

# Technical Data Sheet

ENGINEERING  
TOMORROW



Compressor model **GPT16RG**  
Voltage **200-220/220-230V 50/60Hz ~1**  
Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High Back Pressure	Displacement	16,15 cm <sup>3</sup>	Nominal Power	1/2 hp
Refrigerant	R134a	Diameter	31,19 mm	Voltage/Frequency	220-230V 60Hz
Evaporating Temp.	-15,0 °C to 10,0 °C	Stroke	21,13 mm	Voltage range	187-253 V
Expansion	Capillar/Valve	Net Weight	12,16 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
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	5,00 A
				Main W. resist. at 25°C	4,50 Ω
				Start W. resist. at 25°C	10,80 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.560 kCal/h	1.515 W
COP	2,33 W/W	2,02 W/W
EER	2,01 kCal/Wh	1,75 kCal/Wh
Input Power	778 W	750 W
Current	3,41 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	230 V 60 Hz	230 V 60 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	72- 88 μF 330 V		
Run capacitor	12 μF 420 V		
Relay	Option 1	Option 2	
Reference	2014 166. + NTC15Ω	QLZ-11.0A+NTC15	
Pick-Up	11,00 A	11,00 A	
Drop-Out	9,35 A	9,35 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	



## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-15	725	457	2,01	1,85	1,59
40	-10	915	499	2,20	2,13	1,83
40	-5	1.142	548	2,41	2,42	2,08
40	0	1.404	604	2,66	2,71	2,33
40	5	1.703	666	2,93	2,97	2,56
40	7,2	1.846	696	3,06	3,08	2,65
40	10	2.038	736	3,23	3,22	2,77

45	-15	688	474	2,09	1,69	1,45
45	-10	865	519	2,28	1,94	1,67
45	-5	1.078	570	2,51	2,20	1,89
45	0	1.328	628	2,76	2,46	2,11
45	5	1.614	693	3,04	2,71	2,33
45	7,2	1.751	723	3,17	2,81	2,42
45	10	1.935	764	3,35	2,95	2,53

50	-15	651	492	2,16	1,54	1,32
50	-10	815	538	2,37	1,76	1,51
50	-5	1.015	592	2,60	2,00	1,72
50	0	1.251	652	2,87	2,23	1,92
50	5	1.524	719	3,16	2,47	2,12
50	7,2	1.655	751	3,29	2,56	2,21
50	10	1.833	793	3,47	2,69	2,31

55	-15	614	509	2,24	1,40	1,21
55	-10	765	558	2,45	1,59	1,37
55	-5	952	614	2,70	1,80	1,55
55	0	1.175	676	2,97	2,02	1,74
55	5	1.434	745	3,27	2,24	1,92
55	7,2	1.560	778	3,41	2,33	2,01
55	10	1.730	821	3,60	2,45	2,11

60	-15	577	526	2,32	1,28	1,10
60	-10	715	577	2,54	1,44	1,24
60	-5	889	635	2,79	1,63	1,40
60	0	1.099	700	3,07	1,83	1,57
60	5	1.345	772	3,38	2,03	1,74
60	7,2	1.465	805	3,53	2,12	1,82
60	10	1.627	850	3,72	2,23	1,91

65	-15	540	544	2,39	1,16	0,99
65	-10	665	597	2,63	1,29	1,11
65	-5	825	657	2,89	1,46	1,26
65	0	1.022	724	3,18	1,64	1,41
65	5	1.255	798	3,50	1,83	1,57
65	7,2	1.369	833	3,64	1,91	1,64
65	10	1.525	879	3,84	2,02	1,74

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-15	781	460	2,02	1,70	1,47
40	-10	987	502	2,21	1,97	1,70
40	-5	1.231	551	2,43	2,23	1,93
40	0	1.513	607	2,67	2,49	2,15
40	5	1.834	671	2,95	2,73	2,36
40	7,2	1.987	700	3,08	2,84	2,45
40	10	2.192	741	3,25	2,96	2,56

45	-15	737	477	2,10	1,55	1,34
45	-10	928	522	2,30	1,78	1,54
45	-5	1.156	573	2,52	2,02	1,74
45	0	1.423	632	2,78	2,25	1,95
45	5	1.728	697	3,06	2,48	2,14
45	7,2	1.874	728	3,19	2,57	2,22
45	10	2.070	769	3,37	2,69	2,32

50	-15	693	494	2,18	1,40	1,21
50	-10	868	541	2,38	1,60	1,39
50	-5	1.081	595	2,62	1,82	1,57
50	0	1.332	656	2,88	2,03	1,76
50	5	1.621	724	3,18	2,24	1,94
50	7,2	1.761	756	3,31	2,33	2,01
50	10	1.948	798	3,50	2,44	2,11

