

# 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 <sup>3</sup>	Nominal Power	1/6 hp
Refrigerant	R134a	Diameter	19,09 mm	Voltage/Frequency	230V 50Hz
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 <sup>3</sup>	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	352 kCal/h	340 W
COP	1,95 W/W	1,67 W/W
EER	1,68 kCal/Wh	1,44 kCal/Wh
Input Power	210 W	204 W
Current	1,40 A	1,38 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HBP (D)	CECOMAF HBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	230 V 50 Hz	230 V 50 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 °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-15	210	145	1,22	1,68	1,45
40	-10	240	150	1,23	1,86	1,60
40	-5	283	157	1,24	2,09	1,80
40	0	338	167	1,27	2,36	2,03
40	5	406	179	1,30	2,64	2,27
40	7,2	440	185	1,31	2,77	2,38
40	10	487	193	1,34	2,93	2,52

45	-15	195	148	1,23	1,53	1,31
45	-10	222	154	1,24	1,67	1,44
45	-5	261	163	1,26	1,87	1,61
45	0	313	174	1,28	2,10	1,81
45	5	378	187	1,32	2,35	2,02
45	7,2	411	193	1,34	2,47	2,12
45	10	456	202	1,37	2,62	2,25

50	-15	180	152	1,23	1,38	1,19
50	-10	204	159	1,25	1,49	1,28
50	-5	240	168	1,27	1,66	1,42
50	0	289	180	1,30	1,86	1,60
50	5	350	195	1,34	2,09	1,80
50	7,2	381	202	1,37	2,20	1,89
50	10	424	211	1,41	2,34	2,01

55	-15	165	155	1,24	1,24	1,06
55	-10	185	163	1,26	1,32	1,14
55	-5	218	174	1,28	1,46	1,26
55	0	264	187	1,32	1,64	1,41
55	5	322	202	1,37	1,85	1,59
55	7,2	352	210	1,40	1,95	1,68
55	10	393	220	1,44	2,08	1,79

60	-15	150	158	1,25	1,10	0,95
60	-10	167	168	1,27	1,16	1,00
60	-5	197	180	1,30	1,28	1,10
60	0	239	194	1,34	1,44	1,24
60	5	294	210	1,40	1,63	1,40
60	7,2	323	218	1,43	1,72	1,48
60	10	362	229	1,48	1,84	1,58

65	-15	135	162	1,25	0,97	0,84
65	-10	149	172	1,28	1,01	0,86
65	-5	175	185	1,31	1,10	0,95
65	0	215	200	1,36	1,25	1,07
65	5	266	218	1,43	1,42	1,22
65	7,2	293	227	1,47	1,51	1,29
65	10	331	238	1,52	1,62	1,39

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-15	226	146	1,22	1,55	1,34
40	-10	259	151	1,23	1,72	1,48
40	-5	305	158	1,25	1,93	1,67
40	0	364	168	1,27	2,17	1,88
40	5	437	180	1,30	2,43	2,10
40	7,2	474	186	1,32	2,54	2,20
40	10	523	195	1,34	2,69	2,32

45	-15	209	149	1,23	1,40	1,21
45	-10	238	155	1,24	1,53	1,32
45	-5	280	164	1,26	1,71	1,48
45	0	336	175	1,28	1,92	1,66
45	5	405	188	1,32	2,15	1,86
45	7,2	440	195	1,34	2,26	1,95
45	10	487	204	1,38	2,39	2,07

50	-15	192	153	1,24	1,26	1,09
50	-10	217	160	1,25	1,36	1,17
50	-5	256	169	1,27	1,51	1,30
50	0	308	181	1,30	1,70	1,46
50	5	373	196	1,35	1,90	1,64
50	7,2	406	203	1,37	2,00	1,73
50	10	451	213	1,41	2,12	1,83

55	-15	175	156	1,24	1,12	0,97
55	-10	196	164	1,26	1,19	1,03
55	-5	231	175	1,29	1,32	1,14
55	0	279	188	1,32	1,48	1,28
55	5	340	204	1,38	1,67	1,44
55	7,2	372	211	1,41	1,76	1,52
55	10	415	222	1,45	1,87	1,62

