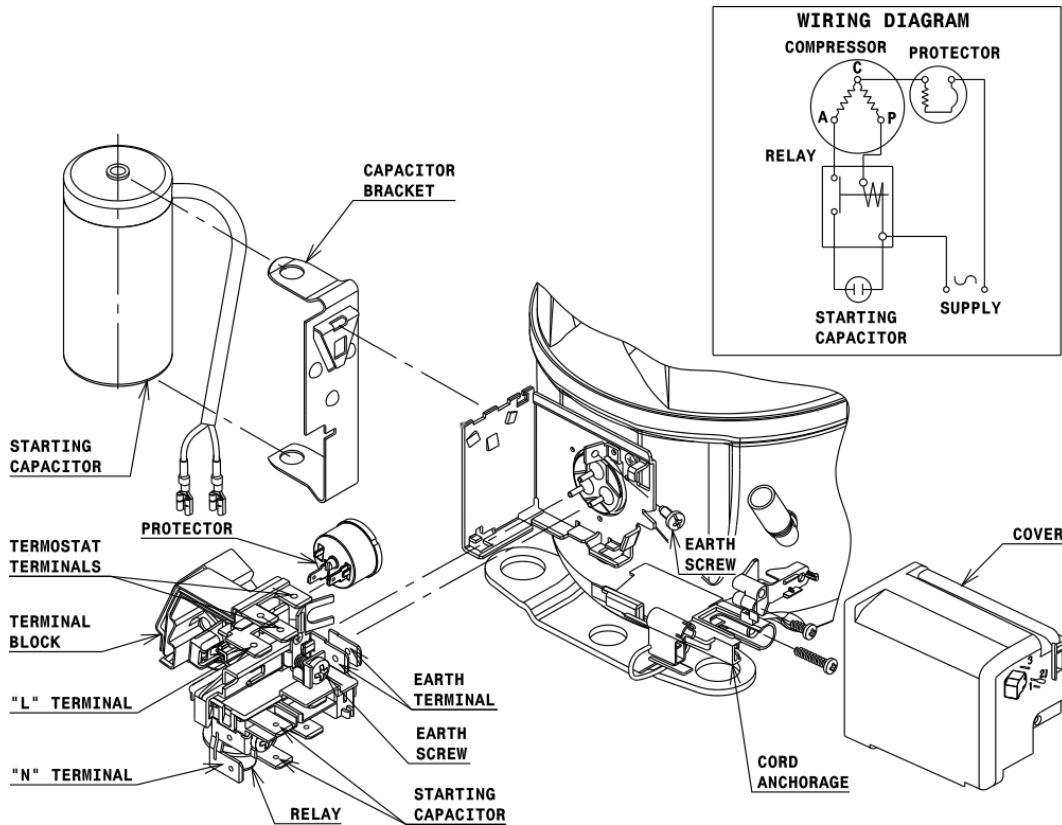


## DESIGNATION INTERNAL DIAM.

DESIGNATION	INTERNAL DIAM.
1 Service	9,7 mm
2 Suction	9,7 mm
3 Discharge	6,5 mm

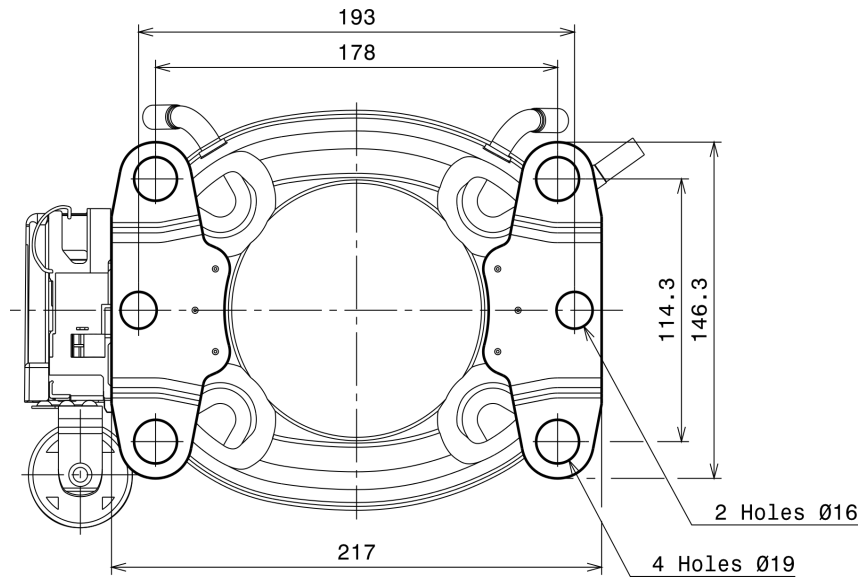
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (X range)



# Technical Data Sheet

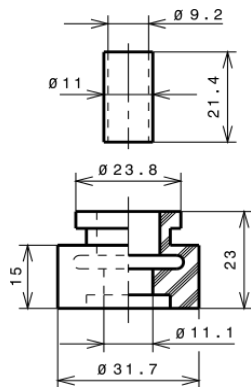
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

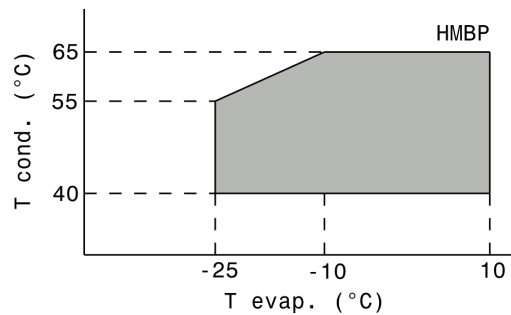
### STANDARD

Ø19 holes (178x114.3 net)



## SOA

SOA R134a HMBP



# Technical Data Sheet

Compressor model **GS26TB\_V**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	25,93 cm <sup>3</sup>	Nominal Power	3/4 hp
Refrigerant	R134a	Diameter	39,98 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	20,65 mm	Voltage range	187-255 V
Expansion	Capillar/Valve	Net Weight	22,70 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	887 cm <sup>3</sup>	Locked Rotor Amps (LRA)	32,00 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	8,70 A
				Main W. resist. at 25°C	2,39 Ω
				Start W. resist. at 25°C	16,00 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	2.140 kCal/h	2.070 W
COP	2,42 W/W	2,08 W/W
EER	2,08 kCal/Wh	1,80 kCal/Wh
Input Power	1.030 W	996 W
Current	6,30 A	6,15 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	88-108 µF 330 V		
Relay	Option 1	Option 2	
Reference	3ARR3 3AV3	RVA 2L..	
Pick-Up	224-252 V	224-252 V	
Drop-Out	40-90 V	40-105 V	
Protector	Option 1	Option 2	
Reference	MRA38152	T0260	
Current	27,50 A	22,00 A	
Time check	2,8-5,2 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 52,00 °C	105,00 / 52,00 °C	



# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	450	420	4,17	1,25	1,07
40	-20	694	493	4,36	1,64	1,41
40	-15	976	564	4,57	2,01	1,73
40	-10	1.298	632	4,78	2,39	2,05
40	-5	1.658	698	4,99	2,76	2,37
40	0	2.057	762	5,22	3,14	2,70
40	5	2.495	824	5,45	3,52	3,03
40	7,2	2.700	850	5,55	3,69	3,18
40	10	2.972	883	5,68	3,91	3,37

45	-25	383	410	4,15	1,09	0,93
45	-20	608	494	4,37	1,43	1,23
45	-15	872	575	4,60	1,76	1,52
45	-10	1.175	655	4,85	2,09	1,79
45	-5	1.517	732	5,11	2,41	2,07
45	0	1.897	806	5,38	2,74	2,35
45	5	2.317	879	5,66	3,07	2,64
45	7,2	2.513	910	5,79	3,21	2,76
45	10	2.775	949	5,95	3,40	2,92

50	-25	317	400	4,12	0,92	0,79
50	-20	523	495	4,37	1,23	1,06
50	-15	768	587	4,64	1,52	1,31
50	-10	1.053	677	4,92	1,81	1,55
50	-5	1.376	765	5,23	2,09	1,80
50	0	1.737	851	5,55	2,37	2,04
50	5	2.138	934	5,89	2,66	2,29
50	7,2	2.327	970	6,04	2,79	2,40
50	10	2.578	1.015	6,23	2,95	2,54

55	-25	250	390	4,10	0,75	0,64
55	-20	438	496	4,37	1,03	0,88
55	-15	664	599	4,67	1,29	1,11
55	-10	930	700	5,00	1,55	1,33
55	-5	1.234	799	5,35	1,80	1,55
55	0	1.578	895	5,73	2,05	1,76
55	5	1.960	989	6,12	2,30	1,98
55	7,2	2.140	1.030	6,30	2,42	2,08
55	10	2.380	1.081	6,53	2,56	2,20

60	-25	183	380	4,08	0,56	0,48
60	-20	353	497	4,37	0,83	0,71
60	-15	561	611	4,71	1,07	0,92
60	-10	807	723	5,08	1,30	1,12
60	-5	1.093	832	5,48	1,53	1,31
60	0	1.418	940	5,91	1,76	1,51
60	5	1.781	1.045	6,37	1,98	1,71
60	7,2	1.953	1.090	6,57	2,08	1,79
60	10	2.183	1.147	6,85	2,21	1,90

65	-25	117	370	4,05	0,37	0,32
65	-20	267	497	4,38	0,62	0,54
65	-15	457	622	4,75	0,85	0,73
65	-10	685	745	5,16	1,07	0,92
65	-5	952	866	5,61	1,28	1,10
65	0	1.258	984	6,10	1,49	1,28
65	5	1.603	1.100	6,62	1,69	1,46
65	7,2	1.767	1.150	6,86	1,79	1,54
65	10	1.986	1.213	7,17	1,90	1,64

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	485	422	4,18	1,15	0,99
40	-20	750	496	4,37	1,51	1,31
40	-15	1.055	567	4,58	1,86	1,61
40	-10	1.402	636	4,79	2,21	1,91
40	-5	1.789	702	5,01	2,55	2,20
40	0	2.217	767	5,23	2,89	2,50
40	5	2.686	829	5,47	3,24	2,80
40	7,2	2.906	855	5,57	3,40	2,93
40	10	3.196	889	5,70	3,60	3,11

45	-25	411	412	4,15	1,00	0,86
45	-20	654	497	4,37	1,32	1,14
45	-15	938	579	4,61	1,62	1,40
45	-10	1.262	658	4,86	1,92	1,66
45	-5	1.628	736	5,12	2,21	1,91
45	0	2.034	811	5,40	2,51	2,17
45	5	2.481	884	5,68	2,81	2,42
45	7,2	2.690	916	5,81	2,94	2,54
45	10	2.969	955	5,97	3,11	2,69

50	-25	338	402	4,13	0,84	0,73
50	-20	559	497	4,38	1,12	0,97
50	-15	820	590	4,65	1,39	1,20
50	-10	1.123	681	4,94	1,65	1,42
50	-5	1.466	770	5,25	1,90	1,65
50	0	1.850	856	5,57	2,16	1,87
50	5	2.275	940	5,91	2,42	2,09
50	7,2	2.475	976	6,06	2,54	2,19
50	10	2.741	1.022	6,26	2,68	2,32

55	-25	265	392	4,10	0,67	0,58
55	-20	463	498	4,38	0,93	0,80
55	-15	703	602	4,68	1,17	1,01
55	-10	984	704	5,01	1,40	1,21
55	-5	1.305	803	5,37	1,62	1,40
55	0	1.667	901	5,75	1,85	1,60
55	5	2.070	996	6,15	2,08	1,80
55	7,2	2.260	1.037	6,33	2,18	1,88
55	10	2.514	1.088	6,57	2,31	2,00

60	-25	191	382	4,08	0,50	0,43
60	-20	368	499	4,38	0,74	0,64
60	-15	586	614	4,72	0,95	0,82
60	-10	844	727	5,09	1,16	1,00
60	-5	1.143	837	5,50	1,37	1,18
60	0	1.484	945	5,93	1,57	1,36
60	5	1.864	1.051	6,40	1,77	1,53
60	7,2	2.045	1.097	6,61	1,86	1,61
60	10	2.286	1.155	6,88	1,98	1,71

65	-25	118	372	4,06	0,32	0,27
65	-20	273	500	4,38	0,55	0,47
65	-15	468	626	4,76	0,75	0,65
65	-10	705	749	5,17	0,94	0,81
65	-5	982	871	5,63	1,13	0,97
65	0	1.300	990	6,12	1,31	1,13
65	5	1.659	1.107	6,65	1,50	1,30
65	7,2	1.830	1.157	6,90	1,58	1,37
65	10	2.059	1.221	7,22	1,69	1,46

# Technical Data Sheet

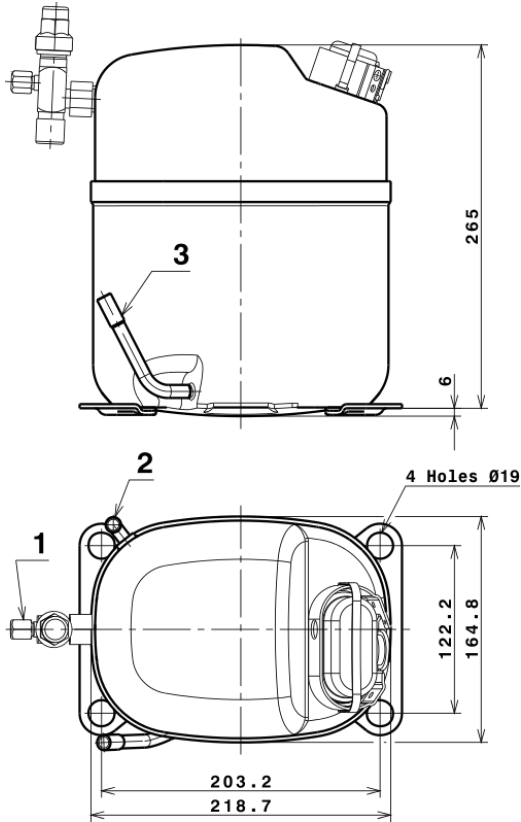
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	3.689,4992082471	419,3261486330	3,6296917659	64,554665826614
2	125,2607329633	-4,7808665620	-0,0172968695	2,3376524802341
3	-37,5120222629	9,1802488065	0,0401909617	-0,39363844196139
4	0,8034659841	-0,0400052005	0,0005521004	0,023544868927309
5	-0,9167762306	0,4494250822	0,0018120429	-0,0053891711914171

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

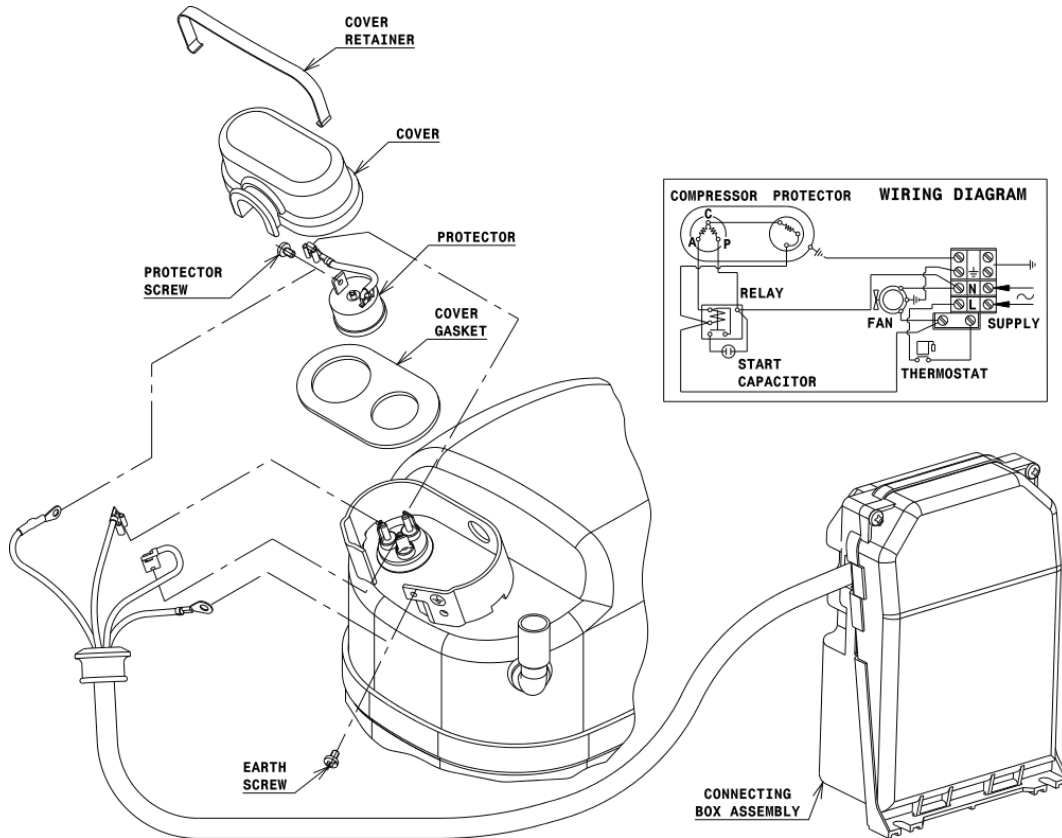


## DESIGNATION INTERNAL DIAM.

1	Service Valve	5/8" SAE
2	Service	9,7 mm
3	Discharge	8,0 mm

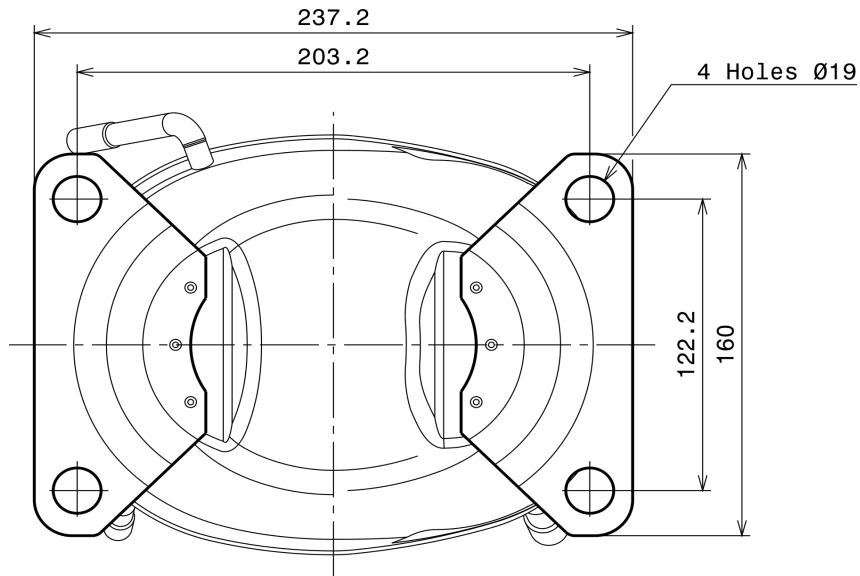
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (EXTERNAL CONNECTING BOX) (S range)



# Technical Data Sheet

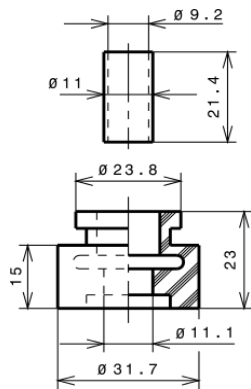
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

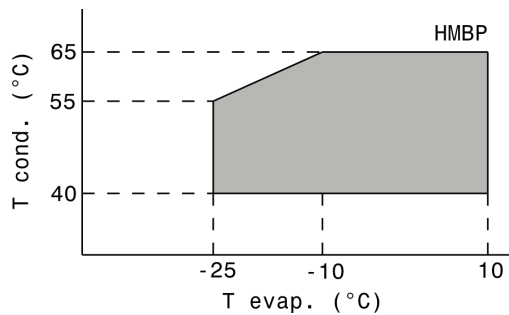
### STANDARD

Ø19 holes (203.2x122.2 net)



## SOA

SOA R134a HMBP



# Technical Data Sheet

Compressor model **GS30TB\_V**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	29,95 cm <sup>3</sup>	Nominal Power	7/8 hp
Refrigerant	R134a	Diameter	39,98 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	23,85 mm	Voltage range	198-264 V
Expansion	Capillar/Valve	Net Weight	22,70 Kg	Type	CSR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	887 cm <sup>3</sup>	Locked Rotor Amps (LRA)	29,00 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	8,80 A
				Main W. resist. at 25°C	2,04 Ω
				Start W. resist. at 25°C	8,06 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	2.550 kCal/h	2.451 W
COP	2,70 W/W	2,31 W/W
EER	2,32 kCal/Wh	2,00 kCal/Wh
Input Power	1.100 W	1.061 W
Current	5,50 A	5,33 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	72- 88 μF 330 V		
Run capacitor	16 μF 420 V		
Relay	Option 1	Option 2	
Reference	3ARR3 3AV3	RVA 2L..	
Pick-Up	224-252 V	224-252 V	
Drop-Out	40-90 V	40-105 V	
Protector	Option 1	Option 2	
Reference	MRA38088	T0419	
Current	22,00 A	22,00 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 57,00 °C	105,00 / 61,00 °C	

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	500	440	2,66	1,32	1,14
40	-20	707	518	2,99	1,59	1,37
40	-15	972	593	3,31	1,91	1,64
40	-10	1.295	665	3,62	2,27	1,95
40	-5	1.675	734	3,92	2,65	2,28
40	0	2.113	800	4,20	3,07	2,64
40	5	2.609	864	4,48	3,51	3,02
40	7,2	2.846	891	4,59	3,71	3,19
40	10	3.163	925	4,74	3,98	3,42

45	-25	433	420	2,57	1,20	1,03
45	-20	635	512	2,96	1,44	1,24
45	-15	895	600	3,34	1,73	1,49
45	-10	1.213	686	3,71	2,06	1,77
45	-5	1.589	770	4,07	2,40	2,06
45	0	2.022	850	4,42	2,77	2,38
45	5	2.513	927	4,75	3,15	2,71
45	7,2	2.747	961	4,90	3,33	2,86
45	10	3.062	1.002	5,08	3,55	3,06

50	-25	367	400	2,49	1,07	0,92
50	-20	564	506	2,94	1,30	1,12
50	-15	819	608	3,38	1,57	1,35
50	-10	1.132	708	3,81	1,86	1,60
50	-5	1.502	805	4,22	2,17	1,87
50	0	1.930	900	4,63	2,50	2,15
50	5	2.416	991	5,03	2,84	2,44
50	7,2	2.649	1.030	5,20	2,99	2,57
50	10	2.960	1.080	5,41	3,19	2,74

55	-25	300	380	2,40	0,92	0,79
55	-20	492	499	2,91	1,15	0,99
55	-15	742	616	3,41	1,40	1,20
55	-10	1.050	730	3,90	1,67	1,44
55	-5	1.416	841	4,38	1,96	1,68
55	0	1.839	949	4,85	2,25	1,94
55	5	2.320	1.055	5,30	2,56	2,20
55	7,2	2.550	1.100	5,50	2,70	2,32
55	10	2.859	1.157	5,75	2,87	2,47

60	-25	233	360	2,31	0,75	0,65
60	-20	421	493	2,88	0,99	0,85
60	-15	666	624	3,44	1,24	1,07
60	-10	968	752	3,99	1,50	1,29
60	-5	1.329	877	4,53	1,76	1,52
60	0	1.747	999	5,06	2,03	1,75
60	5	2.224	1.118	5,58	2,31	1,99
60	7,2	2.451	1.170	5,80	2,44	2,10
60	10	2.757	1.235	6,09	2,60	2,23

65	-25	167	340	2,23	0,57	0,49
65	-20	349	487	2,86	0,83	0,72
65	-15	589	632	3,48	1,08	0,93
65	-10	887	774	4,09	1,33	1,15
65	-5	1.242	912	4,69	1,58	1,36
65	0	1.656	1.048	5,28	1,84	1,58
65	5	2.127	1.182	5,85	2,09	1,80
65	7,2	2.353	1.239	6,11	2,21	1,90
65	10	2.656	1.312	6,42	2,35	2,02

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	539	442	2,67	1,22	1,05
40	-20	765	520	3,00	1,47	1,27
40	-15	1.053	596	3,32	1,77	1,53
40	-10	1.401	668	3,63	2,10	1,81
40	-5	1.810	738	3,94	2,45	2,12
40	0	2.279	805	4,22	2,83	2,45
40	5	2.810	869	4,50	3,23	2,79
40	7,2	3.063	897	4,62	3,42	2,95
40	10	3.401	931	4,77	3,65	3,16

45	-25	465	422	2,58	1,10	0,95
45	-20	684	514	2,97	1,33	1,15
45	-15	963	604	3,36	1,60	1,38
45	-10	1.304	690	3,73	1,89	1,63
45	-5	1.705	774	4,09	2,20	1,90
45	0	2.167	855	4,44	2,53	2,19
45	5	2.690	933	4,78	2,88	2,49
45	7,2	2.940	967	4,92	3,04	2,63
45	10	3.274	1.009	5,10	3,25	2,80

50	-25	391	402	2,49	0,97	0,84
50	-20	602	508	2,95	1,19	1,02
50	-15	874	612	3,39	1,43	1,24
50	-10	1.207	712	3,82	1,70	1,46
50	-5	1.601	810	4,24	1,98	1,71
50	0	2.055	905	4,66	2,27	1,96
50	5	2.570	997	5,05	2,58	2,23
50	7,2	2.816	1.037	5,23	2,72	2,35
50	10	3.146	1.087	5,44	2,90	2,50

55	-25	317	382	2,41	0,83	0,72
55	-20	521	502	2,92	1,04	0,90
55	-15	785	620	3,43	1,27	1,10
55	-10	1.110	734	3,92	1,51	1,31
55	-5	1.496	846	4,40	1,77	1,53
55	0	1.943	955	4,87	2,03	1,76
55	5	2.451	1.061	5,33	2,31	2,00
55	7,2	2.693	1.107	5,53	2,43	2,10
55	10	3.019	1.165	5,78	2,59	2,24

60	-25	244	362	2,32	0,67	0,58
60	-20	440	496	2,90	0,89	0,77
60	-15	696	627	3,46	1,11	0,96
60	-10	1.014	756	4,01	1,34	1,16
60	-5	1.392	882	4,55	1,58	1,36
60	0	1.831	1.005	5,09	1,82	1,57
60	5	2.331	1.125	5,61	2,07	1,79
60	7,2	2.570	1.177	5,84	2,18	1,89
60	10	2.891	1.243	6,12	2,33	2,01

65	-25	170	342	2,24	0,50	0,43
65	-20	358	490	2,87	0,73	0,63
65	-15	607	635	3,49	0,96	0,83
65	-10	917	778	4,11	1,18	1,02
65	-5	1.287	918	4,71	1,40	1,21
65	0	1.719	1.055	5,30	1,63	1,41
65	5	2.211	1.189	5,89	1,86	1,61
65	7,2	2.447	1.247	6,14	1,96	1,69
65	10	2.764	1.321	6,46	2,09	1,81

# Technical Data Sheet

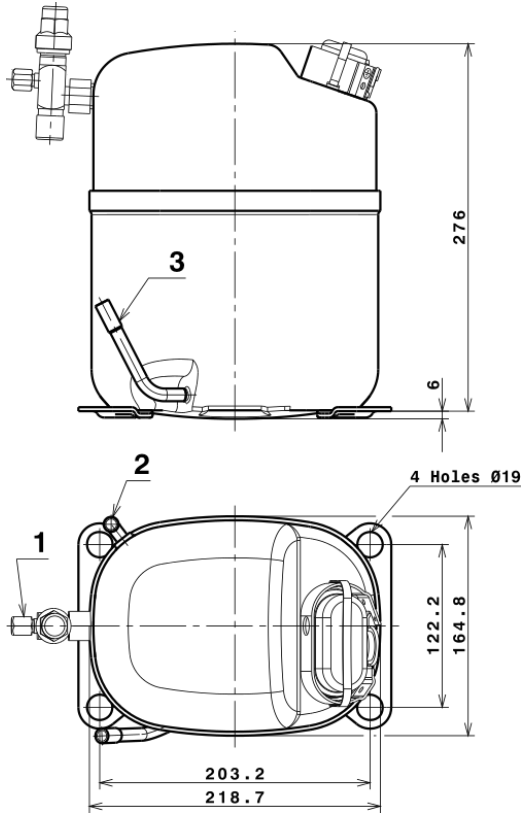
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	3.198,0520394846	414,9630903990	2,5255756081	49,526747244029
2	113,1025055227	-9,3223732118	-0,0400893214	1,9726890669265
3	-23,6776942147	10,2737458912	0,0446137484	0,0091848790853878
4	1,1942435141	-0,0502543134	-0,0001874931	0,034195018460462
5	-0,3595966868	0,5753800956	0,0024868942	0,010312657368415

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

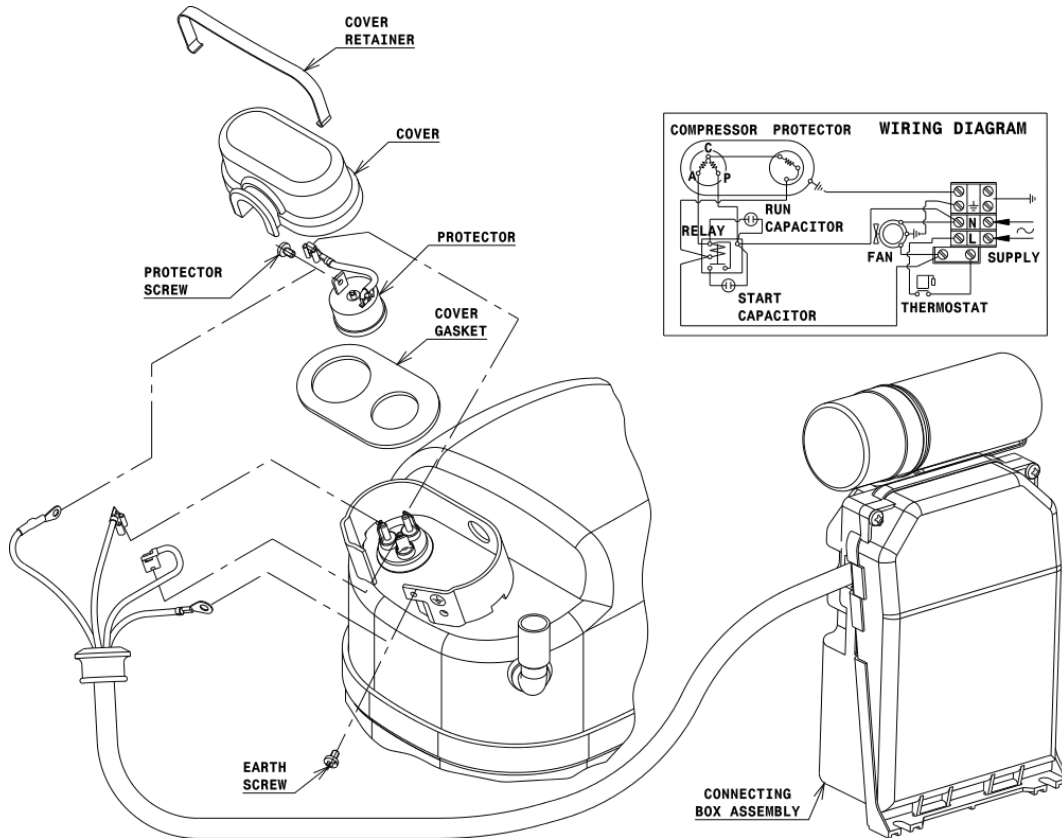


## DESIGNATION INTERNAL DIAM.

DESIGNATION	INTERNAL DIAM.
1 Service Valve	5/8" SAE
2 Service	9,7 mm
3 Discharge	8,0 mm

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

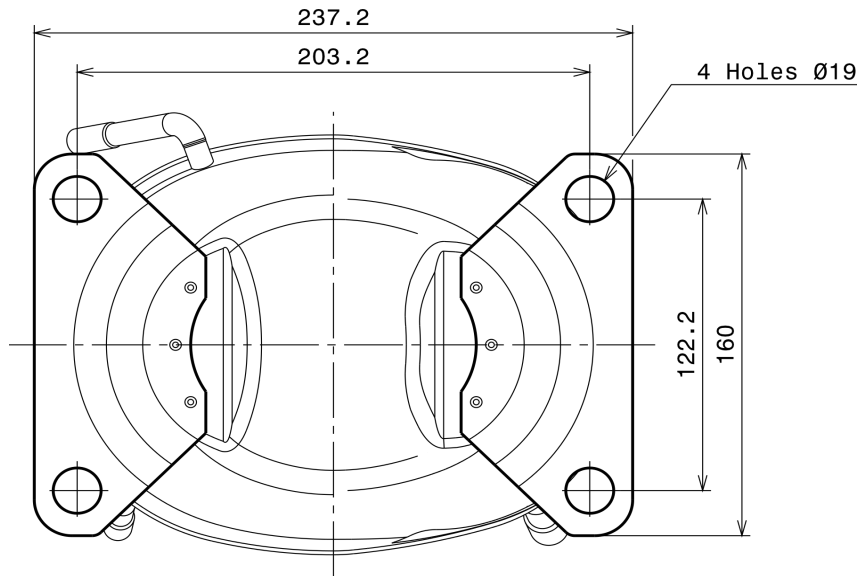
### CSR CONNECTION (EXTERNAL CONNECTING BOX) (S range)





# Technical Data Sheet

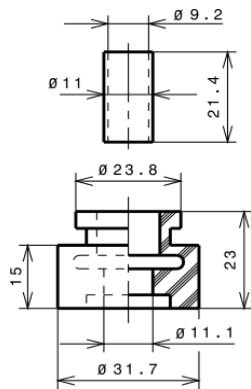
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

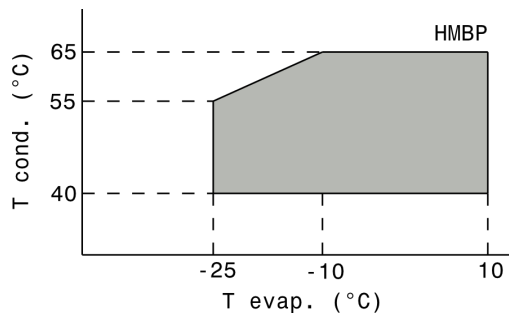
### STANDARD

Ø19 holes (203.2x122.2 net)



## SOA

SOA R134a HMBP



# Technical Data Sheet

Compressor model **GS34TB\_V**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	34,42 cm <sup>3</sup>	Nominal Power	1 hp
Refrigerant	R134a	Diameter	42,86 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	23,85 mm	Voltage range	198-255 V
Expansion	Capillar/Valve	Net Weight	21,37 Kg	Type	CSR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	887 cm <sup>3</sup>	Locked Rotor Amps (LRA)	37,00 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	9,60 A
				Main W. resist. at 25°C	2,24 Ω
				Start W. resist. at 25°C	7,38 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	2.930 kCal/h	2.850 W
COP	2,62 W/W	2,26 W/W
EER	2,25 kCal/Wh	1,95 kCal/Wh
Input Power	1.300 W	1.260 W
Current	6,60 A	6,44 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	108-130 μF 330 V		
Run capacitor	16 μF 420 V		
Relay	Option 1	Option 2	
Reference	3ARR3 3AV3	RVA 2L..	
Pick-Up	224-252 V	224-252 V	
Drop-Out	40-90 V	40-105 V	
Protector	Option 1	Option 2	Option 3
Reference	MRT18AJN	T0161	T0452
Current	20,20 A	26,50 A	21,00 A
Time check	8,5-13 seg	2,8-5,2 seg	7,5-14 seg
Disc temp. (Open/Close)	120,00 / 69,00 °C	120,00 / 69,00 °C	95,00 / 57,00 °C

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	750	560	3,38	1,56	1,34
40	-20	1.079	658	3,82	1,91	1,64
40	-15	1.455	751	4,24	2,25	1,94
40	-10	1.879	839	4,63	2,61	2,24
40	-5	2.350	921	4,99	2,97	2,55
40	0	2.869	998	5,33	3,34	2,87
40	5	3.436	1.070	5,64	3,73	3,21
40	7,2	3.700	1.100	5,76	3,91	3,36
40	10	4.050	1.137	5,92	4,14	3,56

45	-25	650	540	3,28	1,40	1,20
45	-20	954	652	3,79	1,70	1,46
45	-15	1.306	758	4,27	2,00	1,72
45	-10	1.706	859	4,72	2,31	1,99
45	-5	2.153	955	5,14	2,62	2,25
45	0	2.648	1.046	5,53	2,95	2,53
45	5	3.190	1.131	5,89	3,28	2,82
45	7,2	3.443	1.167	6,04	3,43	2,95
45	10	3.779	1.211	6,23	3,63	3,12

50	-25	550	520	3,19	1,23	1,06
50	-20	830	645	3,76	1,50	1,29
50	-15	1.158	765	4,30	1,76	1,51
50	-10	1.533	880	4,81	2,03	1,74
50	-5	1.956	989	5,29	2,30	1,98
50	0	2.426	1.093	5,73	2,58	2,22
50	5	2.944	1.192	6,15	2,87	2,47
50	7,2	3.187	1.233	6,32	3,01	2,58
50	10	3.509	1.285	6,54	3,18	2,73

55	-25	450	500	3,10	1,05	0,90
55	-20	706	639	3,74	1,29	1,11
55	-15	1.009	772	4,33	1,52	1,31
55	-10	1.360	900	4,90	1,76	1,51
55	-5	1.758	1.023	5,43	2,00	1,72
55	0	2.204	1.140	5,93	2,25	1,93
55	5	2.698	1.252	6,40	2,51	2,15
55	7,2	2.930	1.300	6,60	2,62	2,25
55	10	3.239	1.359	6,84	2,77	2,38

