

Technical Data Sheet

ENGINEERING
TOMORROW



Compressor model **GL90AAb**
Voltage **220-240V 50Hz ~1**
Refrigerant **R134a**

APPLICATION

Application	Low Back Pressure
Refrigerant	R134a
Evaporating Temp.	-35,0 °C to -10,0 °C
Expansion	Capillar/Valve
Comp. Cooling	Static
Max. ambient temp.	43,0 °C
Compatible refriger.	R1234yf

COMPRESSOR

Displacement	9,09 cm ³
Diameter	24,29 mm
Stroke	19,62 mm
Net Weight	9,54 Kg
Oil type	ISO VG 32 ESTER
Oil charge	345 cm ³

MOTOR

Nominal Power	1/4 hp
Voltage/Frequency	220-240V 50Hz
Voltage range	187-255 V
Type	CSIR
Phase number	1 PH
Locked Rotor Amps (LRA)	12,80 A
Max. Cont. Current (MCC)	1,70 A
Main W. resist. at 25°C	11,83 Ω
Start W. resist. at 25°C	19,62 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	193 kCal/h	165 W
COP	1,15 W/W	0,90 W/W
EER	0,99 kCal/Wh	0,77 kCal/Wh
Input Power	195 W	184 W
Current	1,26 A	1,22 A

APPROVALS



TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T _e)	-23,3 °C	-25,0 °C
Condensing temp. (T _c)	55,0 °C	55,0 °C
Liquid temp. (T _{liq.})	32,0 °C	55,0 °C
Ambient temp. (T _{amb.})	32,0 °C	32,0 °C
Suction temp. (T _{suction})	32,0 °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	Option 2	
Reference	2014 118.	QLZ-3.75A	
Pick-Up	3.75 A	3.75 A	
Drop-Out	3.20 A	3.20 A	
Protector	Option 1	Option 2	Option 3
Reference	MRP304AMN	T0071	B77-105
Current	7,70 A	7,70 A	7,70 A
Time check	7,5-14 seg	7,5-14 seg	7,0-16,0 seg
Disc temp. (Open/Close)	120,00 / 69,00 °C	120,00 / 62,00 °C	105,00 / 62,00 °C

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ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	105	131	1,06	0,93	0,80
40	-30	146	154	1,13	1,11	0,95
40	-25	197	180	1,21	1,27	1,09
40	-23,3	216	190	1,24	1,32	1,14
40	-20	256	209	1,31	1,42	1,22
40	-15	323	243	1,44	1,55	1,33
40	-10	400	279	1,58	1,67	1,43

45	-35	99	130	1,06	0,89	0,76
45	-30	140	154	1,13	1,06	0,91
45	-25	189	181	1,21	1,21	1,04
45	-23,3	208	191	1,25	1,26	1,09
45	-20	248	212	1,32	1,36	1,17
45	-15	315	246	1,45	1,49	1,28
45	-10	391	284	1,61	1,60	1,38

50	-35	93	129	1,05	0,84	0,72
50	-30	133	154	1,13	1,00	0,86
50	-25	182	183	1,22	1,16	1,00
50	-23,3	201	193	1,25	1,21	1,04
50	-20	240	215	1,33	1,30	1,12
50	-15	306	250	1,47	1,42	1,22
50	-10	381	289	1,63	1,53	1,32

55	-35	87	128	1,05	0,79	0,68
55	-30	126	154	1,13	0,95	0,82
55	-25	175	184	1,22	1,10	0,95
55	-23,3	193	195	1,26	1,15	0,99
55	-20	232	217	1,34	1,24	1,07
55	-15	297	254	1,48	1,36	1,17
55	-10	372	294	1,65	1,47	1,27

60	-35	81	127	1,05	0,74	0,64
60	-30	120	155	1,13	0,90	0,77
60	-25	167	185	1,23	1,05	0,90
60	-23,3	185	197	1,27	1,10	0,94
60	-20	224	220	1,35	1,18	1,02
60	-15	289	258	1,50	1,30	1,12
60	-10	363	299	1,67	1,41	1,21

65	-35	75	126	1,04	0,69	0,60
65	-30	113	155	1,13	0,85	0,73
65	-25	160	187	1,23	1,00	0,86
65	-23,3	178	199	1,27	1,04	0,90
65	-20	216	222	1,36	1,13	0,97
65	-15	280	262	1,51	1,25	1,07
65	-10	353	304	1,69	1,35	1,16

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	114	131	1,06	0,87	0,75
40	-30	162	154	1,13	1,05	0,91
40	-25	218	180	1,21	1,21	1,05
40	-23,3	239	190	1,24	1,26	1,09
40	-20	282	209	1,31	1,35	1,16
40	-15	355	243	1,44	1,46	1,26
40	-10	435	279	1,58	1,56	1,35

