

Technical Data Sheet

Compressor model **GL80TC**
Voltage **100V 50/60Hz ~1**
Refrigerant **R134a**

APPLICATION

COMPRESSOR

MOTOR

Application	High-Medium Back Pressure	Displacement	7,57 cm ³	Nominal Power	1/5 hp
Refrigerant	R134a	Diameter	25,40 mm	Voltage/Frequency	100V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	14,92 mm	Voltage range	85-110 V
Expansion	Capillar/Valve	Net Weight	10,98 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	300 cm ³	Locked Rotor Amps (LRA)	26,00 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	7,50 A
				Main W. resist. at 25°C	1,38 Ω
				Start W. resist. at 25°C	6,12 Ω

NOMINAL PERFORMANCE

APPROVALS

	ASHRAE	CECOMAF
Cooling Capacity	570 kCal/h	553 W
COP	2,21 W/W	1,85 W/W
EER	1,90 kCal/Wh	1,60 kCal/Wh
Input Power	300 W	299 W
Current	4,70 A	4,68 A

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	100 V 50 Hz	100 V 50 Hz

ELECTRICAL COMPONENTS

Starting capacitor	170 µF 160 V			
Relay	Option 1			
Reference	2014 170.			
Pick-Up	12,10 A			
Drop-Out	10,30 A			
Protector	Option 1	Option 2		
Reference	MRT20ALK	T0103		
Current	15,80 A	15,80 A		
Time check	7,5-14 seg	7,5-14 seg		
Disc temp. (Open/Close)	105,00 / 61,00 °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	-25	150	160	3,70	1,09	0,94
40	-20	206	189	3,66	1,27	1,09
40	-15	274	212	3,72	1,50	1,29
40	-10	352	231	3,84	1,77	1,52
40	-5	441	246	3,96	2,09	1,80
40	0	541	255	4,05	2,47	2,12
40	5	653	260	4,10	2,92	2,51
40	7,2	705	260	4,11	3,15	2,71
40	10	775	259	4,10	3,48	2,99

45	-25	135	160	3,70	0,98	0,84
45	-20	187	191	3,66	1,14	0,98
45	-15	249	217	3,74	1,34	1,15
45	-10	323	238	3,89	1,58	1,36
45	-5	408	254	4,04	1,87	1,61
45	0	503	265	4,17	2,21	1,90
45	5	610	272	4,26	2,61	2,24
45	7,2	660	273	4,28	2,81	2,41
45	10	727	274	4,29	3,09	2,66

50	-25	120	160	3,70	0,87	0,75
50	-20	167	193	3,67	1,01	0,87
50	-15	225	221	3,77	1,19	1,02
50	-10	294	244	3,94	1,40	1,21
50	-5	374	262	4,13	1,66	1,43
50	0	465	276	4,31	1,96	1,69
50	5	567	284	4,44	2,32	1,99
50	7,2	615	287	4,48	2,50	2,15
50	10	680	288	4,50	2,74	2,36

55	-25	105	160	3,70	0,76	0,66
55	-20	147	195	3,67	0,88	0,76
55	-15	201	225	3,79	1,04	0,89
55	-10	265	250	4,00	1,23	1,06
55	-5	340	270	4,24	1,46	1,26
55	0	427	286	4,47	1,73	1,49
55	5	524	297	4,64	2,05	1,76
55	7,2	570	300	4,70	2,21	1,90
55	10	632	303	4,75	2,43	2,09

60	-25	90	160	3,70	0,65	0,56
60	-20	128	197	3,67	0,75	0,65
60	-15	176	229	3,82	0,90	0,77
60	-10	236	256	4,07	1,07	0,92
60	-5	307	279	4,35	1,28	1,10
60	0	388	296	4,64	1,52	1,31
60	5	481	309	4,87	1,81	1,55
60	7,2	525	313	4,95	1,95	1,68
60	10	584	317	5,03	2,14	1,84

65	-25	75	160	3,70	0,55	0,47
65	-20	108	199	3,68	0,63	0,54
65	-15	152	233	3,85	0,76	0,65
65	-10	207	262	4,14	0,92	0,79
65	-5	273	287	4,48	1,11	0,95
65	0	350	307	4,82	1,33	1,14
65	5	438	322	5,12	1,58	1,36
65	7,2	480	327	5,23	1,71	1,47
65	10	537	332	5,34	1,88	1,62

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	162	161	3,70	1,00	0,87
40	-20	223	190	3,66	1,18	1,02
40	-15	296	214	3,73	1,39	1,20
40	-10	380	233	3,85	1,63	1,41
40	-5	476	247	3,97	1,93	1,67
40	0	584	256	4,07	2,28	1,97
40	5	703	261	4,12	2,69	2,32
40	7,2	759	262	4,13	2,90	2,51
40	10	833	261	4,12	3,19	2,76