60	-25	350	480	3,01	0,85	0,73
60	-20	581	632	3,71	1,07	0,92
60	-15	860	779	4,37	1,28	1,10
60	-10	1.187	920	4,99	1,50	1,29
60	-5	1.561	1.057	5,58	1,72	1,48
60	0	1.983	1.187	6,13	1,94	1,67
60	5	2.452	1.313	6,65	2,17	1,87
60	7,2	2.673	1.367	6,87	2,28	1,96
60	10	2.969	1.433	7,14	2,41	2,07

65	-25	250	460	2,91	0,63	0,54
65	-20	457	626	3,68	0,85	0,73
65	-15	712	786	4,40	1,05	0,91
65	-10	1.014	941	5,08	1,25	1,08
65	-5	1.364	1.090	5,72	1,45	1,25
65	0	1.761	1.235	6,33	1,66	1,43
65	5	2.206	1.374	6,90	1,87	1,61
65	7,2	2.417	1.433	7,14	1,96	1,69
65	10	2.698	1.508	7,44	2,08	1,79

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	808	563	3,39	1,44	1,24
40	-20	1.165	662	3,84	1,76	1,52
40	-15	1.572	755	4,26	2,08	1,80
40	-10	2.029	844	4,65	2,41	2,08
40	-5	2.536	927	5,02	2,74	2,36
40	0	3.092	1.004	5,35	3,08	2,66
40	5	3.699	1.077	5,66	3,44	2,97
40	7,2	3.982	1.107	5,79	3,60	3,11
40	10	4.356	1.144	5,95	3,81	3,29

45	-25	697	543	3,30	1,28	1,11
45	-20	1.026	655	3,81	1,57	1,35
45	-15	1.404	762	4,29	1,84	1,59
45	-10	1.832	864	4,74	2,12	1,83
45	-5	2.310	961	5,16	2,40	2,08
45	0	2.838	1.052	5,56	2,70	2,33
45	5	3.416	1.138	5,92	3,00	2,59
45	7,2	3.686	1.174	6,08	3,14	2,71
45	10	4.044	1.219	6,26	3,32	2,87

50	-25	587	523	3,21	1,12	0,97
50	-20	886	649	3,78	1,37	1,18
50	-15	1.236	769	4,32	1,61	1,39
50	-10	1.635	885	4,83	1,85	1,60
50	-5	2.084	995	5,31	2,10	1,81
50	0	2.584	1.100	5,76	2,35	2,03
50	5	3.133	1.199	6,18	2,61	2,26
50	7,2	3.390	1.241	6,36	2,73	2,36
50	10	3.732	1.293	6,57	2,89	2,49

55	-25	476	503	3,11	0,95	0,82
55	-20	747	642	3,75	1,16	1,01
55	-15	1.068	776	4,35	1,38	1,19
55	-10	1.438	905	4,92	1,59	1,37
55	-5	1.859	1.029	5,46	1,81	1,56
55	0	2.329	1.147	5,96	2,03	1,75
55	5	2.850	1.260	6,44	2,26	1,95
55	7,2	3.095	1.308	6,63	2,37	2,04
55	10	3.420	1.368	6,88	2,50	2,16

60	-25	366	483	3,02	0,76	0,65
60	-20	608	635	3,72	0,96	0,83
60	-15	900	783	4,38	1,15	0,99
60	-10	1.241	926	5,01	1,34	1,16
60	-5	1.633	1.063	5,60	1,54	1,33
60	0	2.075	1.195	6,16	1,74	1,50
60	5	2.567	1.321	6,69	1,94	1,68
60	7,2	2.799	1.375	6,91	2,03	1,76
60	10	3.108	1.443	7,18	2,15	1,86

65	-25	255	462	2,93	0,55	0,48
65	-20	468	629	3,69	0,74	0,64
65	-15	732	790	4,42	0,93	0,80
65	-10	1.045	946	5,10	1,10	0,95
65	-5	1.408	1.097	5,75	1,28	1,11
65	0	1.821	1.242	6,36	1,47	1,27
65	5	2.284	1.383	6,94	1,65	1,43
65	7,2	2.503	1.443	7,18	1,74	1,50
65	10	2.796	1.518	7,48	1,84	1,59

# Technical Data Sheet

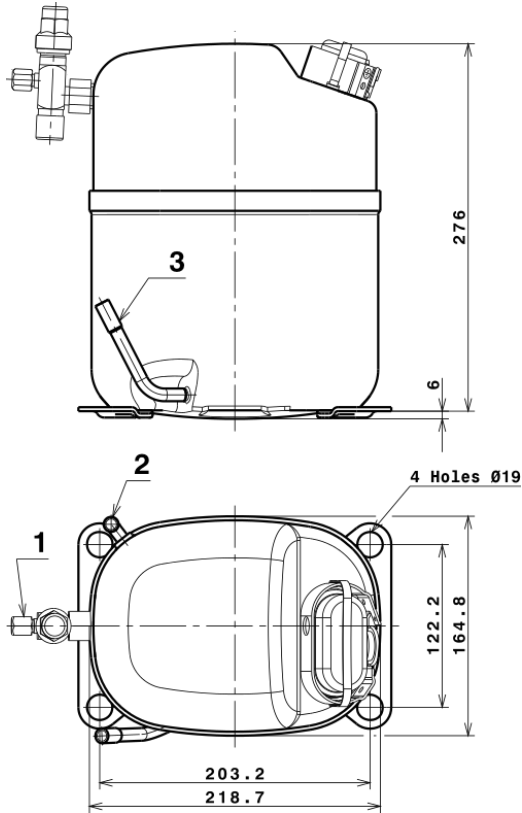
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	5.132,4154247227	638,6381803025	3,8723923551	90,030403206836
2	162,8733649526	-6,5480464528	-0,0293426309	3,034776802411
3	-51,9986378774	9,7917540667	0,0403479388	-0,54717645839035
4	0,9836097531	-0,0998450750	-0,0006442019	0,029137804026277
5	-1,1986788924	0,5561004226	0,0023698163	-0,006969165028115

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

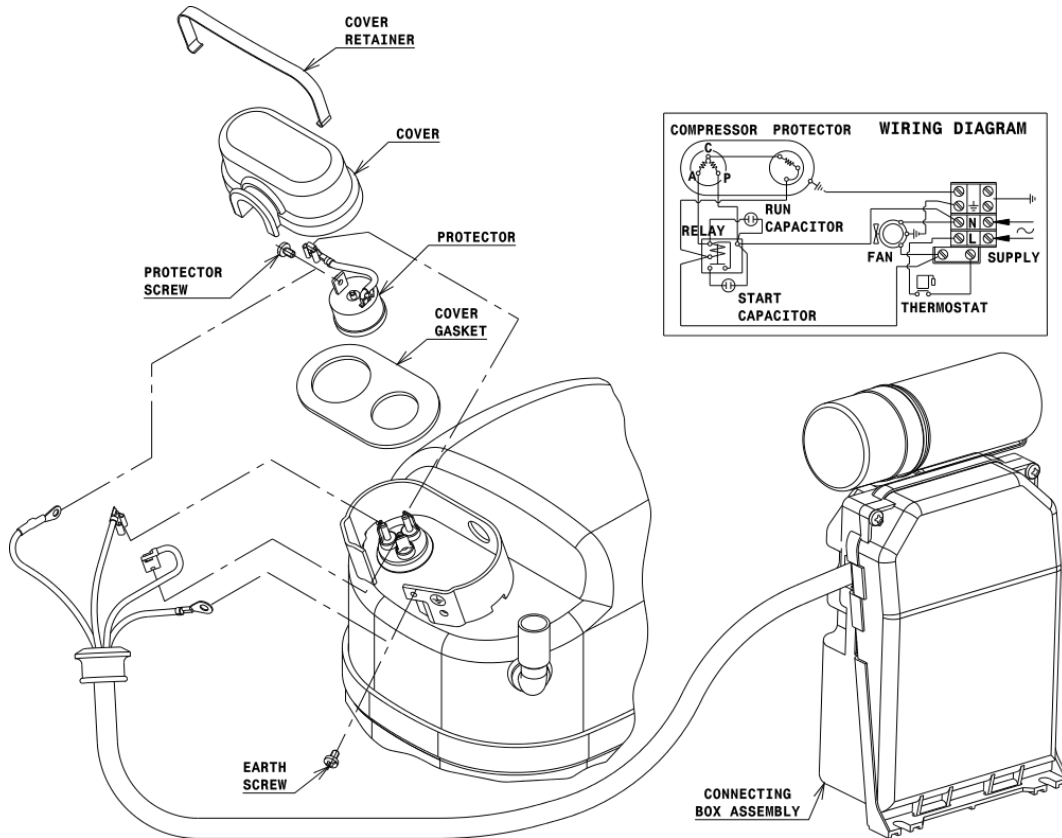


## DESIGNATION INTERNAL DIAM.

DESIGNATION	INTERNAL DIAM.
1 Service Valve	5/8" SAE
2 Service	9,7 mm
3 Discharge	8,0 mm

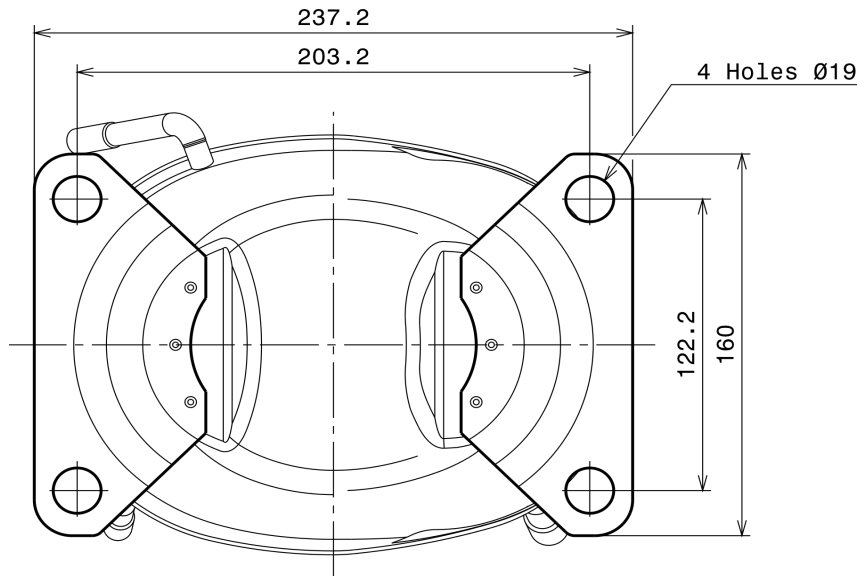
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSR CONNECTION (EXTERNAL CONNECTING BOX) (S range)



# Technical Data Sheet

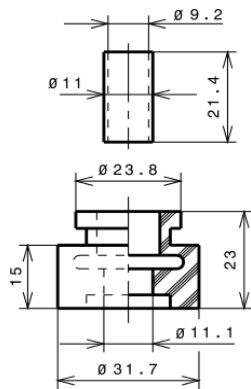
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

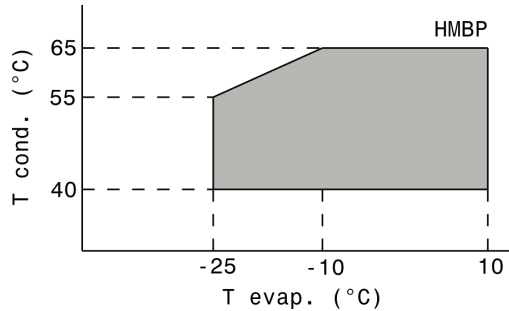
### STANDARD

Ø19 holes (203.2x122.2 net)



## SOA

SOA R134a HMBP



# Technical Data Sheet

Compressor model **ML45FB**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R404A**

## APPLICATION

Application Low Back Pressure  
Refrigerant R404A  
Evaporating Temp. -40,0 °C to -10,0 °C  
Expansion Capillar/Valve  
Comp. Cooling Fan cooled  
Max. ambient temp. 43,0 °C

## COMPRESSOR

Displacement 4,56 cm<sup>3</sup>  
Diameter 19,09 mm  
Stroke 15,93 mm  
Net Weight 8,57 Kg  
Oil type ISO VG 32 ESTER  
Oil charge 260 cm<sup>3</sup>

## MOTOR

Nominal Power 1/6 hp  
Voltage/Frequency 220-240V 50Hz  
Voltage range 187-264 V  
Type CSIR  
Phase number 1 PH  
Locked Rotor Amps (LRA) 8,50 A  
Max. Cont. Current (MCC) 2,20 A  
Main W. resist. at 25°C 16,00 Ω  
Start W. resist. at 25°C 36,00 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	170 kCal/h	133 W
COP	0,94 W/W	0,66 W/W
EER	0,81 kCal/Wh	0,57 kCal/Wh
Input Power	210 W	202 W
Current	1,40 A	1,38 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	47- 56 μF 330 V		
Relay	Option 1		
Reference	2014 118.		
Pick-Up	3.75 A		
Drop-Out	3.20 A		
Protector	Option 1	Option 2	
Reference	MRP61AMJ	T0073	
Current	6,90 A	6,20 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	90,00 / 57,00 °C	110,00 / 62,00 °C	

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	83	140	1,25	0,69	0,59
40	-35	113	156	1,27	0,84	0,72
40	-30	150	175	1,31	1,00	0,86
40	-25	196	194	1,35	1,17	1,01
40	-23,3	213	202	1,37	1,23	1,06
40	-20	250	216	1,42	1,34	1,15
40	-15	311	240	1,51	1,51	1,30
40	-10	380	265	1,62	1,67	1,43

45	-40	75	140	1,25	0,62	0,54
45	-35	103	157	1,27	0,76	0,65
45	-30	139	176	1,31	0,92	0,79
45	-25	182	197	1,36	1,08	0,93
45	-23,3	199	204	1,38	1,13	0,97
45	-20	234	220	1,43	1,24	1,06
45	-15	293	244	1,53	1,40	1,20
45	-10	360	270	1,65	1,55	1,33

50	-40	68	140	1,25	0,56	0,48
50	-35	93	158	1,27	0,69	0,59
50	-30	127	178	1,31	0,83	0,71
50	-25	169	199	1,37	0,98	0,85
50	-23,3	184	207	1,39	1,04	0,89
50	-20	218	223	1,44	1,14	0,98
50	-15	275	248	1,54	1,29	1,11
50	-10	340	275	1,67	1,44	1,24

55	-40	60	140	1,25	0,50	0,43
55	-35	84	159	1,28	0,61	0,53
55	-30	115	180	1,32	0,75	0,64
55	-25	155	202	1,38	0,89	0,77
55	-23,3	170	210	1,40	0,94	0,81
55	-20	202	226	1,46	1,04	0,89
55	-15	257	252	1,56	1,19	1,02
55	-10	320	280	1,70	1,33	1,14

60	-40	53	140	1,25	0,44	0,38
60	-35	74	160	1,28	0,54	0,46
60	-30	104	181	1,32	0,67	0,57
60	-25	141	204	1,38	0,80	0,69
60	-23,3	156	213	1,41	0,85	0,73
60	-20	186	230	1,47	0,94	0,81
60	-15	239	256	1,58	1,09	0,93
60	-10	300	285	1,73	1,22	1,05

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	87	140	1,25	0,62	0,54
40	-35	123	156	1,27	0,79	0,68
40	-30	165	175	1,31	0,95	0,82
40	-25	215	194	1,35	1,10	0,95
40	-23,3	233	202	1,37	1,15	1,00
40	-20	270	216	1,42	1,25	1,08
40	-15	332	240	1,51	1,39	1,20
40	-10	401	265	1,62	1,51	1,31

45	-40	75	140	1,25	0,54	0,46
45	-35	106	157	1,27	0,67	0,58
45	-30	143	176	1,31	0,81	0,70
45	-25	187	197	1,36	0,95	0,82
45	-23,3	204	204	1,38	1,00	0,86
45	-20	238	220	1,43	1,08	0,94
45	-15	295	244	1,53	1,21	1,05
45	-10	359	270	1,65	1,33	1,15

50	-40	63	140	1,25	0,45	0,39
50	-35	89	158	1,27	0,56	0,49
50	-30	122	178	1,31	0,68	0,59
50	-25	160	199	1,37	0,80	0,69
50	-23,3	175	207	1,39	0,85	0,73
50	-20	206	223	1,44	0,92	0,80
50	-15	258	248	1,54	1,04	0,90
50	-10	316	275	1,67	1,15	0,99

55	-40	52	140	1,25	0,37	0,32
55	-35	72	159	1,28	0,46	0,39
55	-30	100	180	1,32	0,56	0,48
55	-25	133	202	1,38	0,66	0,57
55	-23,3	146	210	1,40	0,70	0,60
55	-20	174	226	1,46	0,77	0,66
55	-15	220	252	1,56	0,87	0,76
55	-10	274	280	1,70	0,98	0,84

60	-40	40	140	1,25	0,29	0,25
60	-35	56	160	1,28	0,35	0,30
60	-30	78	181	1,32	0,43	0,37
60	-25	106	204	1,38	0,52	0,45
60	-23,3	118	213	1,41	0,55	0,48
60	-20	141	230	1,47	0,62	0,53
60	-15	183	256	1,58	0,71	0,62
60	-10	231	285	1,73	0,81	0,70

## EN12900

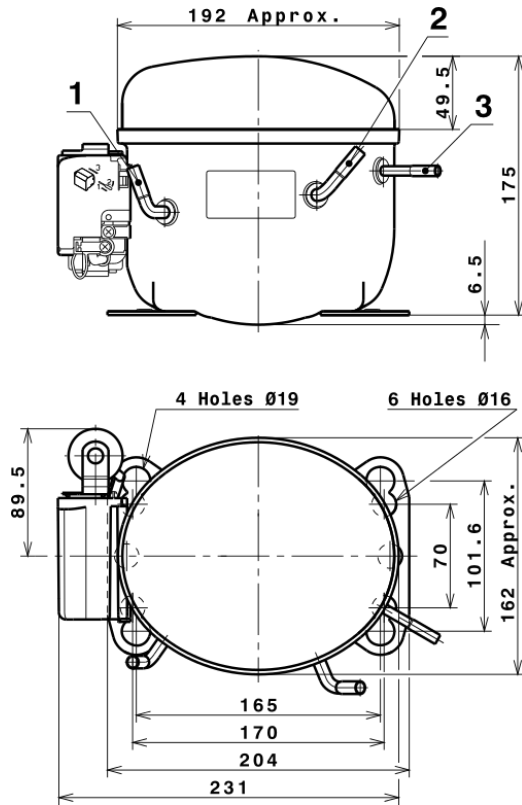
X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	967,3062190897	275,5505787772	1,6898319018	21,493639694895
2	24,7519678571	4,8309799021	0,0304131343	0,6318311618164
3	-10,6824033385	1,3691262363	0,0074344513	-0,14232537262891
4	0,1241878389	0,0379927262	0,0004876011	0,004845150942639
5	-0,2094867184	0,0342281559	0,0001858613	-0,0025084020112827

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

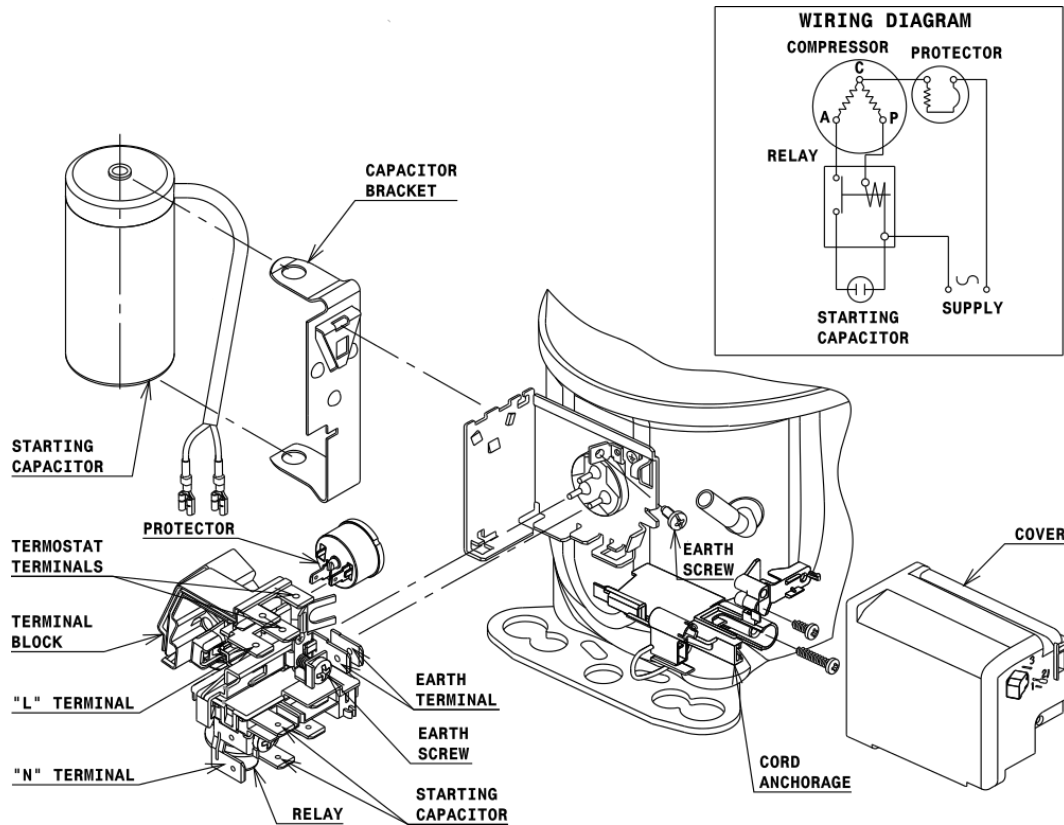


## DESIGNATION INTERNAL DIAM.

1	Suction	6,5 mm
2	Service	6,5 mm
3	Discharge	4,9 mm

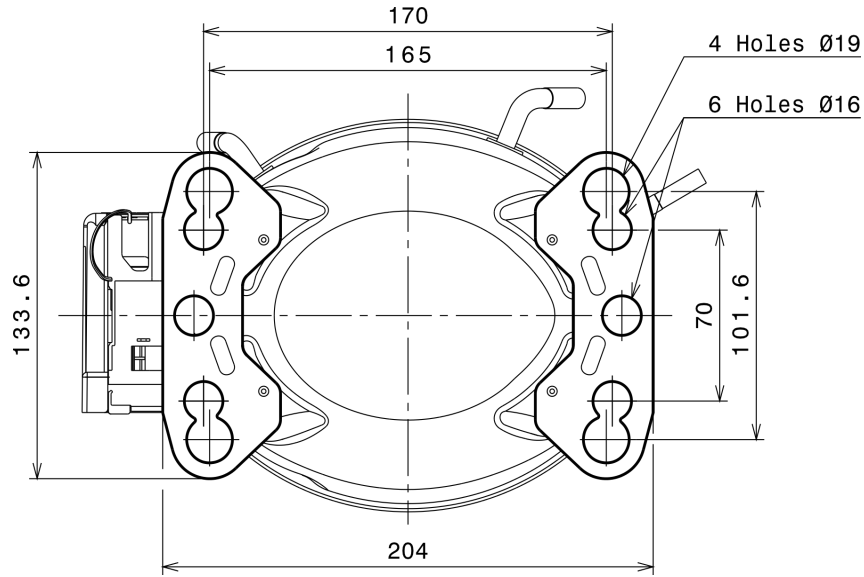
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



# Technical Data Sheet

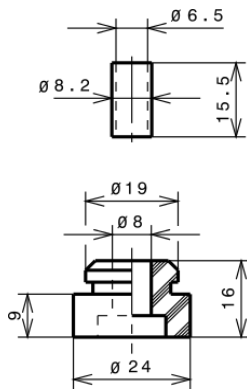
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

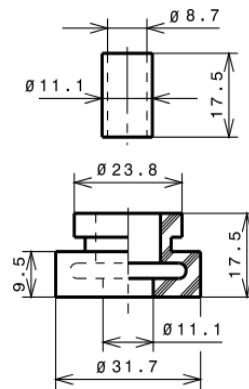
### STANDARD

Ø16 holes (170x70 net)



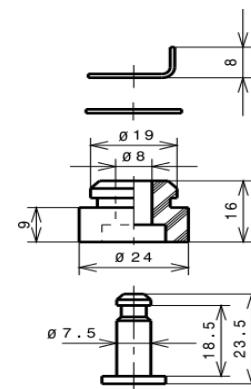
### AMERICAN FEET

Ø19 holes (165x101.6 net)



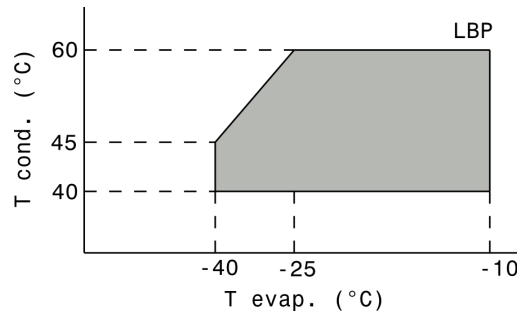
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R404A LBP



# Technical Data Sheet

Compressor model **ML60FB**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R404A**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	Low Back Pressure	Displacement	5,98 cm <sup>3</sup>	Nominal Power	1/5 hp
Refrigerant	R404A	Diameter	20,88 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-40,0 °C to -10,0 °C	Stroke	17,47 mm	Voltage range	198-255 V
Expansion	Capillar/Valve	Net Weight	8,84 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	260 cm <sup>3</sup>	Locked Rotor Amps (LRA)	8,60 A
				Max. Cont. Current (MCC)	1,90 A
				Main W. resist. at 25°C	15,67 Ω
				Start W. resist. at 25°C	29,60 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	236 kCal/h	186 W
COP	1,20 W/W	0,86 W/W
EER	1,04 kCal/Wh	0,74 kCal/Wh
Input Power	228 W	217 W
Current	1,35 A	1,31 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	47- 56 μF 330 V			
Relay	Option 1			
Reference	2014 118.			
Pick-Up	3,75 A			
Drop-Out	3,20 A			
Protector	Option 1	Option 2		
Reference	AE26FHY	T0069		
Current	7,10 A	7,10 A		
Time check	7,5-14 seg	7,5-14 seg		
Disc temp. (Open/Close)	105,00 / 62,00 °C	105,00 / 62,00 °C		

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	112	149	1,10	0,87	0,75
40	-35	153	166	1,14	1,08	0,93
40	-30	204	186	1,21	1,28	1,10
40	-25	265	210	1,29	1,47	1,26
40	-23,3	288	219	1,32	1,53	1,31
40	-20	336	239	1,39	1,64	1,41
40	-15	416	271	1,51	1,79	1,54
40	-10	506	307	1,65	1,92	1,65

45	-40	103	146	1,09	0,82	0,71
45	-35	142	164	1,14	1,00	0,86
45	-30	190	187	1,21	1,19	1,02
45	-25	249	213	1,30	1,36	1,17
45	-23,3	271	222	1,33	1,42	1,22
45	-20	317	243	1,40	1,52	1,31
45	-15	394	276	1,53	1,66	1,43
45	-10	482	314	1,69	1,79	1,54

50	-40	94	143	1,08	0,76	0,66
50	-35	130	163	1,14	0,93	0,80
50	-30	176	187	1,21	1,10	0,94
50	-25	232	215	1,30	1,26	1,08
50	-23,3	253	225	1,34	1,31	1,13
50	-20	298	247	1,42	1,40	1,21
50	-15	373	282	1,55	1,54	1,32
50	-10	458	322	1,72	1,66	1,42

55	-40	85	140	1,07	0,71	0,61
55	-35	119	162	1,13	0,85	0,73
55	-30	162	188	1,21	1,01	0,87
55	-25	216	217	1,31	1,16	0,99
55	-23,3	236	228	1,35	1,20	1,04
55	-20	279	251	1,43	1,29	1,11
55	-15	351	288	1,58	1,42	1,22
55	-10	434	329	1,75	1,53	1,32

60	-40	76	137	1,06	0,65	0,55
60	-35	107	161	1,13	0,78	0,67
60	-30	148	188	1,21	0,92	0,79
60	-25	199	219	1,32	1,06	0,91
60	-23,3	219	231	1,36	1,10	0,95
60	-20	260	255	1,45	1,19	1,02
60	-15	330	294	1,60	1,31	1,12
60	-10	410	337	1,78	1,42	1,22

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	118	149	1,10	0,79	0,68
40	-35	167	166	1,14	1,01	0,87
40	-30	224	186	1,21	1,21	1,04
40	-25	290	210	1,29	1,38	1,19
40	-23,3	314	219	1,32	1,43	1,24
40	-20	363	239	1,39	1,52	1,32
40	-15	445	271	1,51	1,64	1,42
40	-10	535	307	1,65	1,75	1,51

45	-40	103	146	1,09	0,71	0,61
45	-35	146	164	1,14	0,89	0,77
45	-30	196	187	1,21	1,05	0,91
45	-25	255	213	1,30	1,20	1,04
45	-23,3	277	222	1,33	1,25	1,08
45	-20	322	243	1,40	1,33	1,15
45	-15	397	276	1,53	1,44	1,24
45	-10	480	314	1,69	1,53	1,32

50	-40	88	143	1,08	0,62	0,53
50	-35	124	163	1,14	0,76	0,66
50	-30	168	187	1,21	0,90	0,78
50	-25	220	215	1,30	1,03	0,89
50	-23,3	240	225	1,34	1,07	0,92
50	-20	281	247	1,42	1,14	0,98
50	-15	349	282	1,55	1,24	1,07
50	-10	426	322	1,72	1,32	1,14

55	-40	73	140	1,07	0,52	0,45
55	-35	103	162	1,13	0,64	0,55
55	-30	140	188	1,21	0,75	0,65
55	-25	186	217	1,31	0,86	0,74
55	-23,3	203	228	1,35	0,89	0,77
55	-20	240	251	1,43	0,96	0,83
55	-15	301	288	1,58	1,05	0,90
55	-10	371	329	1,75	1,13	0,98

60	-40	59	137	1,06	0,43	0,37
60	-35	81	161	1,13	0,51	0,44
60	-30	112	188	1,21	0,60	0,52
60	-25	151	219	1,32	0,69	0,60
60	-23,3	166	231	1,36	0,72	0,62
60	-20	198	255	1,45	0,78	0,67
60	-15	253	294	1,60	0,86	0,75
60	-10	317	337	1,78	0,94	0,81

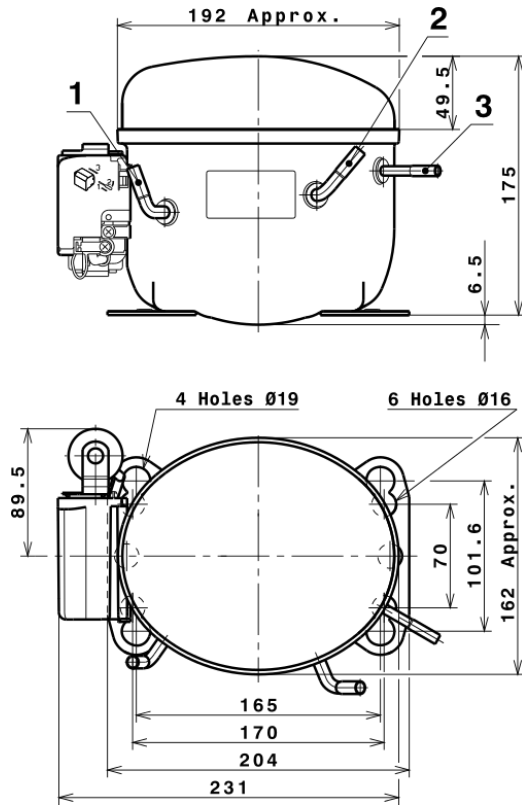
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.264,4621127732	310,9883368460	1,6863366050	27,71857257915
2	31,9860910036	6,5981670366	0,0315974335	0,80796526978317
3	-13,7456738084	2,2581175609	0,0095937527	-0,17115511903015
4	0,1543639894	0,0811054645	0,0004707188	0,0060821633092759
5	-0,2699116436	0,0717850545	0,0002838487	-0,0030174281742311

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

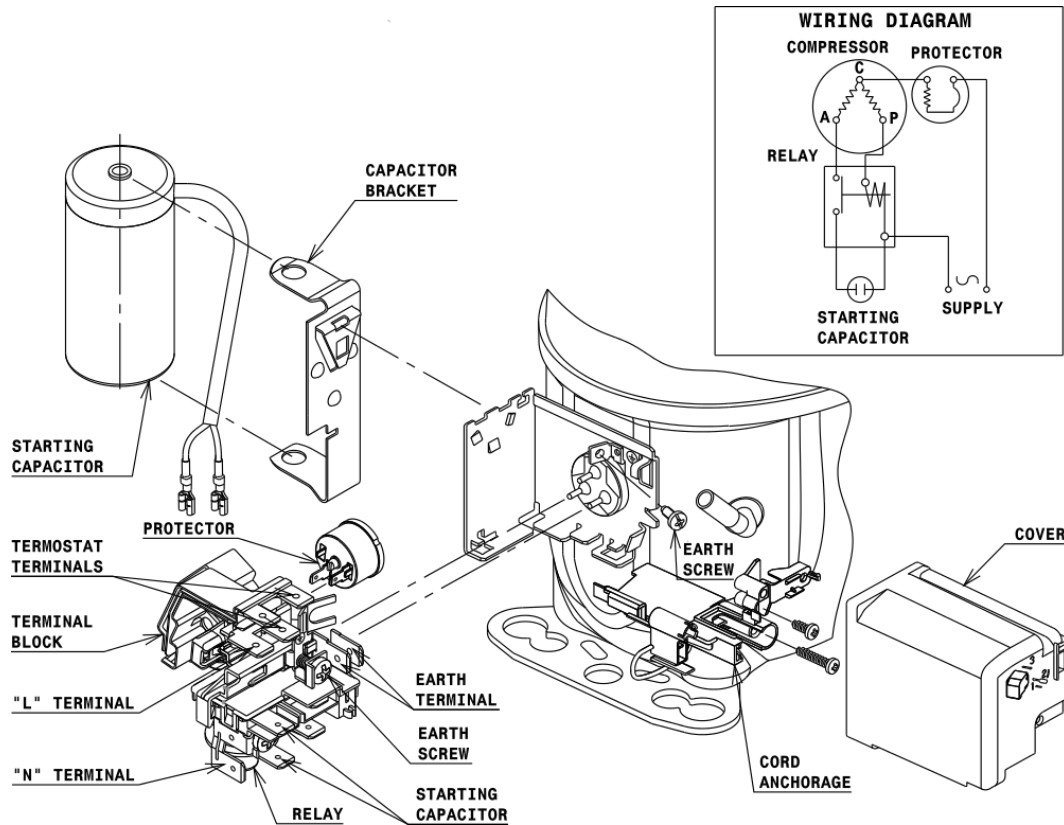


## DESIGNATION INTERNAL DIAM.

1	Suction	6,5 mm
2	Service	6,5 mm
3	Discharge	4,9 mm

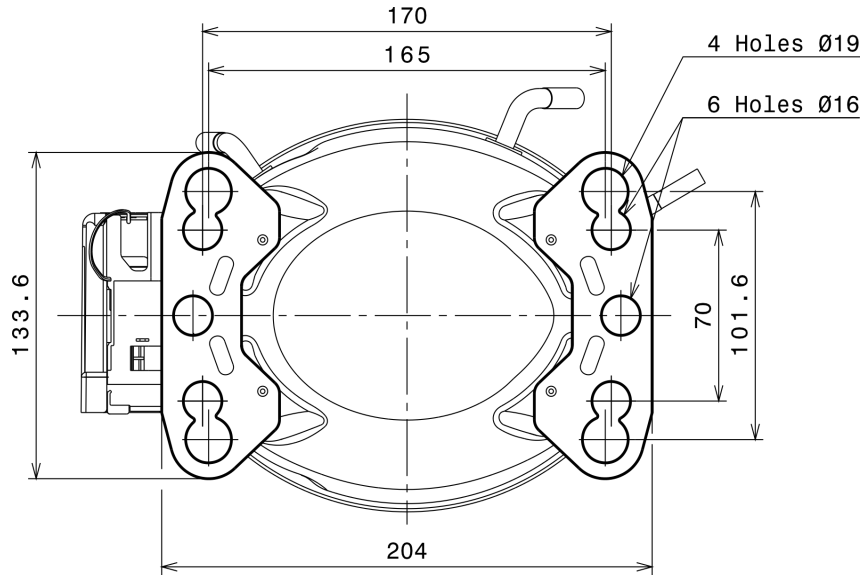
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



# Technical Data Sheet

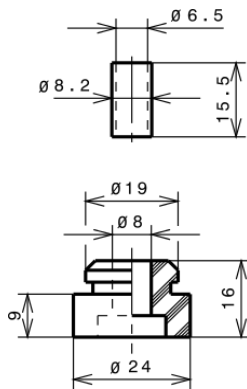
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

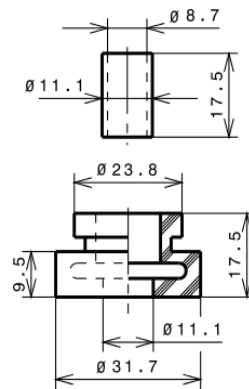
### STANDARD

Ø16 holes (170x70 net)



