

# Technical Data Sheet

Compressor model **GL90TB**  
 Voltage **220-240V 50Hz ~1**  
 Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	8,85 cm <sup>3</sup>	Nominal Power	1/4 hp
Refrigerant	R134a	Diameter	25,40 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	17,47 mm	Voltage range	187-264 V
Expansion	Capillar/Valve	Net Weight	9,66 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)	12,00 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	3,00 A
				Main W. resist. at 25°C	11,30 Ω
				Start W. resist. at 25°C	27,80 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	680 kCal/h	660 W
COP	2,20 W/W	1,90 W/W
EER	1,89 kCal/Wh	1,64 kCal/Wh
Input Power	360 W	348 W
Current	2,10 A	2,04 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

Starting capacitor	47- 56 µF 330 V		
Relay	Option 1		
Reference	2014 138.		
Pick-Up	6,10 A		
Drop-Out	5,20 A		
Protector	Option 1	Option 2	Option 3
Reference	T0057	AE39FHY	MRP56AMK
Current	8,50 A	9,00 A	9,40 A
Time check	7,5-14 seg	7,5-14 seg	7,5-14 seg
Disc temp. (Open/Close)	105,00 / 61,00 °C	105,00 / 62,00 °C	105,00 / 61,00 °C

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	175	165	1,40	1,23	1,06
40	-20	242	186	1,45	1,51	1,30
40	-15	322	208	1,51	1,81	1,55
40	-10	416	230	1,58	2,11	1,81
40	-5	523	252	1,66	2,41	2,07
40	0	643	276	1,74	2,71	2,33
40	5	777	299	1,83	3,02	2,60
40	7,2	840	310	1,88	3,15	2,71
40	10	924	324	1,94	3,32	2,85

45	-25	162	165	1,40	1,14	0,98
45	-20	222	189	1,46	1,37	1,18
45	-15	296	213	1,53	1,62	1,39
45	-10	384	237	1,61	1,88	1,62
45	-5	485	263	1,69	2,15	1,84
45	0	599	289	1,79	2,41	2,08
45	5	726	315	1,90	2,68	2,31
45	7,2	787	327	1,95	2,80	2,41
45	10	867	342	2,02	2,95	2,54

50	-25	148	165	1,40	1,05	0,90
50	-20	203	191	1,47	1,23	1,06
50	-15	271	218	1,55	1,44	1,24
50	-10	352	245	1,63	1,67	1,44
50	-5	447	273	1,73	1,90	1,64
50	0	554	301	1,84	2,14	1,84
50	5	676	330	1,96	2,38	2,05
50	7,2	733	343	2,02	2,48	2,14
50	10	810	360	2,10	2,62	2,25

55	-25	135	165	1,40	0,95	0,82
55	-20	183	194	1,47	1,10	0,95
55	-15	245	223	1,56	1,28	1,10
55	-10	320	253	1,66	1,47	1,26
55	-5	408	283	1,77	1,68	1,44
55	0	510	314	1,90	1,89	1,62
55	5	625	346	2,03	2,10	1,81
55	7,2	680	360	2,10	2,20	1,89
55	10	754	378	2,19	2,32	1,99

60	-25	122	165	1,40	0,86	0,74
60	-20	164	196	1,48	0,97	0,83
60	-15	219	228	1,58	1,12	0,96
60	-10	288	261	1,69	1,28	1,10
60	-5	370	294	1,81	1,47	1,26
60	0	466	327	1,95	1,65	1,42
60	5	575	361	2,11	1,85	1,59
60	7,2	627	377	2,18	1,93	1,66
60	10	697	396	2,28	2,05	1,76

65	-25	108	165	1,40	0,76	0,66
65	-20	144	199	1,49	0,84	0,72
65	-15	193	233	1,59	0,96	0,83
65	-10	256	269	1,72	1,11	0,95
65	-5	332	304	1,85	1,27	1,09
65	0	421	340	2,01	1,44	1,24
65	5	524	377	2,18	1,62	1,39
65	7,2	573	393	2,26	1,70	1,46
65	10	640	414	2,38	1,80	1,54

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	189	166	1,40	1,14	0,98
40	-20	261	187	1,46	1,40	1,21
40	-15	348	209	1,52	1,67	1,44
40	-10	449	231	1,59	1,95	1,68
40	-5	564	254	1,66	2,22	1,92
40	0	693	277	1,75	2,50	2,16
40	5	837	301	1,84	2,78	2,40
40	7,2	904	312	1,89	2,90	2,50
40	10	994	326	1,94	3,05	2,64