45	-25	145	161	3,70	0,90	0,78
45	-20	201	192	3,66	1,05	0,90
45	-15	268	218	3,75	1,23	1,06
45	-10	347	239	3,90	1,45	1,25
45	-5	437	255	4,06	1,71	1,48
45	0	539	267	4,19	2,02	1,75
45	5	653	274	4,28	2,39	2,06
45	7,2	706	275	4,30	2,57	2,22
45	10	778	276	4,31	2,82	2,44

50	-25	128	161	3,70	0,80	0,69
50	-20	178	194	3,67	0,92	0,79
50	-15	240	222	3,77	1,08	0,94
50	-10	314	245	3,95	1,28	1,11
50	-5	399	264	4,15	1,51	1,31
50	0	495	277	4,33	1,79	1,54
50	5	603	286	4,47	2,11	1,82
50	7,2	654	289	4,51	2,27	1,96
50	10	723	290	4,53	2,49	2,15

55	-25	111	161	3,70	0,69	0,60
55	-20	156	196	3,67	0,80	0,69
55	-15	212	226	3,80	0,94	0,81
55	-10	280	251	4,01	1,11	0,96
55	-5	360	272	4,26	1,32	1,14
55	0	451	288	4,49	1,57	1,35
55	5	553	299	4,68	1,85	1,60
55	7,2	602	302	4,73	1,99	1,72
55	10	667	305	4,79	2,19	1,89

60	-25	94	161	3,70	0,59	0,51
60	-20	134	198	3,68	0,68	0,58
60	-15	185	230	3,83	0,80	0,69
60	-10	247	258	4,08	0,96	0,83
60	-5	321	280	4,38	1,14	0,99
60	0	406	298	4,67	1,36	1,18
60	5	503	311	4,91	1,62	1,40
60	7,2	550	315	4,99	1,74	1,51
60	10	612	319	5,07	1,92	1,66

65	-25	77	161	3,70	0,48	0,42
65	-20	111	200	3,68	0,56	0,48
65	-15	157	234	3,86	0,67	0,58
65	-10	214	264	4,16	0,81	0,70
65	-5	282	289	4,51	0,98	0,84
65	0	362	309	4,86	1,17	1,01
65	5	454	324	5,16	1,40	1,21
65	7,2	498	329	5,28	1,51	1,31
65	10	557	334	5,39	1,67	1,44

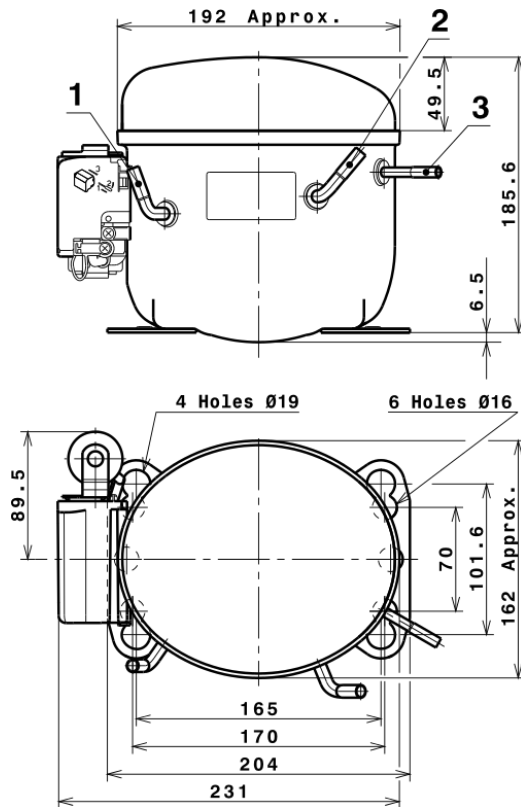
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	940,1441880266	177,3996570323	2,5925139273	16,135945297925
2	31,5234680327	-1,9058010482	-0,0274286696	0,59305115752632
3	-9,0987251294	2,1421858866	0,0347921082	-0,082486066001972
4	0,2268823639	-0,0969830773	0,0006522454	0,0065768526334814
5	-0,2289041953	0,0856874355	0,0013916843	-0,0013700868554833