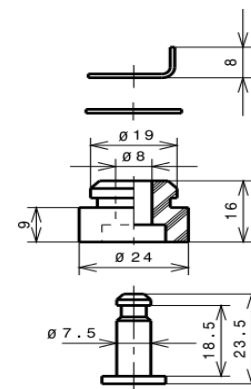
### AMERICAN FEET

Ø19 holes (165x101.6 net)



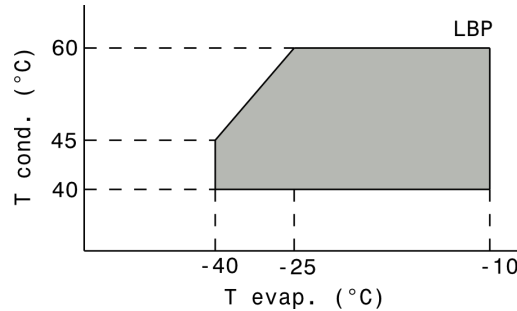
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R404A LBP



# Technical Data Sheet

Compressor model **ML80FB**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R404A**

## APPLICATION

Application	Low Back Pressure
Refrigerant	R404A
Evaporating Temp.	-40,0 °C to -10,0 °C
Expansion	Capillar/Valve
Comp. Cooling	Fan cooled
Max. ambient temp.	43,0 °C

## COMPRESSOR

Displacement	8,10 cm <sup>3</sup>
Diameter	24,29 mm
Stroke	17,47 mm
Net Weight	9,38 Kg
Oil type	ISO VG 32 ESTER
Oil charge	295 cm <sup>3</sup>

## MOTOR

Nominal Power	1/4 hp
Voltage/Frequency	220-240V 50Hz
Voltage range	187-255 V
Type	CSIR
Phase number	1 PH
Locked Rotor Amps (LRA)	13,00 A
Max. Cont. Current (MCC)	2,80 A
Main W. resist. at 25°C	8,60 Ω
Start W. resist. at 25°C	27,80 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	319 kCal/h	251 W
COP	1,09 W/W	0,77 W/W
EER	0,94 kCal/Wh	0,67 kCal/Wh
Input Power	340 W	324 W
Current	2,10 A	2,04 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	47- 56 μF 330 V		
Relay	Option 1	Option 2	
Reference	2014 145.	QLZ-7.1A	
Pick-Up	7,10 A	7,10 A	
Drop-Out	6,00 A	6,00 A	
Protector	Option 1	Option 2	
Reference	T0137	T0102	
Current	9,50 A	9,80 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	110,00 / 61,00 °C	95,00 / 62,00 °C	

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	153	215	1,69	0,82	0,71
40	-35	199	243	1,77	0,95	0,82
40	-30	259	274	1,87	1,10	0,94
40	-25	333	309	1,99	1,25	1,08
40	-23,3	361	322	2,03	1,30	1,12
40	-20	420	347	2,13	1,41	1,21
40	-15	521	389	2,29	1,55	1,34
40	-10	635	435	2,49	1,70	1,46

45	-40	140	210	1,68	0,78	0,67
45	-35	186	241	1,77	0,90	0,77
45	-30	246	276	1,87	1,04	0,89
45	-25	319	314	2,00	1,18	1,02
45	-23,3	347	328	2,05	1,23	1,06
45	-20	406	356	2,16	1,33	1,14
45	-15	506	401	2,34	1,47	1,26
45	-10	620	450	2,56	1,60	1,38

50	-40	128	205	1,66	0,72	0,62
50	-35	173	239	1,76	0,84	0,72
50	-30	232	277	1,88	0,97	0,84
50	-25	305	319	2,02	1,11	0,96
50	-23,3	333	334	2,08	1,16	1,00
50	-20	391	364	2,19	1,25	1,08
50	-15	491	413	2,39	1,38	1,19
50	-10	605	465	2,63	1,51	1,30

55	-40	115	200	1,65	0,67	0,58
55	-35	160	238	1,76	0,78	0,67
55	-30	219	279	1,89	0,91	0,78
55	-25	291	324	2,04	1,05	0,90
55	-23,3	319	340	2,10	1,09	0,94
55	-20	377	372	2,23	1,18	1,01
55	-15	477	424	2,44	1,31	1,12
55	-10	590	480	2,70	1,43	1,23

60	-40	103	195	1,64	0,61	0,53
60	-35	147	236	1,75	0,73	0,62
60	-30	206	281	1,89	0,85	0,73
60	-25	278	329	2,06	0,98	0,84
60	-23,3	305	346	2,12	1,03	0,88
60	-20	363	381	2,26	1,11	0,95
60	-15	462	436	2,50	1,23	1,06
60	-10	575	495	2,77	1,35	1,16

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	161	215	1,69	0,75	0,65
40	-35	218	243	1,77	0,90	0,78
40	-30	286	274	1,87	1,04	0,90
40	-25	366	309	1,99	1,19	1,02
40	-23,3	396	322	2,03	1,23	1,06
40	-20	458	347	2,13	1,32	1,14
40	-15	560	389	2,29	1,44	1,24
40	-10	674	435	2,49	1,55	1,34

45	-40	140	210	1,68	0,67	0,58
45	-35	191	241	1,77	0,79	0,69
45	-30	254	276	1,87	0,92	0,80
45	-25	328	314	2,00	1,04	0,90
45	-23,3	356	328	2,05	1,08	0,94
45	-20	413	356	2,16	1,16	1,00
45	-15	510	401	2,34	1,27	1,10
45	-10	618	450	2,56	1,37	1,19

50	-40	120	205	1,66	0,58	0,50
50	-35	165	239	1,76	0,69	0,60
50	-30	221	277	1,88	0,80	0,69
50	-25	289	319	2,02	0,91	0,78
50	-23,3	315	334	2,08	0,94	0,82
50	-20	369	364	2,19	1,01	0,88
50	-15	459	413	2,39	1,11	0,96
50	-10	561	465	2,63	1,21	1,04

55	-40	99	200	1,65	0,50	0,43
55	-35	139	238	1,76	0,58	0,50
55	-30	189	279	1,89	0,68	0,59
55	-25	251	324	2,04	0,77	0,67
55	-23,3	275	340	2,10	0,81	0,70
55	-20	324	372	2,23	0,87	0,75
55	-15	409	424	2,44	0,96	0,83
55	-10	505	480	2,70	1,05	0,91

60	-40	79	195	1,64	0,41	0,35
60	-35	112	236	1,75	0,47	0,41
60	-30	157	281	1,89	0,56	0,48
60	-25	212	329	2,06	0,65	0,56
60	-23,3	234	346	2,12	0,68	0,58
60	-20	280	381	2,26	0,73	0,63
60	-15	358	436	2,50	0,82	0,71
60	-10	448	495	2,77	0,91	0,78

## EN12900

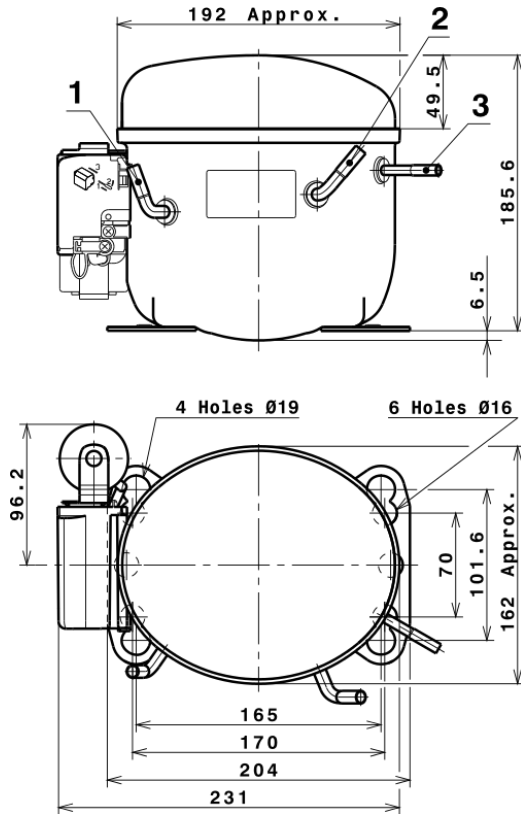
X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.472,3552335491	374,6865913455	2,2522620627	30,283678373246
2	37,5030237409	5,8803971694	0,0367867618	0,91985069552858
3	-14,1575073526	4,4480923864	0,0206618052	-0,096604721101961
4	0,2156748390	0,0757345367	0,0006473950	0,0084698180965222
5	-0,2526257328	0,1367558355	0,0005868575	-0,00066352068351407

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

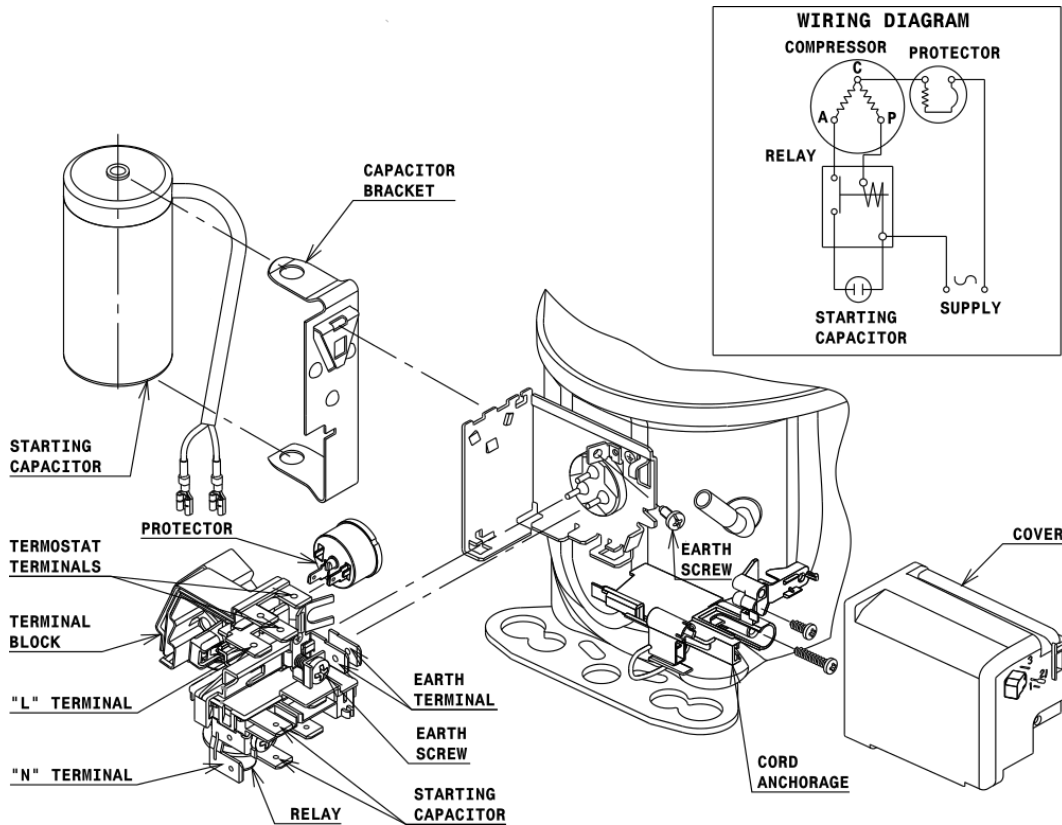


## DESIGNATION INTERNAL DIAM.

1	Suction	6,5 mm
2	Service	6,5 mm
3	Discharge	4,9 mm

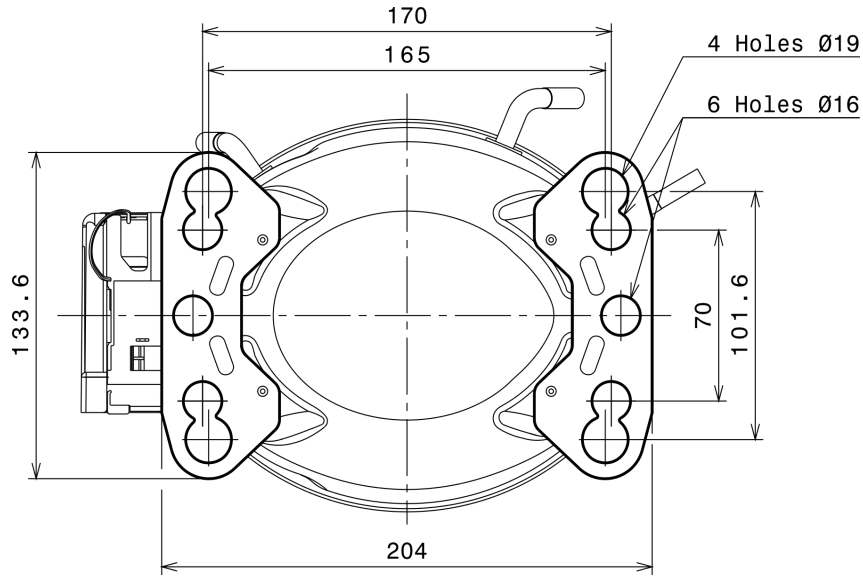
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



# Technical Data Sheet

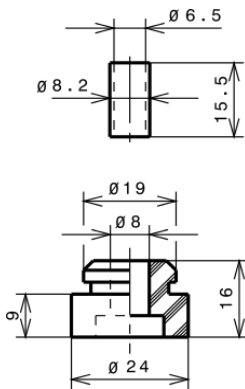
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

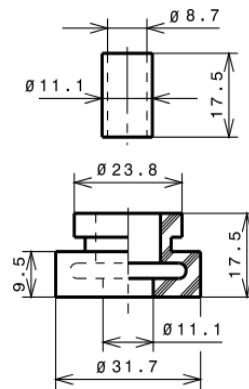
### STANDARD

Ø16 holes (170x70 net)



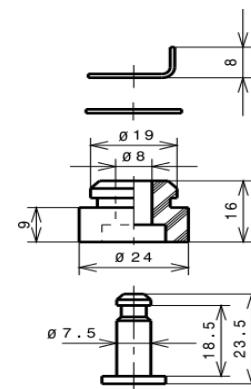
### AMERICAN FEET

Ø19 holes (165x101.6 net)



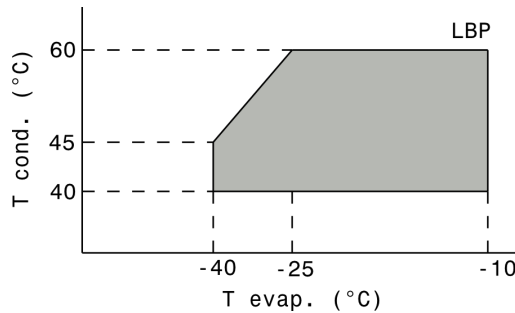
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R404A LBP



# Technical Data Sheet

Compressor model **ML90FB**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R404A**

## APPLICATION

Application Low Back Pressure  
Refrigerant R404A  
Evaporating Temp. -40,0 °C to -10,0 °C  
Expansion Capillar/Valve  
Comp. Cooling Fan cooled  
Max. ambient temp. 43,0 °C

## COMPRESSOR

Displacement 8,85 cm<sup>3</sup>  
Diameter 25,40 mm  
Stroke 17,47 mm  
Net Weight 9,59 Kg  
Oil type ISO VG 32 ESTER  
Oil charge 345 cm<sup>3</sup>

## MOTOR

Nominal Power 1/3 hp  
Voltage/Frequency 220-240V 50Hz  
Voltage range 198-255 V  
Type CSIR  
Phase number 1 PH  
Locked Rotor Amps (LRA) 13,00 A  
Max. Cont. Current (MCC) 3,00 A  
Main W. resist. at 25°C 8,60 Ω  
Start W. resist. at 25°C 27,80 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	350 kCal/h	275 W
COP	1,16 W/W	0,83 W/W
EER	1,00 kCal/Wh	0,71 kCal/Wh
Input Power	350 W	333 W
Current	2,30 A	2,24 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	47- 56 μF 330 V		
Relay	Option 1		
Reference	2014 145.		
Pick-Up	7,10 A		
Drop-Out	6,00 A		
Protector	Option 1	Option 2	
Reference	T0102	MRA38084	
Current	9,80 A	9,80 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	95,00 / 62,00 °C	95,00 / 57,00 °C	

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	180	220	1,85	0,95	0,82
40	-35	246	251	1,95	1,14	0,98
40	-30	325	286	2,07	1,32	1,14
40	-25	417	326	2,21	1,49	1,28
40	-23,3	452	340	2,26	1,55	1,33
40	-20	523	369	2,37	1,65	1,42
40	-15	642	418	2,56	1,79	1,54
40	-10	775	470	2,77	1,92	1,65

45	-40	160	215	1,83	0,87	0,74
45	-35	222	248	1,94	1,04	0,89
45	-30	296	286	2,07	1,21	1,04
45	-25	385	328	2,22	1,36	1,17
45	-23,3	418	343	2,28	1,42	1,22
45	-20	486	374	2,39	1,51	1,30
45	-15	602	425	2,59	1,65	1,42
45	-10	730	480	2,82	1,77	1,52

50	-40	140	210	1,82	0,78	0,67
50	-35	197	246	1,93	0,93	0,80
50	-30	268	286	2,07	1,09	0,94
50	-25	352	331	2,23	1,24	1,07
50	-23,3	384	347	2,29	1,29	1,11
50	-20	450	379	2,41	1,38	1,19
50	-15	561	433	2,62	1,51	1,30
50	-10	685	490	2,86	1,63	1,40

55	-40	120	205	1,80	0,68	0,59
55	-35	173	243	1,92	0,83	0,71
55	-30	240	286	2,07	0,98	0,84
55	-25	320	333	2,24	1,12	0,96
55	-23,3	350	350	2,30	1,16	1,00
55	-20	413	384	2,43	1,25	1,07
55	-15	520	440	2,65	1,37	1,18
55	-10	640	500	2,90	1,49	1,28

60	-40	100	200	1,78	0,58	0,50
60	-35	149	241	1,92	0,72	0,62
60	-30	211	286	2,07	0,86	0,74
60	-25	287	336	2,25	1,00	0,86
60	-23,3	316	353	2,31	1,04	0,89
60	-20	376	389	2,45	1,12	0,97
60	-15	479	448	2,68	1,24	1,07
60	-10	595	510	2,94	1,36	1,17

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	188	220	1,85	0,86	0,74
40	-35	265	251	1,95	1,06	0,91
40	-30	353	286	2,07	1,24	1,07
40	-25	453	326	2,21	1,39	1,20
40	-23,3	489	340	2,26	1,44	1,24
40	-20	563	369	2,37	1,52	1,32
40	-15	685	418	2,56	1,64	1,42
40	-10	818	470	2,77	1,74	1,50

45	-40	160	215	1,83	0,75	0,64
45	-35	227	248	1,94	0,91	0,79
45	-30	305	286	2,07	1,07	0,92
45	-25	394	328	2,22	1,20	1,04
45	-23,3	426	343	2,28	1,24	1,07
45	-20	494	374	2,39	1,32	1,14
45	-15	605	425	2,59	1,42	1,23
45	-10	728	480	2,82	1,52	1,31

50	-40	132	210	1,82	0,63	0,54
50	-35	188	246	1,93	0,77	0,66
50	-30	256	286	2,07	0,89	0,77
50	-25	335	331	2,23	1,01	0,87
50	-23,3	364	347	2,29	1,05	0,91
50	-20	424	379	2,41	1,12	0,97
50	-15	525	433	2,62	1,21	1,05
50	-10	638	490	2,86	1,30	1,12

55	-40	104	205	1,80	0,51	0,44
55	-35	150	243	1,92	0,62	0,53
55	-30	207	286	2,07	0,72	0,63
55	-25	275	333	2,24	0,83	0,71
55	-23,3	301	350	2,30	0,86	0,74
55	-20	355	384	2,43	0,92	0,80
55	-15	446	440	2,65	1,01	0,88
55	-10	548	500	2,90	1,10	0,95

60	-40	75	200	1,78	0,38	0,33
60	-35	111	241	1,92	0,46	0,40
60	-30	158	286	2,07	0,55	0,48
60	-25	216	336	2,25	0,64	0,56
60	-23,3	239	353	2,31	0,68	0,58
60	-20	286	389	2,45	0,73	0,63
60	-15	366	448	2,68	0,82	0,71
60	-10	458	510	2,94	0,90	0,78

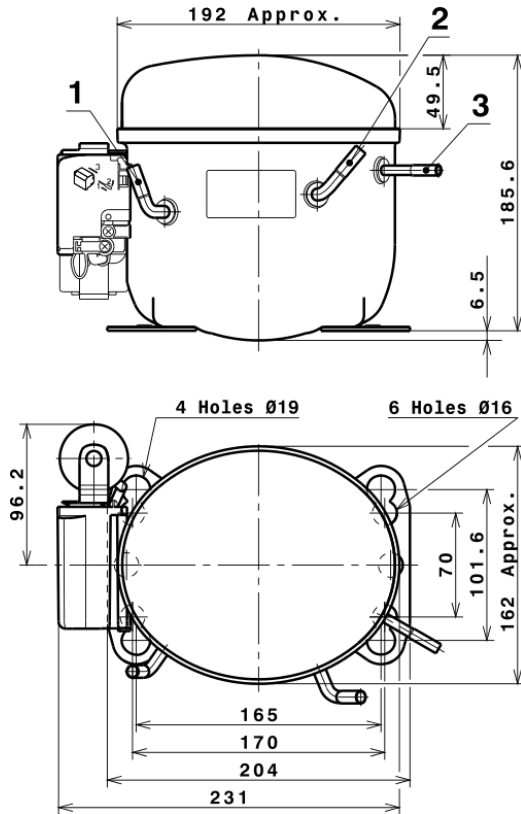
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.972,6561929721	481,8938153644	2,8473779149	44,086004173685
2	47,6578283869	9,0554426093	0,0428200428	1,202207512984
3	-22,3241067124	3,0789661501	0,0128482722	-0,31385164306823
4	0,2115813099	0,0913003484	0,0005378255	0,0084219903960873
5	-0,4188572744	0,1025276796	0,0004033150	-0,0050524542736692

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

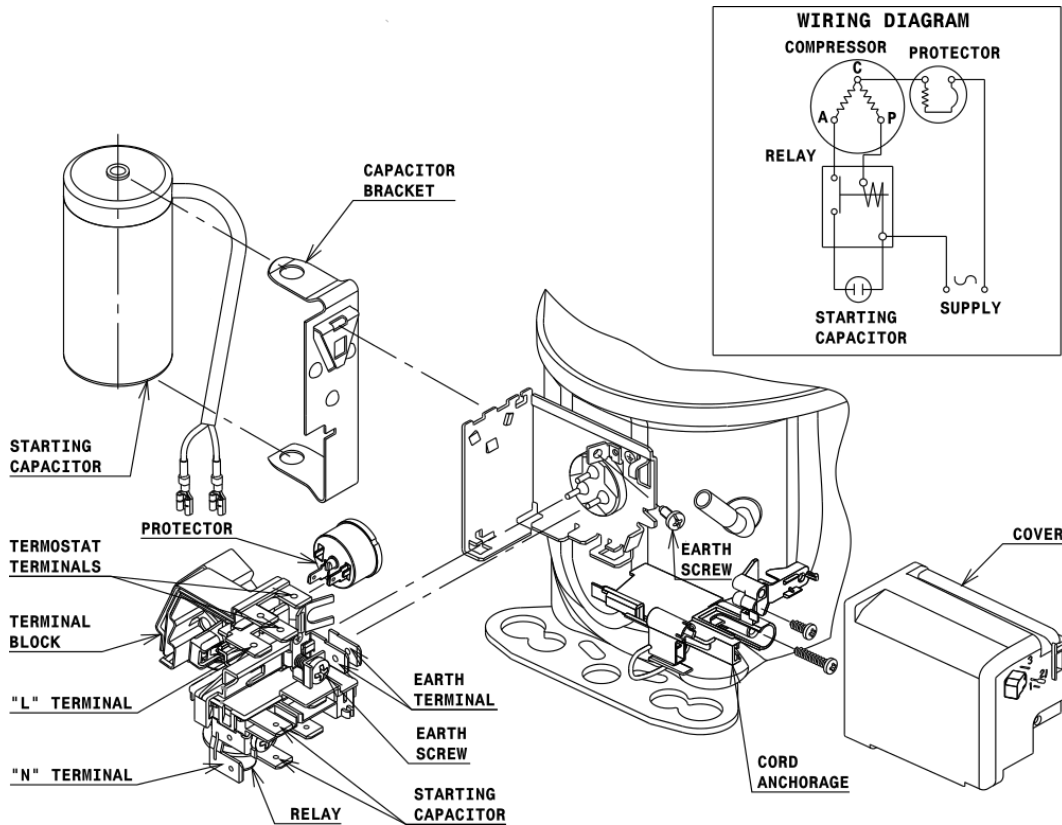


## DESIGNATION INTERNAL DIAM.

1	Suction	6,5 mm
2	Service	6,5 mm
3	Discharge	4,9 mm

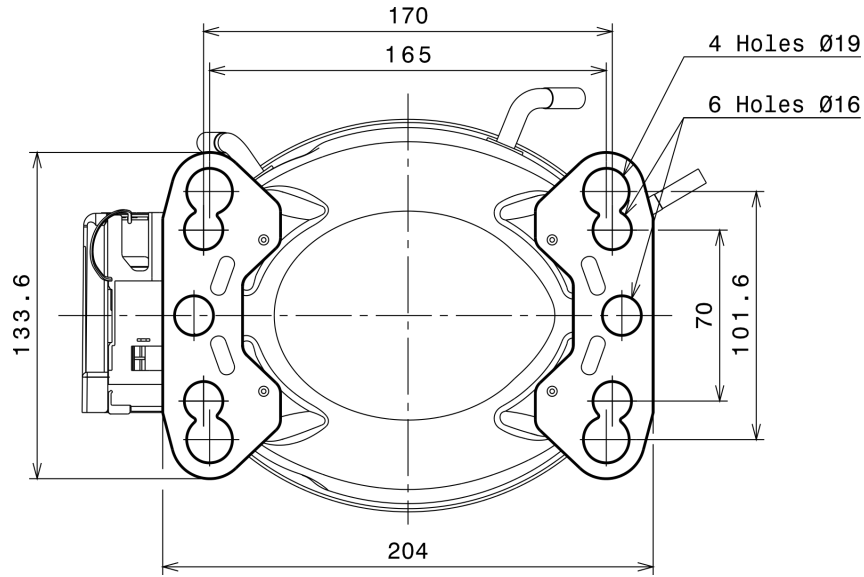
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



# Technical Data Sheet

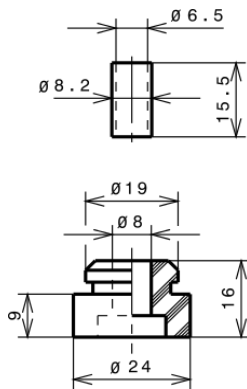
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

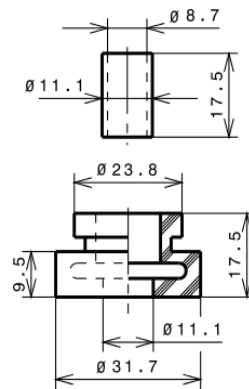
### STANDARD

Ø16 holes (170x70 net)



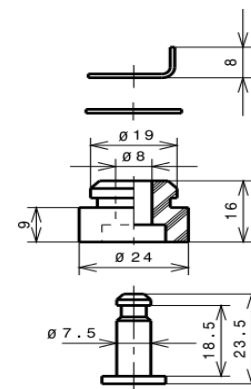
### AMERICAN FEET

Ø19 holes (165x101.6 net)



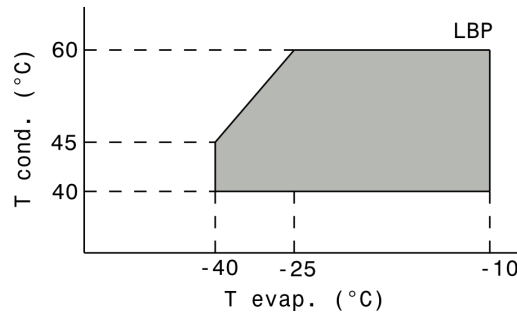
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R404A LBP



# Technical Data Sheet

Compressor model **MLY12LAa**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R404A**

## APPLICATION

Application Low Back Pressure  
Refrigerant R404A  
Evaporating Temp. -40,0 °C to -10,0 °C  
Expansion Capillar/Valve  
Comp. Cooling Fan cooled  
Max. ambient temp. 43,0 °C

## COMPRESSOR

Displacement 10,70 cm<sup>3</sup>  
Diameter 25,40 mm  
Stroke 21,11 mm  
Net Weight 11,18 Kg  
Oil type ISO VG 32 ESTER  
Oil charge 395 cm<sup>3</sup>

## MOTOR

Nominal Power 3/8 hp  
Voltage/Frequency 220-240V 50Hz  
Voltage range 198-255 V  
Type CSIR  
Phase number 1 PH  
Locked Rotor Amps (LRA) 18,50 A  
Max. Cont. Current (MCC) 4,00 A  
Main W. resist. at 25°C 5,20 Ω  
Start W. resist. at 25°C 16,85 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	490 kCal/h	387 W
COP	1,33 W/W	0,94 W/W
EER	1,14 kCal/Wh	0,82 kCal/Wh
Input Power	430 W	410 W
Current	2,95 A	2,89 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	47- 56 μF 330 V			
Relay	Option 1			
Reference	2014 149.			
Pick-Up	7,80 A			
Drop-Out	6,65 A			
Protector	Option 1			
Reference	T0266			
Current	11,00 A			
Time check	7,5-14 seg			
Disc temp. (Open/Close)	105,00 / 52,00 °C			

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	223	267	2,55	0,97	0,84
40	-35	297	305	2,63	1,13	0,97
40	-30	391	348	2,72	1,31	1,12
40	-25	503	395	2,85	1,48	1,27
40	-23,3	546	413	2,90	1,54	1,32
40	-20	636	448	3,01	1,65	1,42
40	-15	787	506	3,20	1,81	1,56
40	-10	958	569	3,45	1,96	1,68

45	-40	209	263	2,54	0,92	0,79
45	-35	282	304	2,62	1,08	0,93
45	-30	374	349	2,73	1,24	1,07
45	-25	485	400	2,86	1,41	1,21
45	-23,3	527	419	2,92	1,47	1,26
45	-20	616	456	3,03	1,57	1,35
45	-15	766	516	3,24	1,72	1,48
45	-10	935	582	3,50	1,87	1,61

50	-40	195	259	2,54	0,88	0,75
50	-35	266	303	2,62	1,02	0,88
50	-30	357	351	2,73	1,18	1,02
50	-25	467	405	2,88	1,34	1,15
50	-23,3	509	424	2,93	1,39	1,20
50	-20	596	463	3,06	1,50	1,29
50	-15	745	527	3,28	1,64	1,41
50	-10	913	596	3,56	1,78	1,53

55	-40	181	255	2,53	0,83	0,71
55	-35	251	302	2,62	0,97	0,83
55	-30	340	353	2,74	1,12	0,96
55	-25	449	410	2,89	1,27	1,10
55	-23,3	490	430	2,95	1,33	1,14
55	-20	577	471	3,08	1,42	1,22
55	-15	724	538	3,32	1,57	1,35
55	-10	890	609	3,62	1,70	1,46

60	-40	167	251	2,52	0,77	0,67
60	-35	236	301	2,62	0,91	0,78
60	-30	323	355	2,74	1,06	0,91
60	-25	430	414	2,90	1,21	1,04
60	-23,3	471	436	2,97	1,26	1,08
60	-20	557	479	3,11	1,35	1,16
60	-15	703	548	3,37	1,49	1,28
60	-10	868	623	3,68	1,62	1,39

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	236	267	2,55	0,88	0,76
40	-35	326	305	2,63	1,07	0,92
40	-30	432	348	2,72	1,24	1,07
40	-25	554	395	2,85	1,40	1,21
40	-23,3	599	413	2,90	1,45	1,25
40	-20	692	448	3,01	1,54	1,33
40	-15	847	506	3,20	1,67	1,45
40	-10	1.017	569	3,45	1,79	1,55

45	-40	209	263	2,54	0,80	0,69
45	-35	289	304	2,62	0,95	0,82
45	-30	386	349	2,73	1,10	0,95
45	-25	498	400	2,86	1,24	1,08
45	-23,3	540	419	2,92	1,29	1,11
45	-20	627	456	3,03	1,37	1,19
45	-15	771	516	3,24	1,49	1,29
45	-10	932	582	3,50	1,60	1,38

50	-40	183	259	2,54	0,71	0,61
50	-35	253	303	2,62	0,84	0,72
50	-30	340	351	2,73	0,97	0,84
50	-25	442	405	2,88	1,09	0,94
50	-23,3	481	424	2,93	1,13	0,98
50	-20	561	463	3,06	1,21	1,05
50	-15	696	527	3,28	1,32	1,14
50	-10	847	596	3,56	1,42	1,23

55	-40	156	255	2,53	0,61	0,53
55	-35	217	302	2,62	0,72	0,62
55	-30	294	353	2,74	0,83	0,72
55	-25	387	410	2,89	0,94	0,82
55	-23,3	422	430	2,95	0,98	0,85
55	-20	495	471	3,08	1,05	0,91
55	-15	620	538	3,32	1,15	1,00
55	-10	762	609	3,62	1,25	1,08

60	-40	130	251	2,52	0,52	0,45
60	-35	181	301	2,62	0,60	0,52
60	-30	248	355	2,74	0,70	0,60
60	-25	331	414	2,90	0,80	0,69
60	-23,3	363	436	2,97	0,83	0,72
60	-20	430	479	3,11	0,90	0,78
60	-15	545	548	3,37	0,99	0,86
60	-10	676	623	3,68	1,09	0,94

## EN12900

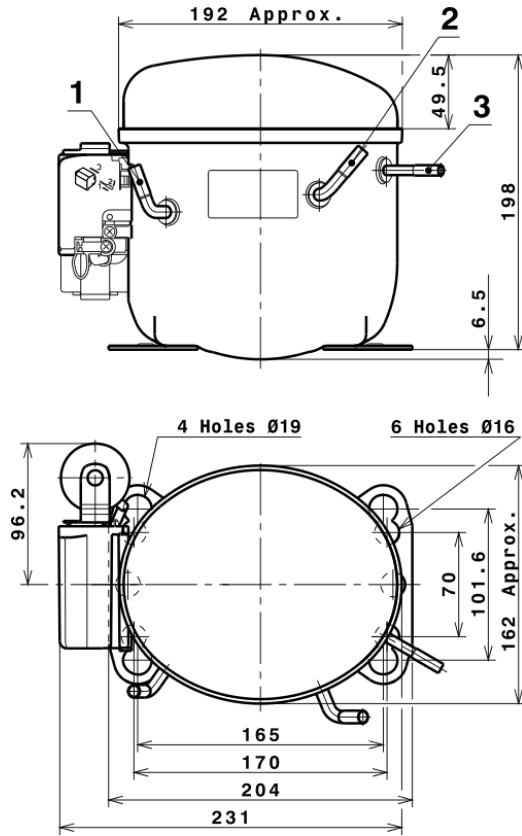
X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.224,3393797778	570,6004563664	3,5076586652	45,772907112211
2	56,8392256996	10,8236286044	0,0581523723	1,3936865205216
3	-21,5999091521	3,9692117800	0,0169100299	-0,15372585154534
4	0,3053071851	0,1049780353	0,0008998498	0,012077203751283
5	-0,4078882717	0,1196731152	0,0004597511	-0,0018742458718253