60	-15	157	159	1,25	0,99	0,85
60	-10	175	169	1,27	1,04	0,90
60	-5	206	181	1,30	1,14	0,99
60	0	251	195	1,35	1,29	1,11
60	5	308	212	1,41	1,46	1,26
60	7,2	338	220	1,44	1,54	1,33
60	10	379	231	1,49	1,64	1,42

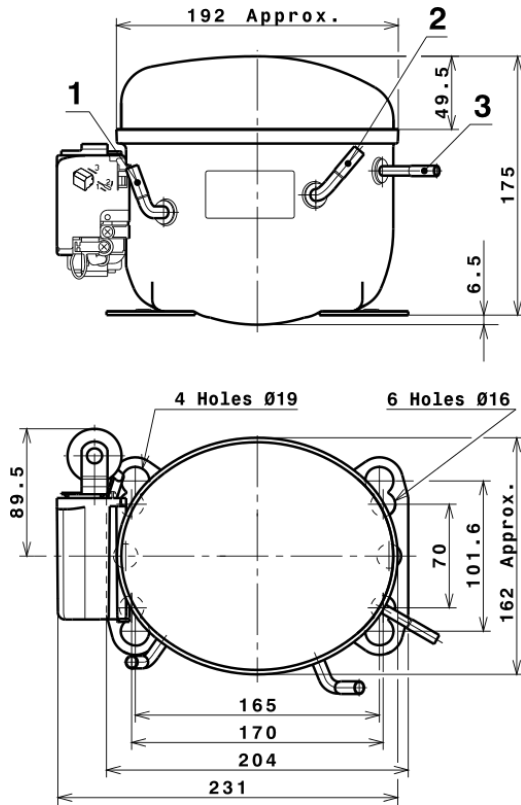
65	-15	140	163	1,26	0,86	0,74
65	-10	154	173	1,28	0,89	0,77
65	-5	181	186	1,32	0,97	0,84
65	0	222	202	1,37	1,10	0,95
65	5	276	220	1,44	1,26	1,09
65	7,2	304	228	1,48	1,33	1,15
65	10	343	240	1,53	1,43	1,24

## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	593,3367809113	116,6959134568	1,0795346742	10,193397694697
2	19,3249971087	0,4292579979	-0,0021004646	0,36711757573415
3	-5,8402079190	1,3876510543	0,0047195556	-0,055247344753304
4	0,2618148669	0,0511200483	0,0002934060	0,0074504042827587
5	-0,1561774495	0,0467789701	0,0002274077	-0,0012849944570048

