

Technical Data Sheet

ENGINEERING
TOMORROW



Compressor model **GPT18RA**
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 18,00 cm³
Diameter 31,19 mm
Stroke 23,57 mm
Net Weight 12,84 Kg
Oil type ISO VG 32 ESTER
Oil charge 400 cm³

MOTOR

Nominal Power 1/2 hp
Voltage/Frequency 220-240V 50Hz
Voltage range 187-255 V
Type CSR
Phase number 1 PH
Locked Rotor Amps (LRA) 21,50 A
Max. Cont. Current (MCC) 6,00 A
Main W. resist. at 25°C 3,98 Ω
Start W. resist. at 25°C 7,27 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.525 kCal/h	1.482 W
COP	2,39 W/W	2,06 W/W
EER	2,05 kCal/Wh	1,78 kCal/Wh
Input Power	743 W	720 W
Current	3,70 A	3,59 A

APPROVALS



TEST CYCLE CONDITIONS

	ASHRAE HBP (D)	CECOMAF HBP (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

Starting capacitor	64- 77 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	T0268	B154-105	
Current	15,00 A	15,80 A	
Time check	7,5-14 seg	7,5-16 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	712	443	2,43	1,87	1,61
40	-10	903	488	2,61	2,15	1,85
40	-5	1.126	535	2,79	2,45	2,11
40	0	1.381	583	2,99	2,76	2,37
40	5	1.669	633	3,21	3,07	2,64
40	7,2	1.806	655	3,30	3,21	2,76
40	10	1.989	684	3,43	3,38	2,91

45	-15	669	455	2,48	1,71	1,47
45	-10	849	504	2,67	1,96	1,68
45	-5	1.060	554	2,88	2,22	1,91
45	0	1.304	607	3,09	2,50	2,15
45	5	1.581	660	3,33	2,78	2,39
45	7,2	1.712	684	3,43	2,91	2,50
45	10	1.889	715	3,57	3,07	2,64

50	-15	627	467	2,52	1,56	1,34
50	-10	795	520	2,73	1,78	1,53
50	-5	995	574	2,96	2,01	1,73
50	0	1.227	630	3,20	2,26	1,95
50	5	1.492	688	3,45	2,52	2,17
50	7,2	1.619	714	3,57	2,64	2,27
50	10	1.789	747	3,72	2,79	2,40

55	-15	584	479	2,57	1,42	1,22
55	-10	740	536	2,80	1,61	1,38
55	-5	929	594	3,04	1,82	1,56
55	0	1.150	654	3,30	2,05	1,76
55	5	1.403	715	3,57	2,28	1,96
55	7,2	1.525	743	3,70	2,39	2,05
55	10	1.689	778	3,86	2,52	2,17

60	-15	541	491	2,62	1,28	1,10
60	-10	686	552	2,86	1,45	1,24
60	-5	863	614	3,13	1,64	1,41
60	0	1.073	678	3,40	1,84	1,58
60	5	1.315	743	3,70	2,06	1,77
60	7,2	1.431	772	3,84	2,16	1,85
60	10	1.589	810	4,01	2,28	1,96

65	-15	499	503	2,67	1,15	0,99
65	-10	632	568	2,93	1,30	1,11
65	-5	798	634	3,21	1,46	1,26
65	0	996	701	3,51	1,65	1,42
65	5	1.226	771	3,83	1,85	1,59
65	7,2	1.338	802	3,97	1,94	1,67
65	10	1.489	842	4,17	2,06	1,77

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-15	767	445	2,44	1,72	1,49
40	-10	974	491	2,62	1,98	1,71
40	-5	1.214	538	2,81	2,26	1,95
40	0	1.489	586	3,01	2,54	2,19
40	5	1.797	637	3,22	2,82	2,44
40	7,2	1.944	659	3,32	2,95	2,55
40	10	2.139	688	3,45	3,11	2,68

45	-15	717	458	2,49	1,57	1,35
45	-10	910	507	2,68	1,80	1,55
45	-5	1.137	558	2,89	2,04	1,76
45	0	1.398	610	3,11	2,29	1,98
45	5	1.692	664	3,35	2,55	2,20
45	7,2	1.833	689	3,45	2,66	2,30
45	10	2.021	720	3,60	2,81	2,42

