

Technical Data Sheet

ENGINEERING
TOMORROW



Compressor model **GP12TB**
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	12,05 cm ³
Diameter	29,37 mm
Stroke	17,78 mm
Net Weight	10,43 Kg
Oil type	ISO VG 32 ESTER
Oil charge	350 cm ³

MOTOR

Nominal Power	3/8 hp
Voltage/Frequency	220-240V 50Hz
Voltage range	187-255 V
Type	CSIR
Phase number	1 PH
Locked Rotor Amps (LRA)	13,50 A
Max. Cont. Current (MCC)	3,60 A
Main W. resist. at 25°C	7,75 Ω
Start W. resist. at 25°C	21,43 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	920 kCal/h	893 W
COP	2,06 W/W	1,79 W/W
EER	1,77 kCal/Wh	1,54 kCal/Wh
Input Power	520 W	500 W
Current	2,90 A	2,83 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	47- 56 µF 330 V			
Relay	Option 1			
Reference	2014 138.			
Pick-Up	6,10 A			
Drop-Out	5,20 A			
Protector	Option 1	Option 2	Option 3	
Reference	MRT26AMK	T0181	AE39FS	
Current	11,10 A	11,10 A	11,00 A	
Time check	7,5-14 seg	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 61,00 °C	105,00 / 61,00 °C	110,00 / 62,00 °C	

Technical Data Sheet

ENGINEERING
TOMORROW



ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-15	458	287	2,06	1,86	1,60
40	-10	593	320	2,19	2,15	1,85
40	-5	746	356	2,32	2,44	2,10
40	0	916	393	2,46	2,71	2,33
40	5	1.102	432	2,60	2,97	2,55
40	7,2	1.190	450	2,66	3,08	2,64
40	10	1.306	473	2,74	3,21	2,76

45	-15	412	293	2,08	1,63	1,41
45	-10	537	330	2,23	1,89	1,63
45	-5	680	369	2,37	2,14	1,84
45	0	840	411	2,52	2,38	2,05
45	5	1.017	454	2,68	2,61	2,24
45	7,2	1.100	473	2,74	2,70	2,32
45	10	1.211	499	2,83	2,82	2,43

50	-15	365	299	2,11	1,42	1,22
50	-10	481	340	2,26	1,64	1,41
50	-5	614	383	2,43	1,86	1,60
50	0	764	428	2,59	2,07	1,78
50	5	931	475	2,75	2,28	1,96
50	7,2	1.010	497	2,82	2,37	2,03
50	10	1.115	524	2,91	2,47	2,13

55	-15	319	305	2,13	1,22	1,05
55	-10	425	350	2,30	1,41	1,21
55	-5	548	397	2,48	1,60	1,38
55	0	688	446	2,65	1,79	1,54
55	5	845	497	2,82	1,98	1,70
55	7,2	920	520	2,90	2,06	1,77
55	10	1.020	550	3,00	2,16	1,85

60	-15	273	311	2,15	1,02	0,88
60	-10	369	360	2,34	1,19	1,02
60	-5	482	411	2,53	1,36	1,17
60	0	612	464	2,71	1,54	1,32
60	5	760	519	2,90	1,70	1,46
60	7,2	830	543	2,98	1,78	1,53
60	10	924	575	3,08	1,87	1,61

65	-15	226	317	2,18	0,83	0,71
65	-10	312	370	2,38	0,98	0,84
65	-5	416	425	2,57	1,14	0,98
65	0	536	481	2,77	1,30	1,11
65	5	674	540	2,97	1,45	1,25
65	7,2	740	567	3,05	1,52	1,31
65	10	829	601	3,16	1,60	1,38

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-15	493	289	2,07	1,71	1,48
40	-10	640	322	2,20	1,99	1,72
40	-5	804	358	2,33	2,25	1,94
40	0	986	395	2,47	2,50	2,16
40	5	1.187	435	2,61	2,73	2,36
40	7,2	1.281	453	2,67	2,83	2,44
40	10	1.405	476	2,75	2,95	2,55

45	-15	441	295	2,09	1,50	1,29
45	-10	576	332	2,23	1,74	1,50
45	-5	729	372	2,38	1,96	1,70
45	0	900	413	2,53	2,18	1,88
45	5	1.089	457	2,69	2,38	2,06
45	7,2	1.178	476	2,75	2,47	2,14
45	10	1.296	502	2,84	2,58	2,23

