

# Technical Data Sheet

ENGINEERING  
TOMORROW



Compressor model **GL80TB**  
Voltage **220-240V 50Hz ~1**  
Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	7,57 cm <sup>3</sup>	Nominal Power	1/5 hp
Refrigerant	R134a	Diameter	25,40 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	14,92 mm	Voltage range	187-264 V
Expansion	Capillar/Valve	Net Weight	9,19 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 <sup>3</sup>	Locked Rotor Amps (LRA)	9,80 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	2,90 A
				Main W. resist. at 25°C	12,00 Ω
				Start W. resist. at 25°C	34,50 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	570 kCal/h	553 W
COP	2,10 W/W	1,81 W/W
EER	1,81 kCal/Wh	1,57 kCal/Wh
Input Power	315 W	305 W
Current	1,85 A	1,81 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (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	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

	Option 1	Option 2		
Starting capacitor	47- 56 μF 330 V			
Relay	Option 1	Option 2		
Reference	2014 127.	QLZ-4.8A		
Pick-Up	4,80 A	4,8 A		
Drop-Out	4,10 A	4,1 A		
Protector	Option 1	Option 2		
Reference	T0137	AE39FHS		
Current	9,50 A	9,20 A		
Time check	7,5-14 seg	7,5-14 seg		
Disc temp. (Open/Close)	110,00 / 61,00 °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	-25	150	150	1,30	1,16	1,00
40	-20	206	167	1,34	1,44	1,24
40	-15	274	184	1,38	1,73	1,49
40	-10	352	202	1,43	2,03	1,74
40	-5	441	220	1,48	2,34	2,01
40	0	541	238	1,54	2,65	2,27
40	5	653	257	1,61	2,96	2,54
40	7,2	705	265	1,64	3,09	2,66
40	10	775	276	1,68	3,27	2,81

45	-25	135	150	1,30	1,05	0,90
45	-20	187	169	1,34	1,28	1,10
45	-15	249	189	1,39	1,53	1,32
45	-10	323	209	1,45	1,79	1,54
45	-5	408	230	1,52	2,06	1,77
45	0	503	251	1,59	2,33	2,01
45	5	610	272	1,67	2,60	2,24
45	7,2	660	282	1,71	2,73	2,34
45	10	727	294	1,76	2,88	2,47

50	-25	120	150	1,30	0,93	0,80
50	-20	167	172	1,35	1,13	0,97
50	-15	225	194	1,41	1,35	1,16
50	-10	294	217	1,48	1,57	1,35
50	-5	374	240	1,55	1,81	1,56
50	0	465	264	1,64	2,05	1,76
50	5	567	288	1,73	2,29	1,97
50	7,2	615	298	1,78	2,40	2,06
50	10	680	312	1,84	2,53	2,18

55	-25	105	150	1,30	0,81	0,70
55	-20	147	175	1,36	0,98	0,84
55	-15	201	200	1,42	1,17	1,01
55	-10	265	225	1,50	1,37	1,18
55	-5	340	251	1,59	1,58	1,36
55	0	427	277	1,69	1,79	1,54
55	5	524	303	1,80	2,01	1,73
55	7,2	570	315	1,85	2,10	1,81
55	10	632	330	1,92	2,23	1,91

60	-25	90	150	1,30	0,70	0,60
60	-20	128	177	1,36	0,84	0,72
60	-15	176	205	1,44	1,00	0,86
60	-10	236	233	1,53	1,18	1,01
60	-5	307	261	1,63	1,37	1,17
60	0	388	290	1,74	1,56	1,34
60	5	481	319	1,87	1,75	1,51
60	7,2	525	332	1,93	1,84	1,58
60	10	584	348	2,01	1,95	1,68

65	-25	75	150	1,30	0,58	0,50
65	-20	108	180	1,37	0,70	0,60
65	-15	152	210	1,45	0,84	0,72
65	-10	207	241	1,55	1,00	0,86
65	-5	273	271	1,67	1,17	1,01
65	0	350	303	1,80	1,34	1,16
65	5	438	334	1,94	1,52	1,31
65	7,2	480	348	2,01	1,60	1,38
65	10	537	366	2,10	1,70	1,47

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	162	151	1,30	1,07	0,93
40	-20	223	168	1,34	1,33	1,15
40	-15	296	185	1,38	1,60	1,38
40	-10	380	203	1,43	1,87	1,62
40	-5	476	221	1,49	2,16	1,86
40	0	584	239	1,55	2,44	2,11
40	5	703	258	1,62	2,72	2,35
40	7,2	759	267	1,65	2,84	2,46
40	10	833	278	1,69	3,00	2,59

45	-25	145	151	1,30	0,96	0,83
45	-20	201	170	1,35	1,18	1,02
45	-15	268	190	1,40	1,41	1,22
45	-10	347	211	1,46	1,65	1,42
45	-5	437	231	1,52	1,89	1,63
45	0	539	252	1,59	2,14	1,85
45	5	653	274	1,68	2,38	2,06
45	7,2	706	283	1,71	2,49	2,15
45	10	778	296	1,77	2,63	2,27

