

Technical Data Sheet

ENGINEERING
TOMORROW



Compressor model **GP12TG**
 Voltage **200-220/220-230V 50/60Hz ~1**
 Refrigerant **R134a**
 Compressor status

APPLICATION

COMPRESSOR

MOTOR

Application	High Back Pressure	Displacement	12,05 cm ³	Voltage/Frequency	200-220V 50Hz
Refrigerant	R134a	Diameter	29,37 mm	Voltage range	180-242 V
Evaporating Temp.	-15,0 °C to 10,0 °C	Stroke	17,78 mm	Type	CSIR
Expansion	Capillar/Valve	Net Weight	10,53 Kg	Phase number	1 PH
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Locked Rotor Amps (LRA)	16,00 A
Max. ambient temp.	43,0 °C	Oil charge	400 cm ³	Max. Cont. Current (MCC)	5,40 A
Compatible refriger.	R1234yf	HP	3/8 hp	Main W. resist. at 25°C	6,05 Ω
				Start W. resist. at 25°C	16,25 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	920 kCal/h	893 W
COP	2,02 W/W	1,76 W/W
EER	1,74 kCal/Wh	1,52 kCal/Wh
Input Power	530 W	508 W
Current	3,40 A	3,30 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	47- 56 µF 330 V		
Relay	Option 1		
Reference	2014 149.		
Pick-Up	7,80 A		
Drop-Out	6,65 A		
Protector	Option 1	Option 2	
Reference	MRT20APK	T0188	
Current	13,20 A	12,30 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 61,00 °C	115,00 / 61,00 °C	



ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-15	458	283	2,50	1,88	1,62
40	-10	593	314	2,59	2,20	1,89
40	-5	746	347	2,69	2,50	2,15
40	0	916	383	2,81	2,78	2,39
40	5	1.102	422	2,95	3,04	2,61
40	7,2	1.190	440	3,02	3,15	2,70
40	10	1.306	463	3,11	3,28	2,82

45	-15	412	290	2,52	1,65	1,42
45	-10	537	326	2,62	1,92	1,65
45	-5	680	365	2,75	2,17	1,86
45	0	840	406	2,89	2,41	2,07
45	5	1.017	450	3,06	2,63	2,26
45	7,2	1.100	470	3,14	2,72	2,34
45	10	1.211	496	3,25	2,84	2,44

50	-15	365	297	2,54	1,43	1,23
50	-10	481	338	2,66	1,65	1,42
50	-5	614	382	2,80	1,87	1,61
50	0	764	428	2,97	2,07	1,78
50	5	931	478	3,17	2,27	1,95
50	7,2	1.010	500	3,27	2,35	2,02
50	10	1.115	529	3,40	2,45	2,11

55	-15	319	304	2,56	1,22	1,05
55	-10	425	350	2,70	1,41	1,21
55	-5	548	399	2,86	1,60	1,37
55	0	688	451	3,06	1,77	1,53
55	5	845	505	3,29	1,95	1,67
55	7,2	920	530	3,40	2,02	1,74
55	10	1.020	562	3,55	2,11	1,81

60	-15	273	311	2,58	1,02	0,88
60	-10	369	363	2,74	1,18	1,02
60	-5	482	417	2,93	1,34	1,16
60	0	612	474	3,15	1,50	1,29
60	5	760	533	3,41	1,66	1,43
60	7,2	830	560	3,54	1,72	1,48
60	10	924	595	3,72	1,81	1,55

65	-15	226	318	2,60	0,83	0,71
65	-10	312	375	2,78	0,97	0,83
65	-5	416	434	2,99	1,11	0,96
65	0	536	496	3,25	1,26	1,08
65	5	674	561	3,55	1,40	1,20
65	7,2	740	590	3,69	1,46	1,25
65	10	829	628	3,89	1,53	1,32

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-15	493	285	2,51	1,73	1,50
40	-10	640	316	2,59	2,03	1,75
40	-5	804	349	2,70	2,30	1,99
40	0	986	386	2,82	2,56	2,21
40	5	1.187	425	2,96	2,79	2,41
40	7,2	1.281	443	3,03	2,89	2,50
40	10	1.405	467	3,12	3,01	2,60

45	-15	441	292	2,53	1,51	1,31
45	-10	576	328	2,63	1,76	1,52
45	-5	729	367	2,75	1,99	1,72
45	0	900	408	2,90	2,20	1,90
45	5	1.089	453	3,07	2,41	2,08
45	7,2	1.178	473	3,15	2,49	2,15
45	10	1.296	500	3,26	2,59	2,24