50	-15	389	301	2,11	1,30	1,12
50	-10	513	342	2,27	1,50	1,30
50	-5	654	385	2,43	1,70	1,47
50	0	814	431	2,60	1,89	1,63
50	5	991	478	2,76	2,07	1,79
50	7,2	1.075	500	2,83	2,15	1,86
50	10	1.186	528	2,93	2,25	1,94

55	-15	337	307	2,14	1,10	0,95
55	-10	449	352	2,31	1,28	1,10
55	-5	579	399	2,48	1,45	1,25
55	0	727	449	2,66	1,62	1,40
55	5	893	500	2,83	1,79	1,54
55	7,2	972	523	2,91	1,86	1,60
55	10	1.077	554	3,01	1,95	1,68

60	-15	286	313	2,16	0,91	0,79
60	-10	386	362	2,35	1,07	0,92
60	-5	504	413	2,53	1,22	1,05
60	0	641	467	2,72	1,37	1,19
60	5	795	522	2,91	1,52	1,32
60	7,2	869	547	2,99	1,59	1,37
60	10	967	579	3,09	1,67	1,44

65	-15	234	319	2,18	0,73	0,63
65	-10	322	372	2,38	0,87	0,75
65	-5	429	427	2,58	1,01	0,87
65	0	554	484	2,78	1,14	0,99
65	5	697	544	2,98	1,28	1,11
65	7,2	766	570	3,06	1,34	1,16
65	10	858	605	3,17	1,42	1,23

EN12900

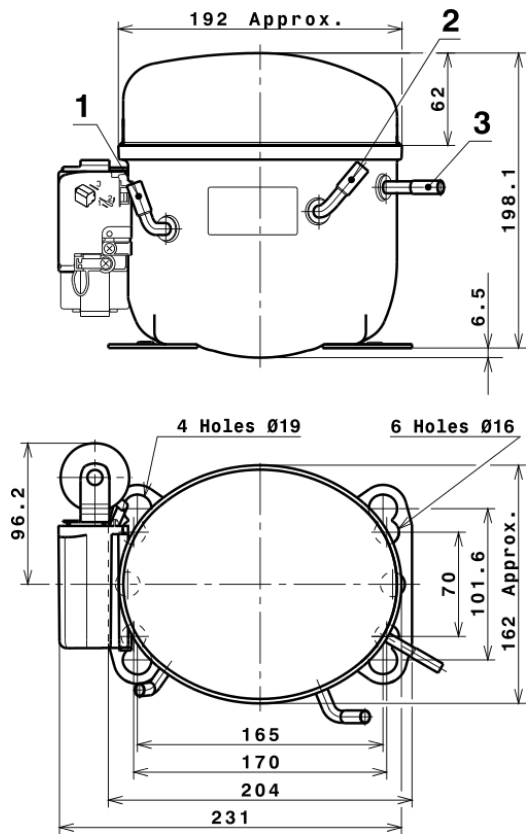
X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.677,0553626574	258,8879384060	2,0175036496	29,998124408209
2	56,9733700305	1,5544979240	0,0080068067	1,0469664910662
3	-17,5978221852	3,6629473293	0,0124037944	-0,20640542391739
4	0,3560650081	0,0459934308	0,0000112004	0,011017221185321
5	-0,4775604425	0,1618805082	0,0005065293	-0,0037048243028147

