

# Technical Data Sheet

ENGINEERING  
TOMORROW



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		

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## 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

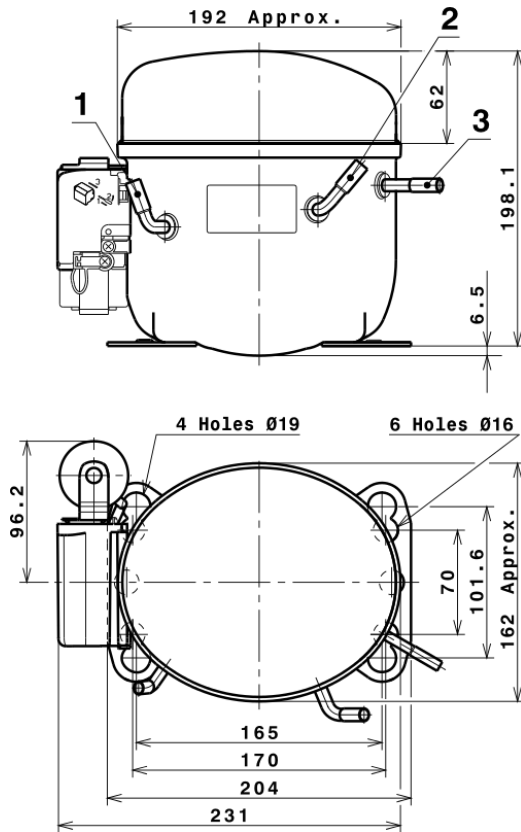
65	-35	62	135	1,34	0,46	0,40
65	-30	102	176	1,44	0,58	0,50
65	-25	151	219	1,56	0,69	0,60
65	-23,3	170	233	1,61	0,73	0,63
65	-20	210	262	1,72	0,80	0,69
65	-15	279	307	1,90	0,91	0,78
65	-10	357	353	2,12	1,01	0,87

## 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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## COMPRESSOR DIMENSIONS