55	-15	650	512	2,25	1,27	1,10
55	-10	809	561	2,47	1,44	1,25
55	-5	1.006	617	2,71	1,63	1,41
55	0	1.242	680	2,99	1,83	1,58
55	5	1.515	750	3,29	2,02	1,75
55	7,2	1.648	783	3,43	2,10	1,82
55	10	1.827	827	3,62	2,21	1,91

60	-15	606	529	2,33	1,14	0,99
60	-10	750	581	2,55	1,29	1,12
60	-5	931	639	2,81	1,46	1,26
60	0	1.151	704	3,09	1,63	1,41
60	5	1.409	777	3,40	1,81	1,57
60	7,2	1.535	811	3,55	1,89	1,64
60	10	1.705	856	3,74	1,99	1,72

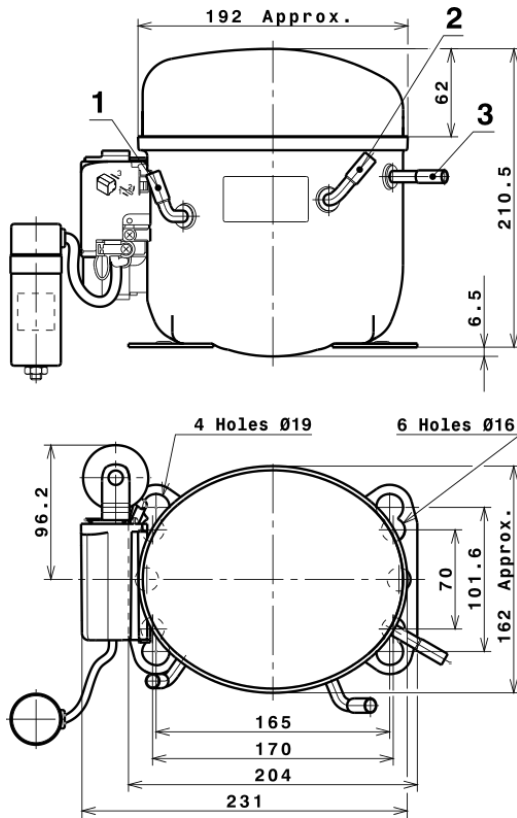
65	-15	562	547	2,41	1,03	0,89
65	-10	690	600	2,64	1,15	0,99
65	-5	856	661	2,90	1,30	1,12
65	0	1.061	729	3,20	1,46	1,26
65	5	1.303	803	3,52	1,62	1,40
65	7,2	1.422	838	3,67	1,70	1,47
65	10	1.583	884	3,86	1,79	1,55

## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.245,5208107111	423,9246111856	1,8799258595	37,048304469387
2	85,6708280815	8,6491712567	0,0384749989	1,5510548944945
3	-18,8064885139	4,9786486537	0,0215322221	-0,094619128328611
4	0,7498118829	0,1482753914	0,0006066415	0,022407843518753
5	-0,6518981261	0,0941081891	0,0003862730	-0,0032671867691157