50	-25	128	151	1,30	0,85	0,73
50	-20	178	173	1,35	1,03	0,89
50	-15	240	196	1,41	1,23	1,06
50	-10	314	218	1,48	1,44	1,24
50	-5	399	242	1,56	1,65	1,42
50	0	495	265	1,64	1,86	1,61
50	5	603	290	1,74	2,08	1,80
50	7,2	654	300	1,78	2,18	1,88
50	10	723	314	1,85	2,30	1,99

55	-25	111	151	1,30	0,74	0,64
55	-20	156	176	1,36	0,89	0,77
55	-15	212	201	1,43	1,06	0,91
55	-10	280	226	1,50	1,24	1,07
55	-5	360	252	1,59	1,43	1,23
55	0	451	278	1,69	1,62	1,40
55	5	553	305	1,81	1,81	1,57
55	7,2	602	317	1,86	1,90	1,64
55	10	667	332	1,93	2,01	1,74

60	-25	94	151	1,30	0,63	0,54
60	-20	134	178	1,37	0,75	0,65
60	-15	185	206	1,44	0,90	0,77
60	-10	247	234	1,53	1,05	0,91
60	-5	321	263	1,63	1,22	1,06
60	0	406	292	1,75	1,39	1,20
60	5	503	321	1,88	1,57	1,36
60	7,2	550	334	1,94	1,65	1,42
60	10	612	350	2,02	1,75	1,51

65	-25	77	151	1,30	0,51	0,44
65	-20	111	181	1,37	0,62	0,53
65	-15	157	211	1,46	0,74	0,64
65	-10	214	242	1,56	0,88	0,76
65	-5	282	273	1,67	1,03	0,89
65	0	362	305	1,80	1,19	1,03
65	5	454	336	1,95	1,35	1,16
65	7,2	498	351	2,02	1,42	1,23
65	10	557	369	2,12	1,51	1,30

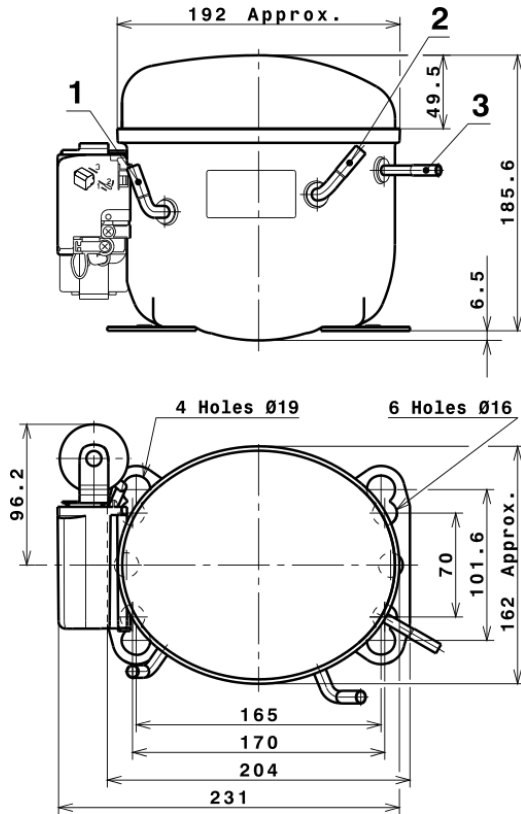


## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	940,1441880266	138,5205230160	1,0863292902	16,135945297925
2	31,5234680327	-0,3865664156	-0,0028355849	0,59305115752632
3	-9,0987251294	2,6777323582	0,0116057275	-0,082486066001972
4	0,2268823639	0,0095498965	0,0002426833	0,0065768526334814
5	-0,2289041953	0,1071092943	0,0004642291	-0,0013700868554833