50	-15	667	470	2,53	1,42	1,23
50	-10	847	523	2,75	1,62	1,40
50	-5	1.060	578	2,97	1,83	1,58
50	0	1.306	634	3,21	2,06	1,78
50	5	1.587	692	3,47	2,29	1,98
50	7,2	1.722	718	3,59	2,40	2,07
50	10	1.902	752	3,74	2,53	2,19

55	-15	618	482	2,58	1,28	1,11
55	-10	783	539	2,81	1,45	1,26
55	-5	982	598	3,06	1,64	1,42
55	0	1.215	658	3,32	1,85	1,60
55	5	1.482	720	3,59	2,06	1,78
55	7,2	1.611	748	3,72	2,15	1,86
55	10	1.783	784	3,89	2,28	1,97

60	-15	568	494	2,63	1,15	0,99
60	-10	720	555	2,88	1,30	1,12
60	-5	905	617	3,14	1,47	1,27
60	0	1.124	682	3,42	1,65	1,42
60	5	1.377	748	3,72	1,84	1,59
60	7,2	1.500	777	3,86	1,93	1,67
60	10	1.665	815	4,04	2,04	1,76

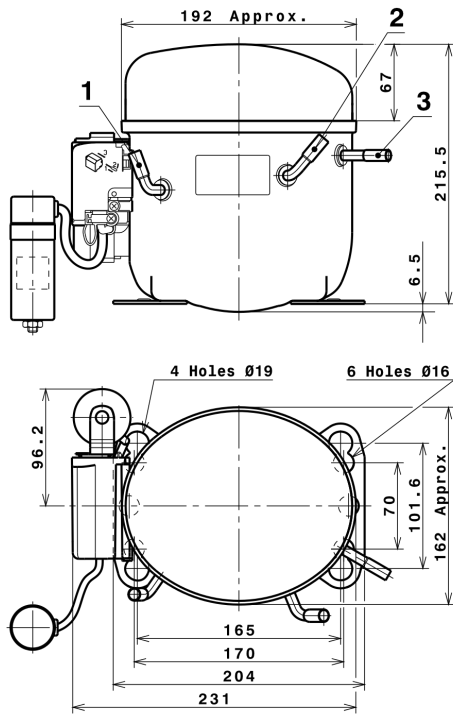
65	-15	518	506	2,68	1,03	0,89
65	-10	656	571	2,94	1,15	0,99
65	-5	828	637	3,23	1,30	1,12
65	0	1.033	706	3,53	1,46	1,26
65	5	1.273	776	3,85	1,64	1,42
65	7,2	1.389	807	4,00	1,72	1,49
65	10	1.546	847	4,19	1,83	1,58

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.224,2670717760	405,4143007087	2,1915163699	36,942664040292
2	80,9248977011	3,8136802616	0,0122743743	1,4447152599644
3	-18,8885922711	4,9023297609	0,0218419466	-0,10501725298774
4	0,6697884822	0,0392731923	0,0003633988	0,020268609923656
5	-0,5812020431	0,1621900232	0,0008064982	-0,001772144412466