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

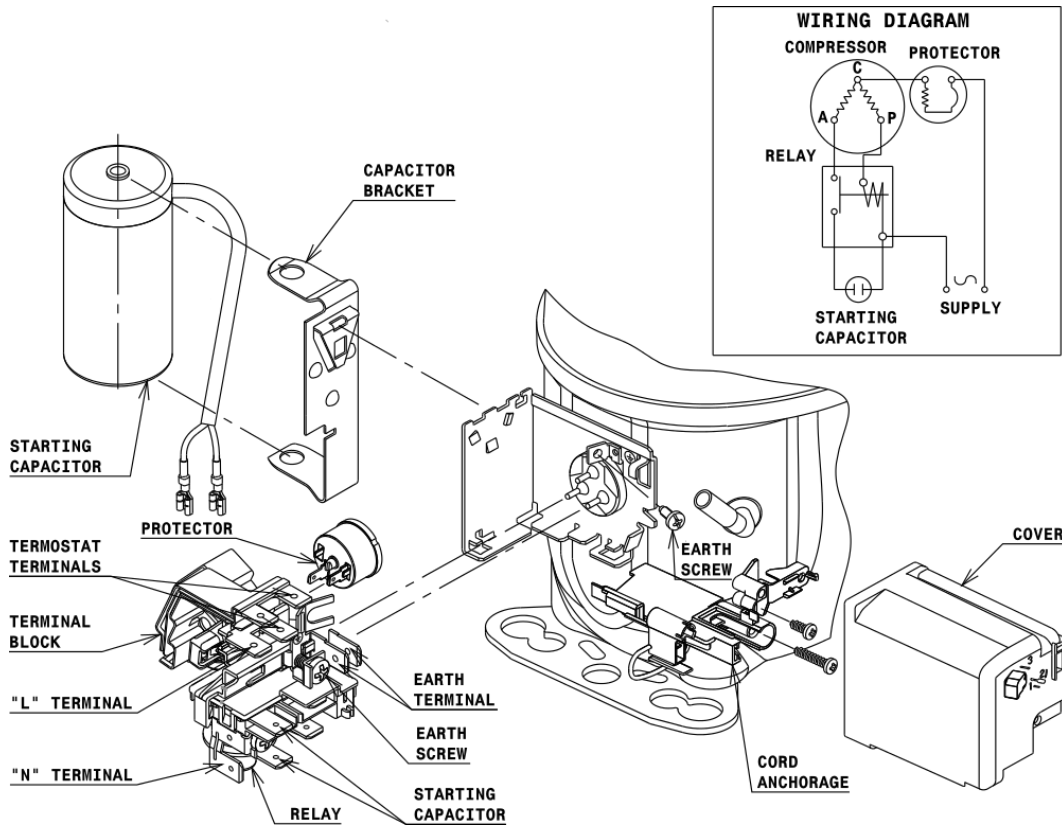


## DESIGNATION INTERNAL DIAM.

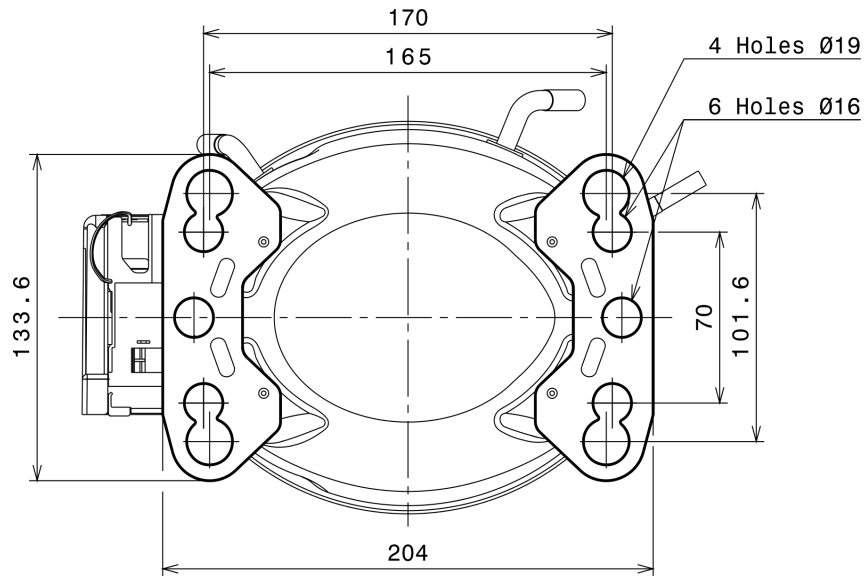
DESIGNATION	INTERNAL DIAM.
1 Suction	6,5 mm
2 Service	6,5 mm
3 Discharge	4,9 mm

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



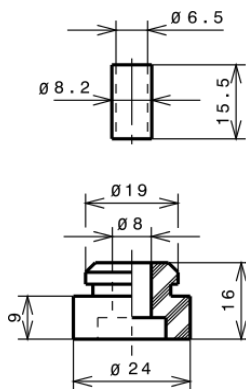
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

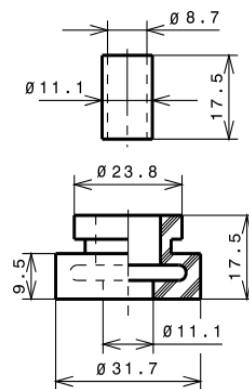
### STANDARD

$\varnothing 16$  holes (170x70 net)



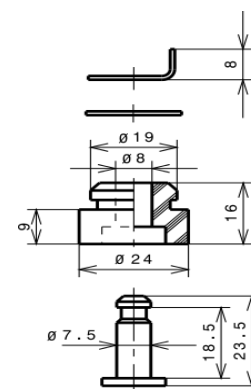
### AMERICAN FEET

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



### SNAP-ON

$\varnothing 16$  holes (170x70 net)



## SOA

SOA R134a HBP