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

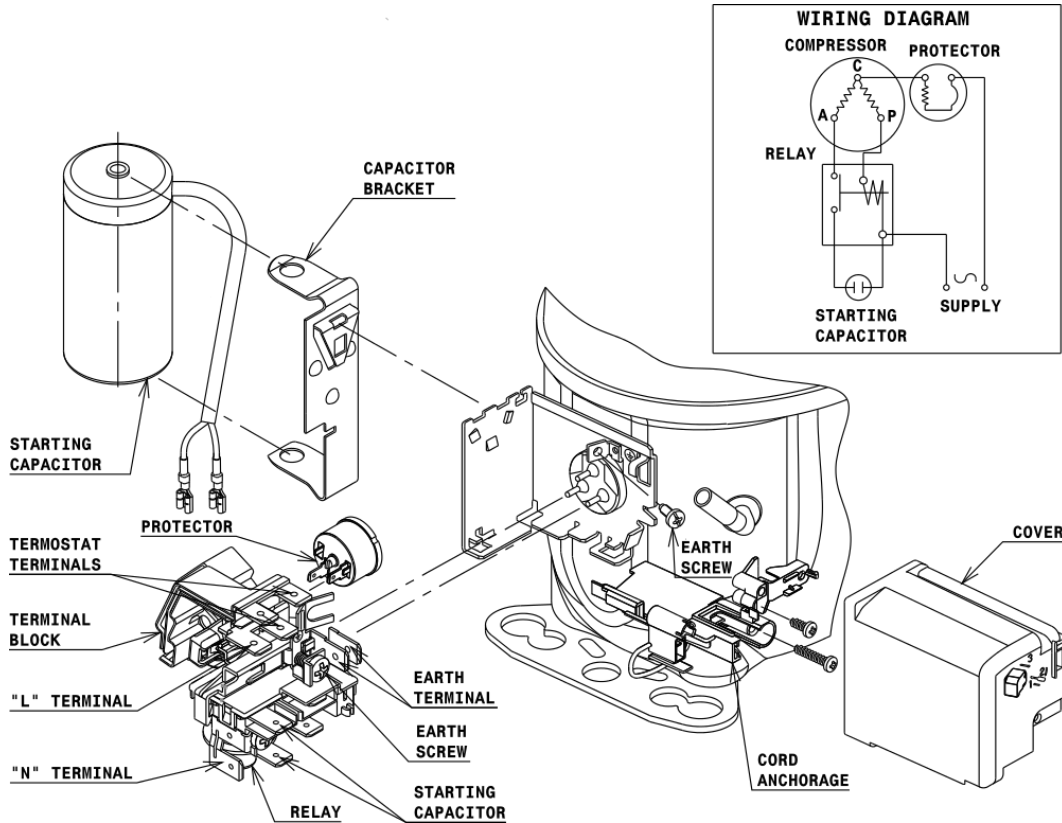


## DESIGNATION INTERNAL DIAM.

1	Suction	8,1 mm
2	Service	8,1 mm
3	Discharge	6,5 mm

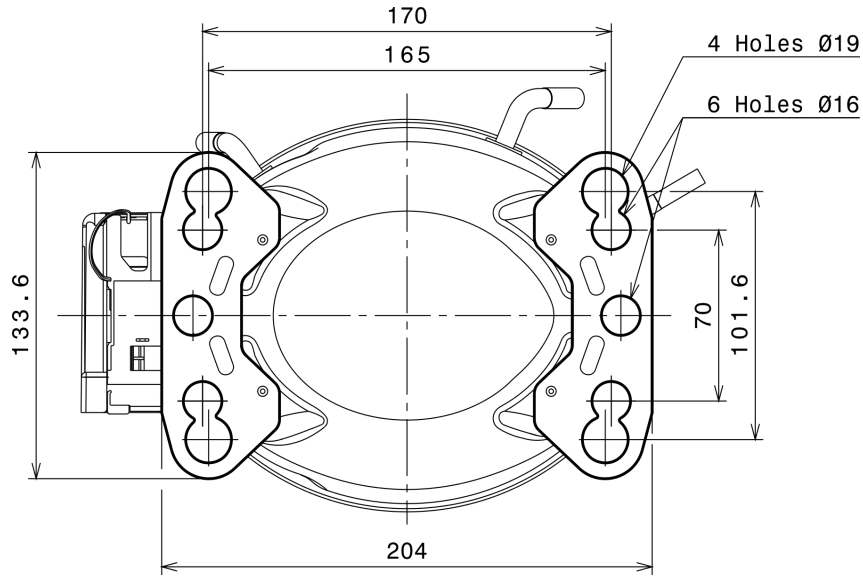
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



# Technical Data Sheet

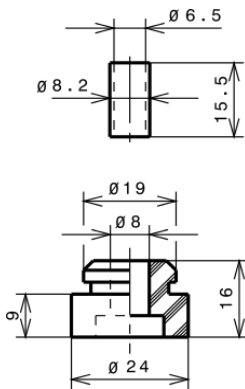
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

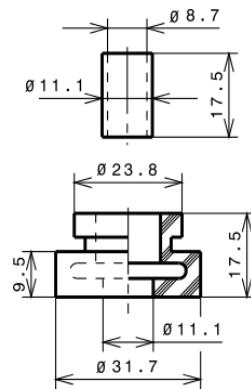
### STANDARD

Ø16 holes (170x70 net)



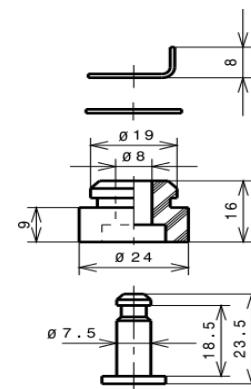
### AMERICAN FEET

Ø19 holes (165x101.6 net)



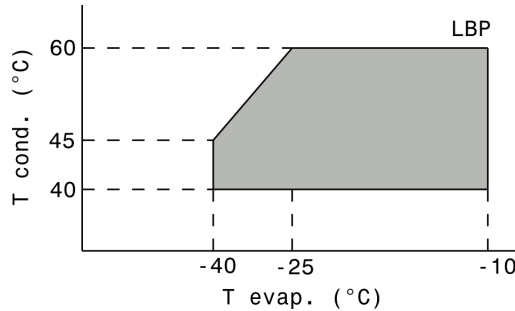
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R404A LBP



# Technical Data Sheet

Compressor model **MP14FB**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R404A**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	Low Back Pressure	Displacement	14,17 cm <sup>3</sup>	Nominal Power	1/2 hp
Refrigerant	R404A	Diameter	31,19 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-40,0 °C to -10,0 °C	Stroke	18,54 mm	Voltage range	187-264 V
Expansion	Capillar/Valve	Net Weight	12,07 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	400 cm <sup>3</sup>	Locked Rotor Amps (LRA)	17,50 A
				Max. Cont. Current (MCC)	5,00 A
				Main W. resist. at 25°C	4,86 Ω
				Start W. resist. at 25°C	17,03 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	540 kCal/h	421 W
COP	1,12 W/W	0,79 W/W
EER	0,96 kCal/Wh	0,69 kCal/Wh
Input Power	560 W	530 W
Current	3,40 A	3,29 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	72- 88 μF 330 V		
Relay	Option 1		
Reference	2014 158.		
Pick-Up	9,05 A		
Drop-Out	7,70 A		
Protector	Option 1	Option 2	
Reference	MRP00AMK	T0425	
Current	11,70 A	11,50 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 61,00 °C	105,00 / 61,00 °C	

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	230	325	2,63	0,82	0,71
40	-35	335	384	2,80	1,02	0,87
40	-30	462	445	2,99	1,21	1,04
40	-25	609	508	3,21	1,39	1,20
40	-23,3	663	530	3,29	1,46	1,25
40	-20	777	573	3,45	1,58	1,35
40	-15	965	641	3,71	1,75	1,51
40	-10	1.175	710	4,00	1,92	1,65

45	-40	200	310	2,58	0,75	0,65
45	-35	302	376	2,78	0,93	0,80
45	-30	425	445	2,99	1,11	0,96
45	-25	569	515	3,24	1,28	1,10
45	-23,3	622	540	3,33	1,34	1,15
45	-20	733	588	3,51	1,45	1,25
45	-15	919	663	3,80	1,61	1,39
45	-10	1.125	740	4,13	1,77	1,52

50	-40	170	295	2,54	0,67	0,58
50	-35	269	369	2,75	0,85	0,73
50	-30	388	445	2,99	1,02	0,87
50	-25	529	523	3,26	1,18	1,01
50	-23,3	581	550	3,36	1,23	1,06
50	-20	690	603	3,56	1,33	1,14
50	-15	872	686	3,90	1,48	1,27
50	-10	1.075	770	4,26	1,62	1,40

55	-40	140	280	2,50	0,58	0,50
55	-35	235	361	2,73	0,76	0,65
55	-30	352	445	2,99	0,92	0,79
55	-25	489	530	3,29	1,07	0,92
55	-23,3	540	560	3,40	1,12	0,96
55	-20	647	618	3,62	1,22	1,05
55	-15	825	708	3,99	1,36	1,17
55	-10	1.025	800	4,40	1,49	1,28

60	-40	110	265	2,46	0,48	0,42
60	-35	202	354	2,71	0,66	0,57
60	-30	315	445	2,99	0,82	0,71
60	-25	449	538	3,32	0,97	0,83
60	-23,3	499	570	3,44	1,02	0,88
60	-20	603	633	3,68	1,11	0,95
60	-15	779	731	4,09	1,24	1,07
60	-10	975	830	4,54	1,37	1,17

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	240	325	2,63	0,74	0,64
40	-35	364	384	2,80	0,95	0,82
40	-30	505	445	2,99	1,14	0,98
40	-25	663	508	3,21	1,31	1,13
40	-23,3	721	530	3,29	1,36	1,18
40	-20	839	573	3,45	1,46	1,27
40	-15	1.033	641	3,71	1,61	1,39
40	-10	1.243	710	4,00	1,75	1,51

45	-40	200	310	2,58	0,65	0,56
45	-35	310	376	2,78	0,82	0,71
45	-30	438	445	2,99	0,98	0,85
45	-25	583	515	3,24	1,13	0,98
45	-23,3	636	540	3,33	1,18	1,02
45	-20	745	588	3,51	1,27	1,09
45	-15	924	663	3,80	1,39	1,20
45	-10	1.121	740	4,13	1,52	1,31

50	-40	161	295	2,54	0,54	0,47
50	-35	257	369	2,75	0,70	0,60
50	-30	371	445	2,99	0,83	0,72
50	-25	502	523	3,26	0,96	0,83
50	-23,3	550	550	3,36	1,00	0,86
50	-20	650	603	3,56	1,08	0,93
50	-15	816	686	3,90	1,19	1,03
50	-10	999	770	4,26	1,30	1,12

55	-40	121	280	2,50	0,43	0,37
55	-35	204	361	2,73	0,56	0,49
55	-30	304	445	2,99	0,68	0,59
55	-25	421	530	3,29	0,79	0,69
55	-23,3	465	560	3,40	0,83	0,72
55	-20	556	618	3,62	0,90	0,78
55	-15	708	708	3,99	1,00	0,86
55	-10	877	800	4,40	1,10	0,95

60	-40	81	265	2,46	0,31	0,27
60	-35	150	354	2,71	0,42	0,37
60	-30	237	445	2,99	0,53	0,46
60	-25	340	538	3,32	0,63	0,55
60	-23,3	379	570	3,44	0,67	0,57
60	-20	461	633	3,68	0,73	0,63
60	-15	599	731	4,09	0,82	0,71
60	-10	755	830	4,54	0,91	0,79

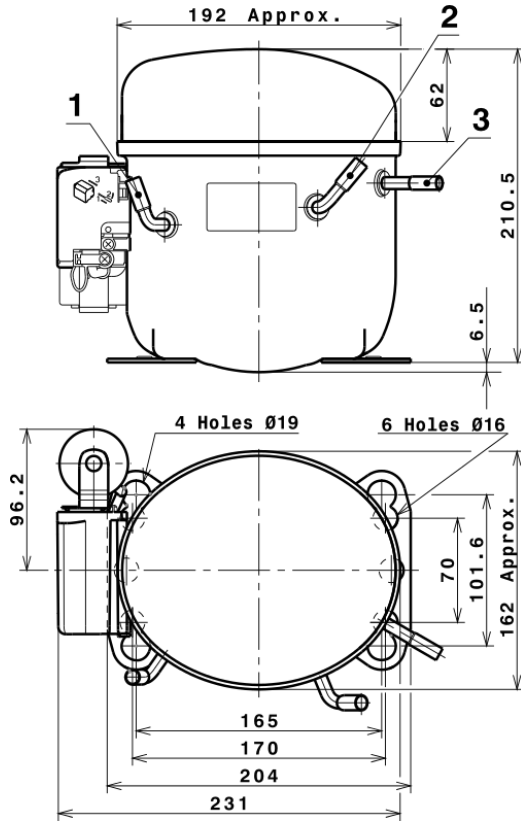
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.879,5895814597	511,1320956407	3,2450801755	61,851295648731
2	71,5708739841	3,3330185121	0,0371178724	1,7473406557418
3	-30,4797443021	9,2368984503	0,0404001993	-0,33674771583261
4	0,3289292515	0,0481508777	0,0007658534	0,013206786679089
5	-0,5674090975	0,3075830387	0,0012231471	-0,0042333870333976

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

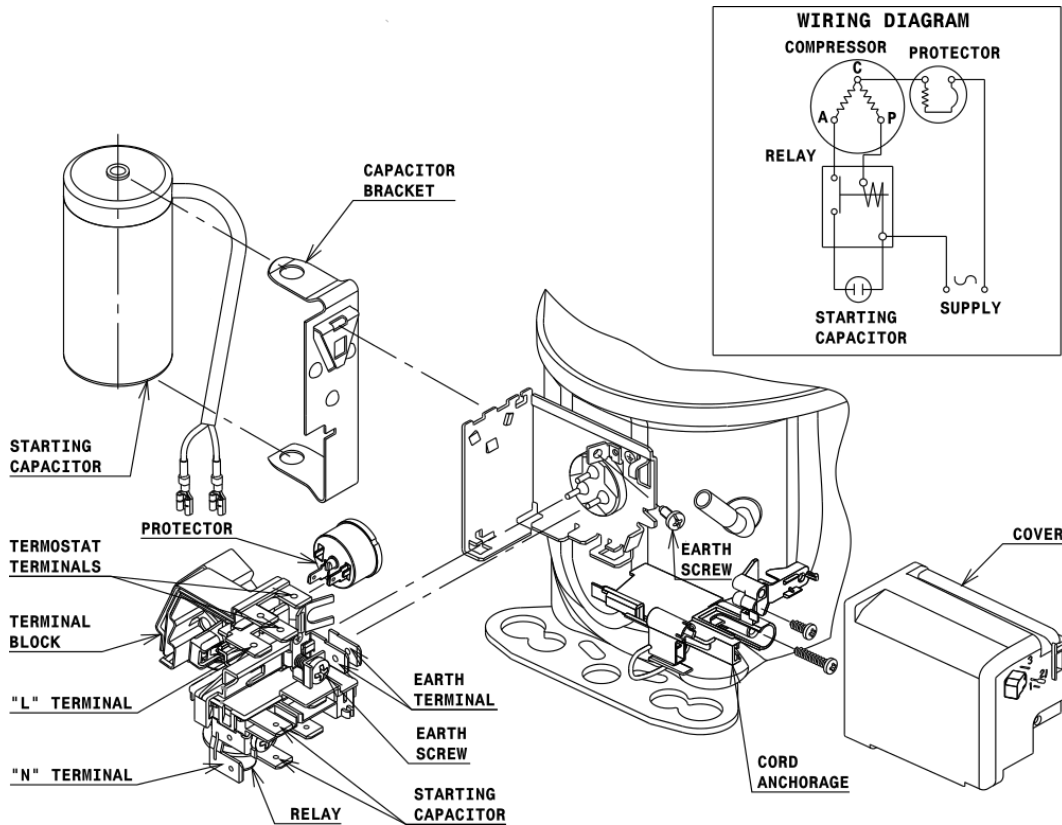


## DESIGNATION INTERNAL DIAM.

1	Suction	8,1 mm
2	Service	8,1 mm
3	Discharge	6,5 mm

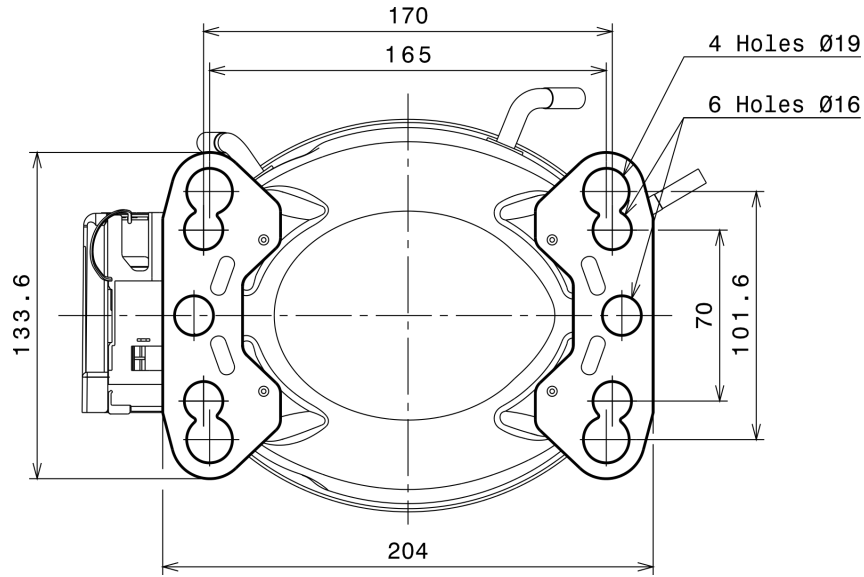
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



# Technical Data Sheet

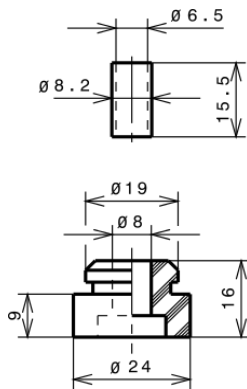
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

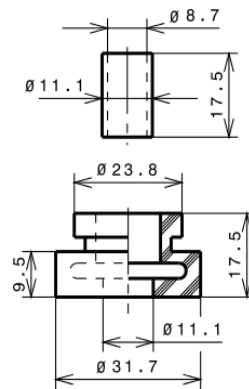
### STANDARD

Ø16 holes (170x70 net)



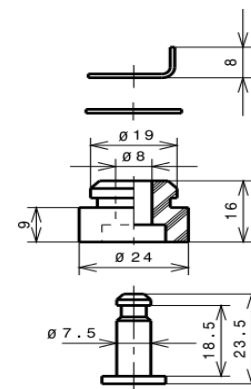
### AMERICAN FEET

Ø19 holes (165x101.6 net)



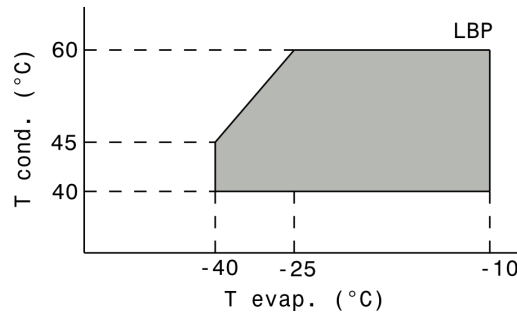
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R404A LBP



# Technical Data Sheet

Compressor model **MPT14LA**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R404A**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	Low Back Pressure	Displacement	14,32 cm <sup>3</sup>	Nominal Power	1/2 hp
Refrigerant	R404A	Diameter	29,37 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-40,0 °C to -10,0 °C	Stroke	21,13 mm	Voltage range	187-264 V
Expansion	Capillar/Valve	Net Weight	12,25 Kg	Type	CSR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	400 cm <sup>3</sup>	Locked Rotor Amps (LRA)	16,00 A
				Max. Cont. Current (MCC)	5,00 A
				Main W. resist. at 25°C	5,02 Ω
				Start W. resist. at 25°C	9,67 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	670 kCal/h	534 W
COP	1,38 W/W	0,99 W/W
EER	1,19 kCal/Wh	0,85 kCal/Wh
Input Power	565 W	541 W
Current	2,80 A	2,70 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	47- 56 μF 330 V		
Run capacitor	10 μF 420 V		
Relay	Option 1		
Reference	2014 158. + NTC15Ω		
Pick-Up	9,05 A		
Drop-Out	7,70 A		
Protector	Option 1	Option 2	
Reference	MRA38133	T0267	
Current	11,50 A	11,00 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 52,00 °C	105,00 / 52,00 °C	

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	325	369	1,92	1,03	0,88
40	-35	424	414	2,13	1,19	1,03
40	-30	545	461	2,35	1,37	1,18
40	-25	687	511	2,57	1,56	1,34
40	-23,3	740	529	2,64	1,63	1,40
40	-20	850	563	2,79	1,75	1,51
40	-15	1.034	618	3,02	1,95	1,67
40	-10	1.240	675	3,26	2,14	1,84

45	-40	310	360	1,88	1,00	0,86
45	-35	407	411	2,12	1,15	0,99
45	-30	525	465	2,36	1,31	1,13
45	-25	664	521	2,61	1,48	1,27
45	-23,3	717	541	2,70	1,54	1,33
45	-20	825	580	2,86	1,66	1,42
45	-15	1.007	640	3,12	1,83	1,57
45	-10	1.210	703	3,37	2,00	1,72

50	-40	295	352	1,84	0,98	0,84
50	-35	389	409	2,11	1,11	0,95
50	-30	505	469	2,38	1,25	1,08
50	-25	642	531	2,65	1,41	1,21
50	-23,3	693	553	2,75	1,46	1,25
50	-20	800	596	2,93	1,56	1,34
50	-15	979	662	3,21	1,72	1,48
50	-10	1.180	732	3,49	1,88	1,61

55	-40	280	343	1,80	0,95	0,82
55	-35	372	407	2,10	1,06	0,91
55	-30	485	473	2,40	1,19	1,03
55	-25	619	541	2,70	1,33	1,14
55	-23,3	670	565	2,80	1,38	1,19
55	-20	775	612	3,00	1,47	1,27
55	-15	952	685	3,30	1,62	1,39
55	-10	1.150	760	3,60	1,76	1,51

60	-40	265	335	1,76	0,92	0,79
60	-35	354	404	2,09	1,02	0,88
60	-30	465	477	2,41	1,13	0,98
60	-25	597	551	2,74	1,26	1,08
60	-23,3	647	577	2,85	1,30	1,12
60	-20	750	628	3,07	1,39	1,19
60	-15	924	707	3,39	1,52	1,31
60	-10	1.120	789	3,71	1,65	1,42

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	345	369	1,92	0,94	0,81
40	-35	463	414	2,13	1,12	0,97
40	-30	598	461	2,35	1,30	1,12
40	-25	751	511	2,57	1,47	1,27
40	-23,3	807	529	2,64	1,53	1,32
40	-20	922	563	2,79	1,64	1,41
40	-15	1.111	618	3,02	1,80	1,55
40	-10	1.317	675	3,26	1,95	1,69

45	-40	310	360	1,88	0,86	0,75
45	-35	416	411	2,12	1,01	0,87
45	-30	538	465	2,36	1,16	1,00
45	-25	679	521	2,61	1,30	1,13
45	-23,3	731	541	2,70	1,35	1,17
45	-20	837	580	2,86	1,44	1,25
45	-15	1.013	640	3,12	1,58	1,37
45	-10	1.206	703	3,37	1,72	1,48

50	-40	276	352	1,84	0,79	0,68
50	-35	369	409	2,11	0,90	0,78
50	-30	479	469	2,38	1,02	0,88
50	-25	606	531	2,65	1,14	0,99
50	-23,3	654	553	2,75	1,18	1,02
50	-20	751	596	2,93	1,26	1,09
50	-15	914	662	3,21	1,38	1,19
50	-10	1.095	732	3,49	1,50	1,29

55	-40	242	343	1,80	0,71	0,61
55	-35	322	407	2,10	0,79	0,68
55	-30	419	473	2,40	0,89	0,77
55	-25	534	541	2,70	0,99	0,85
55	-23,3	577	565	2,80	1,02	0,88
55	-20	666	612	3,00	1,09	0,94
55	-15	816	685	3,30	1,19	1,03
55	-10	984	760	3,60	1,29	1,12

60	-40	208	335	1,76	0,62	0,54
60	-35	275	404	2,09	0,68	0,59
60	-30	359	477	2,41	0,75	0,65
60	-25	461	551	2,74	0,84	0,72
60	-23,3	500	577	2,85	0,87	0,75
60	-20	581	628	3,07	0,92	0,80
60	-15	718	707	3,39	1,02	0,88
60	-10	873	789	3,71	1,11	0,96

## EN12900

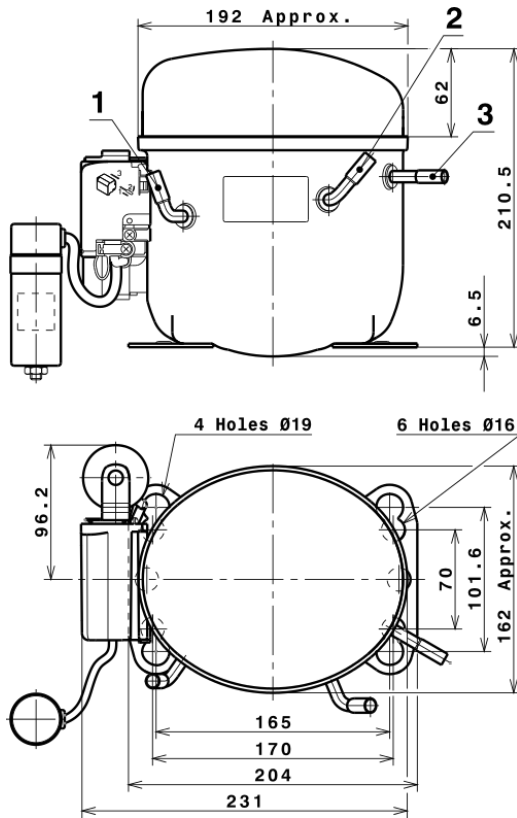
X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.849,4199929438	482,8688267664	2,4642474178	58,571922886331
2	69,3918790640	2,9451549016	0,0052232406	1,6929128423833
3	-28,1263748692	8,3832327986	0,0333978339	-0,21140224026431
4	0,3344903033	0,0506887063	0,0000177546	0,013483173484944
5	-0,5308783213	0,2530218138	0,0010385580	-0,0031637940291788

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

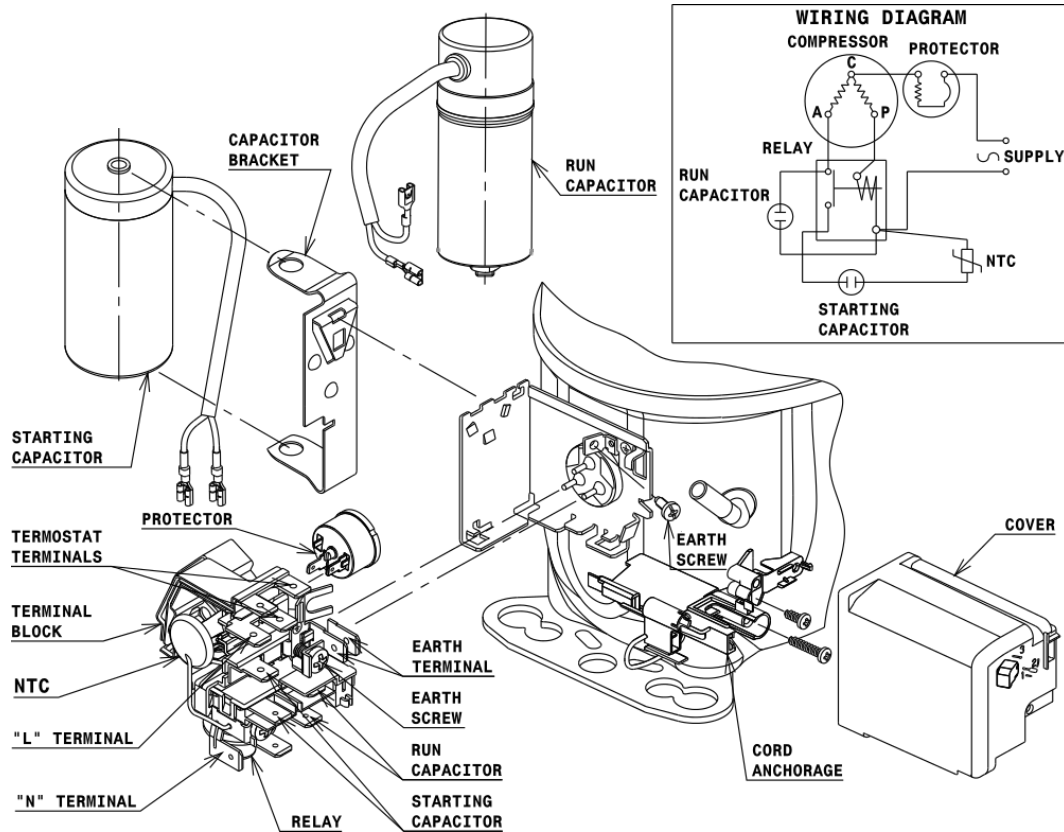


## DESIGNATION INTERNAL DIAM.

1	Suction	8,1 mm
2	Service	8,1 mm
3	Discharge	6,5 mm

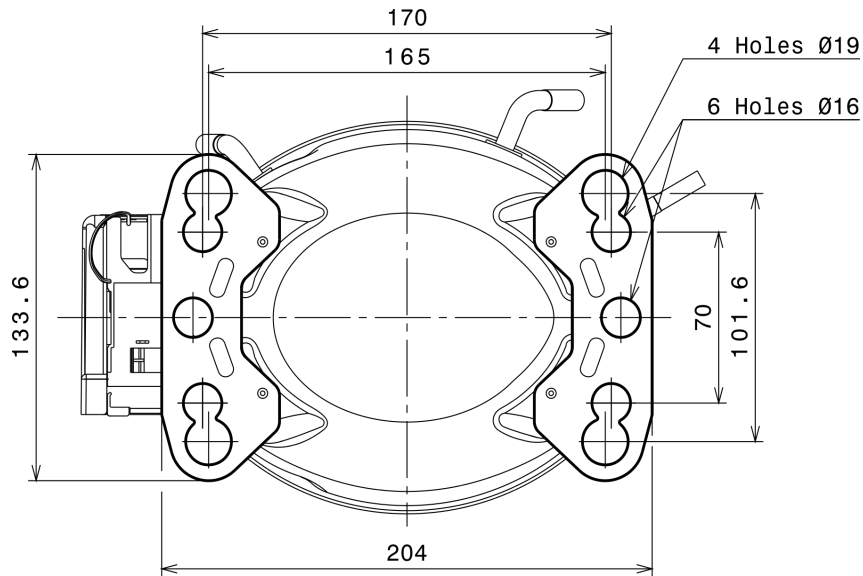
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSR CONNECTION (CURRENT RELAY + NTC) (L, P ranges)



# Technical Data Sheet

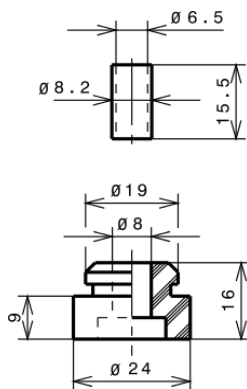
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

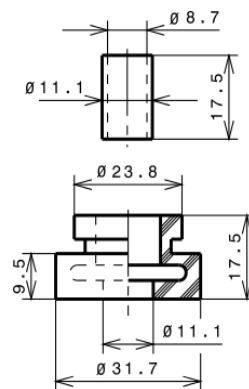
### STANDARD

Ø16 holes (170x70 net)



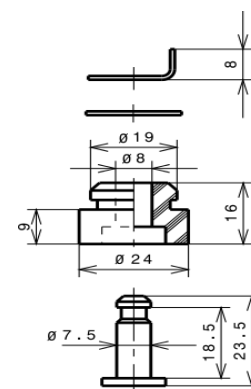
### AMERICAN FEET

Ø19 holes (165x101.6 net)



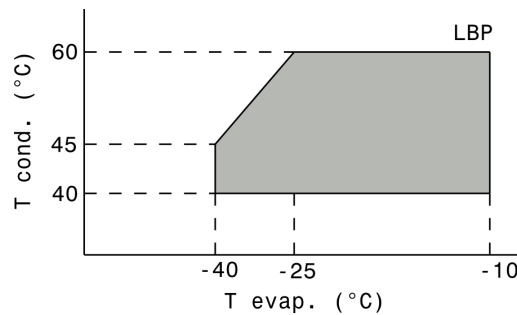
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R404A LBP



# Technical Data Sheet

Compressor model **MX18FBa**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R404A**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	Low Back Pressure	Displacement	18,40 cm <sup>3</sup>	Nominal Power	5/8 hp
Refrigerant	R404A	Diameter	34,93 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-40,0 °C to -10,0 °C	Stroke	19,20 mm	Voltage range	187-264 V
Expansion	Capillar/Valve	Net Weight	16,29 Kg	Type	CSR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	650 cm <sup>3</sup>	Locked Rotor Amps (LRA)	18,00 A
				Max. Cont. Current (MCC)	4,60 A
				Main W. resist. at 25°C	3,50 Ω
				Start W. resist. at 25°C	7,35 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	700 kCal/h	546 W
COP	1,36 W/W	0,96 W/W
EER	1,17 kCal/Wh	0,83 kCal/Wh
Input Power	600 W	568 W
Current	3,00 A	2,85 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	47- 56 μF 330 V		
Run capacitor	16 μF 420 V		
Relay	Option 1		
Reference	2014 166. + NTC15Ω		
Pick-Up	11,00 A		
Drop-Out	9,35 A		
Protector	Option 1	Option 2	
Reference	MRA38138	T0268	
Current	15,30 A	15,00 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 52,00 °C	105,00 / 52,00 °C	

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	305	373	1,98	0,95	0,82
40	-35	442	436	2,26	1,18	1,01
40	-30	609	504	2,56	1,40	1,21
40	-25	806	576	2,89	1,63	1,40
40	-23,3	880	601	3,00	1,70	1,47
40	-20	1.034	651	3,24	1,85	1,59
40	-15	1.292	730	3,62	2,06	1,77
40	-10	1.580	813	4,03	2,26	1,94

45	-40	270	350	1,89	0,90	0,77
45	-35	399	421	2,19	1,10	0,95
45	-30	559	495	2,52	1,31	1,13
45	-25	749	573	2,87	1,52	1,31
45	-23,3	820	600	3,00	1,59	1,37
45	-20	969	655	3,26	1,72	1,48
45	-15	1.219	741	3,67	1,91	1,65
45	-10	1.500	830	4,12	2,10	1,81

50	-40	235	328	1,79	0,83	0,72
50	-35	357	405	2,12	1,03	0,88
50	-30	509	486	2,48	1,22	1,05
50	-25	691	571	2,86	1,41	1,21
50	-23,3	760	600	3,00	1,47	1,27
50	-20	904	659	3,28	1,59	1,37
50	-15	1.147	751	3,73	1,77	1,53
50	-10	1.420	848	4,21	1,95	1,68

55	-40	200	305	1,70	0,76	0,66
55	-35	314	389	2,05	0,94	0,81
55	-30	459	477	2,44	1,12	0,96
55	-25	634	568	2,85	1,30	1,12
55	-23,3	700	600	3,00	1,36	1,17
55	-20	839	663	3,30	1,47	1,26
55	-15	1.074	762	3,78	1,64	1,41
55	-10	1.340	865	4,30	1,80	1,55

60	-40	165	283	1,61	0,68	0,58
60	-35	272	373	1,99	0,85	0,73
60	-30	409	467	2,40	1,02	0,87
60	-25	576	566	2,84	1,18	1,02
60	-23,3	640	600	3,00	1,24	1,07
60	-20	774	667	3,32	1,35	1,16
60	-15	1.002	773	3,83	1,51	1,30
60	-10	1.260	883	4,39	1,66	1,43

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	319	373	1,98	0,86	0,74
40	-35	481	436	2,26	1,10	0,95
40	-30	668	504	2,56	1,32	1,14
40	-25	880	576	2,89	1,53	1,32
40	-23,3	958	601	3,00	1,60	1,38
40	-20	1.118	651	3,24	1,72	1,48
40	-15	1.381	730	3,62	1,89	1,63
40	-10	1.669	813	4,03	2,05	1,77

45	-40	270	350	1,89	0,77	0,67
45	-35	411	421	2,19	0,98	0,84
45	-30	577	495	2,52	1,17	1,01
45	-25	769	573	2,87	1,34	1,16
45	-23,3	840	600	3,00	1,40	1,21
45	-20	986	655	3,26	1,50	1,30
45	-15	1.228	741	3,67	1,66	1,43
45	-10	1.495	830	4,12	1,80	1,56

50	-40	222	328	1,79	0,68	0,58
50	-35	342	405	2,12	0,84	0,73
50	-30	487	486	2,48	1,00	0,87
50	-25	657	571	2,86	1,15	1,00
50	-23,3	721	600	3,00	1,20	1,04
50	-20	853	659	3,28	1,29	1,12
50	-15	1.074	751	3,73	1,43	1,24
50	-10	1.321	848	4,21	1,56	1,35

55	-40	173	305	1,70	0,57	0,49
55	-35	272	389	2,05	0,70	0,60
55	-30	396	477	2,44	0,83	0,72
55	-25	546	568	2,85	0,96	0,83
55	-23,3	603	600	3,00	1,00	0,87
55	-20	721	663	3,30	1,09	0,94
55	-15	921	762	3,78	1,21	1,04
55	-10	1.147	865	4,30	1,33	1,15

60	-40	124	283	1,61	0,44	0,38
60	-35	202	373	1,99	0,54	0,47
60	-30	306	467	2,40	0,65	0,57
60	-25	434	566	2,84	0,77	0,66
60	-23,3	484	600	3,00	0,81	0,70
60	-20	588	667	3,32	0,88	0,76
60	-15	768	773	3,83	0,99	0,86
60	-10	973	883	4,39	1,10	0,95

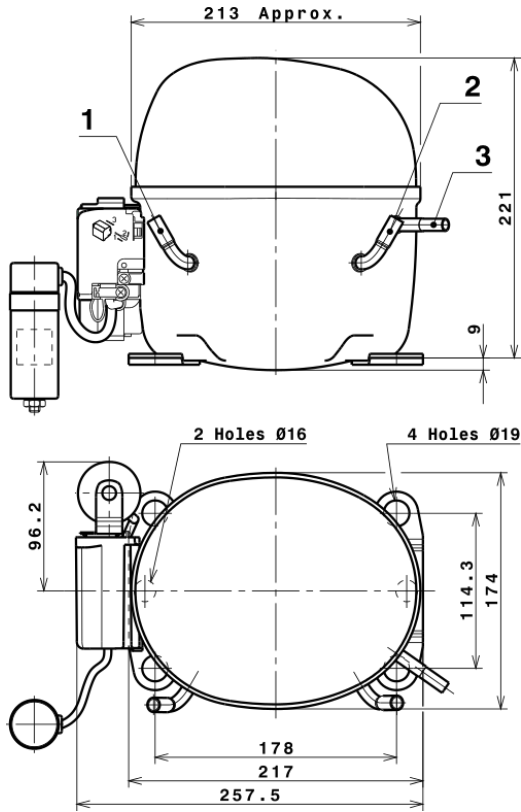
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	3.996,3943009308	765,2978668776	3,8917714676	87,999039642503
2	101,7876951331	8,2946016403	0,0561635080	2,5509229708415
3	-43,7851679566	6,3251533758	0,0311186053	-0,56058179531839
4	0,4797340290	0,0820119495	0,0007153416	0,018959520383529
5	-0,8545206554	0,2731197006	0,0012605800	-0,0091266928131803