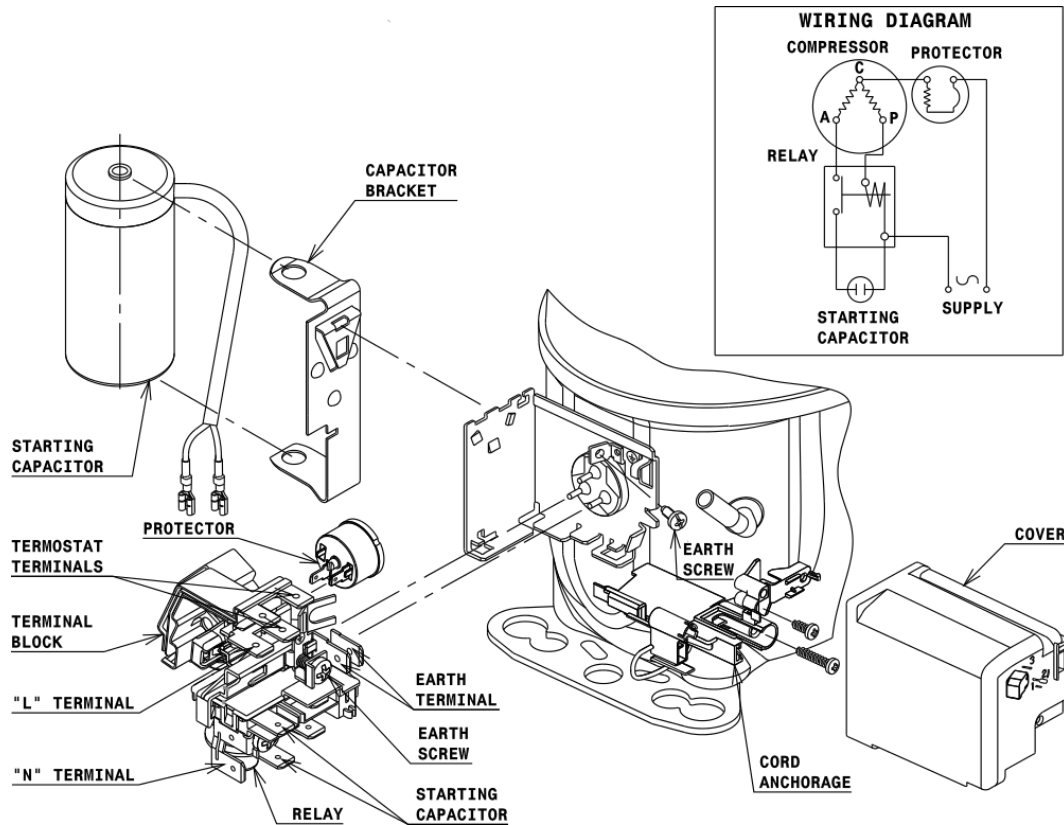


## DESIGNATION INTERNAL DIAM.

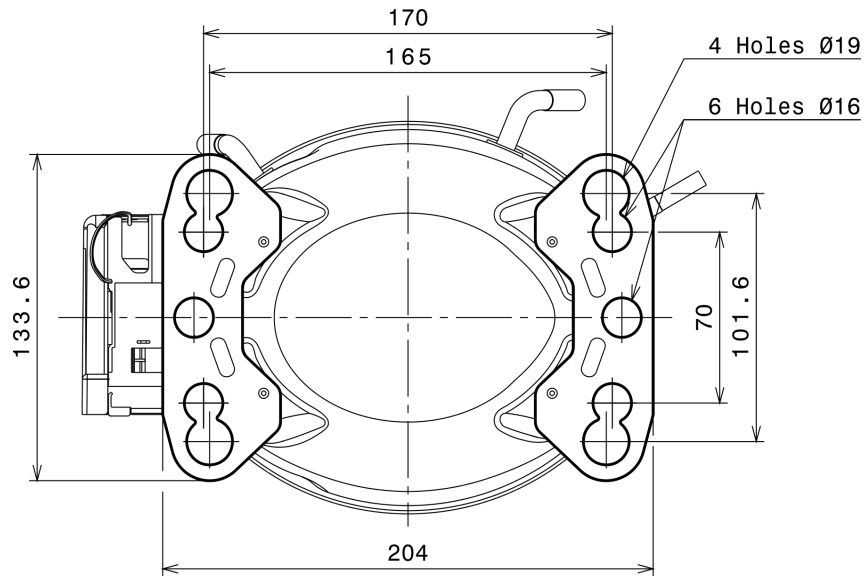
DESIGNATION	INTERNAL DIAM.
1 Suction/Service	8,1 mm
2 Service/Suction	8,1 mm
3 Discharge	6,5 mm

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



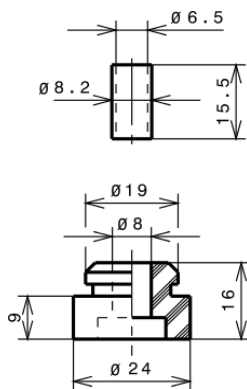
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

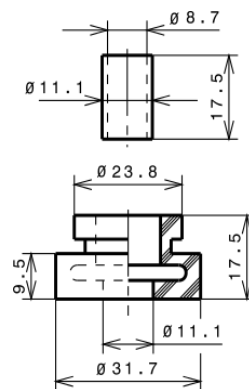
### STANDARD

$\varnothing 16$  holes (170x70 net)



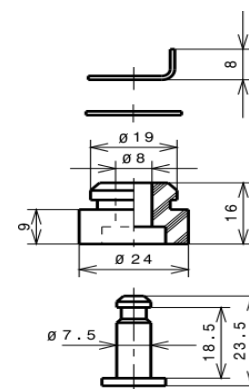
### AMERICAN FEET

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



### SNAP-ON

$\varnothing 16$  holes (170x70 net)



## SOA

SOA R134a LBP

