

Technical Data Sheet

ENGINEERING
TOMORROW



Compressor model **GP16TG**
Voltage **200-220/230V 50/60Hz ~1**
Refrigerant **R134a**
Compressor status

APPLICATION

COMPRESSOR

MOTOR

Application	High Back Pressure	Displacement	16,15 cm ³	Voltage/Frequency	200-220V 50Hz
Refrigerant	R134a	Diameter	31,19 mm	Voltage range	170-242 V
Evaporating Temp.	-15,0 °C to 10,0 °C	Stroke	21,13 mm	Type	CSIR
Expansion	Capillar/Valve	Net Weight	11,93 Kg	Phase number	1 PH
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Locked Rotor Amps (LRA)	23,00 A
Max. ambient temp.	43,0 °C	Oil charge	400 cm ³	Max. Cont. Current (MCC)	6,50 A
Compatible refriger.	R1234yf	HP	3/8 hp	Main W. resist. at 25°C	3,80 Ω
				Start W. resist. at 25°C	13,10 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.240 kCal/h	1.204 W
COP	2,09 W/W	1,81 W/W
EER	1,80 kCal/Wh	1,57 kCal/Wh
Input Power	690 W	664 W
Current	4,40 A	4,29 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	200 V 50 Hz	200 V 50 Hz

ELECTRICAL COMPONENTS

Starting capacitor	72- 88 µF 330 V			
Relay	Option 1	Option 2		
Reference	2014 166.	QLZ-11.0A		
Pick-Up	11,00 A	11 A		
Drop-Out	9,35 A	9.35 A		
Protector	Option 1	Option 2		
Reference	MRA38134	T0348		
Current	15,80 A	15,40 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	560	382	3,15	1,71	1,47
40	-10	740	425	3,32	2,02	1,74
40	-5	945	472	3,50	2,33	2,00
40	0	1.175	522	3,70	2,62	2,25
40	5	1.430	575	3,92	2,89	2,49
40	7,2	1.550	600	4,02	3,00	2,58
40	10	1.710	632	4,16	3,14	2,70

45	-15	523	395	3,20	1,54	1,33
45	-10	688	442	3,38	1,81	1,56
45	-5	878	492	3,58	2,08	1,78
45	0	1.093	546	3,80	2,33	2,00
45	5	1.333	604	4,04	2,57	2,21
45	7,2	1.447	630	4,15	2,67	2,30
45	10	1.598	664	4,29	2,80	2,40

50	-15	487	407	3,25	1,39	1,19
50	-10	637	458	3,45	1,62	1,39
50	-5	812	513	3,67	1,84	1,58
50	0	1.012	571	3,90	2,06	1,77
50	5	1.237	632	4,15	2,28	1,96
50	7,2	1.343	660	4,27	2,37	2,04
50	10	1.486	697	4,43	2,48	2,13

55	-15	450	420	3,30	1,25	1,07
55	-10	585	475	3,51	1,43	1,23
55	-5	745	533	3,75	1,63	1,40
55	0	930	595	4,00	1,82	1,56
55	5	1.140	660	4,27	2,01	1,73
55	7,2	1.240	690	4,40	2,09	1,80
55	10	1.374	729	4,57	2,19	1,89

60	-15	413	433	3,35	1,11	0,96
60	-10	533	491	3,58	1,26	1,09
60	-5	678	554	3,83	1,42	1,23
60	0	848	619	4,10	1,59	1,37
60	5	1.043	688	4,39	1,76	1,51
60	7,2	1.137	720	4,53	1,84	1,58
60	10	1.263	761	4,71	1,93	1,66

65	-15	377	445	3,40	0,98	0,85
65	-10	482	508	3,65	1,10	0,95
65	-5	612	574	3,91	1,24	1,07
65	0	767	644	4,20	1,38	1,19
65	5	946	717	4,52	1,54	1,32
65	7,2	1.033	750	4,66	1,60	1,38
65	10	1.151	793	4,85	1,69	1,45

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-15	603	384	3,16	1,57	1,36
40	-10	798	428	3,33	1,87	1,61
40	-5	1.019	475	3,51	2,15	1,86
40	0	1.266	525	3,71	2,41	2,08
40	5	1.540	579	3,93	2,66	2,30
40	7,2	1.668	604	4,04	2,76	2,39
40	10	1.839	637	4,17	2,89	2,50

45	-15	561	397	3,21	1,41	1,22
45	-10	738	444	3,39	1,66	1,44
45	-5	942	495	3,59	1,90	1,64
45	0	1.172	550	3,81	2,13	1,84
45	5	1.428	607	4,05	2,35	2,03
45	7,2	1.549	634	4,16	2,44	2,11
45	10	1.710	669	4,31	2,56	2,21