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

COMPRESSOR DIMENSIONS

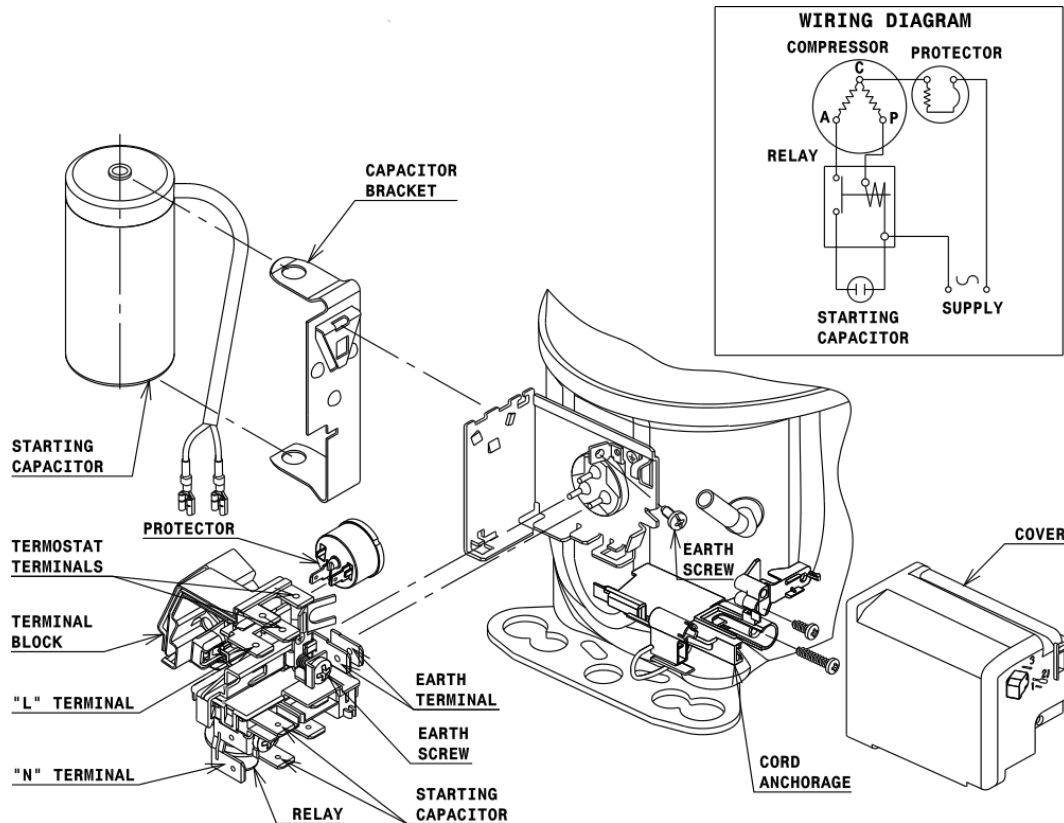


DESIGNATION INTERNAL DIAM.

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

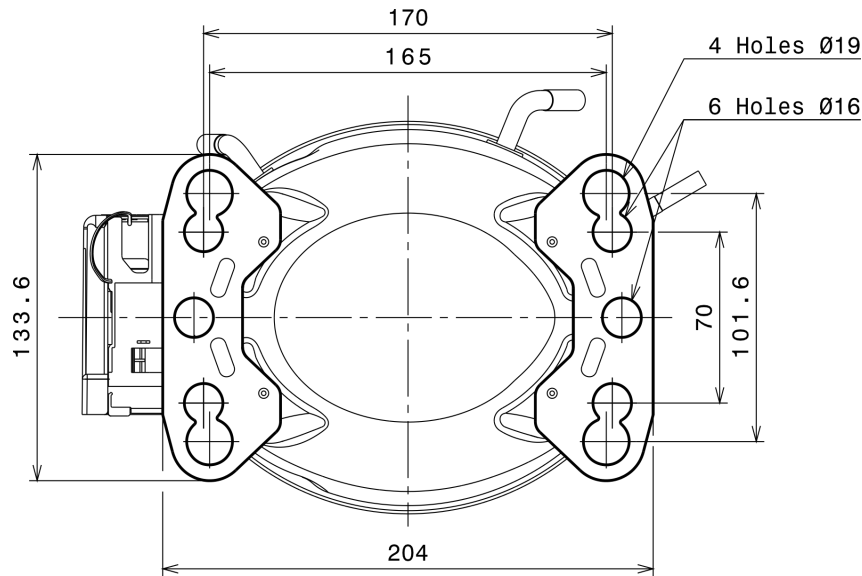
WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSIR CONNECTION (L, P ranges)



Technical Data Sheet

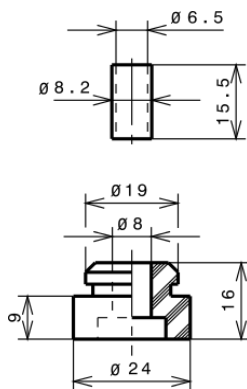
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

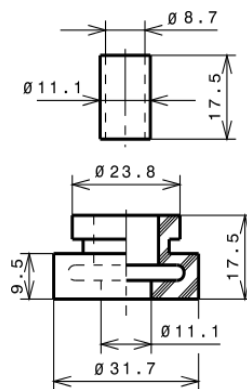
STANDARD

Ø16 holes (170x70 net)



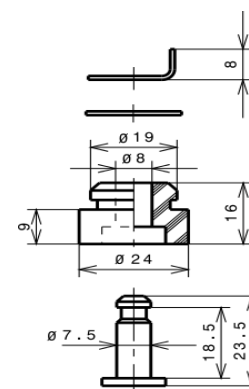
AMERICAN FEET

Ø19 holes (165x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R134a HMBP

