

Technical Data Sheet

ENGINEERING
TOMORROW



Compressor model **GP12PB**
Voltage **220-240V 50Hz ~1**
Refrigerant **R134a**

APPLICATION

Application	High-Medium Back Pressure
Refrigerant	R134a
Evaporating Temp.	-25,0 °C to 10,0 °C
Expansion	Capillar
Comp. Cooling	Fan cooled
Max. ambient temp.	43,0 °C
Compatible refriger.	R1234yf

COMPRESSOR

Displacement	12,05 cm ³
Diameter	29,37 mm
Stroke	17,78 mm
Net Weight	11,72 Kg
Oil type	ISO VG 32 ESTER
Oil charge	350 cm ³

MOTOR

Nominal Power	3/8 hp
Voltage/Frequency	220-240V 50Hz
Voltage range	198-264 V
Type	RSIR
Phase number	1 PH
Locked Rotor Amps (LRA)	18,50 A
Max. Cont. Current (MCC)	4,30 A
Main W. resist. at 25°C	5,81 Ω
Start W. resist. at 25°C	33,14 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	920 kCal/h	893 W
COP	2,06 W/W	1,79 W/W
EER	1,77 kCal/Wh	1,54 kCal/Wh
Input Power	520 W	500 W
Current	2,90 A	2,83 A

APPROVALS



TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T _e)	7,2 °C	5,0 °C
Condensing temp. (T _c)	55,0 °C	55,0 °C
Liquid temp. (T _{liq.})	46,0 °C	55,0 °C
Ambient temp. (T _{amb.})	35,0 °C	32,0 °C
Suction temp. (T _{suction})	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

ELECTRICAL COMPONENTS

Relay	Option 1			
Reference	2014 145.			
Pick-Up	7,10 A			
Drop-Out	6,00 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		

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ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	240	226	1,82	1,24	1,06
40	-20	327	253	1,93	1,50	1,29
40	-15	431	282	2,04	1,78	1,53
40	-10	553	312	2,16	2,06	1,77
40	-5	691	345	2,28	2,33	2,01
40	0	847	379	2,41	2,60	2,23
40	5	1.020	415	2,54	2,86	2,46
40	7,2	1.102	432	2,60	2,97	2,55
40	10	1.211	454	2,67	3,10	2,67

45	-25	213	224	1,82	1,11	0,95
45	-20	295	256	1,94	1,34	1,15
45	-15	394	289	2,07	1,58	1,36
45	-10	510	325	2,21	1,83	1,57
45	-5	643	362	2,35	2,07	1,78
45	0	794	401	2,49	2,30	1,98
45	5	962	443	2,63	2,53	2,17
45	7,2	1.041	461	2,70	2,63	2,26
45	10	1.147	486	2,78	2,75	2,36

50	-25	187	222	1,81	0,98	0,84
50	-20	263	259	1,95	1,18	1,02
50	-15	357	297	2,10	1,40	1,20
50	-10	468	337	2,25	1,61	1,39
50	-5	596	380	2,41	1,82	1,57
50	0	741	424	2,57	2,03	1,75
50	5	904	470	2,73	2,24	1,92
50	7,2	981	491	2,80	2,32	2,00
50	10	1.084	518	2,89	2,43	2,09

55	-25	160	220	1,80	0,85	0,73
55	-20	231	261	1,96	1,03	0,88
55	-15	319	305	2,13	1,22	1,05
55	-10	425	350	2,30	1,41	1,21
55	-5	548	397	2,47	1,60	1,38
55	0	688	446	2,65	1,79	1,54
55	5	845	497	2,82	1,98	1,70
55	7,2	920	520	2,90	2,06	1,77
55	10	1.020	550	3,00	2,16	1,86

60	-25	133	218	1,79	0,71	0,61
60	-20	199	264	1,97	0,88	0,75
60	-15	282	313	2,16	1,05	0,90
60	-10	382	363	2,35	1,23	1,05
60	-5	500	415	2,54	1,40	1,21
60	0	635	468	2,72	1,58	1,36
60	5	787	524	2,91	1,75	1,50
60	7,2	859	549	3,00	1,82	1,56
60	10	956	582	3,10	1,91	1,64

65	-25	107	216	1,78	0,57	0,49
65	-20	167	267	1,99	0,73	0,63
65	-15	245	320	2,19	0,89	0,76
65	-10	340	375	2,39	1,05	0,91
65	-5	452	432	2,60	1,22	1,05
65	0	582	491	2,80	1,38	1,19
65	5	729	551	3,00	1,54	1,32
65	7,2	799	579	3,09	1,61	1,38
65	10	893	614	3,21	1,69	1,45

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	259	227	1,83	1,14	0,98
40	-20	353	254	1,93	1,39	1,20
40	-15	466	283	2,05	1,65	1,42
40	-10	597	314	2,16	1,90	1,64
40	-5	746	347	2,29	2,15	1,86
40	0	913	381	2,42	2,39	2,07
40	5	1.099	418	2,55	2,63	2,27
40	7,2	1.186	435	2,61	2,73	2,36
40	10	1.302	457	2,68	2,85	2,46