50	-15	518	410	3,26	1,27	1,09
50	-10	679	461	3,46	1,47	1,27
50	-5	865	516	3,68	1,68	1,45
50	0	1.077	574	3,91	1,88	1,62
50	5	1.316	636	4,17	2,07	1,79
50	7,2	1.429	664	4,29	2,15	1,86
50	10	1.581	701	4,45	2,25	1,95

55	-15	476	422	3,31	1,13	0,97
55	-10	619	478	3,52	1,30	1,12
55	-5	788	536	3,76	1,47	1,27
55	0	983	599	4,01	1,64	1,42
55	5	1.204	664	4,29	1,81	1,57
55	7,2	1.310	694	4,42	1,89	1,63
55	10	1.451	734	4,59	1,98	1,71

60	-15	434	435	3,36	1,00	0,86
60	-10	559	494	3,59	1,13	0,98
60	-5	711	557	3,84	1,28	1,10
60	0	888	623	4,12	1,43	1,23
60	5	1.092	693	4,41	1,58	1,36
60	7,2	1.190	725	4,55	1,64	1,42
60	10	1.322	766	4,73	1,73	1,49

65	-15	391	448	3,41	0,87	0,76
65	-10	499	511	3,66	0,98	0,84
65	-5	634	578	3,93	1,10	0,95
65	0	794	648	4,22	1,23	1,06
65	5	980	721	4,53	1,36	1,17
65	7,2	1.071	755	4,68	1,42	1,23
65	10	1.193	798	4,87	1,49	1,29

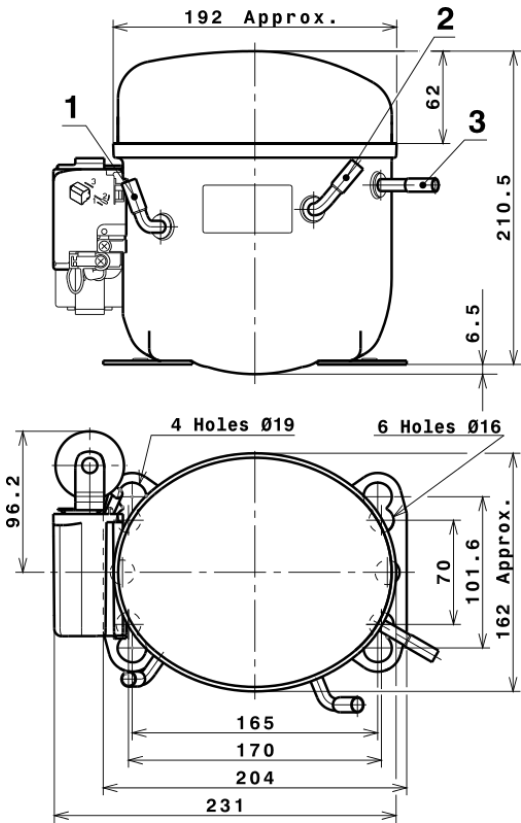
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.024,5025626687	336,9419730820	2,9200310269	35,043251978065
2	80,1202123638	4,3764157458	0,0150975231	1,4888457190122
3	-19,3796215808	5,0400389200	0,0210807900	-0,17888845387552
4	0,5162022127	0,0777607158	0,0004500924	0,015772277844526
5	-0,7159814125	0,1622244138	0,0007359887	-0,0067118064402046

