

Technical Data Sheet

ENGINEERING
TOMORROW



Compressor model **GL90TG**

Voltage **200-220/220-230V 50/60Hz ~1**

Refrigerant **R134a**

APPLICATION

COMPRESSOR

MOTOR

Application	High-Medium Back Pressure	Displacement	8,85 cm ³	Nominal Power	1/4 hp
Refrigerant	R134a	Diameter	25,40 mm	Voltage/Frequency	220-230V 60Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	17,47 mm	Voltage range	198-253 V
Expansion	Capillar/Valve	Net Weight	9,70 Kg	Type	CSIR
Comp. Cooling	Fan cooled	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)	13,50 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	4,00 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	796 kCal/h	773 W
COP	1,97 W/W	1,71 W/W
EER	1,69 kCal/Wh	1,48 kCal/Wh
Input Power	470 W	452 W
Current	2,60 A	2,52 A

APPROVALS



TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (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	Option 2		
Reference	2014 145.	QLZ-7.1A		
Pick-Up	7,10 A	7,10 A		
Drop-Out	6,00 A	6,00 A		
Protector	Option 1	Option 2		
Reference	T0171	MRP36AMK		
Current	10,30 A	10,30 A		
Time check	7,5-14 seg	7,5-14 seg		
Disc temp. (Open/Close)	105,00 / 61,00 °C	105,00 / 61,00 °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	-25	205	195	1,55	1,22	1,05
40	-20	271	220	1,63	1,43	1,23
40	-15	353	247	1,71	1,67	1,43
40	-10	451	275	1,81	1,91	1,64
40	-5	565	305	1,91	2,16	1,85
40	0	695	336	2,03	2,40	2,07
40	5	840	369	2,16	2,65	2,28
40	7,2	909	384	2,22	2,75	2,37
40	10	1.001	404	2,30	2,89	2,48

45	-25	190	195	1,55	1,13	0,97
45	-20	252	225	1,64	1,31	1,12
45	-15	331	256	1,74	1,51	1,29
45	-10	425	288	1,85	1,72	1,48
45	-5	536	323	1,98	1,93	1,66
45	0	662	358	2,12	2,15	1,85
45	5	804	396	2,27	2,36	2,03
45	7,2	871	413	2,34	2,46	2,11
45	10	962	435	2,44	2,57	2,21

50	-25	174	195	1,55	1,04	0,89
50	-20	234	229	1,65	1,19	1,02
50	-15	309	265	1,77	1,36	1,17
50	-10	400	302	1,90	1,54	1,33
50	-5	507	340	2,05	1,73	1,49
50	0	629	381	2,21	1,92	1,65
50	5	768	422	2,38	2,11	1,82
50	7,2	834	441	2,47	2,20	1,89
50	10	922	466	2,58	2,30	1,98

55	-25	159	195	1,55	0,95	0,82
55	-20	215	233	1,67	1,07	0,92
55	-15	286	273	1,80	1,22	1,05
55	-10	374	315	1,95	1,38	1,19
55	-5	477	358	2,12	1,55	1,33
55	0	597	403	2,30	1,72	1,48
55	5	732	449	2,50	1,89	1,63
55	7,2	796	470	2,60	1,97	1,69
55	10	882	497	2,73	2,07	1,78

60	-25	144	195	1,55	0,86	0,74
60	-20	196	238	1,68	0,96	0,82
60	-15	264	282	1,83	1,09	0,94
60	-10	348	328	2,00	1,23	1,06
60	-5	448	376	2,19	1,39	1,19
60	0	564	425	2,40	1,54	1,33
60	5	695	476	2,63	1,70	1,46
60	7,2	758	499	2,74	1,77	1,52
60	10	843	528	2,88	1,86	1,60

65	-25	128	195	1,55	0,77	0,66
65	-20	177	242	1,70	0,85	0,73
65	-15	242	291	1,86	0,97	0,83
65	-10	323	342	2,05	1,10	0,94
65	-5	419	394	2,26	1,24	1,06
65	0	531	447	2,50	1,38	1,19
65	5	659	503	2,76	1,53	1,31
65	7,2	721	527	2,88	1,59	1,37
65	10	803	559	3,04	1,67	1,44

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	221	196	1,55	1,13	0,97
40	-20	293	221	1,63	1,32	1,14
40	-15	382	248	1,72	1,54	1,33
40	-10	488	276	1,81	1,76	1,52
40	-5	610	306	1,92	1,99	1,72
40	0	749	338	2,04	2,21	1,91
40	5	904	371	2,17	2,44	2,10
40	7,2	978	386	2,23	2,53	2,19
40	10	1.077	406	2,31	2,65	2,29

45	-25	203	196	1,55	1,04	0,90
45	-20	271	226	1,64	1,20	1,04
45	-15	356	257	1,75	1,38	1,20
45	-10	457	290	1,86	1,58	1,36
45	-5	575	324	1,99	1,77	1,53
45	0	709	361	2,13	1,97	1,70
45	5	861	398	2,28	2,16	1,87
45	7,2	932	415	2,35	2,24	1,94
45	10	1.028	438	2,45	2,35	2,03