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

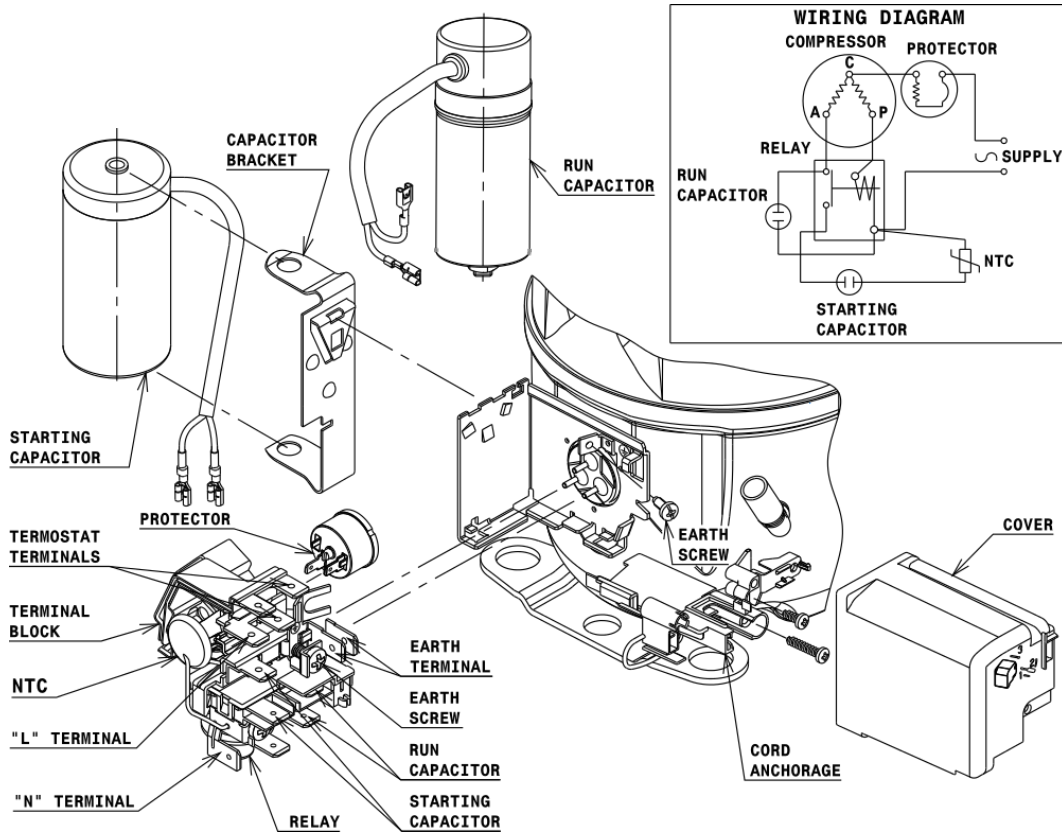


## DESIGNATION INTERNAL DIAM.

1	Service	9,7 mm
2	Suction	9,7 mm
3	Discharge	6,5 mm

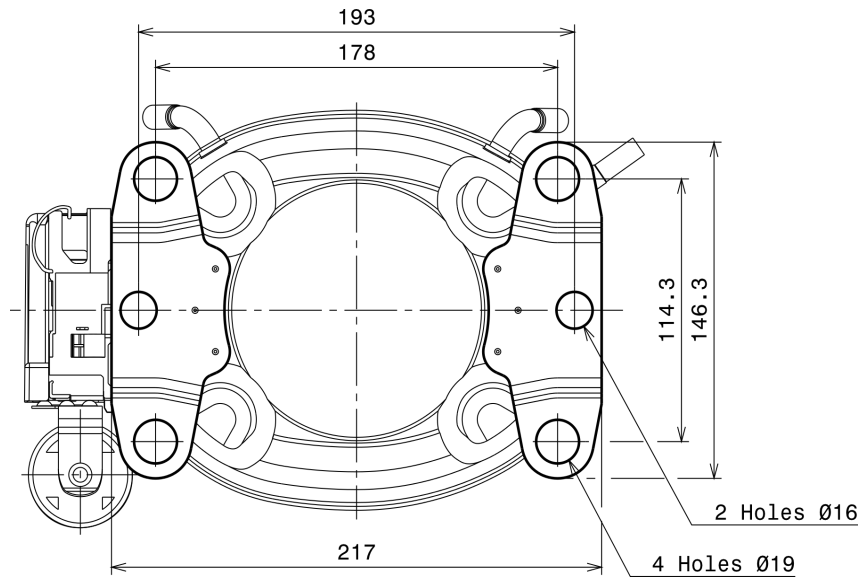
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSR CONNECTION (CURRENT RELAY + NTC) (X range)



# Technical Data Sheet

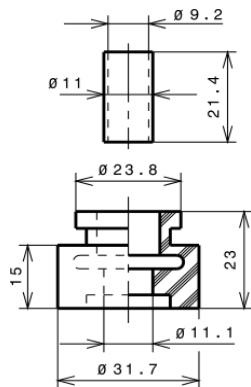
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

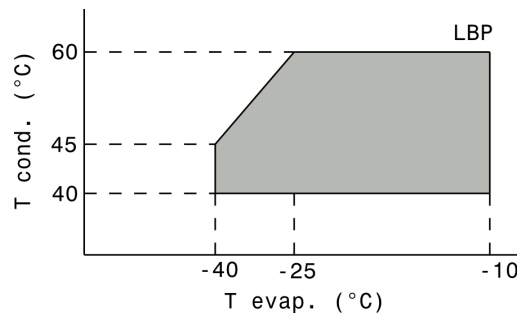
### STANDARD

Ø19 holes (178x114.3 net)



## SOA

SOA R404A LBP



# Technical Data Sheet

Compressor model **MX23FBa**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R404A**

## APPLICATION

Application Low Back Pressure  
Refrigerant R404A  
Evaporating Temp. -40,0 °C to -10,0 °C  
Expansion Capillar/Valve  
Comp. Cooling Fan cooled  
Max. ambient temp. 43,0 °C

## COMPRESSOR

Displacement 23,20 cm<sup>3</sup>  
Diameter 34,93 mm  
Stroke 24,20 mm  
Net Weight 16,61 Kg  
Oil type ISO VG 32 ESTER  
Oil charge 650 cm<sup>3</sup>

## MOTOR

Nominal Power 7/8 hp  
Voltage/Frequency 220-240V 50Hz  
Voltage range 187-255 V  
Type CSR  
Phase number 1 PH  
Locked Rotor Amps (LRA) 30,00 A  
Max. Cont. Current (MCC) 6,70 A  
Main W. resist. at 25°C 2,56 Ω  
Start W. resist. at 25°C 6,50 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	915 kCal/h	718 W
COP	1,35 W/W	0,96 W/W
EER	1,16 kCal/Wh	0,83 kCal/Wh
Input Power	790 W	751 W
Current	4,00 A	3,81 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	72- 88 μF 330 V		
Run capacitor	16 μF 420 V		
Relay	Option 1		
Reference	2014 180. + NTC15Ω		
Pick-Up	16.70 A		
Drop-Out	14.00 A		
Protector	Option 1		
Reference	T0535		
Current	17,00 A		
Time check	7,5-14 seg		
Disc temp. (Open/Close)	105,00 / 52,00 °C		

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	413	498	2,58	0,96	0,83
40	-35	577	565	2,90	1,19	1,02
40	-30	779	642	3,28	1,41	1,21
40	-25	1.017	729	3,70	1,62	1,40
40	-23,3	1.107	761	3,86	1,69	1,46
40	-20	1.293	825	4,17	1,82	1,57
40	-15	1.605	932	4,70	2,00	1,72
40	-10	1.955	1.048	5,28	2,17	1,87

45	-40	375	485	2,52	0,90	0,77
45	-35	532	559	2,88	1,11	0,95
45	-30	725	643	3,28	1,31	1,13
45	-25	956	736	3,74	1,51	1,30
45	-23,3	1.043	770	3,90	1,57	1,35
45	-20	1.224	840	4,24	1,70	1,46
45	-15	1.528	952	4,81	1,87	1,60
45	-10	1.870	1.075	5,42	2,02	1,74

50	-40	338	473	2,46	0,83	0,71
50	-35	486	553	2,85	1,02	0,88
50	-30	672	644	3,29	1,21	1,04
50	-25	895	744	3,77	1,40	1,20
50	-23,3	979	780	3,95	1,46	1,25
50	-20	1.155	854	4,32	1,57	1,35
50	-15	1.451	973	4,91	1,73	1,49
50	-10	1.785	1.103	5,56	1,88	1,62

55	-40	300	460	2,40	0,76	0,65
55	-35	441	547	2,82	0,94	0,81
55	-30	619	645	3,29	1,12	0,96
55	-25	834	751	3,81	1,29	1,11
55	-23,3	915	790	4,00	1,35	1,16
55	-20	1.085	868	4,39	1,45	1,25
55	-15	1.374	994	5,01	1,61	1,38
55	-10	1.700	1.130	5,70	1,75	1,50

60	-40	263	448	2,34	0,68	0,59
60	-35	395	542	2,79	0,85	0,73
60	-30	565	645	3,29	1,02	0,88
60	-25	772	759	3,85	1,18	1,02
60	-23,3	851	800	4,05	1,24	1,06
60	-20	1.016	882	4,46	1,34	1,15
60	-15	1.297	1.015	5,12	1,49	1,28
60	-10	1.615	1.158	5,84	1,62	1,40

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	434	498	2,58	0,87	0,75
40	-35	629	565	2,90	1,11	0,96
40	-30	855	642	3,28	1,33	1,15
40	-25	1.112	729	3,70	1,53	1,32
40	-23,3	1.206	761	3,86	1,59	1,37
40	-20	1.400	825	4,17	1,70	1,47
40	-15	1.719	932	4,70	1,84	1,59
40	-10	2.068	1.048	5,28	1,97	1,71

45	-40	376	485	2,52	0,77	0,67
45	-35	546	559	2,88	0,98	0,84
45	-30	748	643	3,28	1,16	1,01
45	-25	981	736	3,74	1,33	1,15
45	-23,3	1.067	770	3,90	1,38	1,20
45	-20	1.244	840	4,24	1,48	1,28
45	-15	1.538	952	4,81	1,62	1,40
45	-10	1.864	1.075	5,42	1,73	1,50

50	-40	317	473	2,46	0,67	0,58
50	-35	464	553	2,85	0,84	0,72
50	-30	641	644	3,29	1,00	0,86
50	-25	849	744	3,77	1,14	0,99
50	-23,3	927	780	3,95	1,19	1,03
50	-20	1.088	854	4,32	1,27	1,10
50	-15	1.358	973	4,91	1,40	1,21
50	-10	1.659	1.103	5,56	1,51	1,30

55	-40	259	460	2,40	0,56	0,49
55	-35	381	547	2,82	0,70	0,60
55	-30	534	645	3,29	0,83	0,72
55	-25	718	751	3,81	0,96	0,83
55	-23,3	788	790	4,00	1,00	0,86
55	-20	933	868	4,39	1,07	0,93
55	-15	1.178	994	5,01	1,19	1,02
55	-10	1.455	1.130	5,70	1,29	1,11

60	-40	201	448	2,34	0,45	0,39
60	-35	299	542	2,79	0,55	0,48
60	-30	427	645	3,29	0,66	0,57
60	-25	587	759	3,85	0,77	0,67
60	-23,3	648	800	4,05	0,81	0,70
60	-20	777	882	4,46	0,88	0,76
60	-15	998	1.015	5,12	0,98	0,85
60	-10	1.250	1.158	5,84	1,08	0,93

## EN12900

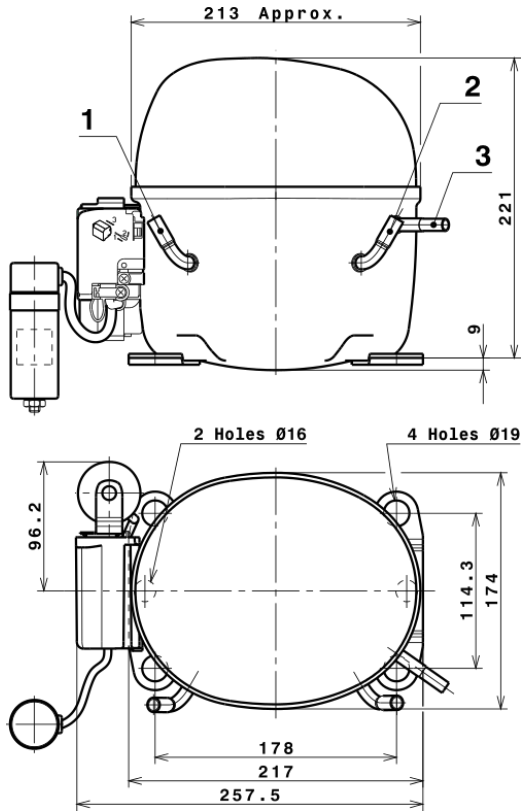
X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	4.828,0268416739	1.011,0622312961	5,1137945967	104,5915165413
2	122,1226407710	18,1769934174	0,0949753201	3,0460607554745
3	-51,5475406858	8,3819784934	0,0423122373	-0,59702585332988
4	0,5853243902	0,2042167327	0,0011289133	0,023196304581239
5	-1,0008216918	0,2734332769	0,0013634416	-0,0096769848110464

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

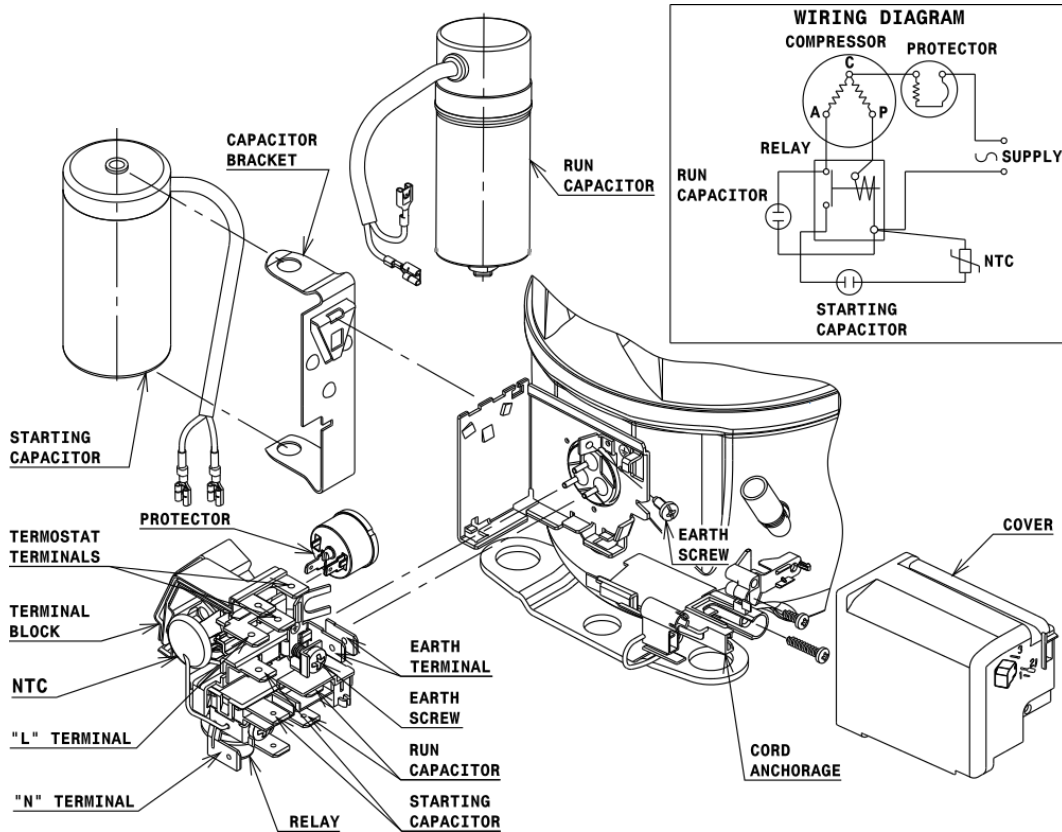


## DESIGNATION INTERNAL DIAM.

1	Service	9,7 mm
2	Suction	9,7 mm
3	Discharge	6,5 mm

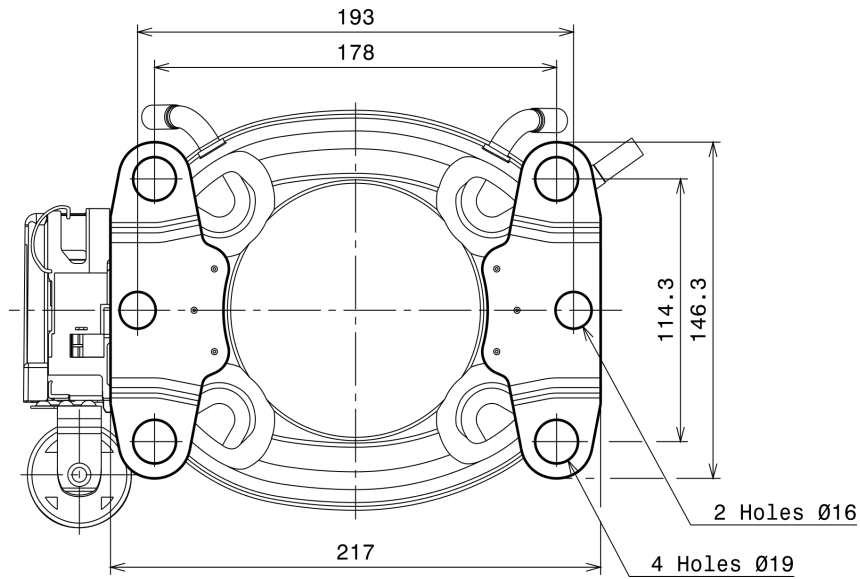
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSR CONNECTION (CURRENT RELAY + NTC) (X range)



# Technical Data Sheet

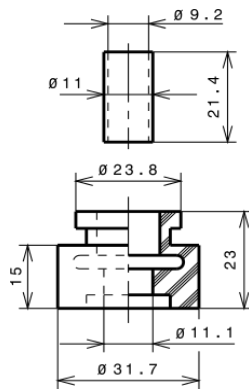
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

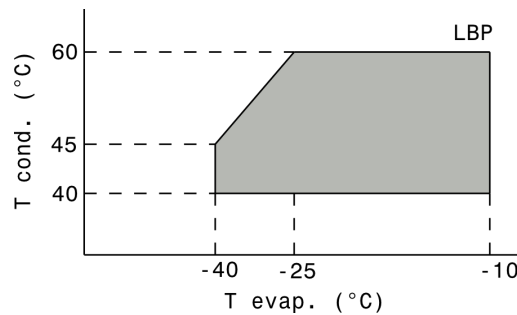
### STANDARD

Ø19 holes (178x114.3 net)



## SOA

SOA R404A LBP



# Technical Data Sheet

Compressor model **B43H**  
Voltage **220-240V 50/60Hz ~1**  
Refrigerant **R134a**

## APPLICATION

Application Low Back Pressure  
Refrigerant R134a  
Evaporating Temp. -35,0 °C to -15,0 °C  
Expansion Capillar  
Comp. Cooling Static/Fan cooled  
Max. ambient temp. 43,0 °C  
Compatible refriger. R1234yf

## COMPRESSOR

Displacement 4,30 cm<sup>3</sup>  
Diameter 19,00 mm  
Stroke 7,60 mm  
Net Weight 5,40 Kg  
Oil type ISO VG 15 ESTER  
Oil charge 130 cm<sup>3</sup>

## MOTOR

Nominal Power 1/7 hp  
Voltage/Frequency 220-240V 50Hz  
Voltage range 187-255 V  
Type RSIR  
Phase number 1 PH  
Locked Rotor Amps (LRA) 4,27 A  
Main W. resist. at 25°C 26,50 Ω  
Start W. resist. at 25°C 9,40 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	84 kCal/h	71 W
COP	1,00 W/W	0,76 W/W
EER	0,86 kCal/Wh	0,66 kCal/Wh
Input Power	97 W	93 W
Current	0,85 A	0,84 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

	Option 1	Option 2		
Relay	Option 1	Option 2		
Reference	QP2-22	JPQII-22		
Voltage	220-240 V	220-240 V		
Resistance	Ω	Ω		
Protector	Option 1	Option 2	Option 3	
Reference	DRB15N61A1	BT37-120A61D3	BT37-120	
Current	4,80 A			
Time check	7-16 seg			
Disc temp. (Open/Close)	135,00 / 61,00 °C	120,00 / 61,00 °C	120,00 / 61,00 °C	

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	48	88	0,83	0,63	0,54
40	-30	68	89	0,83	0,90	0,77
40	-25	93	93	0,84	1,17	1,00
40	-23,3	103	95	0,84	1,25	1,08
40	-20	122	101	0,86	1,41	1,21
40	-15	156	113	0,88	1,60	1,38
40	-10	193	129	0,90	1,75	1,50

45	-35	44	85	0,82	0,60	0,51
45	-30	63	87	0,83	0,85	0,73
45	-25	87	93	0,84	1,09	0,94
45	-23,3	96	96	0,84	1,17	1,00
45	-20	115	103	0,86	1,31	1,12
45	-15	148	116	0,88	1,48	1,27
45	-10	184	133	0,91	1,61	1,38

50	-35	39	82	0,81	0,56	0,48
50	-30	58	85	0,82	0,79	0,68
50	-25	81	93	0,84	1,02	0,87
50	-23,3	90	96	0,85	1,09	0,93
50	-20	109	104	0,86	1,21	1,04
50	-15	140	119	0,89	1,37	1,17
50	-10	176	138	0,92	1,48	1,27

55	-35	35	78	0,81	0,52	0,45
55	-30	53	84	0,82	0,74	0,63
55	-25	75	93	0,84	0,94	0,81
55	-23,3	84	97	0,85	1,00	0,86
55	-20	102	106	0,86	1,12	0,96
55	-15	132	122	0,89	1,26	1,08
55	-10	167	142	0,92	1,36	1,17

60	-35	31	75	0,80	0,48	0,41
60	-30	48	82	0,81	0,68	0,58
60	-25	69	93	0,84	0,87	0,74
60	-23,3	78	98	0,85	0,92	0,79
60	-20	95	107	0,87	1,03	0,88
60	-15	124	125	0,90	1,15	0,99
60	-10	158	147	0,93	1,25	1,08

65	-35	27	72	0,79	0,43	0,37
65	-30	43	81	0,81	0,62	0,53
65	-25	63	93	0,84	0,79	0,68
65	-23,3	71	98	0,85	0,84	0,73
65	-20	88	109	0,87	0,94	0,81
65	-15	117	128	0,90	1,06	0,91
65	-10	149	152	0,93	1,15	0,99

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	52	88	0,83	0,59	0,51
40	-30	76	89	0,83	0,86	0,74
40	-25	104	93	0,84	1,11	0,96
40	-23,3	114	95	0,84	1,19	1,03
40	-20	135	101	0,86	1,33	1,15
40	-15	171	113	0,88	1,51	1,30
40	-10	210	129	0,90	1,63	1,41

45	-35	46	85	0,82	0,54	0,47
45	-30	67	87	0,83	0,77	0,67
45	-25	93	93	0,84	1,00	0,86
45	-23,3	102	96	0,84	1,07	0,92
45	-20	122	103	0,86	1,19	1,03
45	-15	155	116	0,88	1,34	1,16
45	-10	193	133	0,91	1,45	1,25

50	-35	39	82	0,81	0,48	0,42
50	-30	59	85	0,82	0,69	0,59
50	-25	82	93	0,84	0,88	0,76
50	-23,3	91	96	0,85	0,94	0,81
50	-20	109	104	0,86	1,05	0,90
50	-15	140	119	0,89	1,17	1,01
50	-10	175	138	0,92	1,27	1,10

55	-35	33	78	0,81	0,42	0,37
55	-30	50	84	0,82	0,60	0,52
55	-25	71	93	0,84	0,76	0,66
55	-23,3	79	97	0,85	0,82	0,71
55	-20	96	106	0,86	0,91	0,78
55	-15	125	122	0,89	1,02	0,88
55	-10	157	142	0,92	1,10	0,95

60	-35	27	75	0,80	0,36	0,31
60	-30	42	82	0,81	0,51	0,44
60	-25	60	93	0,84	0,65	0,56
60	-23,3	68	98	0,85	0,69	0,60
60	-20	83	107	0,87	0,77	0,67
60	-15	109	125	0,90	0,87	0,75
60	-10	140	147	0,93	0,95	0,82

65	-35	21	72	0,79	0,29	0,25
65	-30	33	81	0,81	0,41	0,35
65	-25	50	93	0,84	0,53	0,46
65	-23,3	56	98	0,85	0,57	0,49
65	-20	70	109	0,87	0,64	0,55
65	-15	94	128	0,90	0,73	0,63
65	-10	122	152	0,93	0,81	0,70

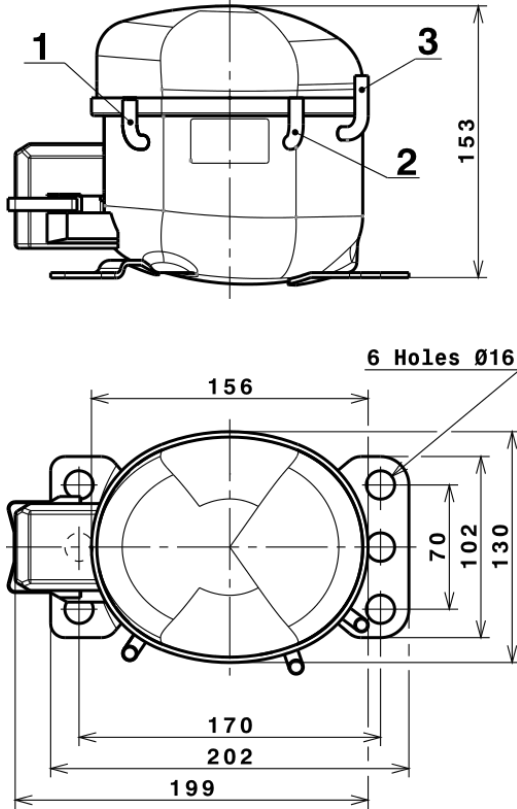
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	475,5322560443	112,2162989092	0,8755831224	8,7315732344283
2	13,3727526558	2,5613205636	0,0025018350	0,26798518847136
3	-4,4924600900	1,5676096843	0,0023223820	-0,050297468439225
4	0,0763558404	0,0752368335	0,0000826207	0,0020821578871276
5	-0,0926692799	0,0627672983	0,0001079902	-0,00087587056209272

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

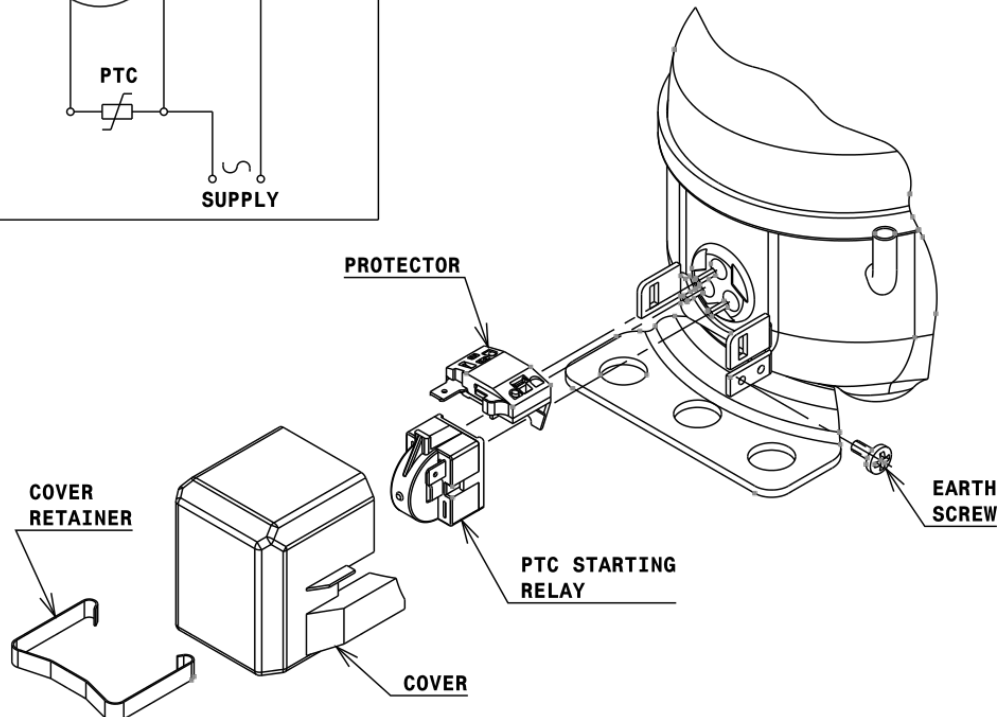
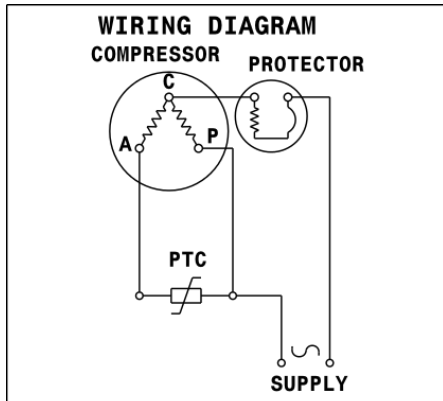


## DESIGNATION INTERNAL DIAM.

DESIGNATION	INTERNAL DIAM.
1 Suction	6,1 mm
2 Service	6,1 mm
3 Discharge	5,1 mm

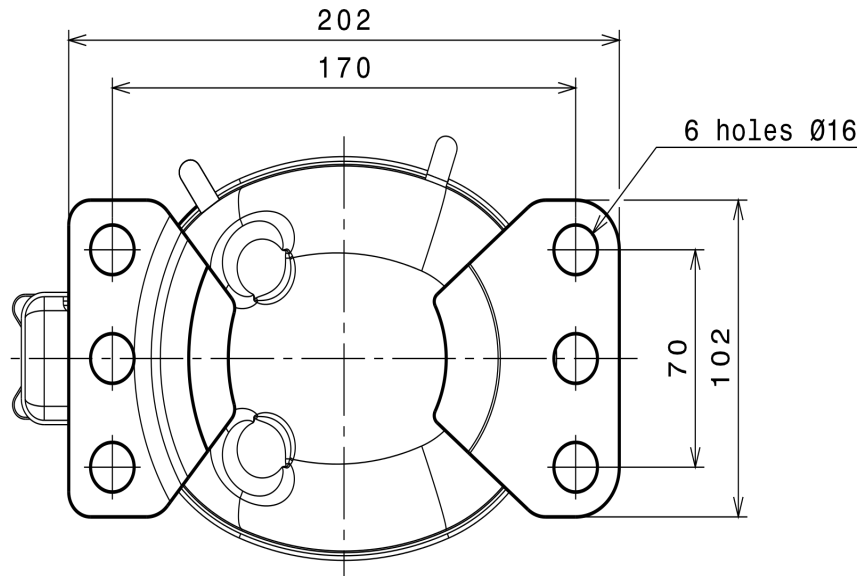
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### RSIR CONNECTION (PTC) (B, Small L ranges)



# Technical Data Sheet

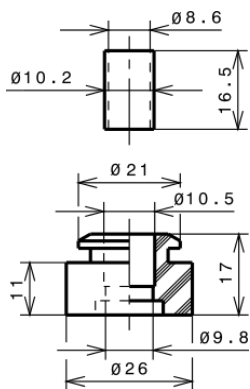
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

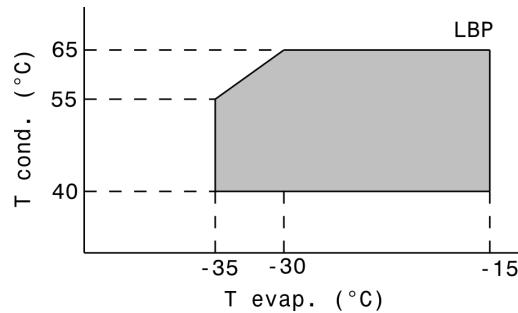
### STANDARD

Ø16 holes (170x70 net)



## SOA

SOA R134a LBP



# Technical Data Sheet

Compressor model **GL60AAb**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	Low Back Pressure	Displacement	5,98 cm <sup>3</sup>	Nominal Power	1/6 hp
Refrigerant	R134a	Diameter	20,88 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-35,0 °C to -10,0 °C	Stroke	17,47 mm	Voltage range	187-264 V
Expansion	Capillar/Valve	Net Weight	8,60 Kg	Type	CSIR
Comp. Cooling	Static	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	205 cm <sup>3</sup>	Locked Rotor Amps (LRA)	9,00 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	1,20 A
				Main W. resist. at 25°C	20,00 Ω
				Start W. resist. at 25°C	24,55 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	126 kCal/h	107 W
COP	1,10 W/W	0,85 W/W
EER	0,95 kCal/Wh	0,73 kCal/Wh
Input Power	133 W	126 W
Current	0,87 A	0,85 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	47- 56 μF 330 V			
Relay	Option 1			
Reference	2014 108.			
Pick-Up	2,70 A			
Drop-Out	2,30 A			
Protector	Option 1	Option 2		
Reference	MRT77AMK	T0068		
Current	5,80 A	5,80 A		
Time check	7,5-14 seg	7,5-14 seg		
Disc temp. (Open/Close)	105,00 / 61,00 °C	105,00 / 62,00 °C		

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	69	97	0,76	0,83	0,71
40	-30	98	110	0,80	1,04	0,89
40	-25	134	125	0,84	1,25	1,07
40	-23,3	147	130	0,86	1,31	1,13
40	-20	176	142	0,90	1,44	1,24
40	-15	225	161	0,97	1,62	1,39
40	-10	280	183	1,06	1,78	1,53

45	-35	64	94	0,75	0,78	0,67
45	-30	92	109	0,79	0,98	0,85
45	-25	127	125	0,84	1,18	1,01
45	-23,3	140	131	0,86	1,24	1,07
45	-20	168	144	0,91	1,36	1,17
45	-15	216	165	0,98	1,53	1,31
45	-10	271	188	1,08	1,68	1,44

50	-35	58	92	0,75	0,74	0,64
50	-30	86	107	0,79	0,93	0,80
50	-25	120	125	0,85	1,11	0,96
50	-23,3	133	132	0,87	1,17	1,01
50	-20	161	146	0,91	1,28	1,10
50	-15	208	168	1,00	1,44	1,24
50	-10	262	193	1,10	1,58	1,36

55	-35	53	89	0,74	0,69	0,60
55	-30	80	106	0,79	0,87	0,75
55	-25	113	126	0,85	1,05	0,90
55	-23,3	126	133	0,87	1,10	0,95
55	-20	153	148	0,92	1,21	1,04
55	-15	200	172	1,01	1,35	1,16
55	-10	253	198	1,12	1,49	1,28

60	-35	48	86	0,73	0,64	0,55
60	-30	74	105	0,78	0,82	0,70
60	-25	106	126	0,85	0,98	0,84
60	-23,3	119	134	0,87	1,03	0,89
60	-20	146	150	0,93	1,13	0,97
60	-15	191	175	1,02	1,27	1,09
60	-10	244	203	1,14	1,40	1,20

65	-35	42	84	0,73	0,59	0,51
65	-30	68	104	0,78	0,76	0,65
65	-25	100	127	0,85	0,91	0,79
65	-23,3	112	135	0,88	0,97	0,83
65	-20	138	152	0,93	1,06	0,91
65	-15	183	179	1,04	1,19	1,03
65	-10	235	208	1,16	1,31	1,13

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	75	97	0,76	0,77	0,67
40	-30	109	110	0,80	0,99	0,86
40	-25	148	125	0,84	1,19	1,03
40	-23,3	163	130	0,86	1,25	1,08
40	-20	194	142	0,90	1,37	1,18
40	-15	246	161	0,97	1,53	1,32
40	-10	305	183	1,06	1,67	1,44

45	-35	67	94	0,75	0,71	0,61
45	-30	98	109	0,79	0,90	0,78
45	-25	135	125	0,84	1,08	0,93
45	-23,3	149	131	0,86	1,13	0,98
45	-20	178	144	0,91	1,24	1,07
45	-15	227	165	0,98	1,38	1,19
45	-10	283	188	1,08	1,50	1,30

50	-35	58	92	0,75	0,64	0,55
50	-30	87	107	0,79	0,81	0,70
50	-25	121	125	0,85	0,96	0,83
50	-23,3	134	132	0,87	1,01	0,88
50	-20	161	146	0,91	1,11	0,96
50	-15	208	168	1,00	1,24	1,07
50	-10	261	193	1,10	1,35	1,17

55	-35	50	89	0,74	0,56	0,49
55	-30	75	106	0,79	0,71	0,61
55	-25	107	126	0,85	0,85	0,73
55	-23,3	119	133	0,87	0,89	0,77
55	-20	145	148	0,92	0,98	0,85
55	-15	188	172	1,01	1,10	0,95
55	-10	239	198	1,12	1,20	1,04

60	-35	42	86	0,73	0,48	0,42
60	-30	64	105	0,78	0,61	0,53
60	-25	93	126	0,85	0,74	0,64
60	-23,3	104	134	0,87	0,78	0,67
60	-20	128	150	0,93	0,86	0,74
60	-15	169	175	1,02	0,97	0,83
60	-10	216	203	1,14	1,07	0,92

