

# Technical Data Sheet

Compressor model **GS30TB\_T**  
 Voltage **220-240V 50Hz ~1**  
 Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	29,95 cm <sup>3</sup>	Nominal Power	7/8 hp
Refrigerant	R134a	Diameter	39,98 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	23,85 mm	Voltage range	198-264 V
Expansion	Capillar/Valve	Net Weight	22,70 Kg	Type	CSR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	887 cm <sup>3</sup>	Locked Rotor Amps (LRA)	29,00 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	8,80 A
				Main W. resist. at 25°C	2,04 Ω
				Start W. resist. at 25°C	8,06 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	2.550 kCal/h	2.451 W
COP	2,70 W/W	2,31 W/W
EER	2,32 kCal/Wh	2,00 kCal/Wh
Input Power	1.100 W	1.061 W
Current	5,50 A	5,33 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	72- 88 μF 330 V		
Run capacitor	16 μF 420 V		
Relay	Option 1	Option 2	
Reference	3ARR3 3AV3	RVA 2L..	
Pick-Up	224-252 V	224-252 V	
Drop-Out	40-90 V	40-105 V	
Protector	Option 1	Option 2	
Reference	MRA38088	T0419	
Current	22,00 A	22,00 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 57,00 °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	500	440	2,66	1,32	1,14
40	-20	707	518	2,99	1,59	1,37
40	-15	972	593	3,31	1,91	1,64
40	-10	1.295	665	3,62	2,27	1,95
40	-5	1.675	734	3,92	2,65	2,28
40	0	2.113	800	4,20	3,07	2,64
40	5	2.609	864	4,48	3,51	3,02
40	7,2	2.846	891	4,59	3,71	3,19
40	10	3.163	925	4,74	3,98	3,42

45	-25	433	420	2,57	1,20	1,03
45	-20	635	512	2,96	1,44	1,24
45	-15	895	600	3,34	1,73	1,49
45	-10	1.213	686	3,71	2,06	1,77
45	-5	1.589	770	4,07	2,40	2,06
45	0	2.022	850	4,42	2,77	2,38
45	5	2.513	927	4,75	3,15	2,71
45	7,2	2.747	961	4,90	3,33	2,86
45	10	3.062	1.002	5,08	3,55	3,06

50	-25	367	400	2,49	1,07	0,92
50	-20	564	506	2,94	1,30	1,12
50	-15	819	608	3,38	1,57	1,35
50	-10	1.132	708	3,81	1,86	1,60
50	-5	1.502	805	4,22	2,17	1,87
50	0	1.930	900	4,63	2,50	2,15
50	5	2.416	991	5,03	2,84	2,44
50	7,2	2.649	1.030	5,20	2,99	2,57
50	10	2.960	1.080	5,41	3,19	2,74

55	-25	300	380	2,40	0,92	0,79
55	-20	492	499	2,91	1,15	0,99
55	-15	742	616	3,41	1,40	1,20
55	-10	1.050	730	3,90	1,67	1,44
55	-5	1.416	841	4,38	1,96	1,68
55	0	1.839	949	4,85	2,25	1,94
55	5	2.320	1.055	5,30	2,56	2,20
55	7,2	2.550	1.100	5,50	2,70	2,32
55	10	2.859	1.157	5,75	2,87	2,47

60	-25	233	360	2,31	0,75	0,65
60	-20	421	493	2,88	0,99	0,85
60	-15	666	624	3,44	1,24	1,07
60	-10	968	752	3,99	1,50	1,29
60	-5	1.329	877	4,53	1,76	1,52
60	0	1.747	999	5,06	2,03	1,75
60	5	2.224	1.118	5,58	2,31	1,99
60	7,2	2.451	1.170	5,80	2,44	2,10
60	10	2.757	1.235	6,09	2,60	2,23

65	-25	167	340	2,23	0,57	0,49
65	-20	349	487	2,86	0,83	0,72
65	-15	589	632	3,48	1,08	0,93
65	-10	887	774	4,09	1,33	1,15
65	-5	1.242	912	4,69	1,58	1,36
65	0	1.656	1.048	5,28	1,84	1,58
65	5	2.127	1.182	5,85	2,09	1,80
65	7,2	2.353	1.239	6,11	2,21	1,90
65	10	2.656	1.312	6,42	2,35	2,02

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	539	442	2,67	1,22	1,05
40	-20	765	520	3,00	1,47	1,27
40	-15	1.053	596	3,32	1,77	1,53
40	-10	1.401	668	3,63	2,10	1,81
40	-5	1.810	738	3,94	2,45	2,12
40	0	2.279	805	4,22	2,83	2,45
40	5	2.810	869	4,50	3,23	2,79
40	7,2	3.063	897	4,62	3,42	2,95
40	10	3.401	931	4,77	3,65	3,16