50	-25	186	196	1,55	0,95	0,82
50	-20	249	230	1,66	1,08	0,94
50	-15	329	266	1,78	1,24	1,07
50	-10	426	303	1,91	1,41	1,21
50	-5	540	342	2,05	1,58	1,36
50	0	670	383	2,22	1,75	1,51
50	5	817	425	2,40	1,92	1,66
50	7,2	887	444	2,48	2,00	1,72
50	10	980	469	2,59	2,09	1,81

55	-25	168	196	1,55	0,86	0,74
55	-20	227	235	1,67	0,97	0,84
55	-15	303	275	1,81	1,10	0,95
55	-10	396	317	1,96	1,25	1,08
55	-5	505	360	2,12	1,40	1,21
55	0	630	405	2,31	1,56	1,34
55	5	773	452	2,52	1,71	1,48
55	7,2	841	473	2,61	1,78	1,54
55	10	932	500	2,74	1,86	1,61

60	-25	151	196	1,55	0,77	0,66
60	-20	205	239	1,69	0,86	0,74
60	-15	277	284	1,84	0,98	0,84
60	-10	365	330	2,01	1,10	0,95
60	-5	469	378	2,20	1,24	1,07
60	0	591	428	2,41	1,38	1,19
60	5	729	479	2,64	1,52	1,32
60	7,2	795	502	2,75	1,58	1,37
60	10	884	532	2,90	1,66	1,44

65	-25	133	196	1,55	0,68	0,59
65	-20	184	244	1,70	0,75	0,65
65	-15	250	293	1,87	0,86	0,74
65	-10	334	344	2,06	0,97	0,84
65	-5	434	396	2,27	1,10	0,95
65	0	551	450	2,51	1,22	1,06
65	5	685	506	2,77	1,35	1,17
65	7,2	749	531	2,90	1,41	1,22
65	10	835	563	3,06	1,48	1,28



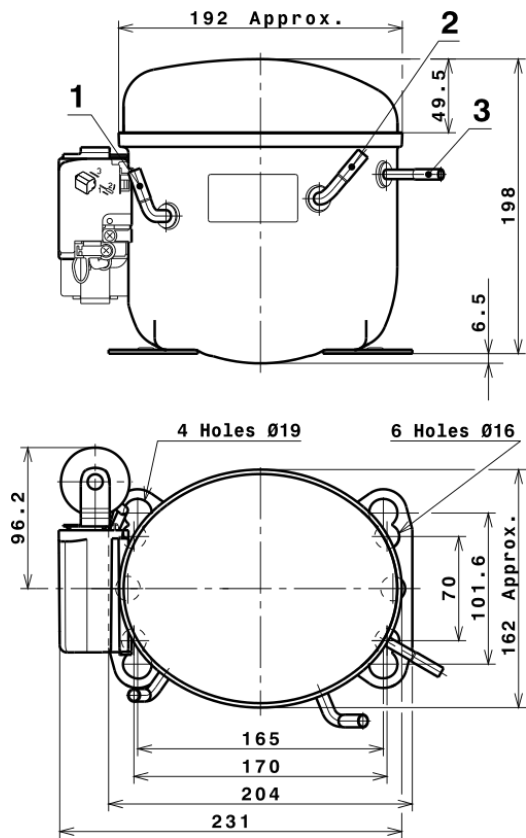
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.071,0715636899	162,6429250381	1,2194958573	17,005050456906
2	36,6699814949	-0,6194726870	-0,0043161732	0,66378411994721
3	-8,2925210056	4,6056996561	0,0207349318	-0,01422173917213
4	0,3275249496	0,0356314194	0,0003818595	0,0094524712828045
5	-0,1897217320	0,1842279862	0,0008293973	0,0009785530325944

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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Technical Data Sheet