45	-25	229	225	1,82	1,02	0,88
45	-20	317	257	1,95	1,23	1,07
45	-15	423	291	2,08	1,46	1,26
45	-10	548	327	2,21	1,68	1,45
45	-5	690	364	2,35	1,90	1,64
45	0	851	404	2,50	2,11	1,82
45	5	1.030	445	2,64	2,31	2,00
45	7,2	1.115	464	2,71	2,40	2,07
45	10	1.227	489	2,79	2,51	2,17

50	-25	199	223	1,81	0,89	0,77
50	-20	281	260	1,96	1,08	0,93
50	-15	381	299	2,11	1,27	1,10
50	-10	499	339	2,26	1,47	1,27
50	-5	635	382	2,42	1,66	1,44
50	0	789	426	2,58	1,85	1,60
50	5	961	473	2,74	2,03	1,76
50	7,2	1.043	494	2,81	2,11	1,82
50	10	1.152	521	2,90	2,21	1,91

55	-25	169	221	1,80	0,77	0,66
55	-20	245	263	1,97	0,93	0,80
55	-15	338	306	2,14	1,10	0,95
55	-10	449	352	2,31	1,28	1,10
55	-5	579	399	2,48	1,45	1,25
55	0	727	449	2,66	1,62	1,40
55	5	893	500	2,83	1,79	1,54
55	7,2	972	523	2,91	1,86	1,60
55	10	1.077	553	3,01	1,95	1,68

60	-25	140	219	1,80	0,64	0,55
60	-20	208	266	1,98	0,78	0,68
60	-15	295	314	2,17	0,94	0,81
60	-10	400	365	2,35	1,10	0,95
60	-5	523	417	2,54	1,26	1,08
60	0	665	471	2,73	1,41	1,22
60	5	824	528	2,93	1,56	1,35
60	7,2	900	553	3,01	1,63	1,41
60	10	1.002	586	3,12	1,71	1,48

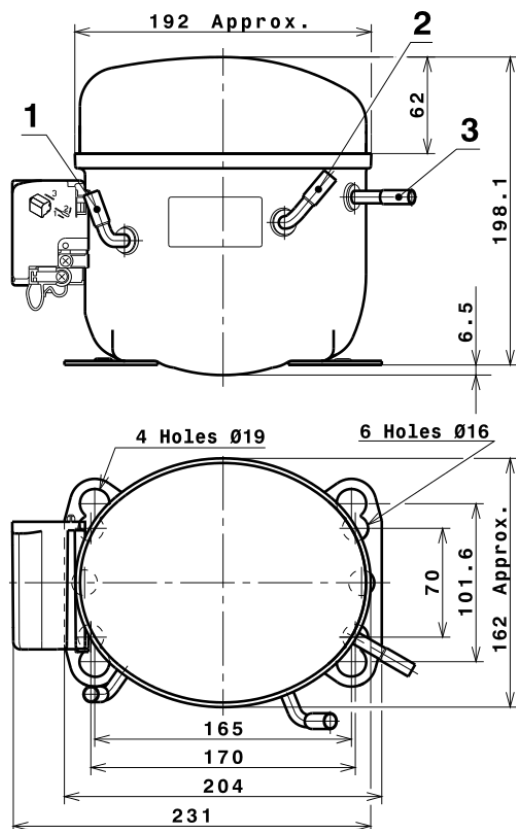
65	-25	110	217	1,79	0,51	0,44
65	-20	172	269	1,99	0,64	0,55
65	-15	253	322	2,20	0,78	0,68
65	-10	351	377	2,40	0,93	0,80
65	-5	468	435	2,61	1,08	0,93
65	0	603	494	2,81	1,22	1,05
65	5	756	555	3,02	1,36	1,18
65	7,2	829	582	3,10	1,42	1,23
65	10	927	618	3,22	1,50	1,30

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.414,5376178968	206,4762230823	1,8324598828	23,723368052886
2	45,8166643503	-0,6256981678	-0,0018248839	0,83904983494831
3	-12,8240605609	4,6208914139	0,0156968036	-0,091187272251676
4	0,3568499340	0,0425313454	0,0000572283	0,010379918129513
5	-0,2749128522	0,2012786825	0,0006930529	1,7305663014537E-6

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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COMPRESSOR DIMENSIONS

