

Technical Data Sheet

ENGINEERING
TOMORROW



Compressor model **GL45MG**
Voltage **230V 50/60Hz ~1**
Refrigerant **R134a**

APPLICATION

COMPRESSOR

MOTOR

Application	High Back Pressure	Displacement	4,56 cm ³	Nominal Power	1/6 hp
Refrigerant	R134a	Diameter	19,09 mm	Voltage/Frequency	230V 60Hz
Evaporating Temp.	-15,0 °C to 10,0 °C	Stroke	15,93 mm	Voltage range	196-253 V
Expansion	Capillar/Valve	Net Weight	9,37 Kg	Type	CSIR
Comp. Cooling	Static	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	295 cm ³	Locked Rotor Amps (LRA)	8,50 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	2,30 A
				Main W. resist. at 25°C	11,47 Ω
				Start W. resist. at 25°C	37,98 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	412 kCal/h	398 W
COP	1,92 W/W	1,65 W/W
EER	1,65 kCal/Wh	1,43 kCal/Wh
Input Power	250 W	241 W
Current	1,45 A	1,42 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	230 V 60 Hz	230 V 60 Hz

ELECTRICAL COMPONENTS

Starting capacitor	47- 56 µF 330 V			
Relay	Option 1			
Reference	2014 118.			
Pick-Up	3,75 A			
Drop-Out	3,20 A			
Protector	Option 1	Option 2		
Reference	MRP304AMN	T0071		
Current	7,70 A	7,70 A		
Time check	7,5-14 seg	7,5-14 seg		
Disc temp. (Open/Close)	120,00 / 69,00 °C	120,00 / 62,00 °C		



ASHRAE

Tc	Te	Cooling Capacity	Consumption	Current	COP	EER
°C	°C	kCal/h	W	A	W/W	kCal/Wh
40	-15	245	171	1,13	1,67	1,43
40	-10	280	178	1,16	1,83	1,57
40	-5	329	188	1,20	2,04	1,75
40	0	394	203	1,26	2,26	1,95
40	5	475	221	1,34	2,50	2,15
40	7,2	515	230	1,37	2,60	2,24
40	10	570	243	1,42	2,73	2,35

45	-15	228	174	1,14	1,52	1,31
45	-10	258	182	1,18	1,66	1,42
45	-5	304	193	1,22	1,84	1,58
45	0	366	208	1,29	2,04	1,76
45	5	442	227	1,36	2,26	1,95
45	7,2	481	237	1,40	2,36	2,03
45	10	534	250	1,45	2,48	2,14

50	-15	210	177	1,16	1,38	1,19
50	-10	237	185	1,19	1,49	1,28
50	-5	279	198	1,24	1,65	1,41
50	0	337	214	1,31	1,83	1,58
50	5	410	233	1,39	2,04	1,75
50	7,2	446	243	1,42	2,13	1,83
50	10	497	257	1,48	2,25	1,94

55	-15	193	180	1,17	1,25	1,07
55	-10	216	189	1,21	1,33	1,14
55	-5	254	202	1,26	1,46	1,26
55	0	308	219	1,33	1,64	1,41
55	5	377	240	1,41	1,83	1,57
55	7,2	412	250	1,45	1,92	1,65
55	10	461	264	1,50	2,03	1,74

60	-15	176	183	1,18	1,12	0,96
60	-10	195	193	1,22	1,17	1,01
60	-5	229	207	1,28	1,29	1,11
60	0	279	224	1,35	1,45	1,24
60	5	344	246	1,43	1,63	1,40
60	7,2	378	257	1,47	1,71	1,47
60	10	425	271	1,53	1,82	1,56

65	-15	158	186	1,20	0,99	0,85
65	-10	174	197	1,24	1,03	0,88
65	-5	204	211	1,30	1,12	0,97
65	0	250	230	1,37	1,27	1,09
65	5	312	252	1,46	1,44	1,23
65	7,2	343	263	1,50	1,52	1,30
65	10	388	278	1,55	1,62	1,39