COMPRESSOR DIMENSIONS

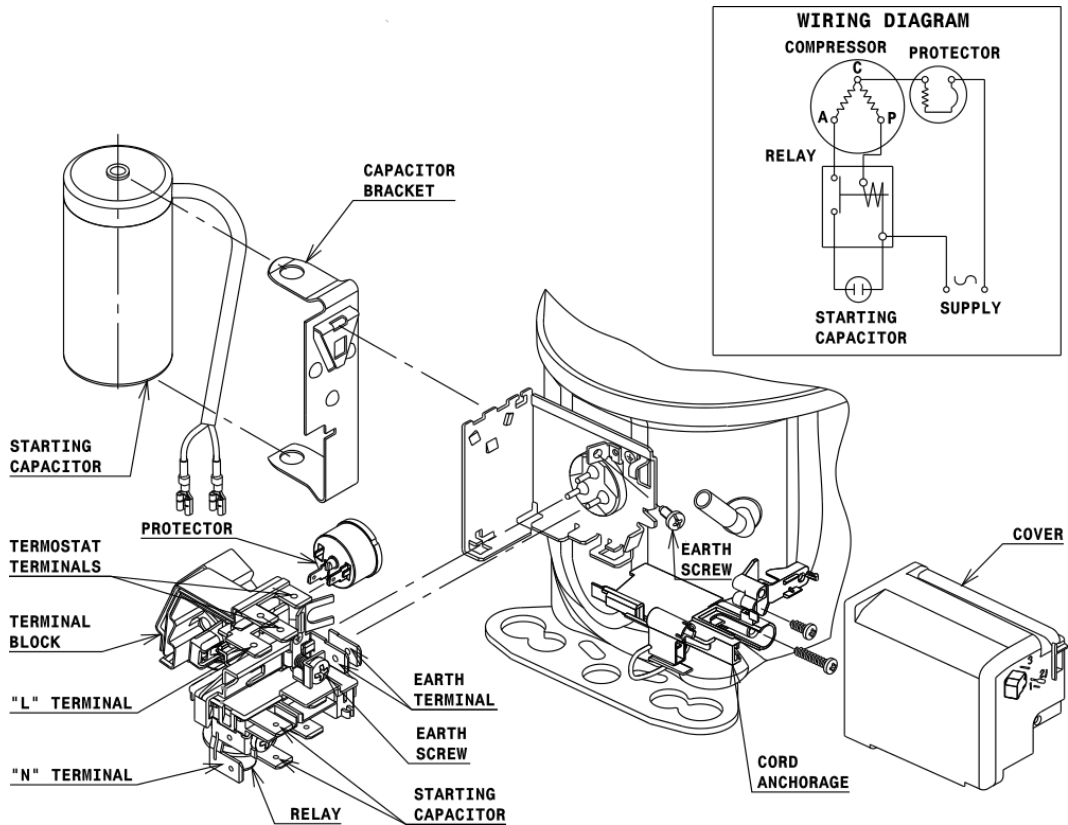


DESIGNATION INTERNAL DIAM.

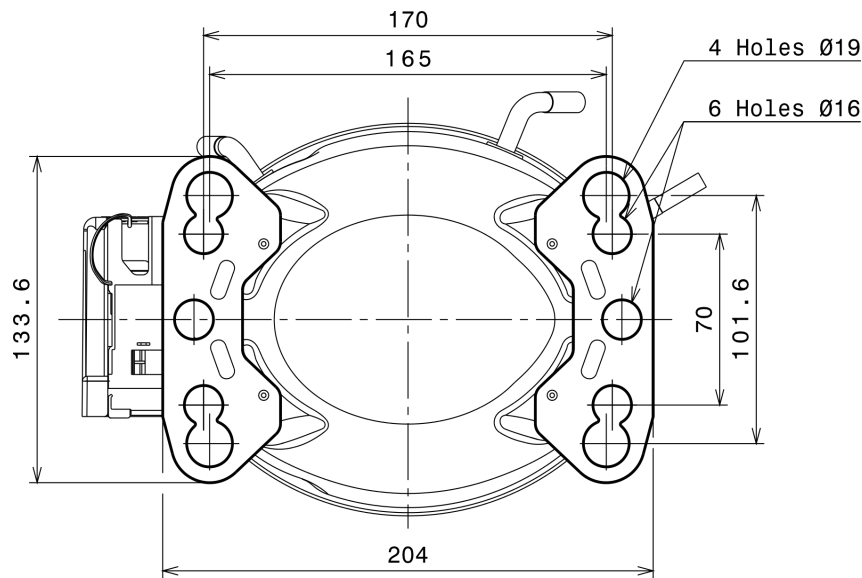
1	Suction	6,5 mm
2	Service	6,5 mm
3	Discharge	4,9 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSIR CONNECTION (L, P ranges)



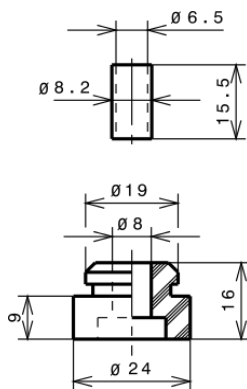
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

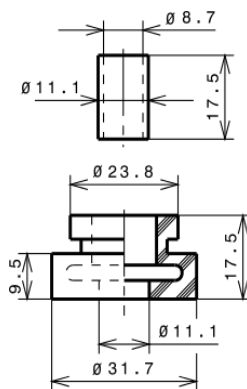
STANDARD

Ø16 holes (170x70 net)



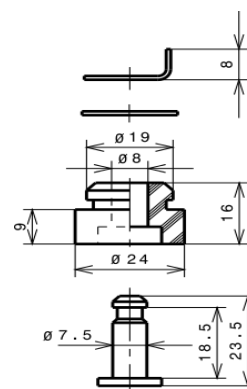
AMERICAN FEET

Ø19 holes (165x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R134a HMBP