45	-35	104	130	1,06	0,80	0,69
45	-30	148	154	1,13	0,96	0,83
45	-25	200	181	1,21	1,11	0,96
45	-23,3	220	191	1,25	1,15	0,99
45	-20	261	212	1,32	1,23	1,06
45	-15	330	246	1,45	1,34	1,16
45	-10	407	284	1,61	1,43	1,24

50	-35	93	129	1,05	0,72	0,62
50	-30	134	154	1,13	0,87	0,75
50	-25	183	183	1,22	1,00	0,86
50	-23,3	201	193	1,25	1,04	0,90
50	-20	240	215	1,33	1,12	0,97
50	-15	305	250	1,47	1,22	1,05
50	-10	379	289	1,63	1,31	1,13

55	-35	82	128	1,05	0,64	0,56
55	-30	120	154	1,13	0,77	0,67
55	-25	165	184	1,22	0,90	0,77
55	-23,3	182	195	1,26	0,93	0,81
55	-20	219	217	1,34	1,01	0,87
55	-15	281	254	1,48	1,10	0,95
55	-10	351	294	1,65	1,19	1,03

60	-35	72	127	1,05	0,56	0,49
60	-30	105	155	1,13	0,68	0,59
60	-25	147	185	1,23	0,79	0,69
60	-23,3	163	197	1,27	0,83	0,72
60	-20	197	220	1,35	0,90	0,78
60	-15	256	258	1,50	0,99	0,86
60	-10	322	299	1,67	1,08	0,93

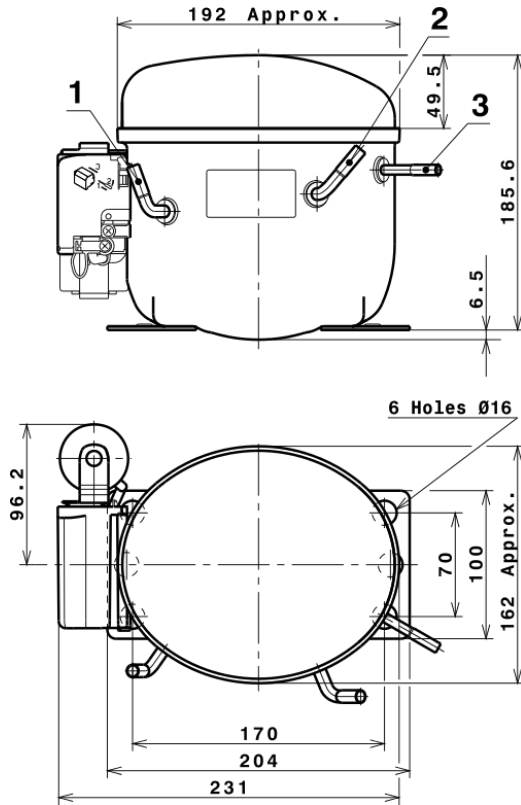
65	-35	61	126	1,04	0,48	0,42
65	-30	91	155	1,13	0,59	0,51
65	-25	130	187	1,23	0,69	0,60
65	-23,3	144	199	1,27	0,73	0,63
65	-20	176	222	1,36	0,79	0,68
65	-15	231	262	1,51	0,88	0,76
65	-10	294	304	1,69	0,97	0,84

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	900,8155248163	310,7386433561	1,7373514649	15,938573895839
2	25,6947889436	7,3152750589	0,0352417855	0,50693350801776
3	-7,2386775707	1,5151748923	0,0065590773	-0,051094966789557
4	0,1608682728	0,0712529633	0,0004782980	0,0043975038080414
5	-0,1452565130	0,0491278704	0,0002040437	-0,00065669022856169