50	-15	389	299	2,55	1,30	1,13
50	-10	513	340	2,67	1,51	1,30
50	-5	654	384	2,81	1,70	1,47
50	0	814	431	2,98	1,89	1,63
50	5	991	481	3,18	2,06	1,78
50	7,2	1.075	503	3,28	2,14	1,85
50	10	1.186	533	3,41	2,23	1,92

55	-15	337	306	2,56	1,10	0,95
55	-10	449	352	2,71	1,28	1,10
55	-5	579	402	2,87	1,44	1,25
55	0	727	454	3,07	1,60	1,38
55	5	893	508	3,30	1,76	1,52
55	7,2	972	533	3,42	1,82	1,57
55	10	1.077	566	3,57	1,90	1,64

60	-15	286	313	2,58	0,91	0,79
60	-10	386	365	2,75	1,06	0,91
60	-5	504	419	2,94	1,20	1,04
60	0	641	476	3,16	1,34	1,16
60	5	795	536	3,43	1,48	1,28
60	7,2	869	564	3,56	1,54	1,33
60	10	967	599	3,74	1,61	1,40

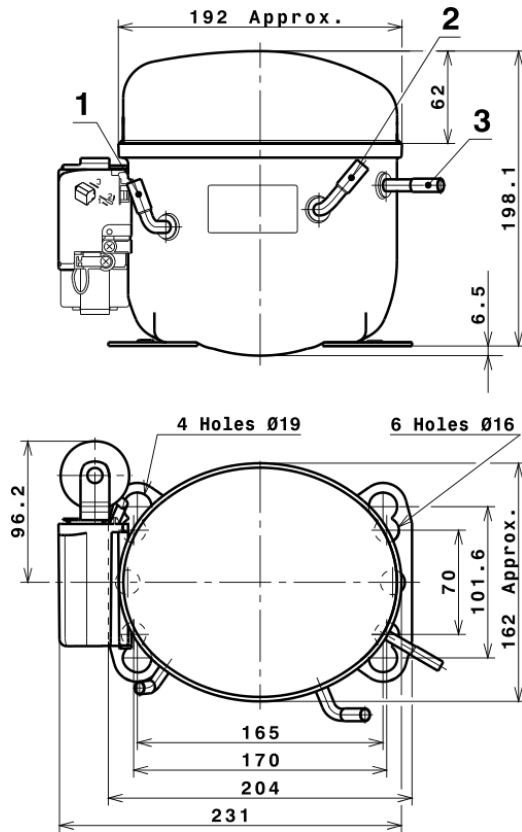
65	-15	234	320	2,61	0,73	0,63
65	-10	322	377	2,79	0,86	0,74
65	-5	429	437	3,00	0,98	0,85
65	0	554	499	3,26	1,11	0,96
65	5	697	564	3,56	1,24	1,07
65	7,2	766	594	3,71	1,29	1,11
65	10	858	632	3,91	1,36	1,17

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.677,0553626574	209,1102465473	2,0330495563	29,998124408209
2	56,9733700305	-0,7330128054	-0,0115686151	1,0469664910662
3	-17,5978221852	4,6618303613	0,0197393778	-0,20640542391739
4	0,3560650081	0,0598495813	0,0006968263	0,011017221185321
5	-0,4775604425	0,2147533803	0,0010472153	-0,0037048243028147