CECOMAF

Tc	Te	Cooling Capacity	Consumption	Current	COP	EER
°C	°C	W	W	A	W/W	kCal/Wh
40	-15	264	172	1,14	1,53	1,33
40	-10	302	179	1,16	1,69	1,46
40	-5	355	189	1,21	1,88	1,62
40	0	425	204	1,27	2,09	1,80
40	5	511	222	1,34	2,30	1,99
40	7,2	554	231	1,38	2,39	2,07
40	10	613	244	1,43	2,51	2,17

45	-15	244	175	1,15	1,39	1,20
45	-10	277	183	1,18	1,52	1,31
45	-5	327	194	1,23	1,68	1,45
45	0	392	209	1,29	1,87	1,62
45	5	474	229	1,37	2,07	1,79
45	7,2	515	238	1,41	2,16	1,87
45	10	571	252	1,46	2,27	1,96

50	-15	224	178	1,16	1,26	1,09
50	-10	253	186	1,20	1,36	1,17
50	-5	298	199	1,25	1,50	1,30
50	0	359	215	1,31	1,67	1,44
50	5	436	235	1,39	1,86	1,60
50	7,2	475	245	1,43	1,94	1,68
50	10	529	259	1,48	2,04	1,77

55	-15	204	181	1,17	1,13	0,97
55	-10	229	190	1,21	1,20	1,04
55	-5	269	203	1,27	1,32	1,14
55	0	326	220	1,34	1,48	1,28
55	5	398	241	1,42	1,65	1,43
55	7,2	435	252	1,46	1,73	1,49
55	10	487	266	1,51	1,83	1,58

60	-15	184	184	1,19	1,00	0,87
60	-10	204	194	1,23	1,05	0,91
60	-5	240	208	1,29	1,15	1,00
60	0	292	226	1,36	1,29	1,12
60	5	360	248	1,44	1,46	1,26
60	7,2	395	258	1,48	1,53	1,32
60	10	445	273	1,54	1,63	1,41

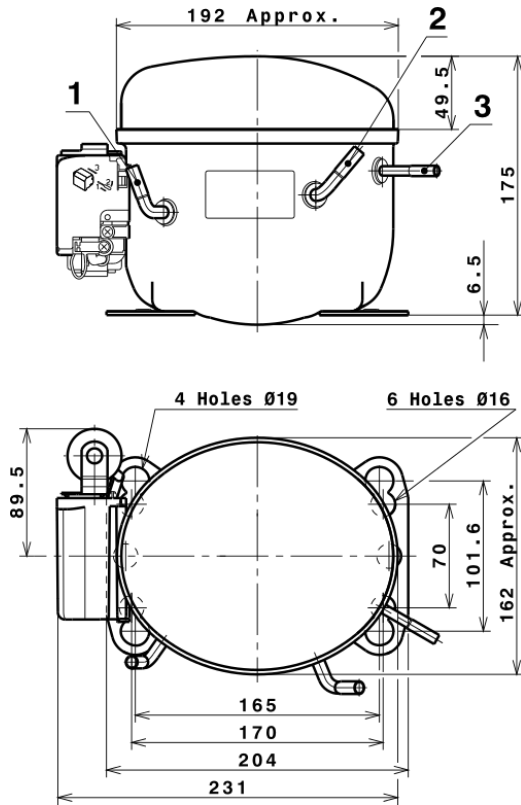
65	-15	164	187	1,20	0,88	0,76
65	-10	180	198	1,24	0,91	0,79
65	-5	211	213	1,30	0,99	0,86
65	0	259	231	1,38	1,12	0,97
65	5	323	254	1,46	1,27	1,10
65	7,2	356	265	1,51	1,34	1,16
65	10	402	280	1,56	1,44	1,24

