

# Technical Data Sheet

ENGINEERING  
TOMORROW



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	Option 2		
Reference	2014 149.	QLZ-7.8A		
Pick-Up	7,80 A	7,80 A		
Drop-Out	6,65 A	6,65 A		
Protector	Option 1	Option 2	Option 3	
Reference	AE39FHS	MRT40AMK	T0137	
Current	9,20 A	9,50 A	9,50 A	
Time check	7,5-14 seg	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 62,00 °C	105,00 / 61,00 °C	110,00 / 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	-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

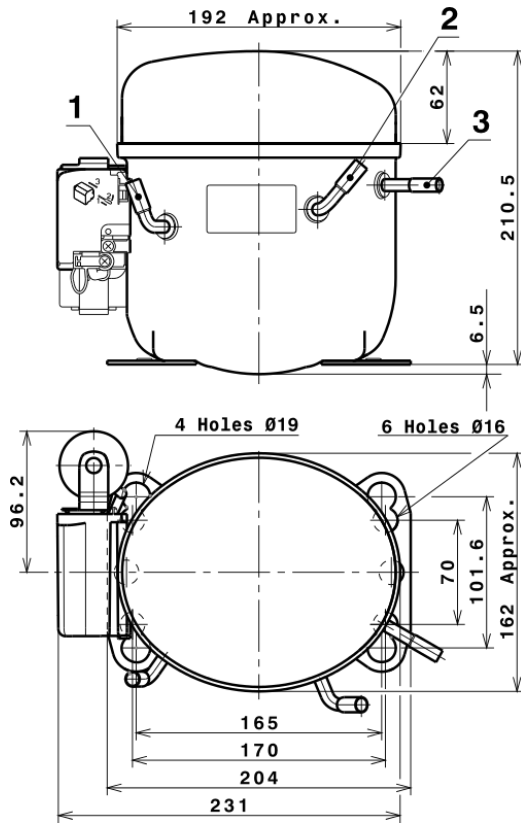
65	-35	76	171	1,76	0,44	0,38
65	-30	135	237	1,94	0,57	0,49
65	-25	205	304	2,15	0,68	0,58
65	-23,3	232	327	2,22	0,71	0,61
65	-20	286	371	2,38	0,77	0,67
65	-15	378	440	2,64	0,86	0,74
65	-10	481	510	2,93	0,94	0,81

## 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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## COMPRESSOR DIMENSIONS