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

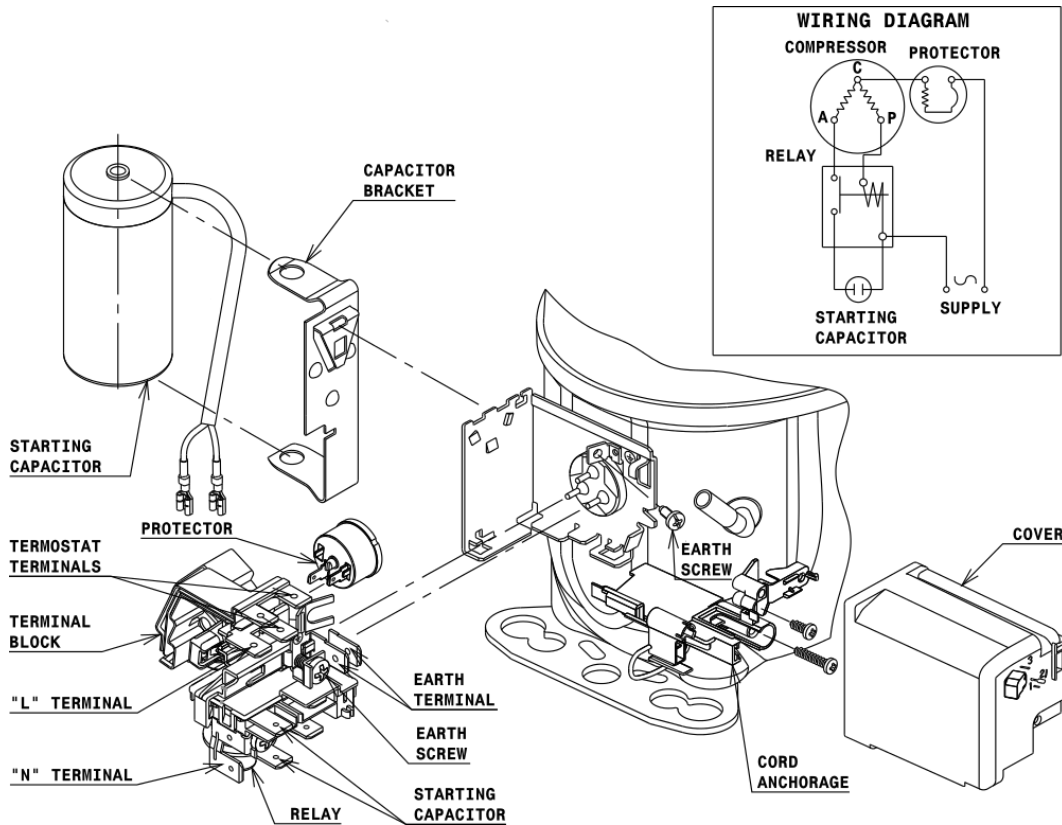


DESIGNATION INTERNAL DIAM.

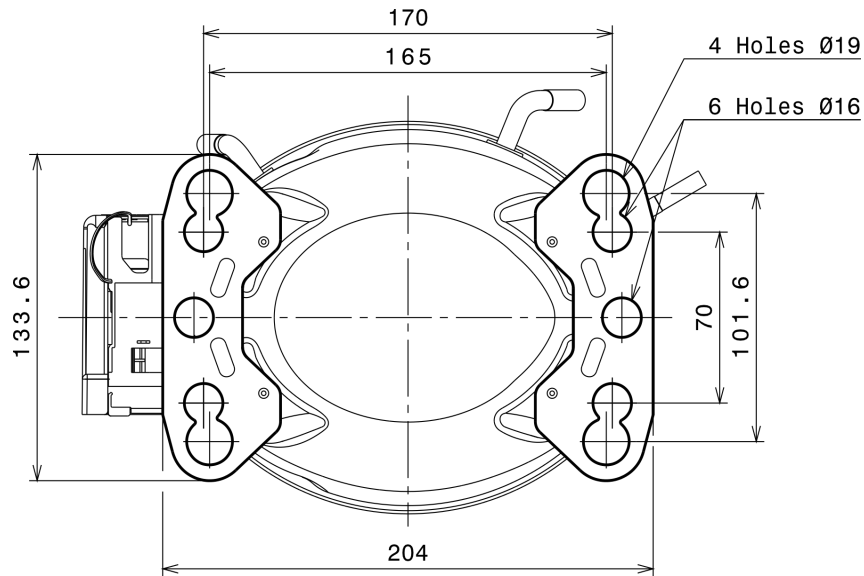
1	Suction/Service	8,1 mm
2	Service/Suction	8,1 mm
3	Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSIR CONNECTION (L, P ranges)



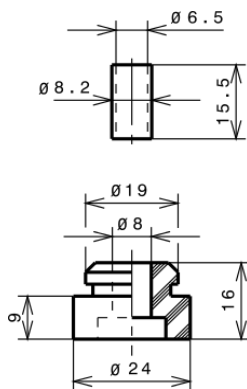
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

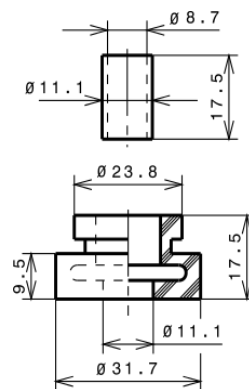
STANDARD

$\varnothing 16$ holes (170x70 net)



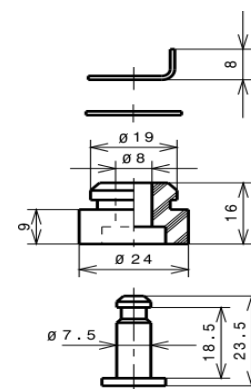
AMERICAN FEET

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



SNAP-ON

$\varnothing 16$ holes (170x70 net)



SOA

SOA R134a HBP