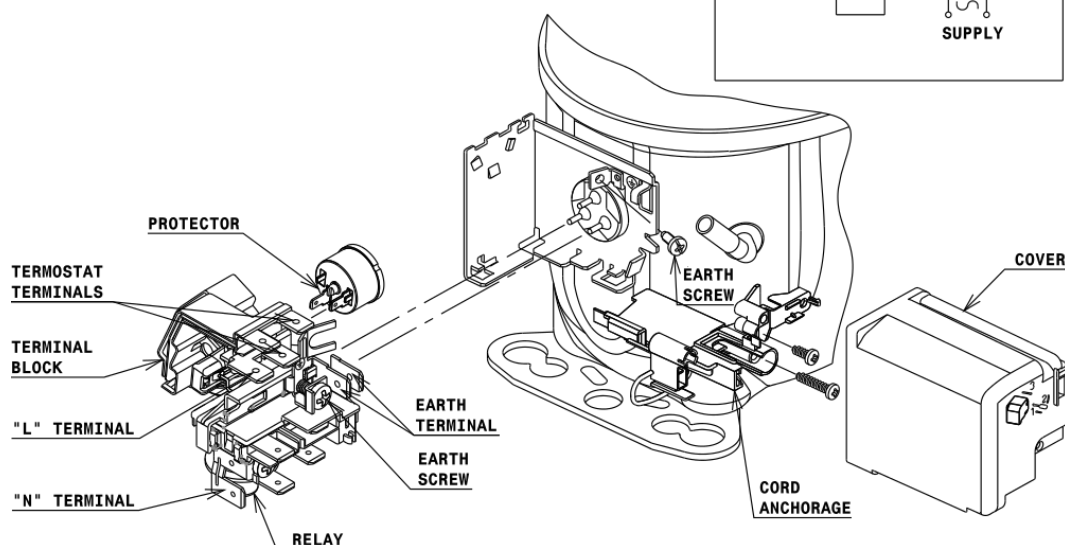
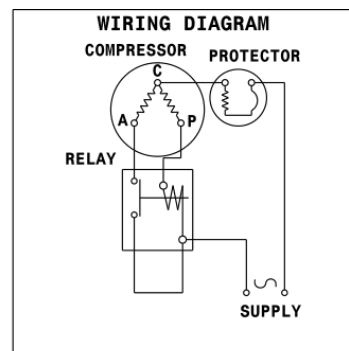


DESIGNATION INTERNAL DIAM.

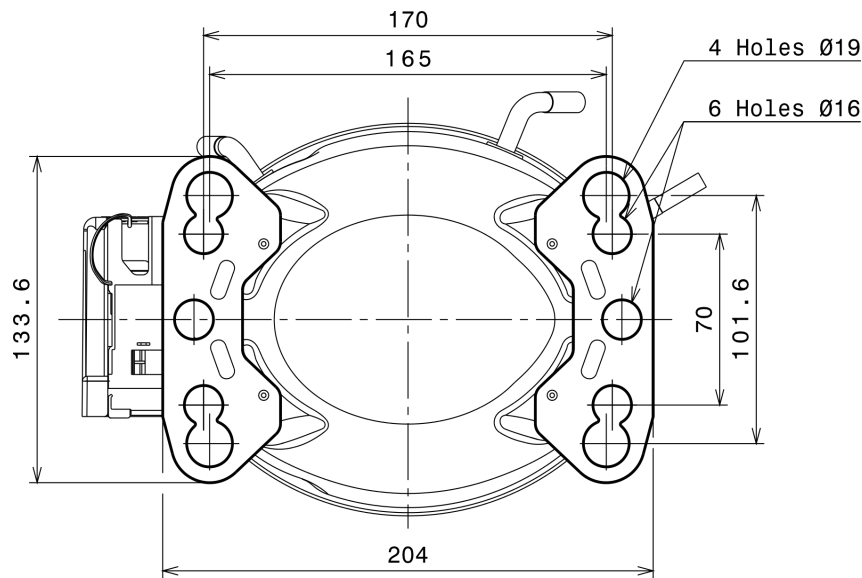
1	Suction/Service	8,1 mm
2	Service/Suction	8,1 mm
3	Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

RSIR CONNECTION (RELAY) (L, P ranges)



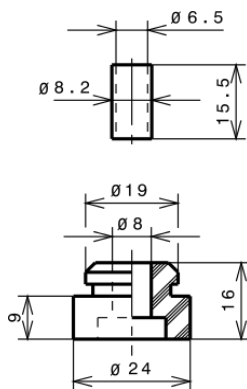
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

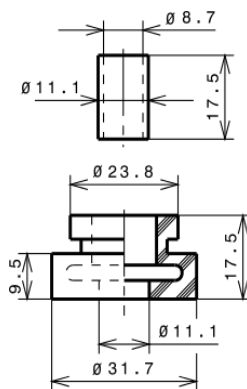
STANDARD

Ø16 holes (170x70 net)



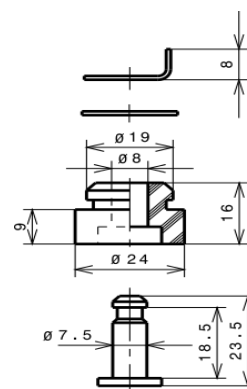
AMERICAN FEET

Ø19 holes (165x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R134a HMBP