Equation

$$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$$

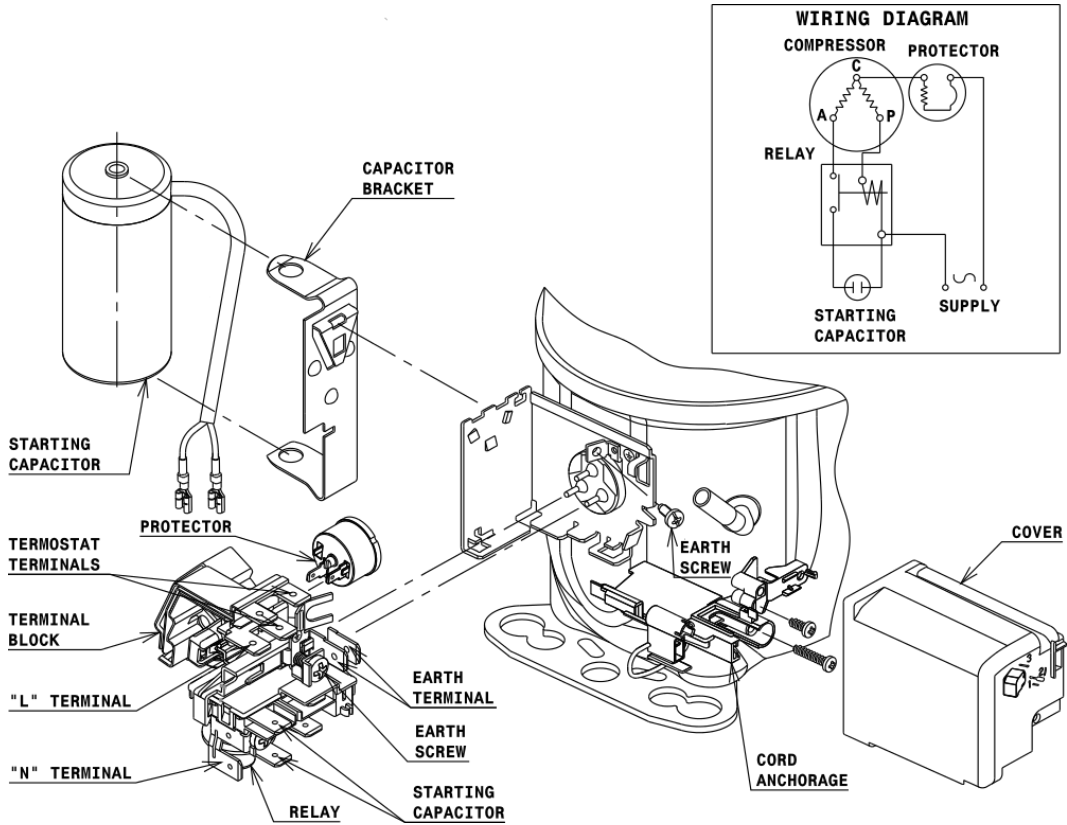
COMPRESSOR DIMENSIONS



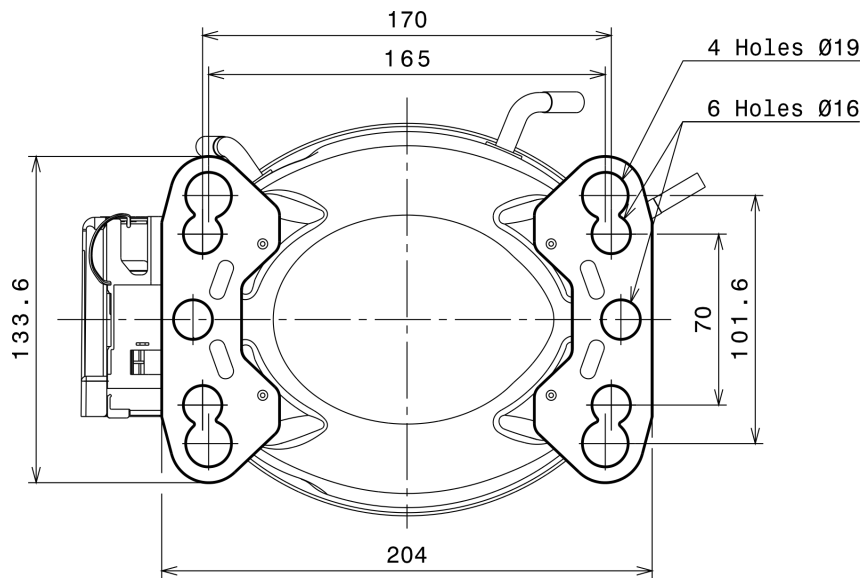
DESIGNATION	INTERNAL DIAM.
1 Suction	8,1 mm
2 Service	8,1 mm
3 Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSIR CONNECTION (L, P ranges)



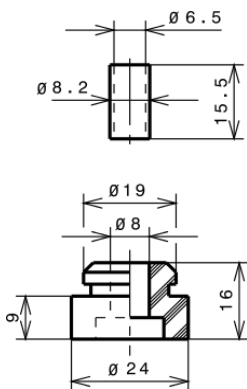
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

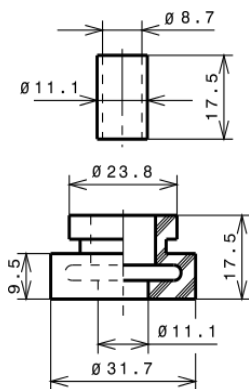
STANDARD

Ø16 holes (170x70 net)



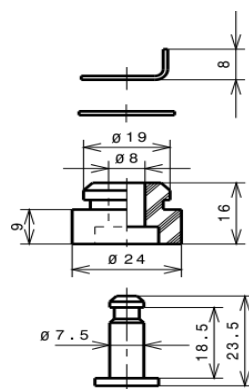
AMERICAN FEET

Ø19 holes (165x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R134a HBP