65	-35	33	84	0,73	0,40	0,35
65	-30	53	104	0,78	0,51	0,44
65	-25	79	127	0,85	0,63	0,54
65	-23,3	89	135	0,88	0,66	0,57
65	-20	111	152	0,93	0,74	0,64
65	-15	150	179	1,04	0,84	0,72
65	-10	194	208	1,16	0,93	0,81

## EN12900

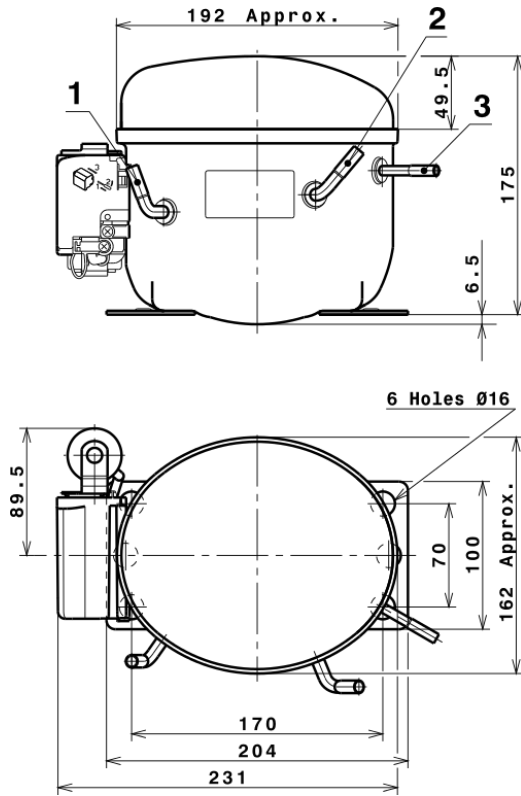
X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	658,2266644726	172,9977023712	1,0389181805	11,84749186747
2	19,0240422174	3,1256210348	0,0174207728	0,37905351551066
3	-5,6361009409	1,6513752724	0,0067931301	-0,050093839966888
4	0,1210887268	0,0467566296	0,0003236662	0,0032932567355435
5	-0,1132647455	0,0627479084	0,0002360047	-0,00071744461043195

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

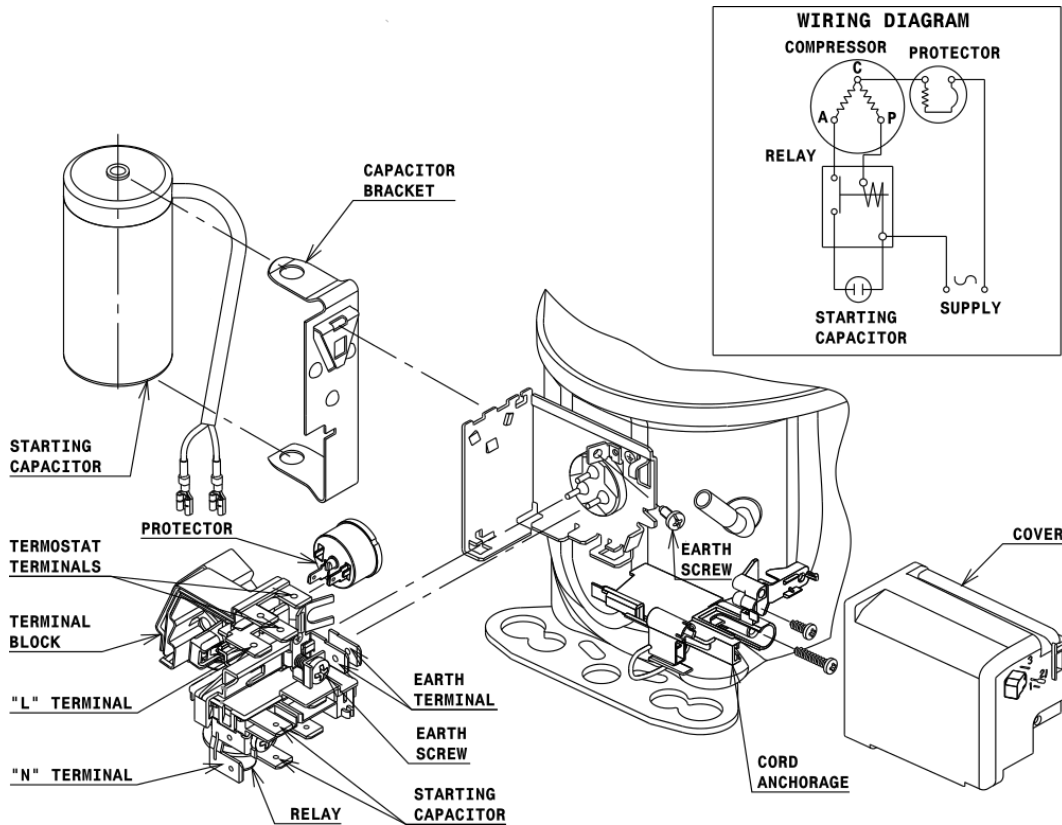


## DESIGNATION INTERNAL DIAM.

1	Suction	6,5 mm
2	Service	6,5 mm
3	Discharge	4,9 mm

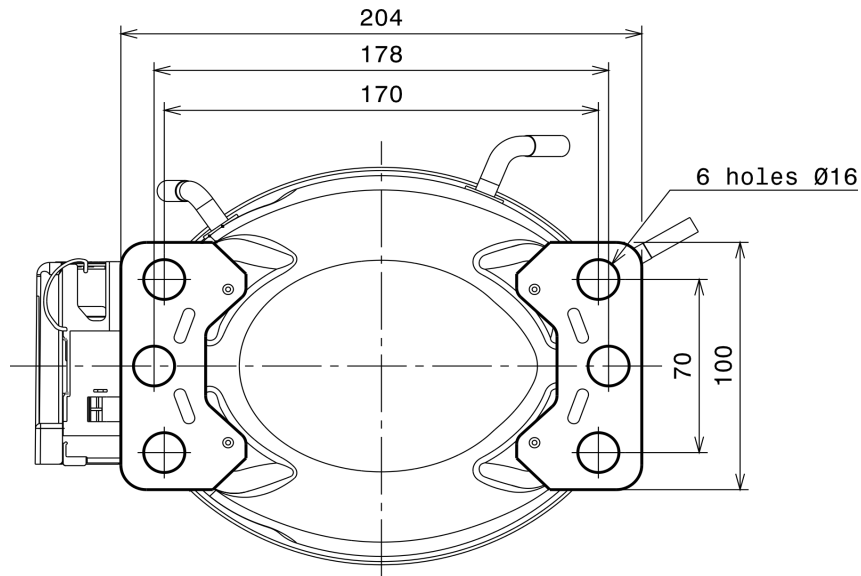
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



# Technical Data Sheet

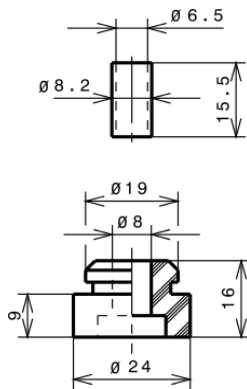
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

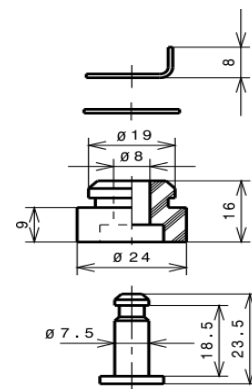
### STANDARD

Ø16 holes (170x70 net)



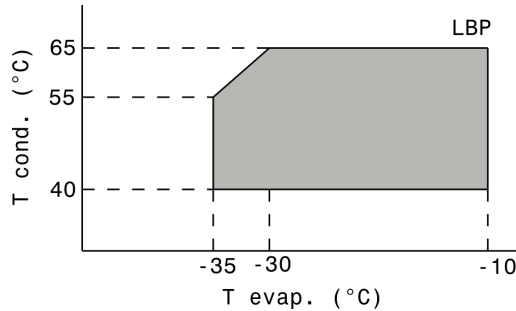
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R134a LBP



# Technical Data Sheet

Compressor model **GL70ANa**  
Voltage **200-220/220-230V 50/60Hz ~1**  
Refrigerant **R134a**

## APPLICATION

Application Low Back Pressure  
Refrigerant R134a  
Evaporating Temp. -35,0 °C to -10,0 °C  
Expansion Capillar  
Comp. Cooling Static  
Max. ambient temp. 43,0 °C  
Compatible refriger. R1234yf

## COMPRESSOR

Displacement 6,65 cm<sup>3</sup>  
Diameter 22,00 mm  
Stroke 17,47 mm  
Net Weight 9,49 Kg  
Oil type ISO VG 32 ESTER  
Oil charge 340 cm<sup>3</sup>

## MOTOR

Nominal Power 1/5 hp  
Voltage/Frequency 200-220V 50Hz  
Voltage range 170-242 V  
Type RSIR  
Phase number 1 PH  
Locked Rotor Amps (LRA) 15,00 A  
Max. Cont. Current (MCC) 2,50 A  
Main W. resist. at 25°C 10,20 Ω  
Start W. resist. at 25°C 14,10 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	151 kCal/h	129 W
COP	1,08 W/W	0,83 W/W
EER	0,93 kCal/Wh	0,72 kCal/Wh
Input Power	162 W	156 W
Current	1,50 A	1,49 A

## APPROVALS

## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Relay	Option 1			
Reference	PTC K100			
Voltage	200-240 V			
Resistance	14.00 Ω			
Protector	Option 1	Option 2	Option 3	
Reference	T0490	AE11FQ	4TM414NFBYY	
Current	9,40 A	10,80 A	13,00 A	
Time check	7,5-14 seg	7,5-14 seg	5-15 seg	
Disc temp. (Open/Close)	130,00 / 62,00 °C	125,00 / 62,00 °C	120,00 / 61,00 °C	

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	88	123	1,43	0,83	0,72
40	-30	117	135	1,45	1,01	0,87
40	-25	155	149	1,47	1,20	1,04
40	-23,3	169	154	1,48	1,27	1,10
40	-20	201	165	1,51	1,41	1,21
40	-15	255	183	1,55	1,62	1,40
40	-10	318	202	1,61	1,83	1,57

45	-35	83	123	1,43	0,79	0,68
45	-30	112	137	1,45	0,95	0,82
45	-25	149	151	1,48	1,14	0,98
45	-23,3	163	157	1,49	1,21	1,04
45	-20	194	168	1,51	1,34	1,15
45	-15	248	187	1,56	1,54	1,33
45	-10	310	207	1,63	1,74	1,50

50	-35	79	124	1,43	0,74	0,64
50	-30	106	138	1,45	0,90	0,77
50	-25	143	154	1,48	1,08	0,93
50	-23,3	157	159	1,49	1,15	0,98
50	-20	188	171	1,52	1,27	1,09
50	-15	241	191	1,58	1,47	1,26
50	-10	303	212	1,64	1,66	1,43

55	-35	74	124	1,43	0,69	0,60
55	-30	101	139	1,45	0,85	0,73
55	-25	137	156	1,49	1,02	0,88
55	-23,3	151	162	1,50	1,08	0,93
55	-20	181	174	1,53	1,21	1,04
55	-15	234	195	1,59	1,40	1,20
55	-10	295	217	1,66	1,58	1,36

60	-35	69	124	1,43	0,65	0,56
60	-30	96	140	1,46	0,80	0,68
60	-25	131	158	1,49	0,96	0,83
60	-23,3	145	165	1,51	1,02	0,88
60	-20	175	178	1,54	1,14	0,98
60	-15	227	199	1,60	1,33	1,14
60	-10	287	222	1,68	1,51	1,29

65	-35	65	125	1,43	0,60	0,52
65	-30	91	142	1,46	0,74	0,64
65	-25	125	160	1,50	0,91	0,78
65	-23,3	139	167	1,51	0,97	0,83
65	-20	168	181	1,55	1,08	0,93
65	-15	220	203	1,61	1,26	1,08
65	-10	280	227	1,70	1,43	1,23

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	96	123	1,43	0,78	0,67
40	-30	130	135	1,45	0,96	0,83
40	-25	172	149	1,47	1,15	1,00
40	-23,3	188	154	1,48	1,22	1,05
40	-20	222	165	1,51	1,35	1,16
40	-15	280	183	1,55	1,53	1,33
40	-10	346	202	1,61	1,71	1,48

45	-35	87	123	1,43	0,71	0,61
45	-30	119	137	1,45	0,87	0,75
45	-25	158	151	1,48	1,04	0,90
45	-23,3	173	157	1,49	1,10	0,95
45	-20	205	168	1,51	1,22	1,05
45	-15	260	187	1,56	1,39	1,20
45	-10	323	207	1,63	1,56	1,35

50	-35	79	124	1,43	0,64	0,55
50	-30	107	138	1,45	0,78	0,67
50	-25	144	154	1,48	0,93	0,81
50	-23,3	158	159	1,49	0,99	0,86
50	-20	188	171	1,52	1,10	0,95
50	-15	240	191	1,58	1,26	1,09
50	-10	301	212	1,64	1,42	1,23

55	-35	70	124	1,43	0,56	0,49
55	-30	96	139	1,45	0,69	0,59
55	-25	129	156	1,49	0,83	0,72
55	-23,3	143	162	1,50	0,88	0,76
55	-20	171	174	1,53	0,98	0,85
55	-15	221	195	1,59	1,13	0,98
55	-10	278	217	1,66	1,28	1,11

60	-35	61	124	1,43	0,49	0,43
60	-30	84	140	1,46	0,60	0,52
60	-25	115	158	1,49	0,73	0,63
60	-23,3	127	165	1,51	0,77	0,67
60	-20	154	178	1,54	0,87	0,75
60	-15	201	199	1,60	1,01	0,87
60	-10	255	222	1,68	1,15	0,99

65	-35	53	125	1,43	0,42	0,37
65	-30	73	142	1,46	0,51	0,44
65	-25	101	160	1,50	0,63	0,54
65	-23,3	112	167	1,51	0,67	0,58
65	-20	137	181	1,55	0,76	0,65
65	-15	181	203	1,61	0,89	0,77
65	-10	233	227	1,70	1,03	0,89

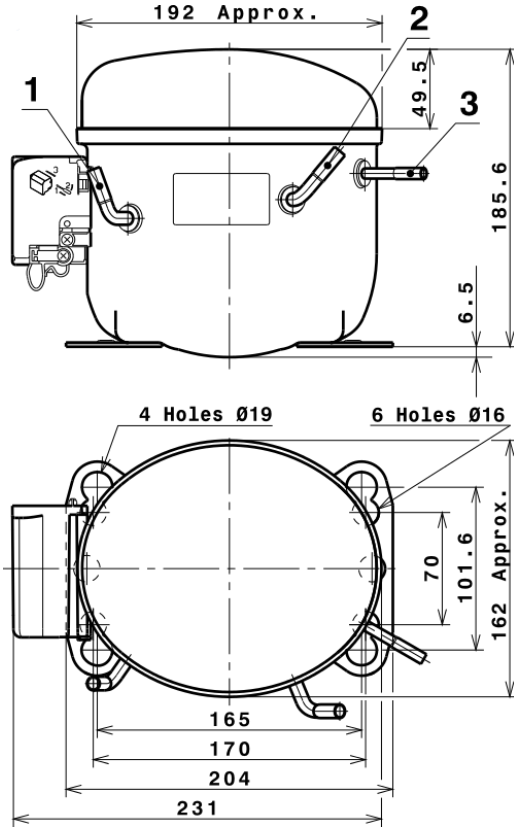
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	725,9732890492	195,9918737517	1,5942170833	12,948201657299
2	21,5041353908	3,3817992727	0,0137409605	0,43304109904658
3	-5,8076907595	1,4062145881	0,0049529037	-0,042458688078439
4	0,1554456179	0,0369730154	0,0002572207	0,0041985473919566
5	-0,1162413892	0,0382318399	0,0001386794	-0,00058839019268252

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

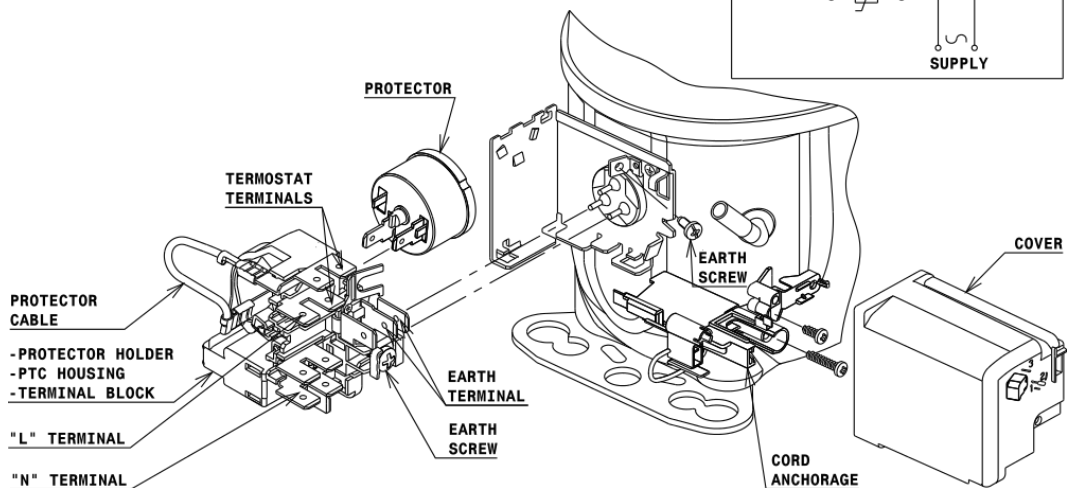
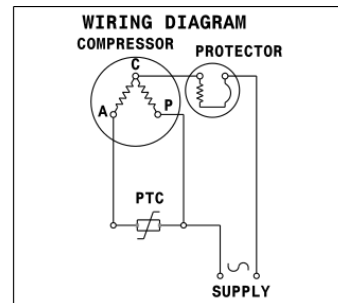


## DESIGNATION INTERNAL DIAM.

DESIGNATION	INTERNAL DIAM.
1 Suction	6,5 mm
2 Service	6,5 mm
3 Discharge	4,9 mm

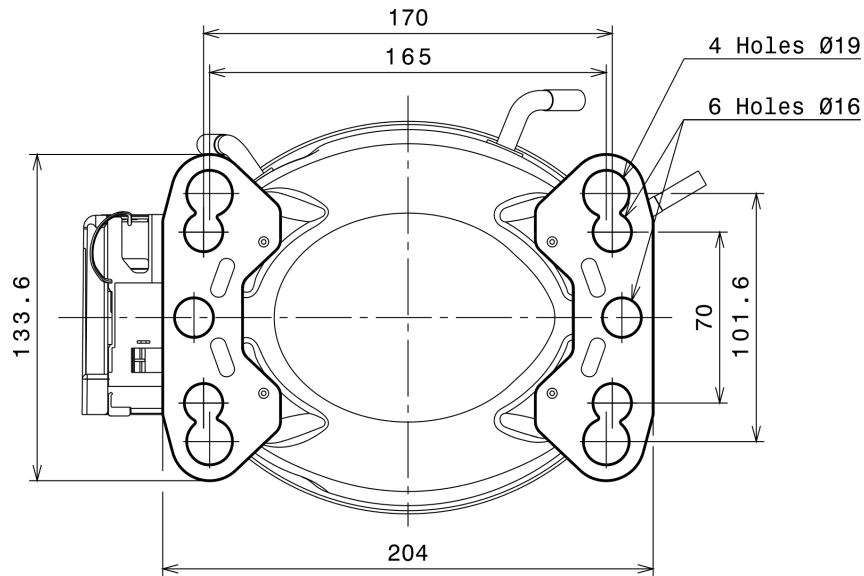
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### RSIR CONNECTION (PTC) (L, P ranges)



# Technical Data Sheet

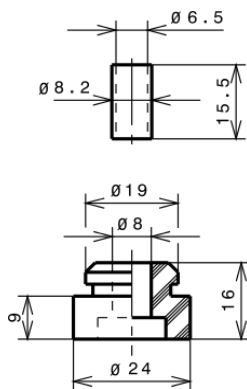
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

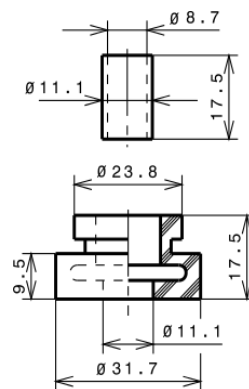
### STANDARD

Ø16 holes (170x70 net)



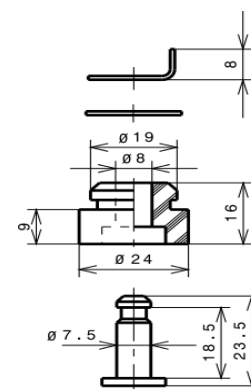
### AMERICAN FEET

Ø19 holes (165x101.6 net)



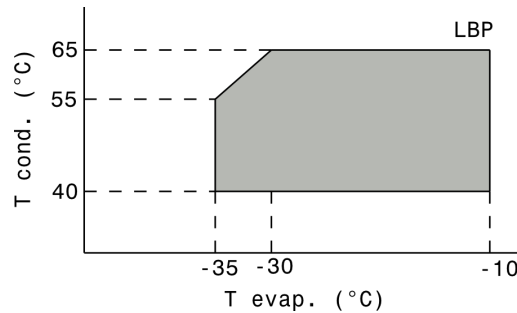
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R134a LBP



# Technical Data Sheet

Compressor model **GL80AAa**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R134a**

## APPLICATION

Application Low Back Pressure  
Refrigerant R134a  
Evaporating Temp. -35,0 °C to -10,0 °C  
Expansion Capillar  
Comp. Cooling Static  
Max. ambient temp. 43,0 °C  
Compatible refriger. R1234yf

## COMPRESSOR

Displacement 8,10 cm<sup>3</sup>  
Diameter 24,29 mm  
Stroke 17,47 mm  
Net Weight 8,98 Kg  
Oil type ISO VG 32 ESTER  
Oil charge 295 cm<sup>3</sup>

## MOTOR

Nominal Power 1/5 hp  
Voltage/Frequency 220-240V 50Hz  
Voltage range 187-264 V  
Type RSIR  
Phase number 1 PH  
Locked Rotor Amps (LRA) 11,50 A  
Max. Cont. Current (MCC) 1,50 A  
Main W. resist. at 25°C 13,58 Ω  
Start W. resist. at 25°C 23,01 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	170 kCal/h	144 W
COP	1,15 W/W	0,89 W/W
EER	0,99 kCal/Wh	0,77 kCal/Wh
Input Power	172 W	162 W
Current	1,11 A	1,08 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Relay	Option 1			
Reference	PTC K100			
Voltage	200-240 V			
Resistance	14.00 Ω			
Protector	Option 1	Option 2	Option 3	Option 4
Reference	MRP304LZ	4TM308NFBYY	T0502	AE15BW
Current	9,40 A	11,00 A	9,00 A	8,20 A
Time check	7,5-14 seg	5-15 seg	7,5-14 seg	7,5-14 seg
Disc temp. (Open/Close)	120,00 / 61,00 °C	120,00 / 61,00 °C	130,00 / 62,00 °C	130,00 / 62,00 °C

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	95	117	0,95	0,94	0,81
40	-30	132	136	1,00	1,12	0,97
40	-25	178	158	1,06	1,31	1,13
40	-23,3	196	165	1,09	1,38	1,18
40	-20	234	182	1,14	1,50	1,29
40	-15	300	208	1,24	1,67	1,44
40	-10	375	237	1,35	1,84	1,58

45	-35	87	115	0,94	0,89	0,76
45	-30	124	136	1,00	1,06	0,91
45	-25	169	159	1,07	1,24	1,06
45	-23,3	187	168	1,10	1,30	1,12
45	-20	225	185	1,15	1,41	1,22
45	-15	290	213	1,26	1,58	1,36
45	-10	365	244	1,39	1,74	1,50

50	-35	80	112	0,94	0,82	0,71
50	-30	115	135	1,00	0,99	0,85
50	-25	161	161	1,07	1,17	1,00
50	-23,3	179	170	1,10	1,22	1,05
50	-20	216	188	1,17	1,33	1,15
50	-15	281	219	1,28	1,49	1,28
50	-10	356	252	1,42	1,64	1,41

55	-35	72	110	0,93	0,76	0,65
55	-30	107	135	1,00	0,93	0,80
55	-25	152	162	1,08	1,09	0,94
55	-23,3	170	172	1,11	1,15	0,99
55	-20	207	192	1,18	1,26	1,08
55	-15	272	224	1,30	1,41	1,21
55	-10	346	259	1,45	1,55	1,34

60	-35	64	108	0,92	0,69	0,60
60	-30	99	134	0,99	0,86	0,74
60	-25	144	164	1,08	1,02	0,88
60	-23,3	161	174	1,12	1,08	0,93
60	-20	198	195	1,19	1,18	1,02
60	-15	263	230	1,32	1,33	1,14
60	-10	336	266	1,48	1,47	1,26

65	-35	57	105	0,92	0,63	0,54
65	-30	91	134	0,99	0,79	0,68
65	-25	136	165	1,09	0,95	0,82
65	-23,3	153	176	1,12	1,01	0,87
65	-20	190	199	1,20	1,11	0,95
65	-15	253	235	1,35	1,25	1,08
65	-10	327	274	1,52	1,39	1,19

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	103	117	0,95	0,88	0,76
40	-30	146	136	1,00	1,08	0,93
40	-25	198	158	1,06	1,26	1,09
40	-23,3	218	165	1,09	1,32	1,14
40	-20	259	182	1,14	1,43	1,23
40	-15	329	208	1,24	1,58	1,37
40	-10	408	237	1,35	1,72	1,49

45	-35	92	115	0,94	0,80	0,69
45	-30	131	136	1,00	0,97	0,84
45	-25	180	159	1,07	1,13	0,98
45	-23,3	199	168	1,10	1,19	1,02
45	-20	238	185	1,15	1,29	1,11
45	-15	305	213	1,26	1,43	1,23
45	-10	381	244	1,39	1,56	1,35

50	-35	80	112	0,94	0,71	0,61
50	-30	116	135	1,00	0,86	0,74
50	-25	162	161	1,07	1,01	0,87
50	-23,3	180	170	1,10	1,06	0,91
50	-20	217	188	1,17	1,15	0,99
50	-15	281	219	1,28	1,28	1,11
50	-10	354	252	1,42	1,40	1,21

55	-35	68	110	0,93	0,62	0,53
55	-30	102	135	1,00	0,75	0,65
55	-25	144	162	1,08	0,89	0,77
55	-23,3	161	172	1,11	0,93	0,81
55	-20	196	192	1,18	1,02	0,88
55	-15	256	224	1,30	1,14	0,99
55	-10	326	259	1,45	1,26	1,09

60	-35	56	108	0,92	0,52	0,45
60	-30	87	134	0,99	0,64	0,56
60	-25	126	164	1,08	0,77	0,67
60	-23,3	142	174	1,12	0,81	0,70
60	-20	175	195	1,19	0,89	0,77
60	-15	232	230	1,32	1,01	0,87
60	-10	299	266	1,48	1,12	0,97

65	-35	44	105	0,92	0,42	0,36
65	-30	72	134	0,99	0,53	0,46
65	-25	108	165	1,09	0,65	0,56
65	-23,3	122	176	1,12	0,69	0,60
65	-20	153	199	1,20	0,77	0,67
65	-15	208	235	1,35	0,88	0,76
65	-10	272	274	1,52	0,99	0,86

## EN12900

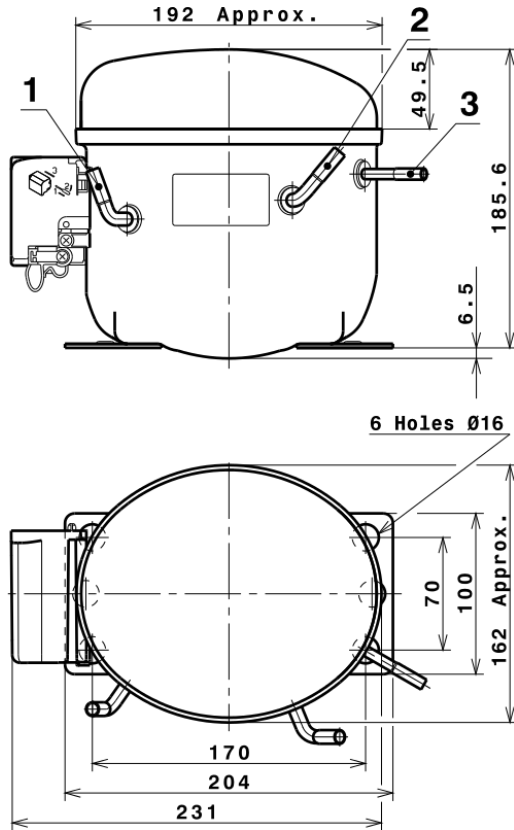
X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	859,3903967516	218,3002184369	1,3064541738	15,308786739059
2	25,1723742473	4,0877119471	0,0236891872	0,50135313241795
3	-6,8854991891	2,2930807063	0,0097950383	-0,050191027109402
4	0,1777703630	0,0517172135	0,0004292572	0,0048158038357466
5	-0,1292609230	0,0791366296	0,0003147969	-0,00040795059677713

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

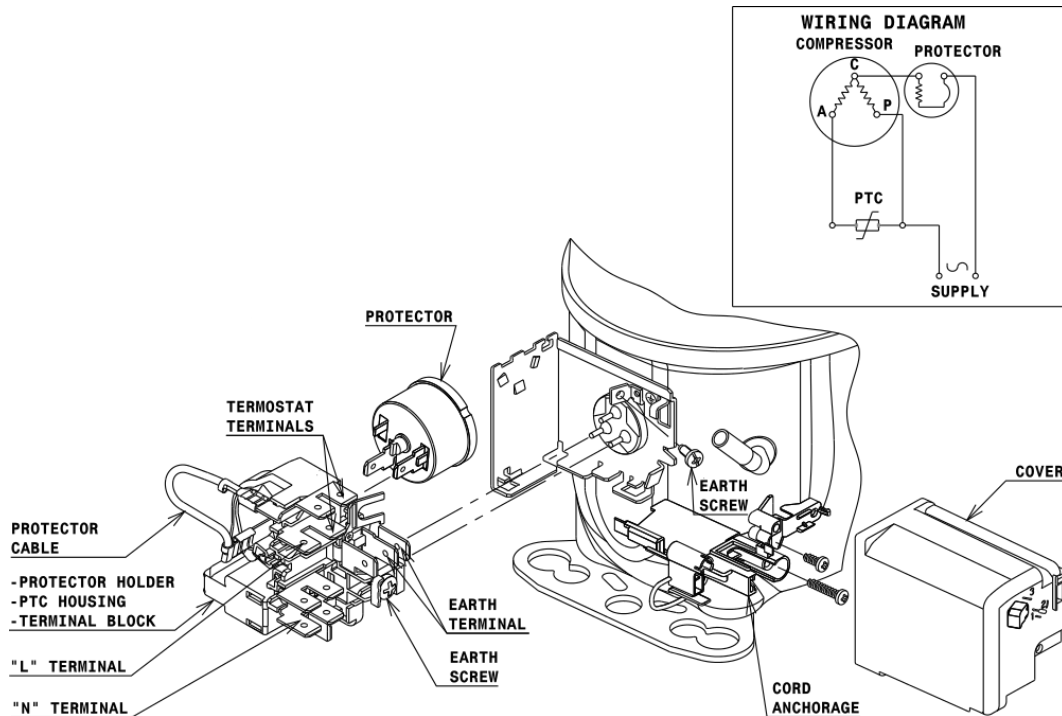


## DESIGNATION INTERNAL DIAM.

DESIGNATION	INTERNAL DIAM.
1 Suction	6,5 mm
2 Service	6,5 mm
3 Discharge	4,9 mm

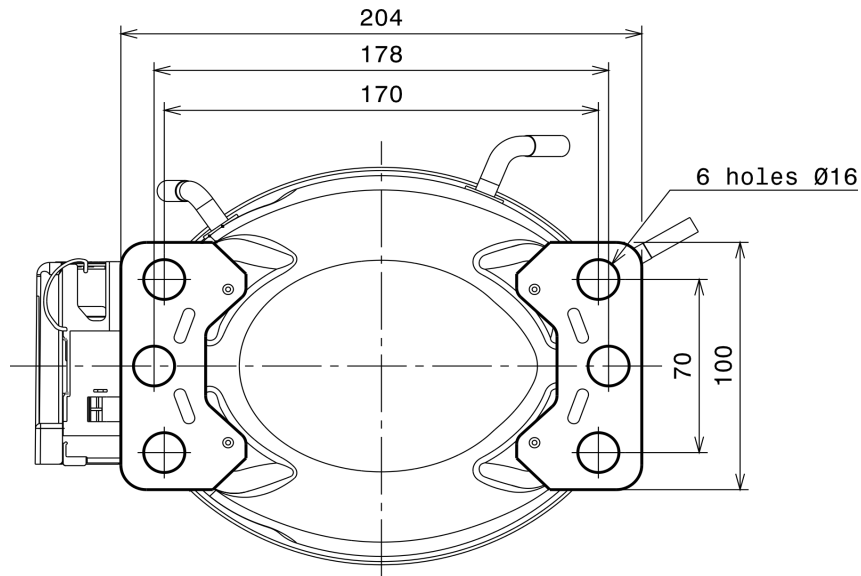
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### RSIR CONNECTION (PTC)



# Technical Data Sheet

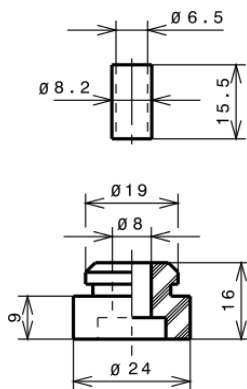
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

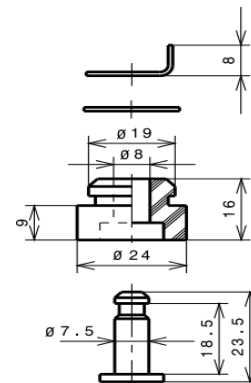
### STANDARD

Ø16 holes (170x70 net)



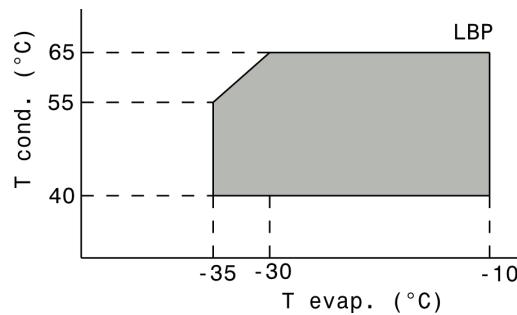
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R134a LBP



# Technical Data Sheet

Compressor model **GL90AAa**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R134a**

## APPLICATION

Application	Low Back Pressure
Refrigerant	R134a
Evaporating Temp.	-35,0 °C to -10,0 °C
Expansion	Capillar
Comp. Cooling	Static
Max. ambient temp.	43,0 °C
Compatible refriger.	R1234yf

## COMPRESSOR

Displacement	9,09 cm <sup>3</sup>
Diameter	24,29 mm
Stroke	19,62 mm
Net Weight	9,39 Kg
Oil type	ISO VG 32 ESTER
Oil charge	350 cm <sup>3</sup>

## MOTOR

Nominal Power	1/4 hp
Voltage/Frequency	220-240V 50Hz
Voltage range	187-255 V
Type	RSIR
Phase number	1 PH
Locked Rotor Amps (LRA)	12,80 A
Max. Cont. Current (MCC)	1,70 A
Main W. resist. at 25°C	11,83 Ω
Start W. resist. at 25°C	19,62 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	193 kCal/h	165 W
COP	1,15 W/W	0,90 W/W
EER	0,99 kCal/Wh	0,77 kCal/Wh
Input Power	195 W	184 W
Current	1,26 A	1,22 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Relay	Option 1			
Reference	PTC K100			
Voltage	200-240 V			
Resistance	14.00 Ω			
Protector	Option 1	Option 2	Option 3	Option 4
Reference	MSP304LZ	4TM319NFBYY	T0490	AE11FU
Current	9,40 A	12,00 A	9,40 A	9,40 A
Time check	7,5-14 seg	5-15 seg	7,5-14 seg	7,5-14 seg
Disc temp. (Open/Close)	120,00 / 61,00 °C	120,00 / 61,00 °C	130,00 / 62,00 °C	120,00 / 62,00 °C

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	105	131	1,06	0,93	0,80
40	-30	146	154	1,13	1,11	0,95
40	-25	197	180	1,21	1,27	1,09
40	-23,3	216	190	1,24	1,32	1,14
40	-20	256	209	1,31	1,42	1,22
40	-15	323	243	1,44	1,55	1,33
40	-10	400	279	1,58	1,67	1,43

45	-35	99	130	1,06	0,89	0,76
45	-30	140	154	1,13	1,06	0,91
45	-25	189	181	1,21	1,21	1,04
45	-23,3	208	191	1,25	1,26	1,09
45	-20	248	212	1,32	1,36	1,17
45	-15	315	246	1,45	1,49	1,28
45	-10	391	284	1,61	1,60	1,38

50	-35	93	129	1,05	0,84	0,72
50	-30	133	154	1,13	1,00	0,86
50	-25	182	183	1,22	1,16	1,00
50	-23,3	201	193	1,25	1,21	1,04
50	-20	240	215	1,33	1,30	1,12
50	-15	306	250	1,47	1,42	1,22
50	-10	381	289	1,63	1,53	1,32