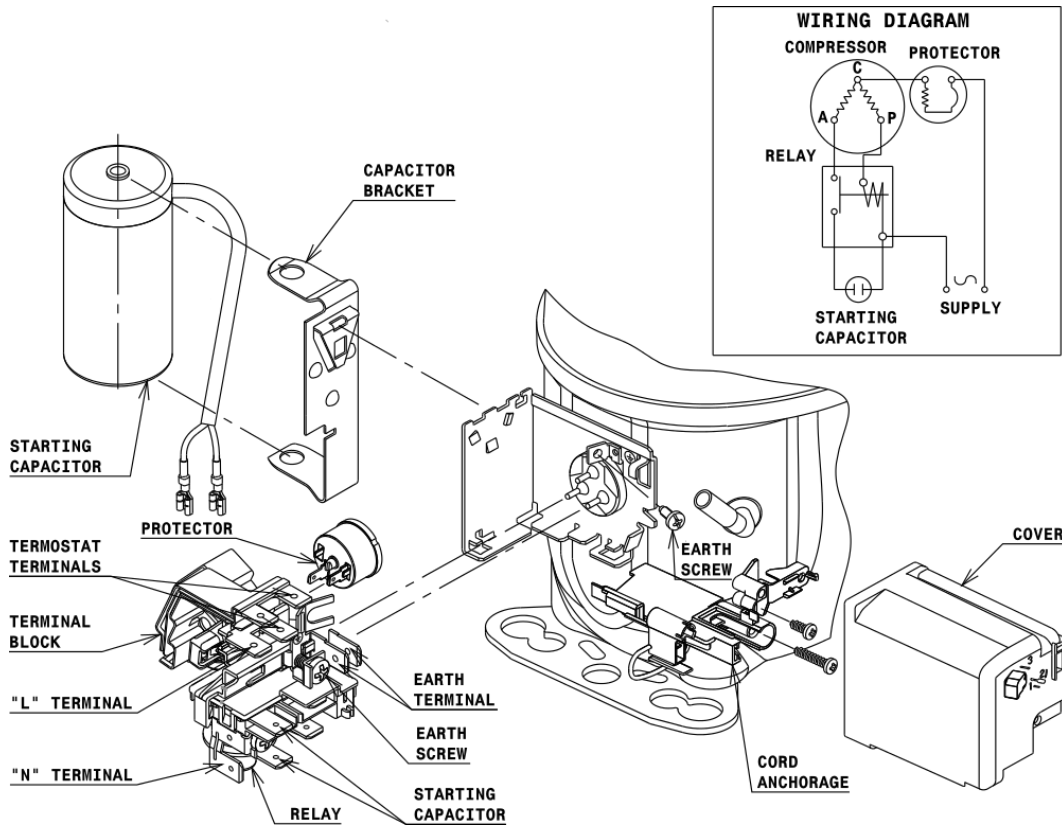


## DESIGNATION INTERNAL DIAM.

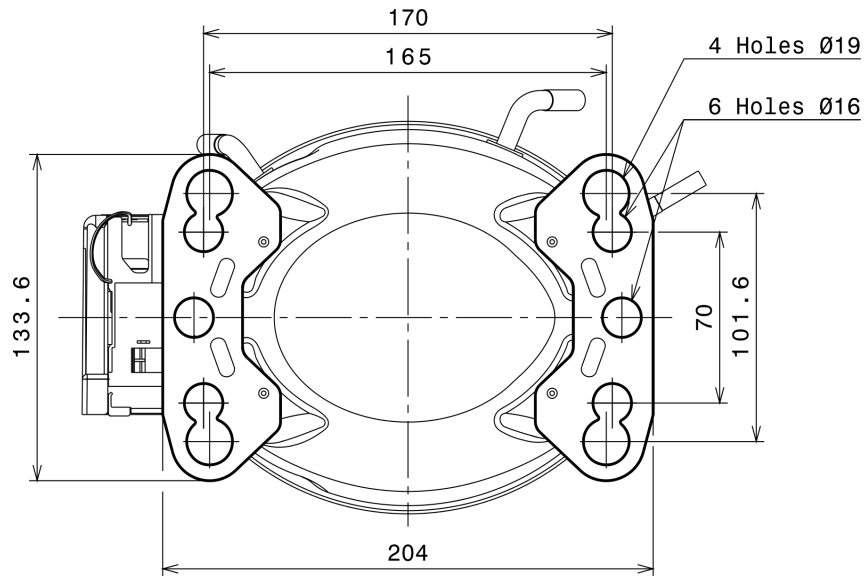
DESIGNATION	INTERNAL DIAM.
1 Suction	8,1 mm
2 Service	8,1 mm
3 Discharge	6,5 mm

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



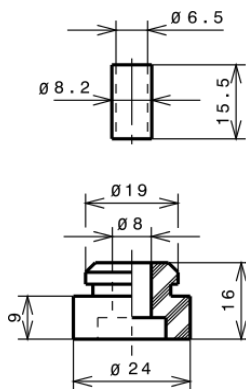
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

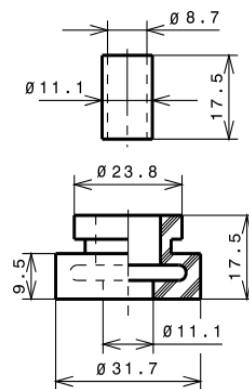
### STANDARD

$\varnothing 16$  holes (170x70 net)



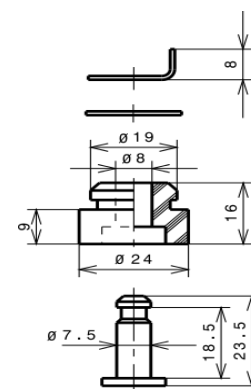
### AMERICAN FEET

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



### SNAP-ON

$\varnothing 16$  holes (170x70 net)



## SOA

SOA R134a LBP