45	-25	173	166	1,40	1,04	0,90
45	-20	239	190	1,46	1,26	1,09
45	-15	319	214	1,53	1,49	1,29
45	-10	412	239	1,61	1,73	1,49
45	-5	520	264	1,70	1,97	1,70
45	0	642	290	1,80	2,21	1,91
45	5	778	317	1,91	2,45	2,12
45	7,2	842	329	1,96	2,56	2,21
45	10	928	344	2,03	2,70	2,33

50	-25	158	166	1,40	0,95	0,82
50	-20	216	192	1,47	1,13	0,97
50	-15	289	219	1,55	1,32	1,14
50	-10	375	247	1,64	1,52	1,32
50	-5	476	275	1,74	1,73	1,50
50	0	590	303	1,85	1,95	1,68
50	5	719	333	1,97	2,16	1,87
50	7,2	780	346	2,03	2,26	1,95
50	10	862	362	2,11	2,38	2,06

55	-25	143	166	1,40	0,86	0,74
55	-20	194	195	1,48	1,00	0,86
55	-15	259	224	1,57	1,16	1,00
55	-10	338	254	1,66	1,33	1,15
55	-5	432	285	1,78	1,51	1,31
55	0	539	316	1,90	1,70	1,47
55	5	660	348	2,04	1,90	1,64
55	7,2	718	362	2,11	1,98	1,71
55	10	796	381	2,20	2,09	1,81

60	-25	128	166	1,40	0,77	0,66
60	-20	172	197	1,49	0,87	0,75
60	-15	229	230	1,58	1,00	0,86
60	-10	301	262	1,69	1,15	0,99
60	-5	387	296	1,82	1,31	1,13
60	0	488	329	1,96	1,48	1,28
60	5	602	364	2,12	1,65	1,43
60	7,2	656	379	2,19	1,73	1,50
60	10	730	399	2,29	1,83	1,58

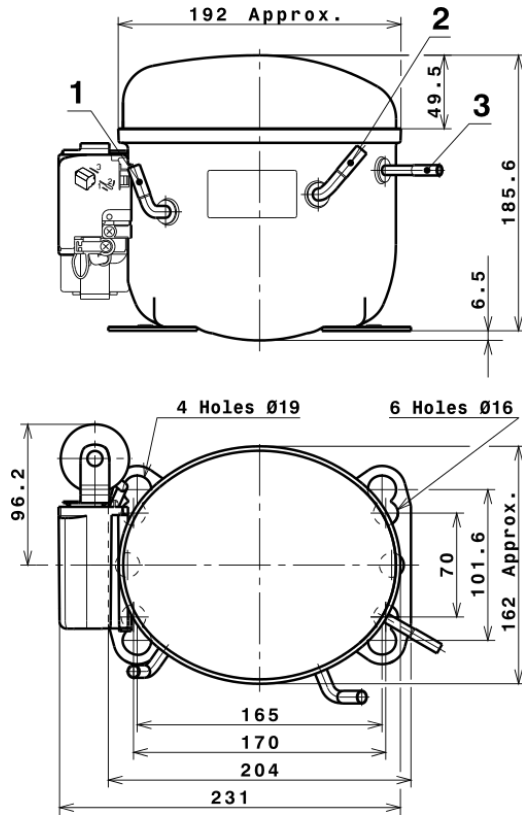
65	-25	112	166	1,40	0,68	0,59
65	-20	149	200	1,49	0,75	0,64
65	-15	200	235	1,60	0,85	0,74
65	-10	264	270	1,72	0,98	0,85
65	-5	343	306	1,86	1,12	0,97
65	0	436	342	2,02	1,27	1,10
65	5	543	379	2,19	1,43	1,24
65	7,2	594	396	2,28	1,50	1,30
65	10	664	417	2,39	1,59	1,38

## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.108,0205830309	177,3568099702	1,2656279676	18,925390568274
2	38,8815135982	0,6558281857	0,0013045039	0,73865613283421
3	-10,5849037382	2,6777323582	0,0122866300	-0,091891749657412
4	0,2760196588	0,0137721604	0,0002851524	0,0079776951788833
5	-0,3001843003	0,1071092943	0,0004914652	-0,0023032739683551

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)



# 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