55	-35	87	128	1,05	0,79	0,68
55	-30	126	154	1,13	0,95	0,82
55	-25	175	184	1,22	1,10	0,95
55	-23,3	193	195	1,26	1,15	0,99
55	-20	232	217	1,34	1,24	1,07
55	-15	297	254	1,48	1,36	1,17
55	-10	372	294	1,65	1,47	1,27

60	-35	81	127	1,05	0,74	0,64
60	-30	120	155	1,13	0,90	0,77
60	-25	167	185	1,23	1,05	0,90
60	-23,3	185	197	1,27	1,10	0,94
60	-20	224	220	1,35	1,18	1,02
60	-15	289	258	1,50	1,30	1,12
60	-10	363	299	1,67	1,41	1,21

65	-35	75	126	1,04	0,69	0,60
65	-30	113	155	1,13	0,85	0,73
65	-25	160	187	1,23	1,00	0,86
65	-23,3	178	199	1,27	1,04	0,90
65	-20	216	222	1,36	1,13	0,97
65	-15	280	262	1,51	1,25	1,07
65	-10	353	304	1,69	1,35	1,16

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	114	131	1,06	0,87	0,75
40	-30	162	154	1,13	1,05	0,91
40	-25	218	180	1,21	1,21	1,05
40	-23,3	239	190	1,24	1,26	1,09
40	-20	282	209	1,31	1,35	1,16
40	-15	355	243	1,44	1,46	1,26
40	-10	435	279	1,58	1,56	1,35

45	-35	104	130	1,06	0,80	0,69
45	-30	148	154	1,13	0,96	0,83
45	-25	200	181	1,21	1,11	0,96
45	-23,3	220	191	1,25	1,15	0,99
45	-20	261	212	1,32	1,23	1,06
45	-15	330	246	1,45	1,34	1,16
45	-10	407	284	1,61	1,43	1,24

50	-35	93	129	1,05	0,72	0,62
50	-30	134	154	1,13	0,87	0,75
50	-25	183	183	1,22	1,00	0,86
50	-23,3	201	193	1,25	1,04	0,90
50	-20	240	215	1,33	1,12	0,97
50	-15	305	250	1,47	1,22	1,05
50	-10	379	289	1,63	1,31	1,13

55	-35	82	128	1,05	0,64	0,56
55	-30	120	154	1,13	0,77	0,67
55	-25	165	184	1,22	0,90	0,77
55	-23,3	182	195	1,26	0,93	0,81
55	-20	219	217	1,34	1,01	0,87
55	-15	281	254	1,48	1,10	0,95
55	-10	351	294	1,65	1,19	1,03

60	-35	72	127	1,05	0,56	0,49
60	-30	105	155	1,13	0,68	0,59
60	-25	147	185	1,23	0,79	0,69
60	-23,3	163	197	1,27	0,83	0,72
60	-20	197	220	1,35	0,90	0,78
60	-15	256	258	1,50	0,99	0,86
60	-10	322	299	1,67	1,08	0,93

65	-35	61	126	1,04	0,48	0,42
65	-30	91	155	1,13	0,59	0,51
65	-25	130	187	1,23	0,69	0,60
65	-23,3	144	199	1,27	0,73	0,63
65	-20	176	222	1,36	0,79	0,68
65	-15	231	262	1,51	0,88	0,76
65	-10	294	304	1,69	0,97	0,84

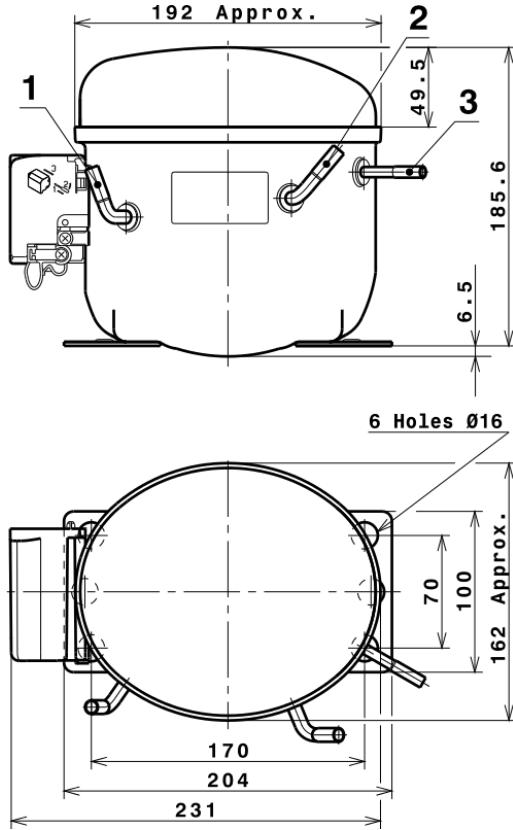
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	900,8155248163	310,7386433561	1,7373514649	15,938573895839
2	25,6947889436	7,3152750589	0,0352417855	0,50693350801776
3	-7,2386775707	1,5151748923	0,0065590773	-0,051094966789557
4	0,1608682728	0,0712529633	0,0004782980	0,0043975038080414
5	-0,1452565130	0,0491278704	0,0002040437	-0,00065669022856169

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

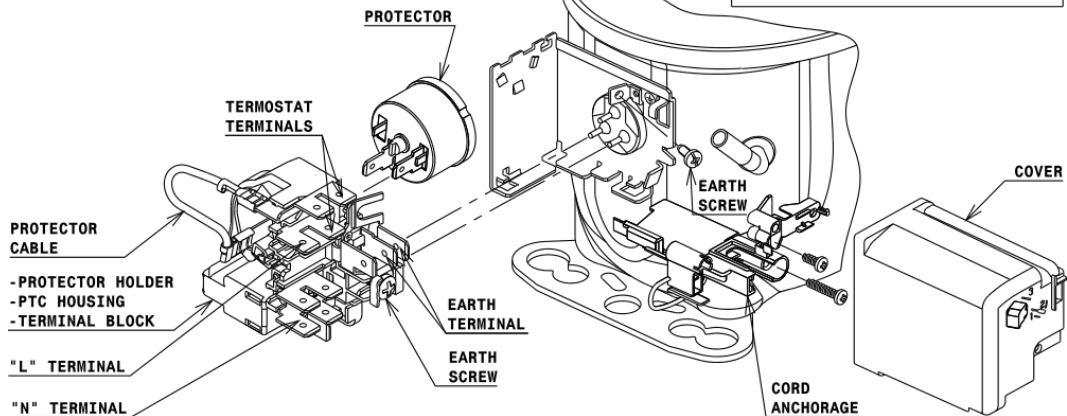
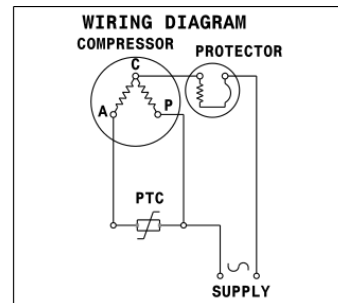


## DESIGNATION INTERNAL DIAM.

DESIGNATION	INTERNAL DIAM.
1 Suction	6,5 mm
2 Service	6,5 mm
3 Discharge	4,9 mm

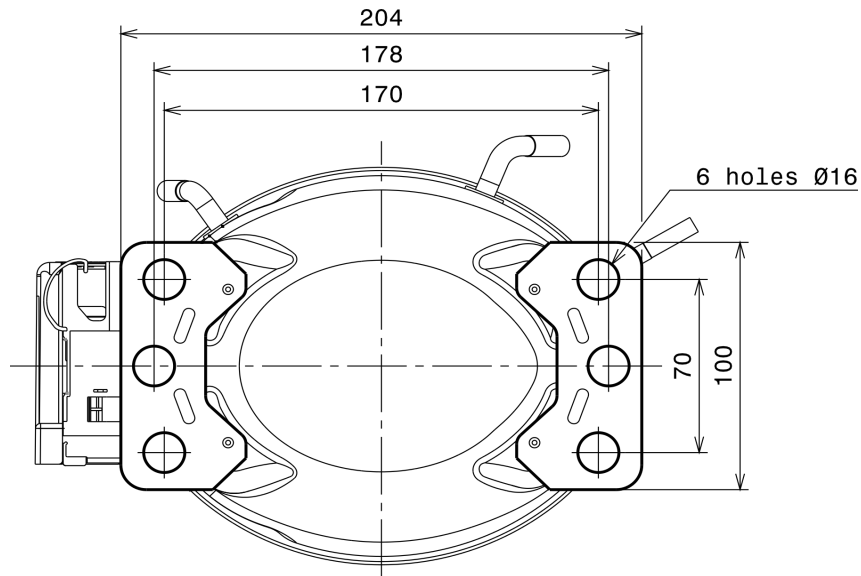
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### RSIR CONNECTION (PTC)



# Technical Data Sheet

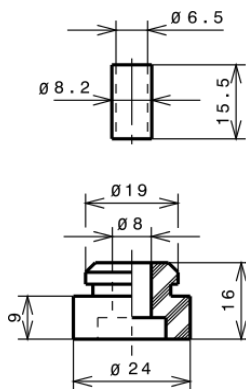
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

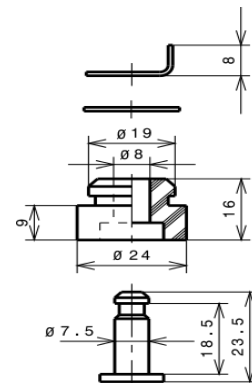
### STANDARD

Ø16 holes (170x70 net)



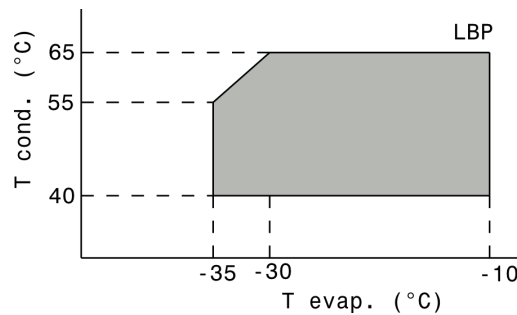
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R134a LBP



# Technical Data Sheet

Compressor model **GLY90AAa**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R134a**

## APPLICATION

Application Low Back Pressure  
Refrigerant R134a  
Evaporating Temp. -35,0 °C to -10,0 °C  
Expansion Capillar  
Comp. Cooling Static  
Max. ambient temp. 43,0 °C

## COMPRESSOR

Displacement 9,09 cm<sup>3</sup>  
Diameter 24,29 mm  
Stroke 19,62 mm  
Net Weight 9,43 Kg  
Oil type ISO VG 32 ESTER  
Oil charge 300 cm<sup>3</sup>

## MOTOR

Nominal Power 1/4 hp  
Voltage/Frequency 220-240V 50Hz  
Voltage range 198-255 V  
Type RSIR  
Phase number 1 PH  
Locked Rotor Amps (LRA) 14,50 A  
Max. Cont. Current (MCC) 1,70 A  
Main W. resist. at 25°C 11,36 Ω  
Start W. resist. at 25°C 15,70 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	216 kCal/h	186 W
COP	1,37 W/W	1,07 W/W
EER	1,18 kCal/Wh	0,92 kCal/Wh
Input Power	183 W	174 W
Current	1,24 A	1,21 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Relay	Option 1			
Reference	PTC K100			
Voltage	200 - 240 V			
Resistance	14,00 Ω			
Protector	Option 1	Option 2	Option 3	Option 4
Reference	MRA38085	4TM308NFBYY	T0377	AE11FQ
Current	10,90 A	11,00 A	12,00 A	10,80 A
Time check	7,5-14 seg	5-15 seg	7,5-14 seg	7,5-14 seg
Disc temp. (Open/Close)	125,00 / 61,00 °C	120,00 / 61,00 °C	120,00 / 62,00 °C	125,00 / 62,00 °C

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	133	126	1,07	1,23	1,06
40	-30	172	148	1,13	1,36	1,17
40	-25	223	170	1,20	1,52	1,31
40	-23,3	243	179	1,22	1,58	1,36
40	-20	285	194	1,28	1,70	1,46
40	-15	357	220	1,38	1,89	1,63
40	-10	441	246	1,49	2,08	1,79

45	-35	125	125	1,07	1,17	1,00
45	-30	164	148	1,13	1,29	1,11
45	-25	214	172	1,20	1,45	1,25
45	-23,3	234	180	1,23	1,51	1,30
45	-20	275	197	1,29	1,63	1,40
45	-15	347	223	1,39	1,81	1,56
45	-10	431	250	1,51	2,00	1,72

50	-35	118	124	1,06	1,10	0,95
50	-30	156	148	1,13	1,23	1,06
50	-25	206	173	1,21	1,38	1,19
50	-23,3	225	182	1,23	1,44	1,24
50	-20	266	199	1,30	1,56	1,34
50	-15	338	226	1,40	1,74	1,49
50	-10	420	255	1,53	1,92	1,65

55	-35	110	123	1,06	1,04	0,89
55	-30	148	148	1,13	1,16	1,00
55	-25	197	174	1,21	1,32	1,13
55	-23,3	216	183	1,24	1,37	1,18
55	-20	257	201	1,31	1,49	1,28
55	-15	328	229	1,42	1,66	1,43
55	-10	410	259	1,55	1,84	1,58

60	-35	102	122	1,06	0,98	0,84
60	-30	140	148	1,13	1,10	0,94
60	-25	188	175	1,21	1,25	1,07
60	-23,3	207	184	1,25	1,31	1,12
60	-20	248	203	1,31	1,42	1,22
60	-15	318	233	1,43	1,59	1,37
60	-10	400	263	1,57	1,77	1,52

65	-35	95	121	1,05	0,91	0,78
65	-30	131	148	1,13	1,03	0,89
65	-25	179	176	1,22	1,18	1,02
65	-23,3	198	186	1,25	1,24	1,07
65	-20	238	205	1,32	1,35	1,16
65	-15	308	236	1,45	1,52	1,31
65	-10	389	268	1,59	1,69	1,45

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	145	126	1,07	1,15	0,99
40	-30	191	148	1,13	1,30	1,12
40	-25	248	170	1,20	1,45	1,26
40	-23,3	270	179	1,22	1,51	1,30
40	-20	315	194	1,28	1,62	1,40
40	-15	392	220	1,38	1,79	1,54
40	-10	480	246	1,49	1,95	1,69

45	-35	131	125	1,07	1,05	0,91
45	-30	174	148	1,13	1,18	1,02
45	-25	227	172	1,20	1,32	1,14
45	-23,3	248	180	1,23	1,38	1,19
45	-20	291	197	1,29	1,48	1,28
45	-15	365	223	1,39	1,64	1,41
45	-10	449	250	1,51	1,79	1,55

50	-35	118	124	1,06	0,95	0,82
50	-30	157	148	1,13	1,06	0,92
50	-25	207	173	1,21	1,20	1,03
50	-23,3	226	182	1,23	1,24	1,08
50	-20	267	199	1,30	1,34	1,16
50	-15	337	226	1,40	1,49	1,29
50	-10	418	255	1,53	1,64	1,42

55	-35	104	123	1,06	0,85	0,73
55	-30	140	148	1,13	0,95	0,82
55	-25	186	174	1,21	1,07	0,92
55	-23,3	204	183	1,24	1,11	0,96
55	-20	242	201	1,31	1,21	1,04
55	-15	309	229	1,42	1,35	1,16
55	-10	387	259	1,55	1,49	1,29

60	-35	90	122	1,06	0,74	0,64
60	-30	123	148	1,13	0,83	0,72
60	-25	165	175	1,21	0,94	0,82
60	-23,3	182	184	1,25	0,99	0,85
60	-20	218	203	1,31	1,07	0,93
60	-15	282	233	1,43	1,21	1,05
60	-10	355	263	1,57	1,35	1,17

65	-35	77	121	1,05	0,63	0,55
65	-30	106	148	1,13	0,71	0,62
65	-25	145	176	1,22	0,82	0,71
65	-23,3	160	186	1,25	0,86	0,74
65	-20	194	205	1,32	0,95	0,82
65	-15	254	236	1,45	1,08	0,93
65	-10	324	268	1,59	1,21	1,05

## EN12900

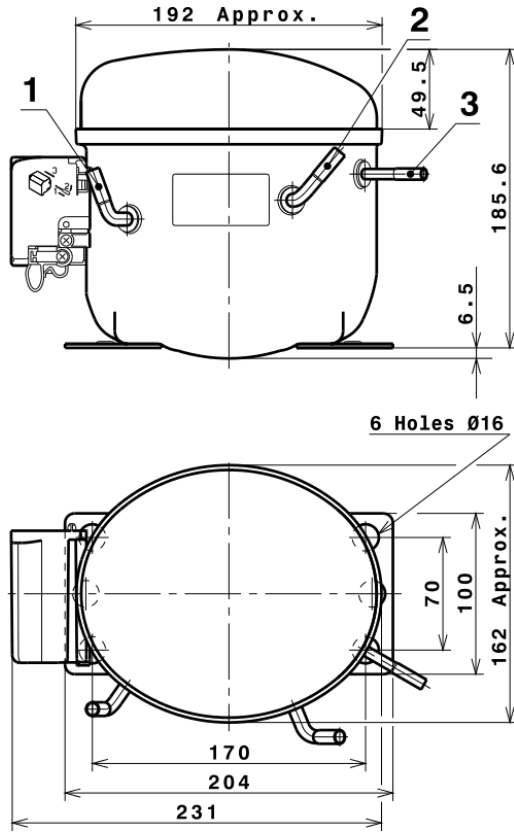
X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	989,0845002201	256,8816875352	1,5708339521	17,564355219069
2	28,1394765550	4,2983289565	0,0253287921	0,56358445556584
3	-7,8453882626	1,3240476037	0,0060189260	-0,054650379917279
4	0,2022850756	0,0248499657	0,0003359270	0,0054790650586658
5	-0,1458238119	0,0436670907	0,0001870891	-0,0005351774297323

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

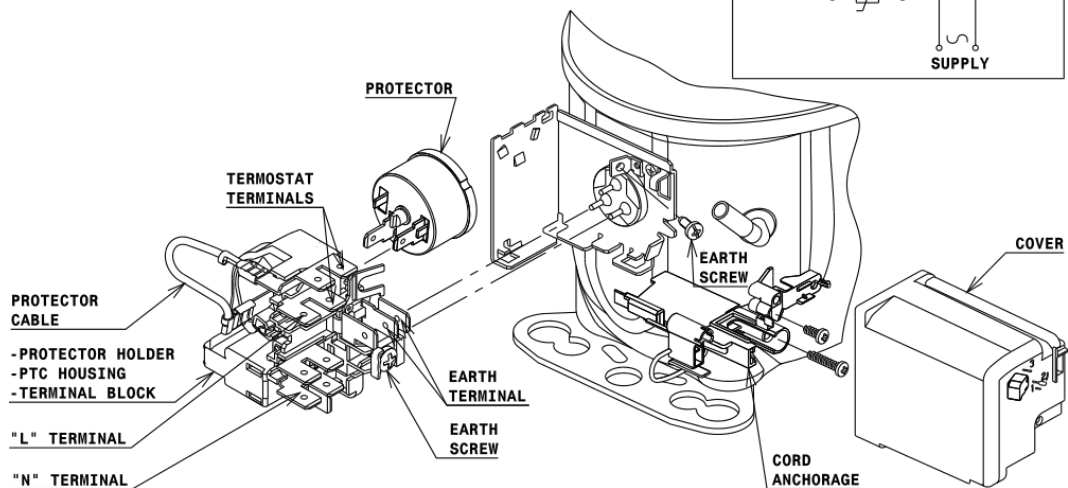
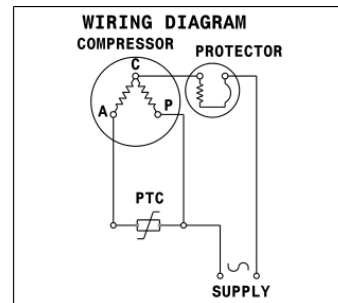


## DESIGNATION INTERNAL DIAM.

DESIGNATION	INTERNAL DIAM.
1 Suction	6,5 mm
2 Service	6,5 mm
3 Discharge	4,9 mm

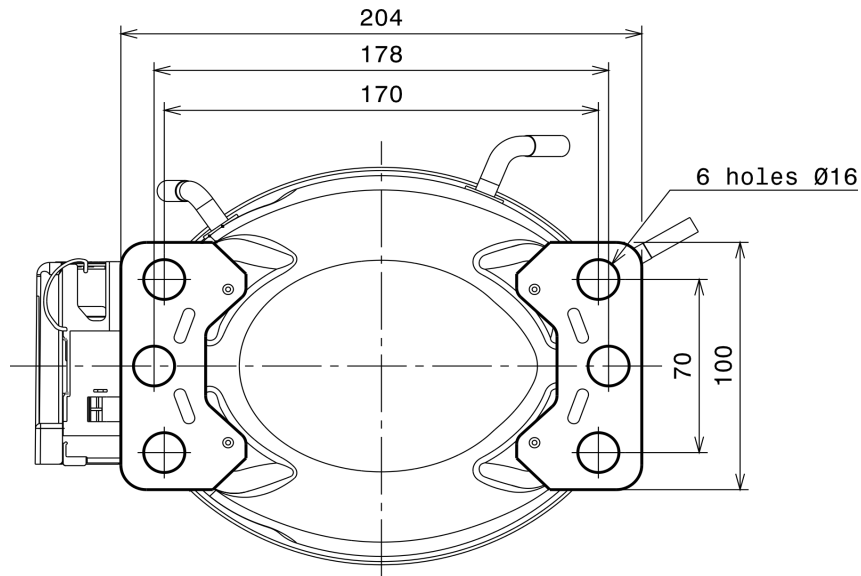
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### RSIR CONNECTION (PTC)



# Technical Data Sheet

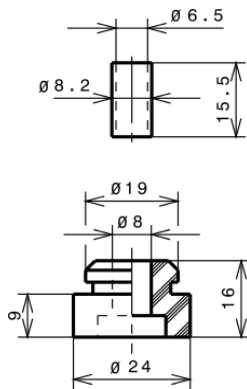
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

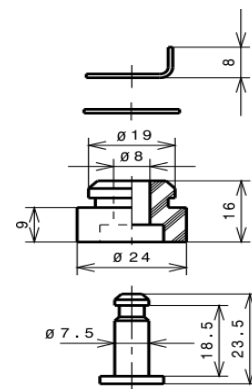
### STANDARD

Ø16 holes (170x70 net)



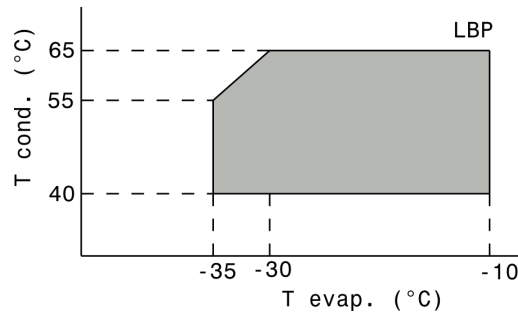
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R134a LBP



# Technical Data Sheet

Compressor model **GL99AAa**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R134a**

## APPLICATION

Application Low Back Pressure  
Refrigerant R134a  
Evaporating Temp. -35,0 °C to -10,0 °C  
Expansion Capillar  
Comp. Cooling Static  
Max. ambient temp. 43,0 °C  
Compatible refriger. R1234yf

## COMPRESSOR

Displacement 9,95 cm<sup>3</sup>  
Diameter 25,40 mm  
Stroke 19,62 mm  
Net Weight 9,64 Kg  
Oil type ISO VG 32 ESTER  
Oil charge 295 cm<sup>3</sup>

## MOTOR

Nominal Power 1/4 hp  
Voltage/Frequency 220-240V 50Hz  
Voltage range 187-255 V  
Type RSIR  
Phase number 1 PH  
Locked Rotor Amps (LRA) 14,00 A  
Max. Cont. Current (MCC) 1,80 A  
Main W. resist. at 25°C 9,96 Ω  
Start W. resist. at 25°C 20,39 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	205 kCal/h	175 W
COP	1,19 W/W	0,92 W/W
EER	1,03 kCal/Wh	0,80 kCal/Wh
Input Power	200 W	189 W
Current	1,35 A	1,32 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Relay	Option 1			
Reference	PTC K100			
Voltage	200-240 V			
Resistance	14.00 Ω			
Protector	Option 1	Option 2	Option 3	
Reference	T0377	AE11FU	MRP336JZ	
Current	12,00 A	9,40 A	9,10 A	
Time check	7,5-14 seg	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	120,00 / 62,00 °C	120,00 / 62,00 °C	120,00 / 61,00 °C	

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	108	131	1,16	0,96	0,82
40	-30	154	154	1,22	1,16	1,00
40	-25	209	180	1,29	1,35	1,16
40	-23,3	230	189	1,31	1,41	1,22
40	-20	273	207	1,37	1,53	1,32
40	-15	347	237	1,48	1,71	1,47
40	-10	430	268	1,61	1,87	1,60

45	-35	101	130	1,16	0,90	0,78
45	-30	146	156	1,22	1,09	0,94
45	-25	201	183	1,30	1,28	1,10
45	-23,3	221	193	1,33	1,34	1,15
45	-20	265	212	1,39	1,45	1,25
45	-15	338	243	1,51	1,61	1,39
45	-10	420	277	1,65	1,77	1,52

50	-35	95	130	1,16	0,85	0,73
50	-30	139	157	1,22	1,03	0,89
50	-25	193	186	1,31	1,21	1,04
50	-23,3	213	196	1,34	1,26	1,09
50	-20	256	217	1,41	1,37	1,18
50	-15	328	250	1,53	1,53	1,31
50	-10	410	285	1,69	1,67	1,44

55	-35	88	129	1,16	0,79	0,68
55	-30	132	158	1,23	0,97	0,83
55	-25	185	189	1,32	1,14	0,98
55	-23,3	205	200	1,35	1,19	1,03
55	-20	247	222	1,43	1,30	1,11
55	-15	319	257	1,56	1,44	1,24
55	-10	400	294	1,73	1,58	1,36

60	-35	81	128	1,16	0,74	0,63
60	-30	124	159	1,23	0,91	0,78
60	-25	177	192	1,32	1,07	0,92
60	-23,3	197	204	1,36	1,12	0,97
60	-20	239	227	1,44	1,22	1,05
60	-15	310	264	1,59	1,37	1,17
60	-10	390	303	1,77	1,50	1,29

65	-35	75	128	1,16	0,68	0,58
65	-30	117	160	1,23	0,85	0,73
65	-25	169	195	1,33	1,01	0,87
65	-23,3	189	207	1,37	1,06	0,91
65	-20	230	232	1,46	1,15	0,99
65	-15	300	271	1,62	1,29	1,11
65	-10	380	311	1,82	1,42	1,22

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	118	131	1,16	0,90	0,78
40	-30	170	154	1,22	1,10	0,95
40	-25	232	180	1,29	1,29	1,11
40	-23,3	255	189	1,31	1,35	1,16
40	-20	302	207	1,37	1,46	1,26
40	-15	381	237	1,48	1,61	1,39
40	-10	468	268	1,61	1,75	1,51

45	-35	106	130	1,16	0,81	0,70
45	-30	155	156	1,22	1,00	0,86
45	-25	213	183	1,30	1,16	1,00
45	-23,3	234	193	1,33	1,22	1,05
45	-20	279	212	1,39	1,32	1,14
45	-15	354	243	1,51	1,45	1,26
45	-10	438	277	1,65	1,58	1,37

50	-35	95	130	1,16	0,73	0,63
50	-30	140	157	1,22	0,89	0,77
50	-25	194	186	1,31	1,04	0,90
50	-23,3	214	196	1,34	1,09	0,94
50	-20	256	217	1,41	1,18	1,02
50	-15	327	250	1,53	1,31	1,13
50	-10	407	285	1,69	1,43	1,23

55	-35	83	129	1,16	0,65	0,56
55	-30	125	158	1,23	0,79	0,68
55	-25	175	189	1,32	0,92	0,80
55	-23,3	194	200	1,35	0,97	0,84
55	-20	233	222	1,43	1,05	0,91
55	-15	301	257	1,56	1,17	1,01
55	-10	377	294	1,73	1,28	1,11

60	-35	72	128	1,16	0,56	0,48
60	-30	109	159	1,23	0,69	0,59
60	-25	156	192	1,32	0,81	0,70
60	-23,3	173	204	1,36	0,85	0,74
60	-20	211	227	1,44	0,93	0,80
60	-15	274	264	1,59	1,04	0,90
60	-10	347	303	1,77	1,15	0,99

65	-35	60	128	1,16	0,47	0,41
65	-30	94	160	1,23	0,59	0,51
65	-25	137	195	1,33	0,70	0,60
65	-23,3	153	207	1,37	0,74	0,64
65	-20	188	232	1,46	0,81	0,70
65	-15	248	271	1,62	0,92	0,79
65	-10	316	311	1,82	1,02	0,88

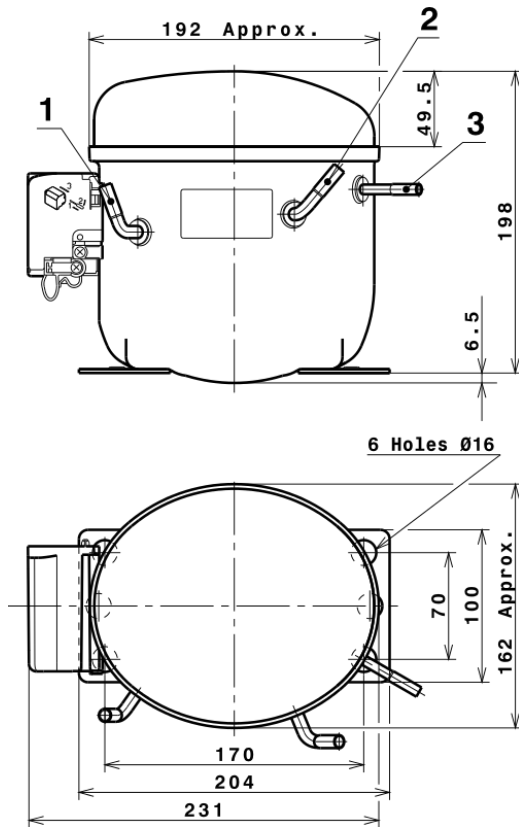
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	969,3957185791	243,7374704077	1,5351999532	17,13336231468
2	27,7235146995	4,4513075003	0,0283517965	0,54492387381756
3	-7,7765651871	2,5391349033	0,0118371427	-0,05429933684508
4	0,1704551644	0,0418964741	0,0005216989	0,0046668859417697
5	-0,1562618297	0,0764381510	0,0003465742	-0,00065904478913139

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

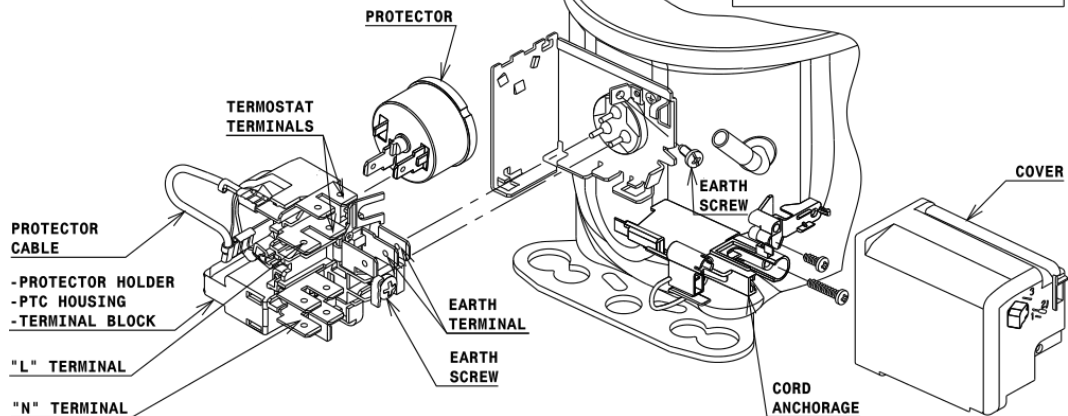
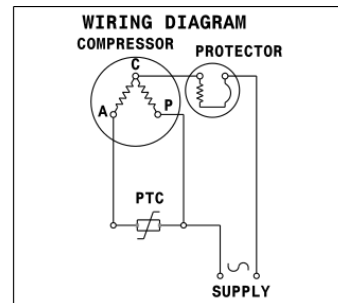


## DESIGNATION INTERNAL DIAM.

DESIGNATION	INTERNAL DIAM.
1 Suction	6,5 mm
2 Service	6,5 mm
3 Discharge	4,9 mm

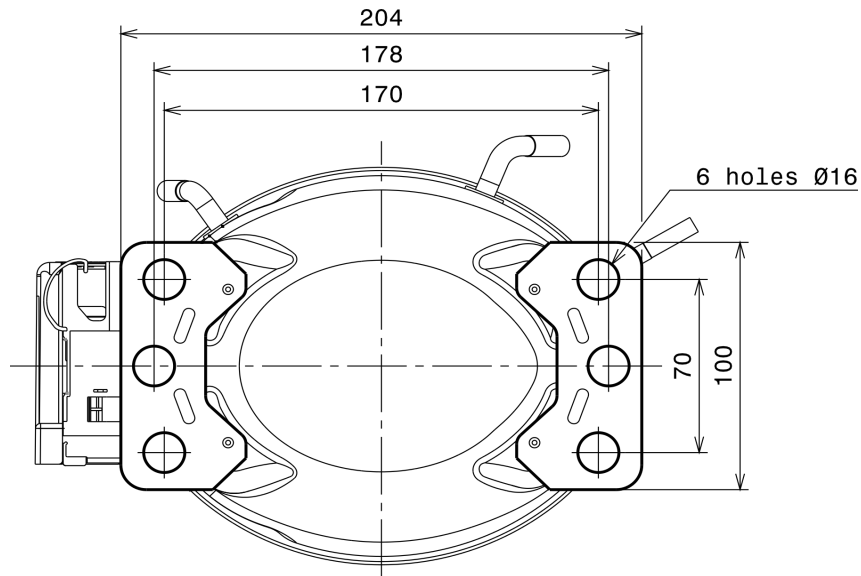
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### RSIR CONNECTION (PTC) (L, P ranges)



# Technical Data Sheet

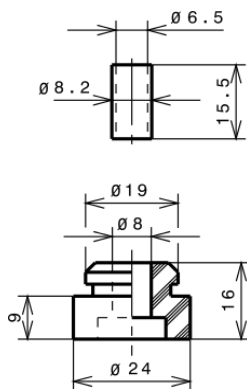
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

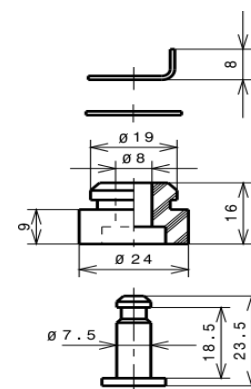
### STANDARD

Ø16 holes (170x70 net)



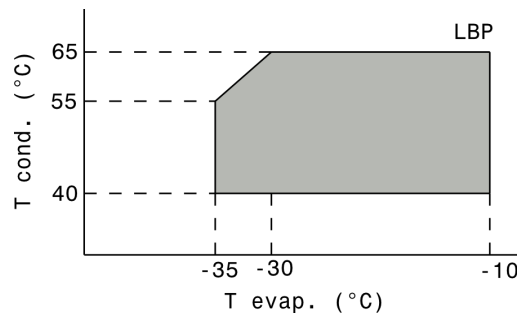
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R134a LBP



# Technical Data Sheet

Compressor model **GP12FB**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	Low Back Pressure	Displacement	12,05 cm <sup>3</sup>	Nominal Power	1/3 hp
Refrigerant	R134a	Diameter	29,37 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-35,0 °C to -10,0 °C	Stroke	17,78 mm	Voltage range	198-264 V
Expansion	Capillar/Valve	Net Weight	12,16 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	350 cm <sup>3</sup>	Locked Rotor Amps (LRA)	11,10 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	3,00 A
				Main W. resist. at 25°C	7,44 Ω
				Start W. resist. at 25°C	33,95 Ω

## NOMINAL PERFORMANCE

## APPROVALS

	ASHRAE	CECOMAF
Cooling Capacity	225 kCal/h	190 W
COP	1,14 W/W	0,88 W/W
EER	0,98 kCal/Wh	0,76 kCal/Wh
Input Power	230 W	217 W
Current	1,60 A	1,56 A

## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	47- 56 μF 330 V		
Relay	Option 1		
Reference	2014 138.		
Pick-Up	6,10 A		
Drop-Out	5,20 A		
Protector	Option 1	Option 2	
Reference	MRP61AMK	T0138	
Current	7,80 A	7,70 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 61,00 °C	105,00 / 62,00 °C	

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	105	148	1,37	0,83	0,71
40	-30	160	180	1,45	1,03	0,89
40	-25	225	213	1,55	1,22	1,05
40	-23,3	249	225	1,58	1,29	1,11
40	-20	300	248	1,66	1,41	1,21
40	-15	386	283	1,80	1,58	1,36
40	-10	482	320	1,96	1,75	1,51

45	-35	99	145	1,36	0,79	0,68
45	-30	153	179	1,45	0,99	0,85
45	-25	217	214	1,55	1,18	1,01
45	-23,3	241	227	1,59	1,24	1,06
45	-20	291	251	1,67	1,35	1,16
45	-15	376	288	1,82	1,52	1,31
45	-10	471	327	1,99	1,68	1,44

50	-35	94	143	1,36	0,76	0,66
50	-30	146	178	1,44	0,95	0,82
50	-25	209	215	1,55	1,13	0,97
50	-23,3	233	228	1,59	1,19	1,02
50	-20	283	254	1,68	1,30	1,11
50	-15	366	293	1,84	1,46	1,25
50	-10	461	333	2,02	1,61	1,38