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

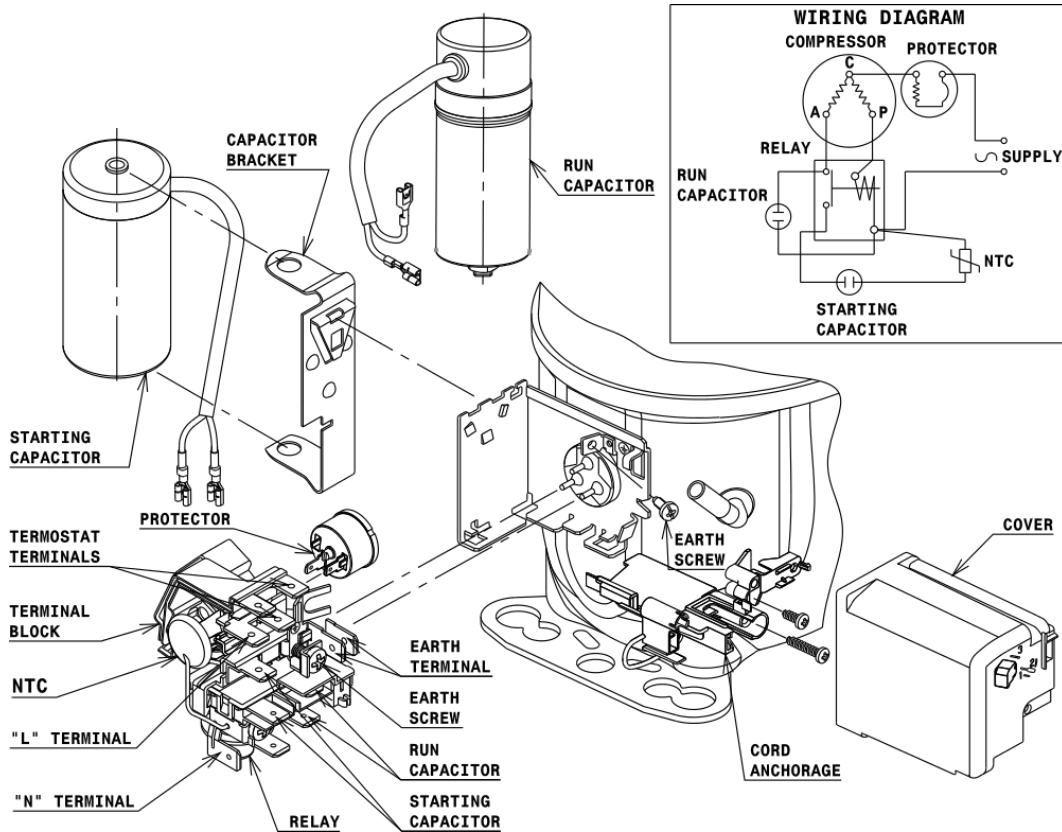


## DESIGNATION INTERNAL DIAM.

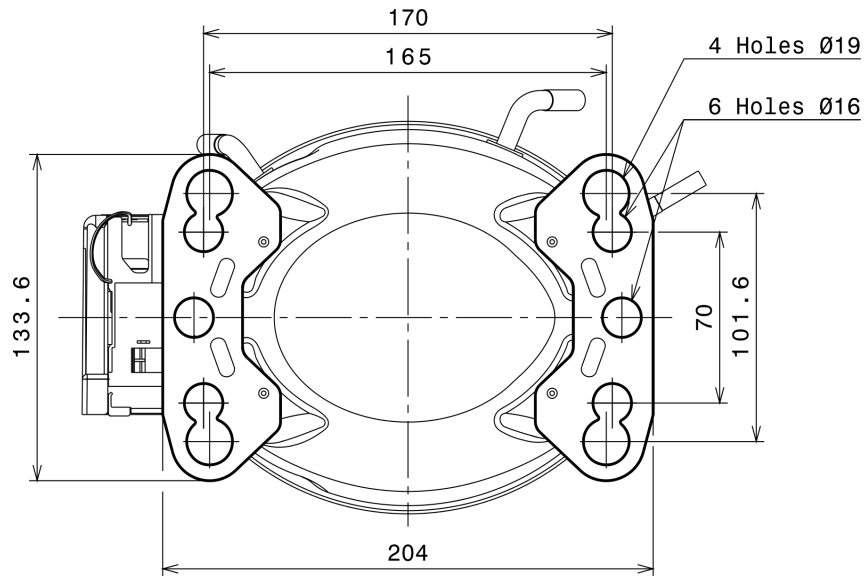
DESIGNATION	INTERNAL DIAM.
1 Suction	8,1 mm
2 Service	8,1 mm
3 Discharge	6,5 mm

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

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



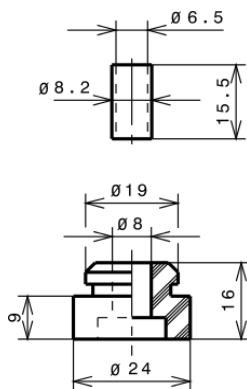
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

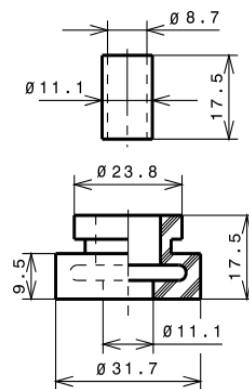
### STANDARD

$\varnothing 16$  holes (170x70 net)



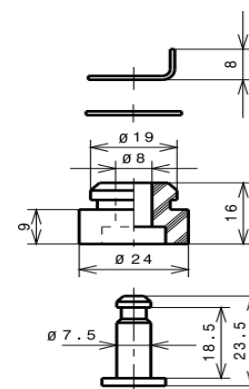
### AMERICAN FEET

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



### SNAP-ON

$\varnothing 16$  holes (170x70 net)



## SOA

SOA R134a HBP