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

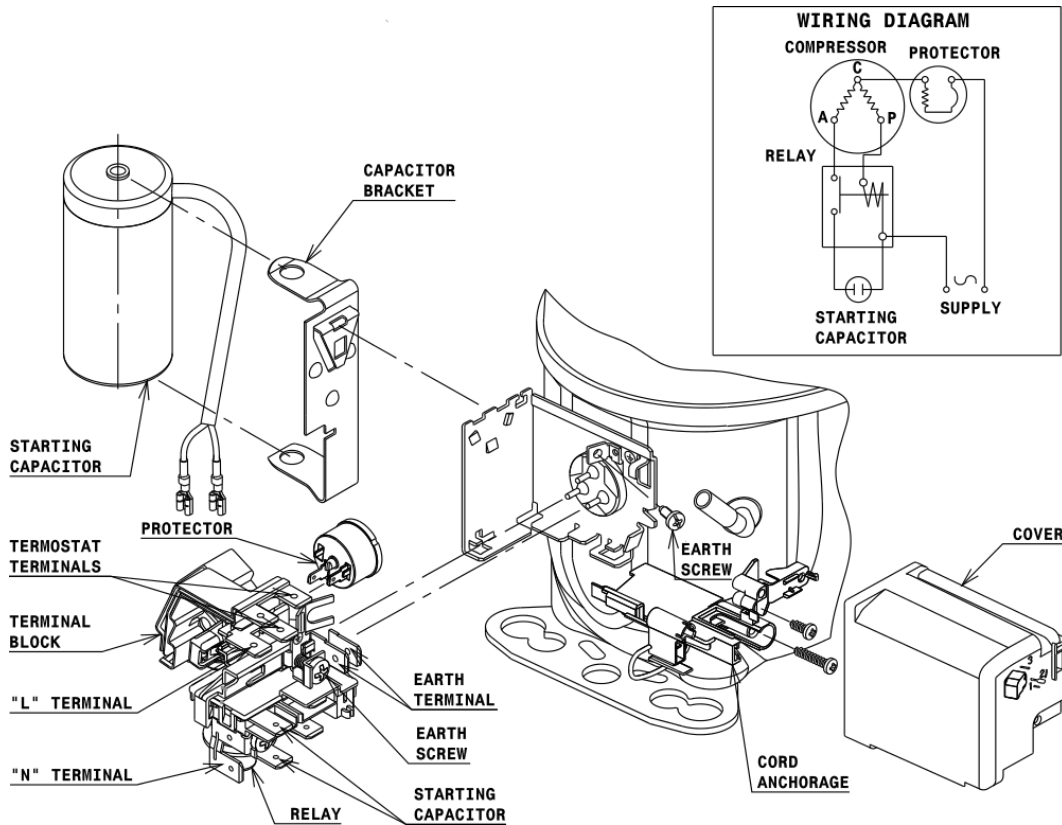


## DESIGNATION INTERNAL DIAM.

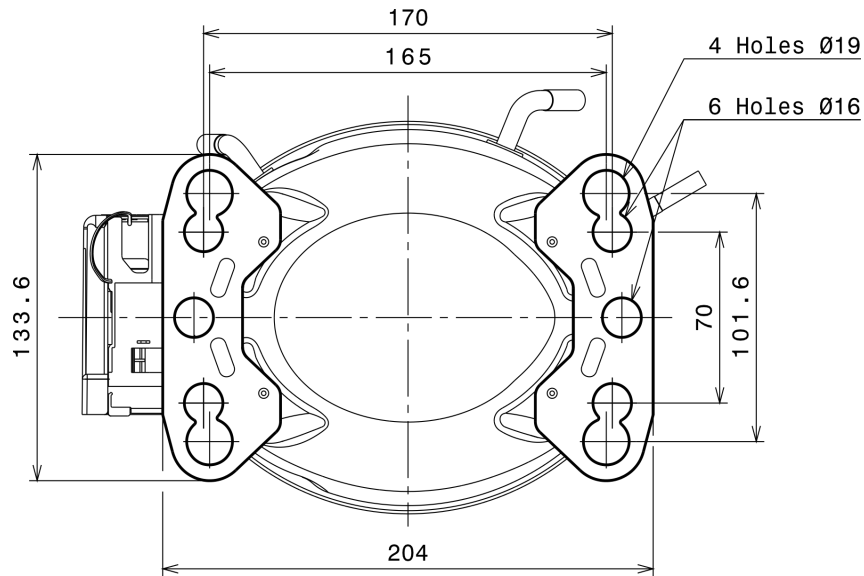
DESIGNATION	INTERNAL DIAM.
1 Suction	6,5 mm
2 Service	6,5 mm
3 Discharge	4,9 mm

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



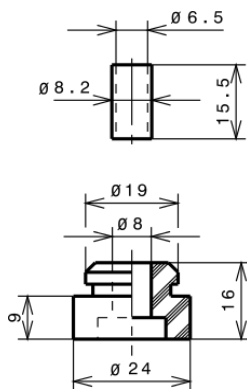
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

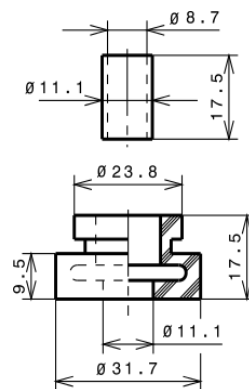
### STANDARD

Ø16 holes (170x70 net)



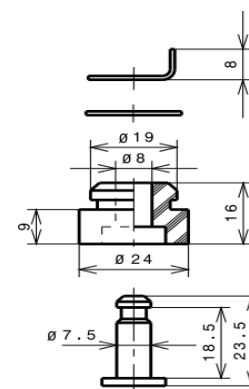
### AMERICAN FEET

Ø19 holes (165x101.6 net)



### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R134a HMBP