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	692,5940025944	163,7660585203	1,1175095458	11,885576635192
2	22,8141704288	2,0560313060	0,0088266455	0,4342556024869
3	-6,8202624182	1,1323684057	0,0043695448	-0,064333041449375
4	0,3155998781	0,0814667781	0,0002813161	0,008961324565433
5	-0,1849424233	0,0343332368	0,0001172971	-0,0015500643171719

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

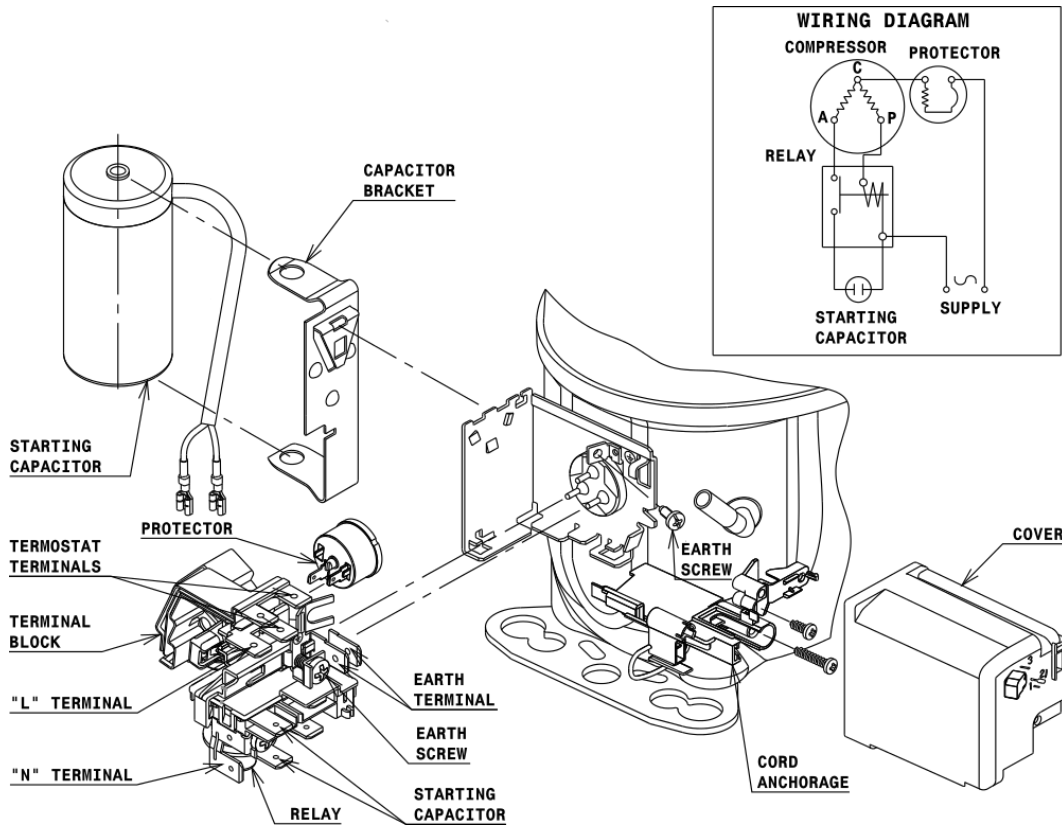


DESIGNATION INTERNAL DIAM.

DESIGNATION	INTERNAL DIAM.
1 Suction	6,5 mm
2 Service	6,5 mm
3 Discharge	4,9 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSIR CONNECTION (L, P ranges)



FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

Ø16 holes (170x70 net)



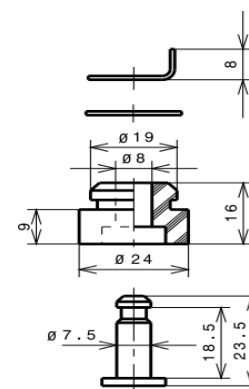
AMERICAN FEET

Ø19 holes (165x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R134a HBP