Equation

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

Technical Data Sheet

COMPRESSOR DIMENSIONS

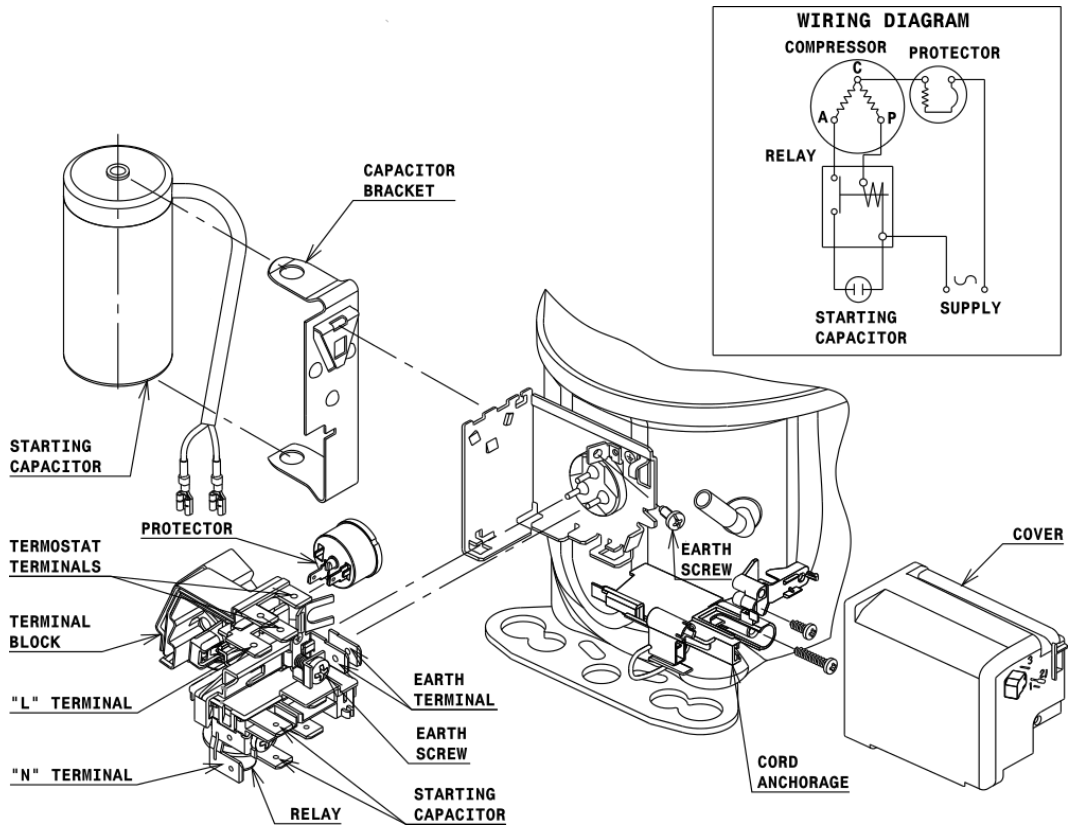


DESIGNATION INTERNAL DIAM.

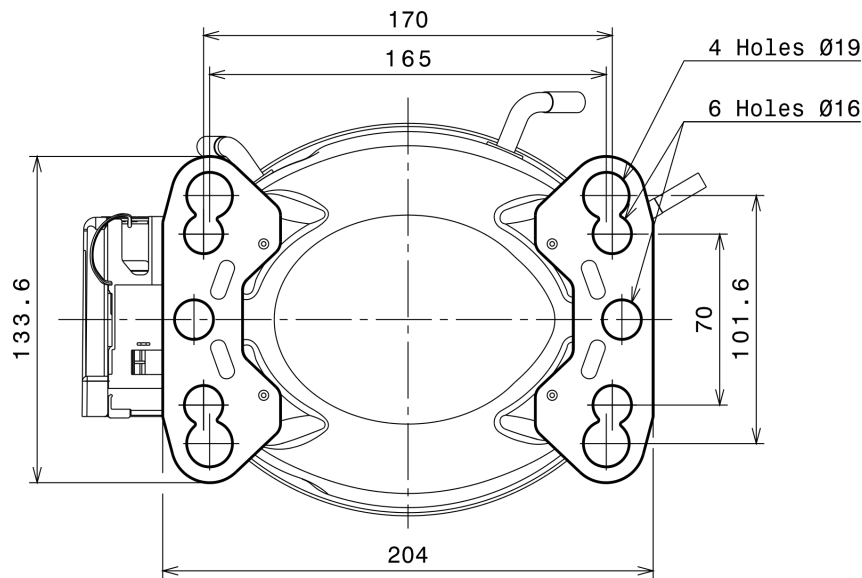
1	Suction/Service	8,1 mm
2	Service/Suction	8,1 mm
3	Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSIR CONNECTION (L, P ranges)



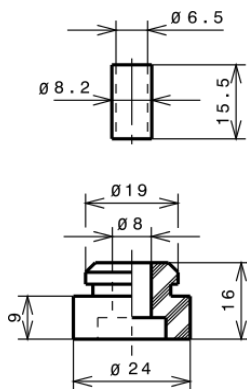
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

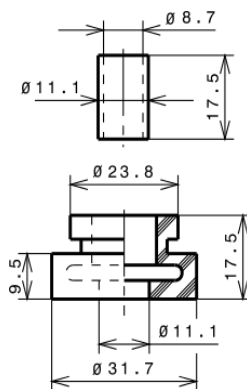
STANDARD

Ø16 holes (170x70 net)



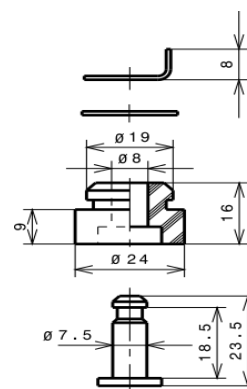
AMERICAN FEET

Ø19 holes (165x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R134a HBP