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

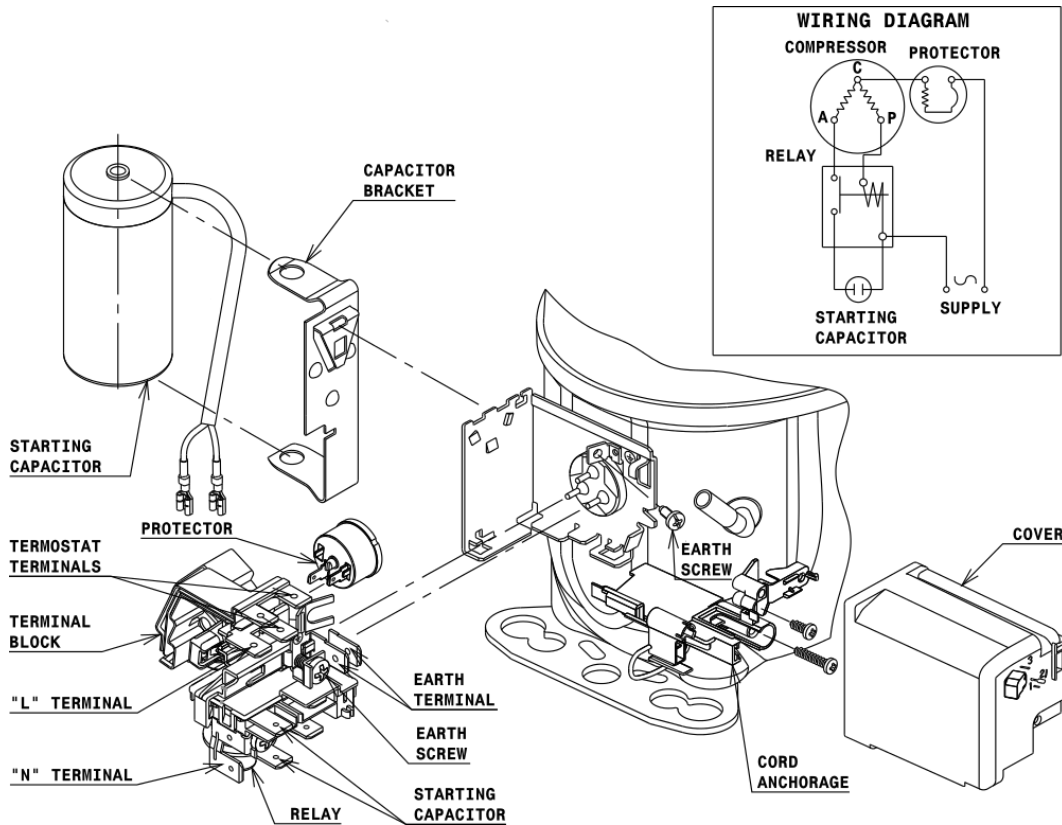


DESIGNATION INTERNAL DIAM.

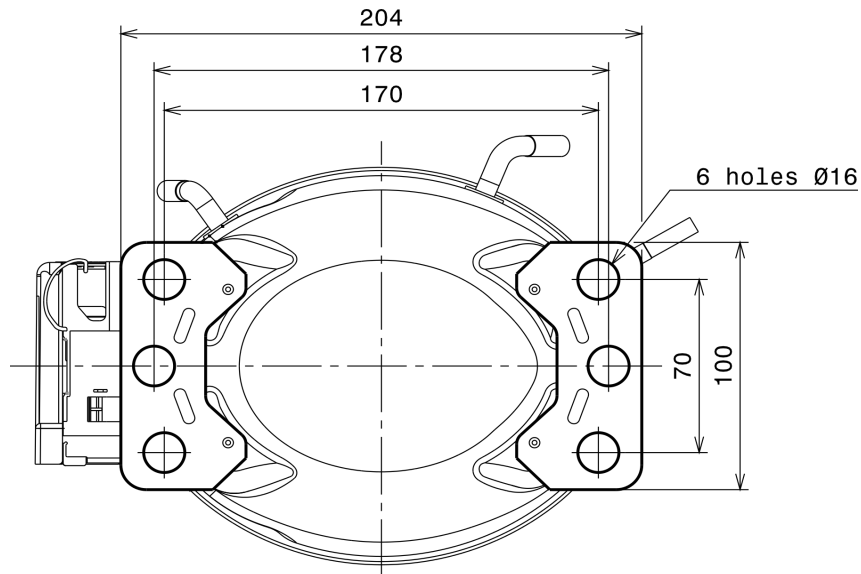
DESIGNATION	INTERNAL DIAM.
1 Suction	6,5 mm
2 Service	6,5 mm
3 Discharge	4,9 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSIR CONNECTION (L, P ranges)



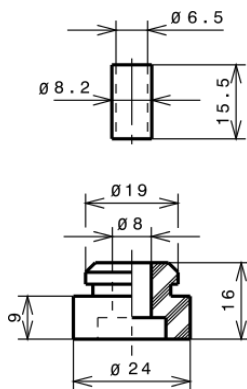
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

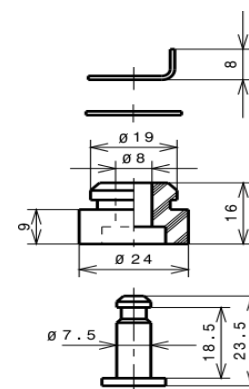
STANDARD

$\varnothing 16$ holes (170x70 net)



SNAP-ON

$\varnothing 16$ holes (170x70 net)



SOA

SOA R134a LBP