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

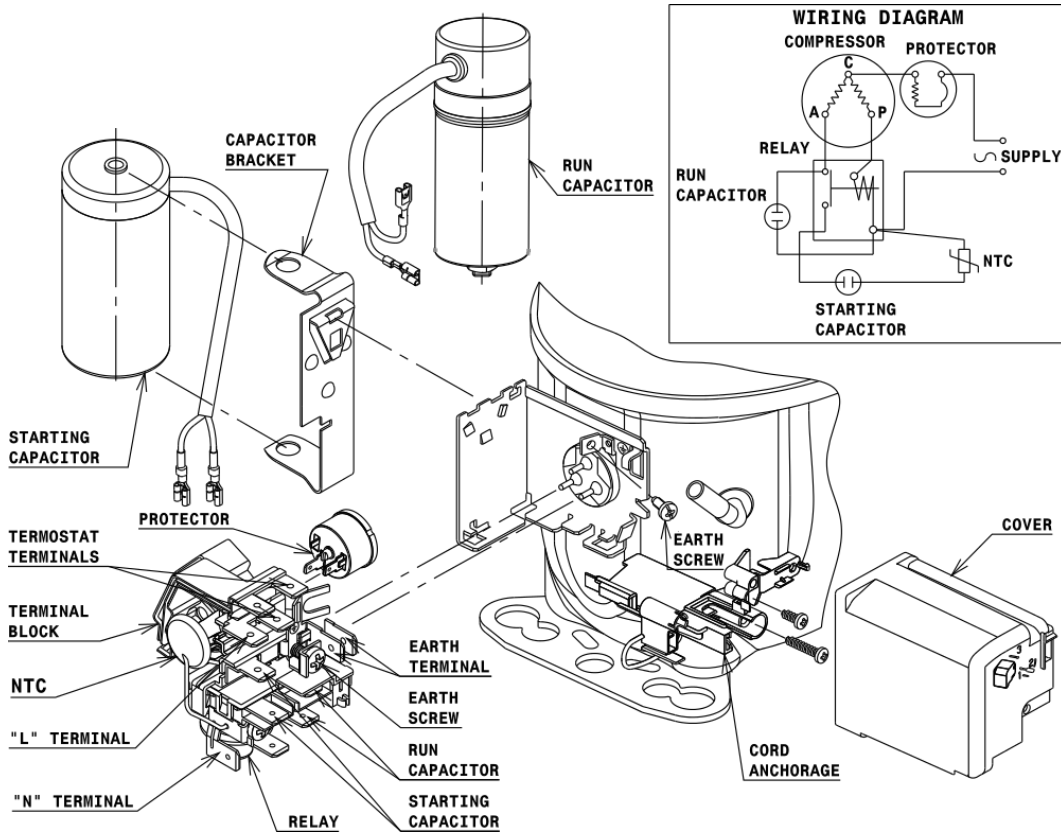


DESIGNATION INTERNAL DIAM.

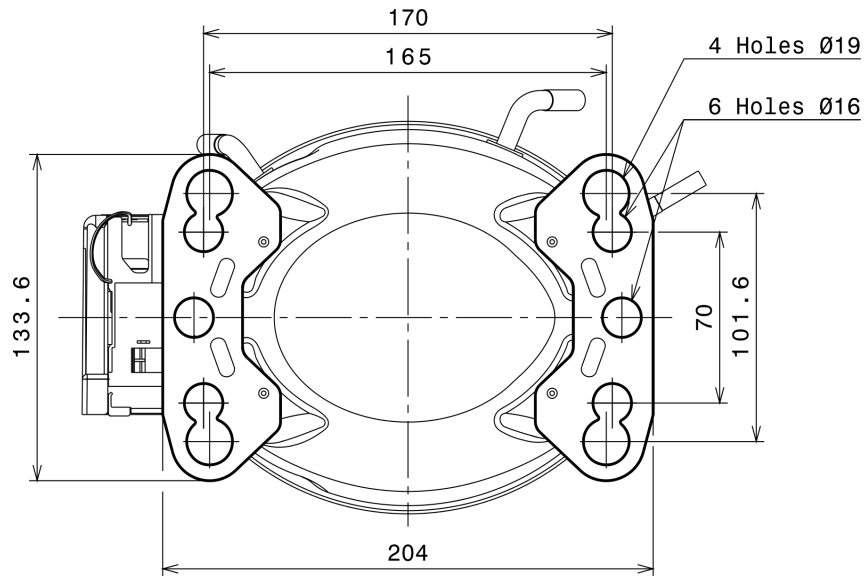
DESIGNATION	INTERNAL DIAM.
1 Suction	8,1 mm
2 Service	8,1 mm
3 Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

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



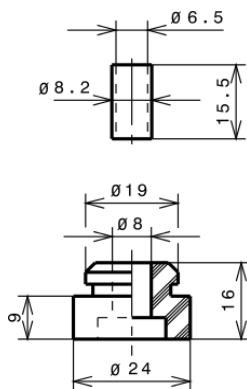
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

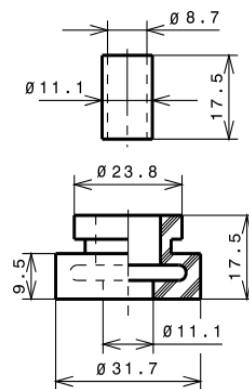
STANDARD

Ø16 holes (170x70 net)



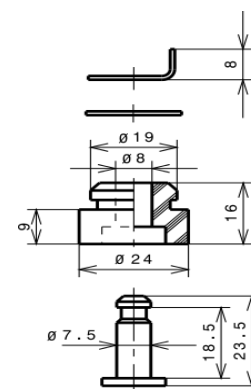
AMERICAN FEET

Ø19 holes (165x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R134a HBP