55	-35	88	140	1,35	0,73	0,63
55	-30	140	178	1,44	0,91	0,79
55	-25	202	217	1,56	1,08	0,93
55	-23,3	225	230	1,60	1,14	0,98
55	-20	274	257	1,69	1,24	1,07
55	-15	357	298	1,86	1,39	1,20
55	-10	450	340	2,05	1,54	1,32

60	-35	82	137	1,34	0,70	0,60
60	-30	133	177	1,44	0,87	0,75
60	-25	194	218	1,56	1,04	0,89
60	-23,3	217	232	1,61	1,09	0,94
60	-20	265	259	1,70	1,19	1,02
60	-15	347	302	1,88	1,33	1,15
60	-10	439	347	2,08	1,47	1,27

65	-35	77	135	1,34	0,66	0,57
65	-30	126	176	1,44	0,83	0,72
65	-25	186	219	1,56	0,99	0,85
65	-23,3	209	233	1,61	1,04	0,90
65	-20	257	262	1,72	1,14	0,98
65	-15	337	307	1,90	1,28	1,10
65	-10	429	353	2,12	1,41	1,21

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	114	148	1,37	0,77	0,67
40	-30	177	180	1,45	0,98	0,85
40	-25	249	213	1,55	1,17	1,01
40	-23,3	276	225	1,58	1,23	1,06
40	-20	331	248	1,66	1,34	1,16
40	-15	423	283	1,80	1,49	1,29
40	-10	525	320	1,96	1,64	1,42

45	-35	104	145	1,36	0,72	0,62
45	-30	162	179	1,45	0,90	0,78
45	-25	230	214	1,55	1,07	0,93
45	-23,3	255	227	1,59	1,12	0,97
45	-20	307	251	1,67	1,23	1,06
45	-15	394	288	1,82	1,37	1,18
45	-10	491	327	1,99	1,50	1,30

50	-35	94	143	1,36	0,66	0,57
50	-30	147	178	1,44	0,82	0,71
50	-25	210	215	1,55	0,97	0,84
50	-23,3	234	228	1,59	1,02	0,88
50	-20	283	254	1,68	1,12	0,96
50	-15	365	293	1,84	1,25	1,08
50	-10	458	333	2,02	1,37	1,19

55	-35	83	140	1,35	0,59	0,51
55	-30	132	178	1,44	0,74	0,64
55	-25	190	217	1,56	0,88	0,76
55	-23,3	213	230	1,60	0,92	0,80
55	-20	259	257	1,69	1,01	0,87
55	-15	337	298	1,86	1,13	0,98
55	-10	424	340	2,05	1,25	1,08

60	-35	73	137	1,34	0,53	0,46
60	-30	117	177	1,44	0,66	0,57
60	-25	171	218	1,56	0,78	0,68
60	-23,3	191	232	1,61	0,83	0,71
60	-20	234	259	1,70	0,90	0,78
60	-15	308	302	1,88	1,02	0,88
60	-10	391	347	2,08	1,13	0,97

65	-35	62	135	1,34	0,46	0,40
65	-30	102	176	1,44	0,58	0,50
65	-25	151	219	1,56	0,69	0,60
65	-23,3	170	233	1,61	0,73	0,63
65	-20	210	262	1,72	0,80	0,69
65	-15	279	307	1,90	0,91	0,78
65	-10	357	353	2,12	1,01	0,87

## EN12900

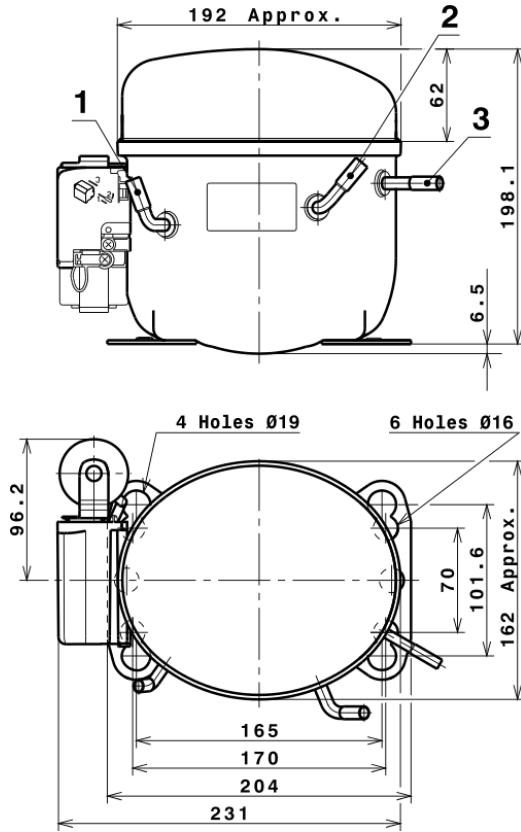
X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.095,5725969313	321,7696094845	2,0371515098	19,34281335206
2	32,3629691294	5,1217718835	0,0359731483	0,63481153394699
3	-8,7746489420	2,1291934938	0,0096430155	-0,060630921870118
4	0,1903992937	0,0248709300	0,0005280582	0,0052212281912361
5	-0,1908940764	0,0763998576	0,0003110055	-0,00097373828935546

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

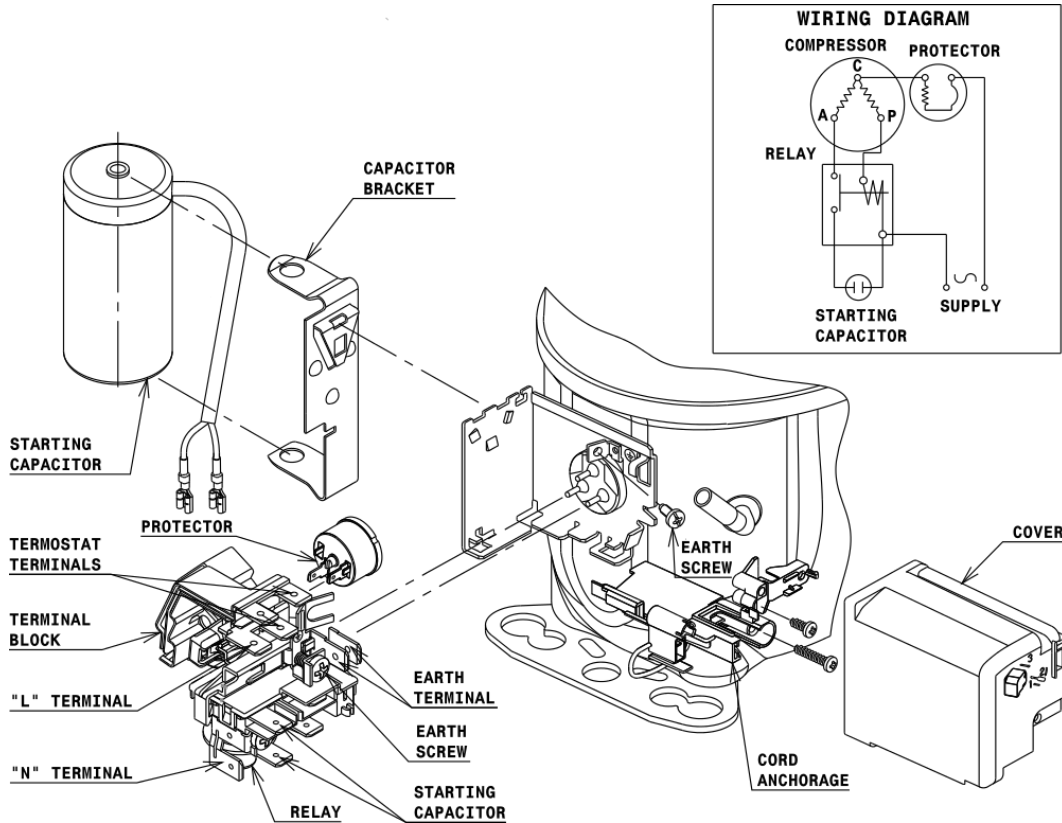


## DESIGNATION INTERNAL DIAM.

1	Suction/Service	8,1 mm
2	Service/Suction	8,1 mm
3	Discharge	6,5 mm

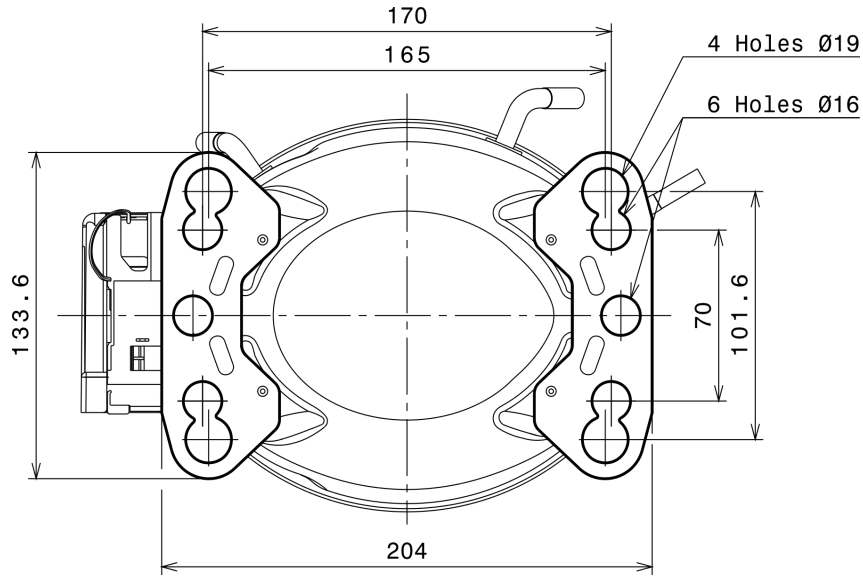
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



# Technical Data Sheet

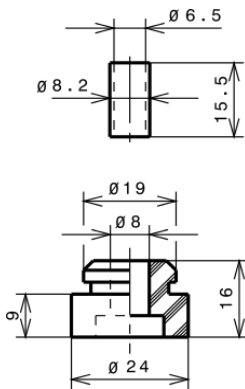
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

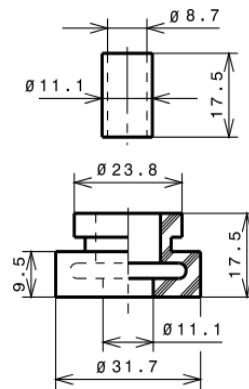
### STANDARD

Ø16 holes (170x70 net)



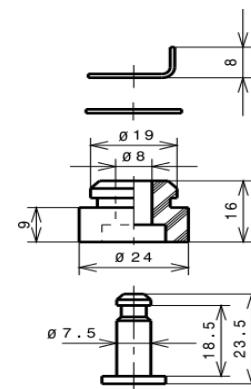
### AMERICAN FEET

Ø19 holes (165x101.6 net)



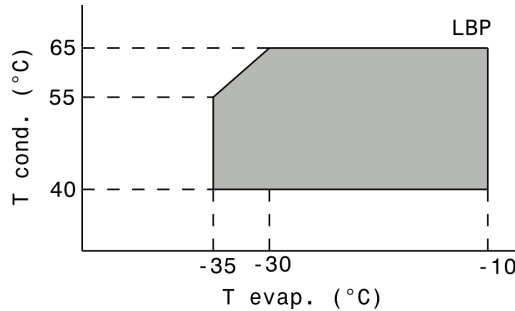
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R134a LBP



# Technical Data Sheet

Compressor model **GP14FB**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	Low Back Pressure	Displacement	14,17 cm <sup>3</sup>	Nominal Power	3/8 hp
Refrigerant	R134a	Diameter	31,19 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-35,0 °C to -10,0 °C	Stroke	18,54 mm	Voltage range	187-255 V
Expansion	Capillar/Valve	Net Weight	10,36 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	470 cm <sup>3</sup>	Locked Rotor Amps (LRA)	12,50 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	2,50 A
				Main W. resist. at 25°C	9,93 Ω
				Start W. resist. at 25°C	15,17 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	269 kCal/h	228 W
COP	1,16 W/W	0,90 W/W
EER	1,00 kCal/Wh	0,77 kCal/Wh
Input Power	270 W	254 W
Current	1,80 A	1,75 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	72- 88 μF 330 V			
Relay	Option 1			
Reference	2014 135.			
Pick-Up	5,80 A			
Drop-Out	4,95 A			
Protector	Option 1			
Reference	T0057			
Current	8,50 A			
Time check	7,5-14 seg			
Disc temp. (Open/Close)	105,00 / 61,00 °C			

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	126	174	1,52	0,84	0,72
40	-30	191	209	1,61	1,06	0,91
40	-25	269	247	1,73	1,26	1,09
40	-23,3	298	261	1,77	1,33	1,14
40	-20	359	288	1,86	1,45	1,25
40	-15	462	333	2,02	1,62	1,39
40	-10	578	380	2,22	1,77	1,52

45	-35	119	171	1,51	0,81	0,70
45	-30	183	209	1,61	1,02	0,88
45	-25	259	249	1,73	1,21	1,04
45	-23,3	288	264	1,78	1,27	1,09
45	-20	349	293	1,88	1,38	1,19
45	-15	451	340	2,05	1,54	1,33
45	-10	565	390	2,26	1,69	1,45

50	-35	112	168	1,51	0,78	0,67
50	-30	175	208	1,61	0,98	0,84
50	-25	250	251	1,74	1,16	0,99
50	-23,3	279	267	1,79	1,21	1,04
50	-20	338	298	1,90	1,32	1,14
50	-15	439	347	2,08	1,47	1,26
50	-10	553	400	2,31	1,61	1,38

55	-35	105	165	1,50	0,74	0,64
55	-30	167	208	1,61	0,93	0,80
55	-25	241	254	1,75	1,10	0,95
55	-23,3	269	270	1,80	1,16	1,00
55	-20	328	303	1,91	1,26	1,08
55	-15	428	355	2,11	1,40	1,21
55	-10	540	410	2,35	1,53	1,32

60	-35	98	162	1,49	0,70	0,60
60	-30	158	207	1,61	0,89	0,76
60	-25	232	256	1,75	1,05	0,91
60	-23,3	259	273	1,81	1,10	0,95
60	-20	317	307	1,93	1,20	1,03
60	-15	416	362	2,14	1,34	1,15
60	-10	527	420	2,40	1,46	1,26

65	-35	91	159	1,49	0,67	0,57
65	-30	150	207	1,61	0,84	0,73
65	-25	222	258	1,76	1,00	0,86
65	-23,3	250	276	1,82	1,05	0,90
65	-20	307	312	1,95	1,14	0,98
65	-15	404	370	2,17	1,27	1,09
65	-10	515	430	2,44	1,39	1,20

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	137	174	1,52	0,79	0,68
40	-30	212	209	1,61	1,01	0,88
40	-25	298	247	1,73	1,21	1,04
40	-23,3	330	261	1,77	1,27	1,10
40	-20	397	288	1,86	1,38	1,19
40	-15	507	333	2,02	1,52	1,32
40	-10	629	380	2,22	1,66	1,43

45	-35	125	171	1,51	0,73	0,63
45	-30	194	209	1,61	0,93	0,80
45	-25	275	249	1,73	1,10	0,95
45	-23,3	305	264	1,78	1,16	1,00
45	-20	368	293	1,88	1,25	1,08
45	-15	472	340	2,05	1,39	1,20
45	-10	589	390	2,26	1,51	1,31

50	-35	112	168	1,51	0,67	0,58
50	-30	176	208	1,61	0,84	0,73
50	-25	251	251	1,74	1,00	0,86
50	-23,3	280	267	1,79	1,05	0,90
50	-20	339	298	1,90	1,14	0,98
50	-15	438	347	2,08	1,26	1,09
50	-10	549	400	2,31	1,37	1,19

55	-35	99	165	1,50	0,60	0,52
55	-30	157	208	1,61	0,76	0,65
55	-25	228	254	1,75	0,90	0,77
55	-23,3	254	270	1,80	0,94	0,81
55	-20	310	303	1,91	1,02	0,88
55	-15	403	355	2,11	1,14	0,98
55	-10	509	410	2,35	1,24	1,07

60	-35	87	162	1,49	0,53	0,46
60	-30	139	207	1,61	0,67	0,58
60	-25	204	256	1,75	0,80	0,69
60	-23,3	229	273	1,81	0,84	0,72
60	-20	280	307	1,93	0,91	0,79
60	-15	369	362	2,14	1,02	0,88
60	-10	469	420	2,40	1,12	0,96

65	-35	74	159	1,49	0,47	0,40
65	-30	121	207	1,61	0,59	0,51
65	-25	180	258	1,76	0,70	0,60
65	-23,3	203	276	1,82	0,74	0,64
65	-20	251	312	1,95	0,80	0,70
65	-15	334	370	2,17	0,90	0,78
65	-10	429	430	2,44	1,00	0,86

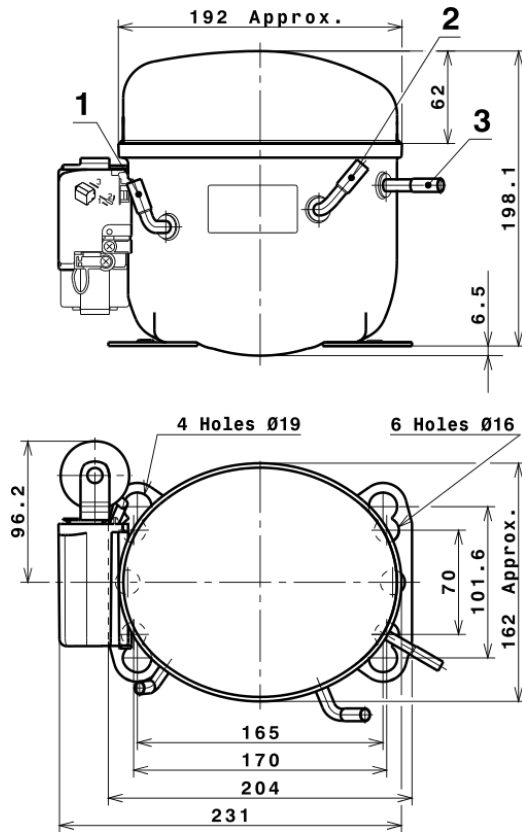
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.313,3062546886	371,8643004073	2,2400062925	23,183650977352
2	38,8948176554	7,1189994367	0,0417383174	0,76352824874081
3	-10,4748620639	3,1120700126	0,0134840162	-0,071493264201953
4	0,2325012066	0,0649455057	0,0006633742	0,0063688099718568
5	-0,2264579581	0,1064277635	0,0004284969	-0,0011056208537831

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

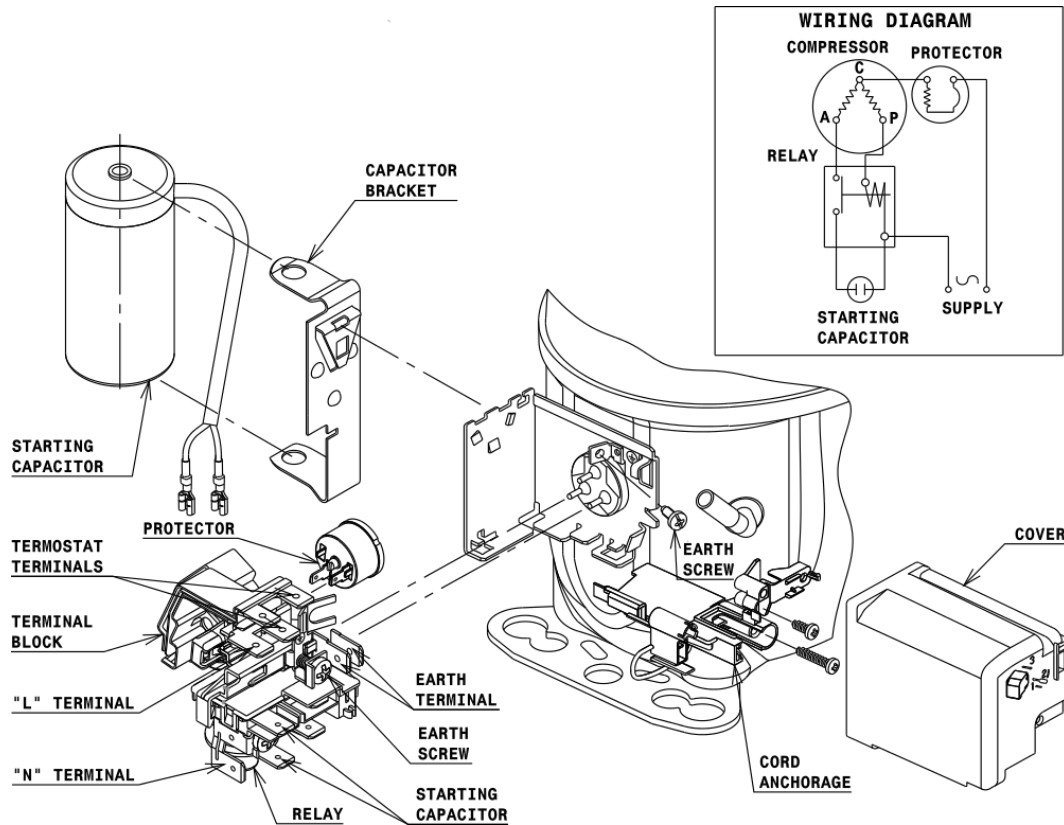


## DESIGNATION INTERNAL DIAM.

1	Suction	8,1 mm
2	Service	8,1 mm
3	Discharge	6,5 mm

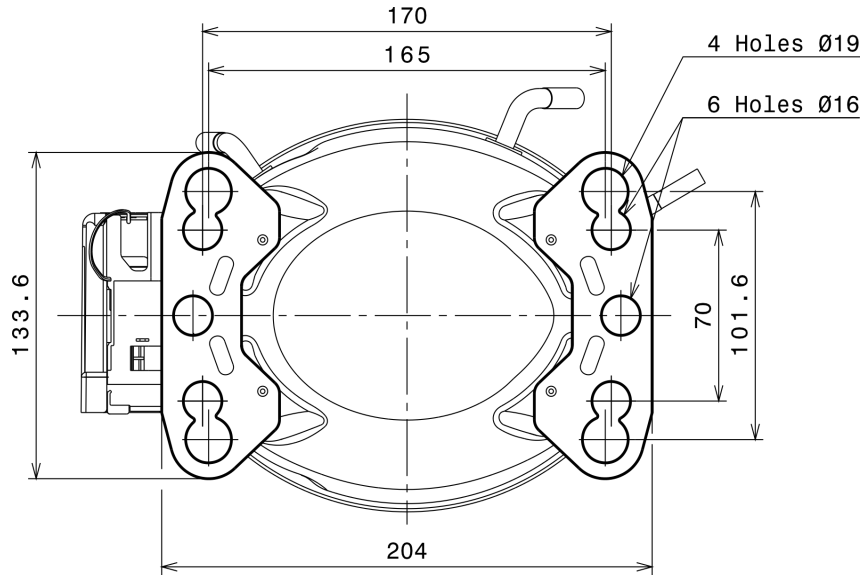
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



# Technical Data Sheet

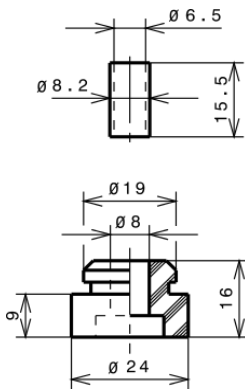
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

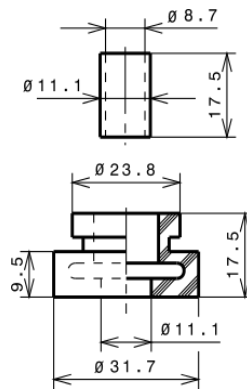
### STANDARD

Ø16 holes (170x70 net)



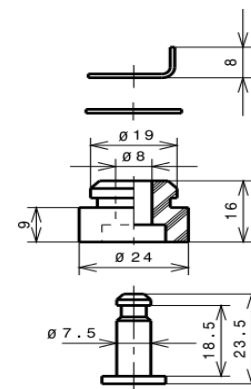
### AMERICAN FEET

Ø19 holes (165x101.6 net)



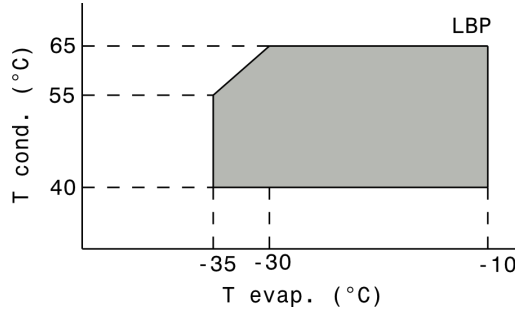
### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R134a LBP



# Technical Data Sheet

Compressor model **GP16FB**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	Low Back Pressure	Displacement	16,15 cm <sup>3</sup>	Nominal Power	3/8 hp
Refrigerant	R134a	Diameter	31,19 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-35,0 °C to -10,0 °C	Stroke	21,13 mm	Voltage range	187-255 V
Expansion	Capillar/Valve	Net Weight	11,79 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	530 cm <sup>3</sup>	Locked Rotor Amps (LRA)	14,80 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	2,90 A
				Main W. resist. at 25°C	5,61 Ω
				Start W. resist. at 25°C	22,64 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	315 kCal/h	266 W
COP	1,14 W/W	0,89 W/W
EER	0,98 kCal/Wh	0,77 kCal/Wh
Input Power	320 W	300 W
Current	2,20 A	2,13 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	72- 88 μF 330 V		
Relay	Option 1		
Reference	2014 149.		
Pick-Up	7,80 A		
Drop-Out	6,65 A		
Protector	Option 1	Option 2	Option 3
Reference	T0137	AE39FHS	MRT40AMK
Current	9,50 A	9,20 A	9,50 A
Time check	7,5-14 seg	7,5-14 seg	7,5-14 seg
Disc temp. (Open/Close)	110,00 / 61,00 °C	105,00 / 62,00 °C	105,00 / 61,00 °C

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	145	206	1,86	0,82	0,70
40	-30	229	250	1,98	1,06	0,92
40	-25	324	295	2,12	1,28	1,10
40	-23,3	359	310	2,17	1,35	1,16
40	-20	431	340	2,27	1,47	1,27
40	-15	550	387	2,44	1,65	1,42
40	-10	680	435	2,62	1,82	1,56

45	-35	135	199	1,84	0,79	0,68
45	-30	217	247	1,97	1,02	0,88
45	-25	310	296	2,12	1,22	1,05
45	-23,3	344	313	2,18	1,28	1,10
45	-20	415	347	2,29	1,39	1,20
45	-15	532	398	2,47	1,55	1,34
45	-10	660	450	2,68	1,71	1,47

50	-35	125	192	1,82	0,76	0,65
50	-30	205	245	1,96	0,97	0,84
50	-25	296	298	2,13	1,15	0,99
50	-23,3	330	317	2,19	1,21	1,04
50	-20	399	353	2,31	1,32	1,13
50	-15	514	408	2,51	1,46	1,26
50	-10	640	465	2,74	1,60	1,38

55	-35	115	185	1,80	0,72	0,62
55	-30	193	242	1,96	0,93	0,80
55	-25	282	300	2,13	1,09	0,94
55	-23,3	315	320	2,20	1,14	0,98
55	-20	383	359	2,33	1,24	1,07
55	-15	496	419	2,56	1,38	1,18
55	-10	620	480	2,80	1,50	1,29

60	-35	105	178	1,78	0,69	0,59
60	-30	181	239	1,95	0,88	0,75
60	-25	268	302	2,14	1,03	0,89
60	-23,3	300	323	2,21	1,08	0,93
60	-20	367	365	2,36	1,17	1,00
60	-15	478	430	2,60	1,29	1,11
60	-10	600	495	2,86	1,41	1,21

65	-35	95	171	1,76	0,65	0,56
65	-30	169	237	1,94	0,83	0,71
65	-25	254	304	2,15	0,97	0,84
65	-23,3	286	327	2,22	1,02	0,87
65	-20	351	371	2,38	1,10	0,94
65	-15	460	440	2,64	1,21	1,04
65	-10	580	510	2,93	1,32	1,14

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	158	206	1,86	0,77	0,66
40	-30	253	250	1,98	1,01	0,87
40	-25	358	295	2,12	1,22	1,05
40	-23,3	397	310	2,17	1,28	1,10
40	-20	475	340	2,27	1,39	1,20
40	-15	602	387	2,44	1,55	1,34
40	-10	740	435	2,62	1,70	1,47

45	-35	142	199	1,84	0,71	0,61
45	-30	229	247	1,97	0,93	0,80
45	-25	328	296	2,12	1,11	0,95
45	-23,3	364	313	2,18	1,16	1,00
45	-20	437	347	2,29	1,26	1,09
45	-15	557	398	2,47	1,40	1,21
45	-10	688	450	2,68	1,53	1,32

50	-35	125	192	1,82	0,65	0,56
50	-30	206	245	1,96	0,84	0,73
50	-25	297	298	2,13	1,00	0,86
50	-23,3	331	317	2,19	1,04	0,90
50	-20	399	353	2,31	1,13	0,98
50	-15	512	408	2,51	1,25	1,08
50	-10	636	465	2,74	1,37	1,18

55	-35	109	185	1,80	0,59	0,51
55	-30	182	242	1,96	0,75	0,65
55	-25	266	300	2,13	0,89	0,77
55	-23,3	298	320	2,20	0,93	0,80
55	-20	362	359	2,33	1,01	0,87
55	-15	468	419	2,56	1,12	0,96
55	-10	585	480	2,80	1,22	1,05

60	-35	92	178	1,78	0,52	0,45
60	-30	159	239	1,95	0,66	0,57
60	-25	236	302	2,14	0,78	0,67
60	-23,3	265	323	2,21	0,82	0,71
60	-20	324	365	2,36	0,89	0,77
60	-15	423	430	2,60	0,98	0,85
60	-10	533	495	2,86	1,08	0,93

65	-35	76	171	1,76	0,44	0,38
65	-30	135	237	1,94	0,57	0,49
65	-25	205	304	2,15	0,68	0,58
65	-23,3	232	327	2,22	0,71	0,61
65	-20	286	371	2,38	0,77	0,67
65	-15	378	440	2,64	0,86	0,74
65	-10	481	510	2,93	0,94	0,81

## EN12900

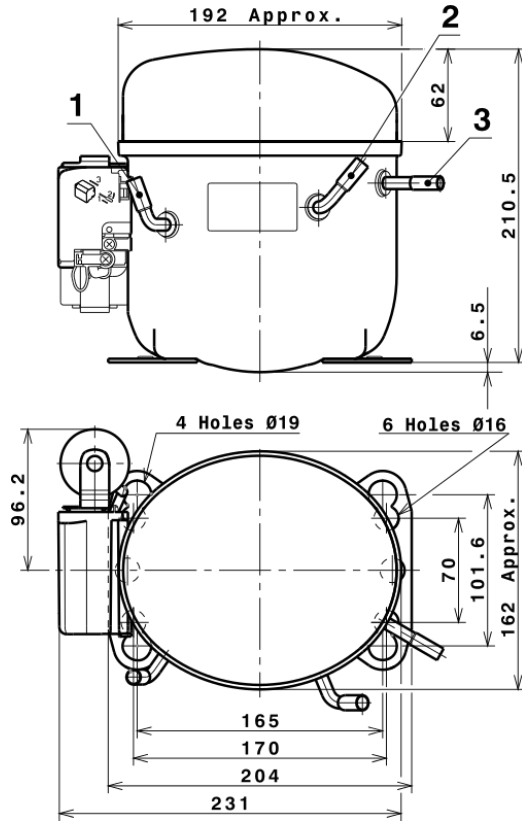
X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.573,0849894909	352,1360287231	2,3682274807	27,988434310019
2	44,2101080311	3,1794817380	0,0261618373	0,85693130749873
3	-13,5176640888	4,8724055892	0,0192304092	-0,11480255504234
4	0,2131363543	0,0218608809	0,0004642684	0,0059371112329307
5	-0,2921898988	0,1800717023	0,0006589965	-0,001941607727308

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

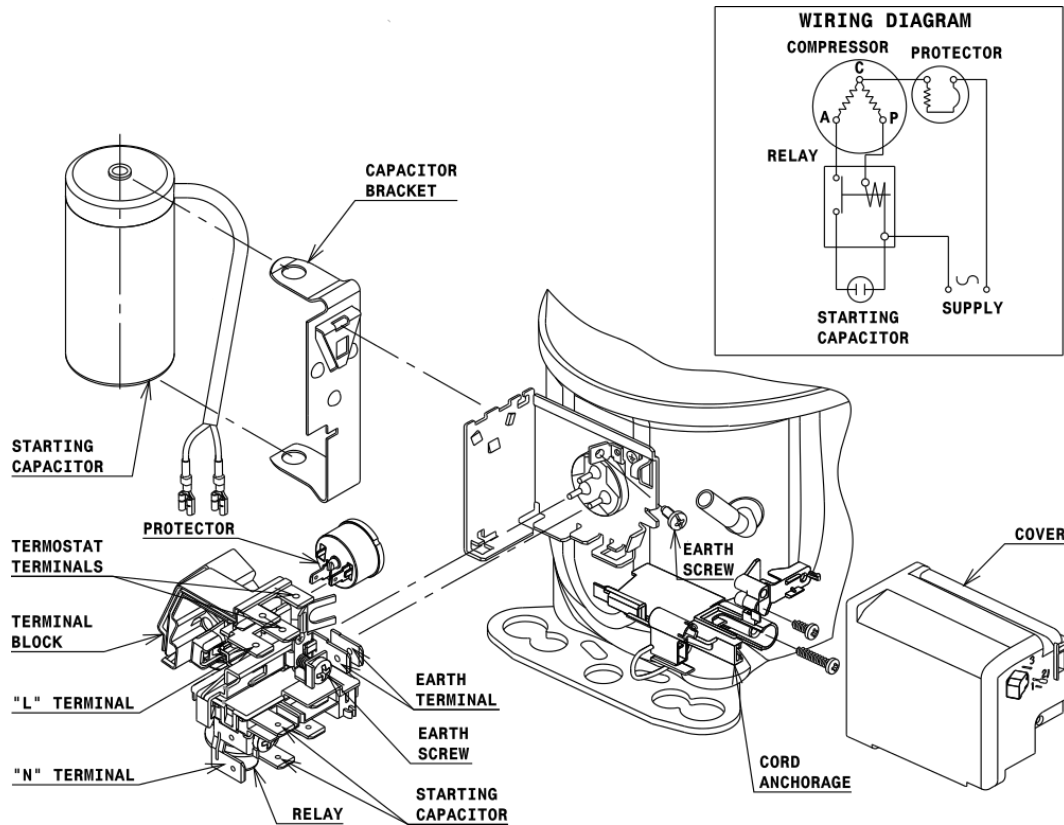


## DESIGNATION INTERNAL DIAM.

1	Suction	8,1 mm
2	Service	8,1 mm
3	Discharge	6,5 mm

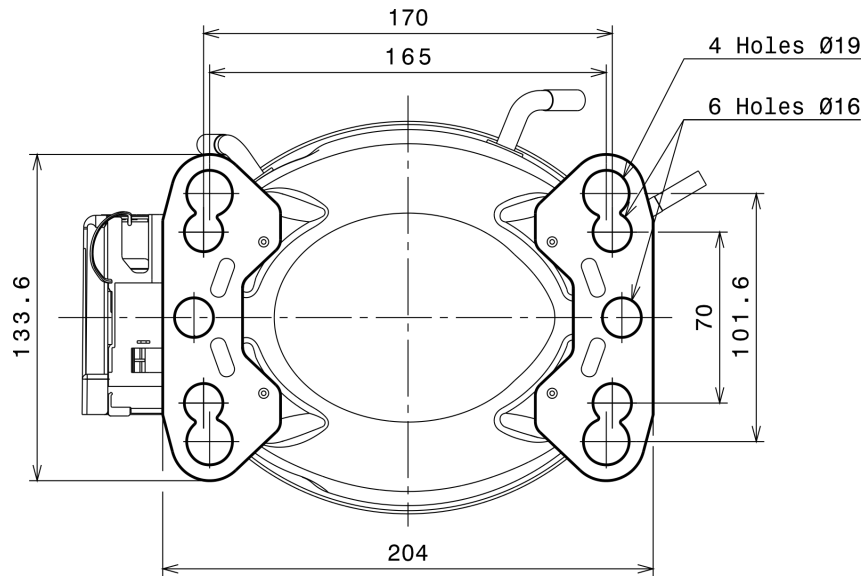
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



# Technical Data Sheet

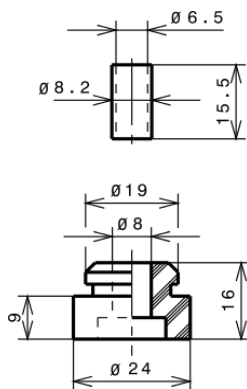
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

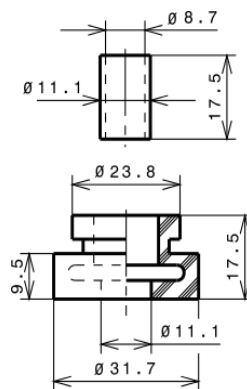
### STANDARD

Ø16 holes (170x70 net)



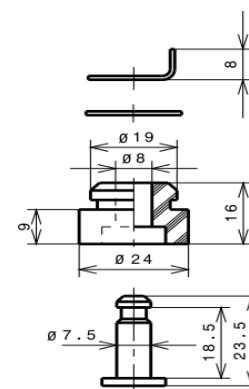
### AMERICAN FEET

Ø19 holes (165x101.6 net)



### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R134a LBP