45	-25	465	422	2,58	1,10	0,95
45	-20	684	514	2,97	1,33	1,15
45	-15	963	604	3,36	1,60	1,38
45	-10	1.304	690	3,73	1,89	1,63
45	-5	1.705	774	4,09	2,20	1,90
45	0	2.167	855	4,44	2,53	2,19
45	5	2.690	933	4,78	2,88	2,49
45	7,2	2.940	967	4,92	3,04	2,63
45	10	3.274	1.009	5,10	3,25	2,80

50	-25	391	402	2,49	0,97	0,84
50	-20	602	508	2,95	1,19	1,02
50	-15	874	612	3,39	1,43	1,24
50	-10	1.207	712	3,82	1,70	1,46
50	-5	1.601	810	4,24	1,98	1,71
50	0	2.055	905	4,66	2,27	1,96
50	5	2.570	997	5,05	2,58	2,23
50	7,2	2.816	1.037	5,23	2,72	2,35
50	10	3.146	1.087	5,44	2,90	2,50

55	-25	317	382	2,41	0,83	0,72
55	-20	521	502	2,92	1,04	0,90
55	-15	785	620	3,43	1,27	1,10
55	-10	1.110	734	3,92	1,51	1,31
55	-5	1.496	846	4,40	1,77	1,53
55	0	1.943	955	4,87	2,03	1,76
55	5	2.451	1.061	5,33	2,31	2,00
55	7,2	2.693	1.107	5,53	2,43	2,10
55	10	3.019	1.165	5,78	2,59	2,24

60	-25	244	362	2,32	0,67	0,58
60	-20	440	496	2,90	0,89	0,77
60	-15	696	627	3,46	1,11	0,96
60	-10	1.014	756	4,01	1,34	1,16
60	-5	1.392	882	4,55	1,58	1,36
60	0	1.831	1.005	5,09	1,82	1,57
60	5	2.331	1.125	5,61	2,07	1,79
60	7,2	2.570	1.177	5,84	2,18	1,89
60	10	2.891	1.243	6,12	2,33	2,01

65	-25	170	342	2,24	0,50	0,43
65	-20	358	490	2,87	0,73	0,63
65	-15	607	635	3,49	0,96	0,83
65	-10	917	778	4,11	1,18	1,02
65	-5	1.287	918	4,71	1,40	1,21
65	0	1.719	1.055	5,30	1,63	1,41
65	5	2.211	1.189	5,89	1,86	1,61
65	7,2	2.447	1.247	6,14	1,96	1,69
65	10	2.764	1.321	6,46	2,09	1,81

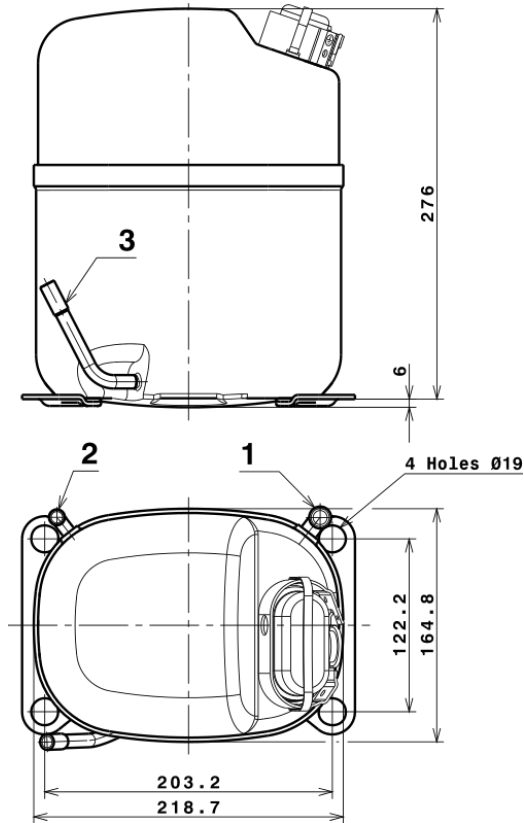
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	3.198,0520394846	414,9630903990	2,5255756081	49,526747244029
2	113,1025055227	-9,3223732118	-0,0400893214	1,9726890669265
3	-23,6776942147	10,2737458912	0,0446137484	0,0091848790853878
4	1,1942435141	-0,0502543134	-0,0001874931	0,034195018460462
5	-0,3595966868	0,5753800956	0,0024868942	0,010312657368415

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

## COMPRESSOR DIMENSIONS

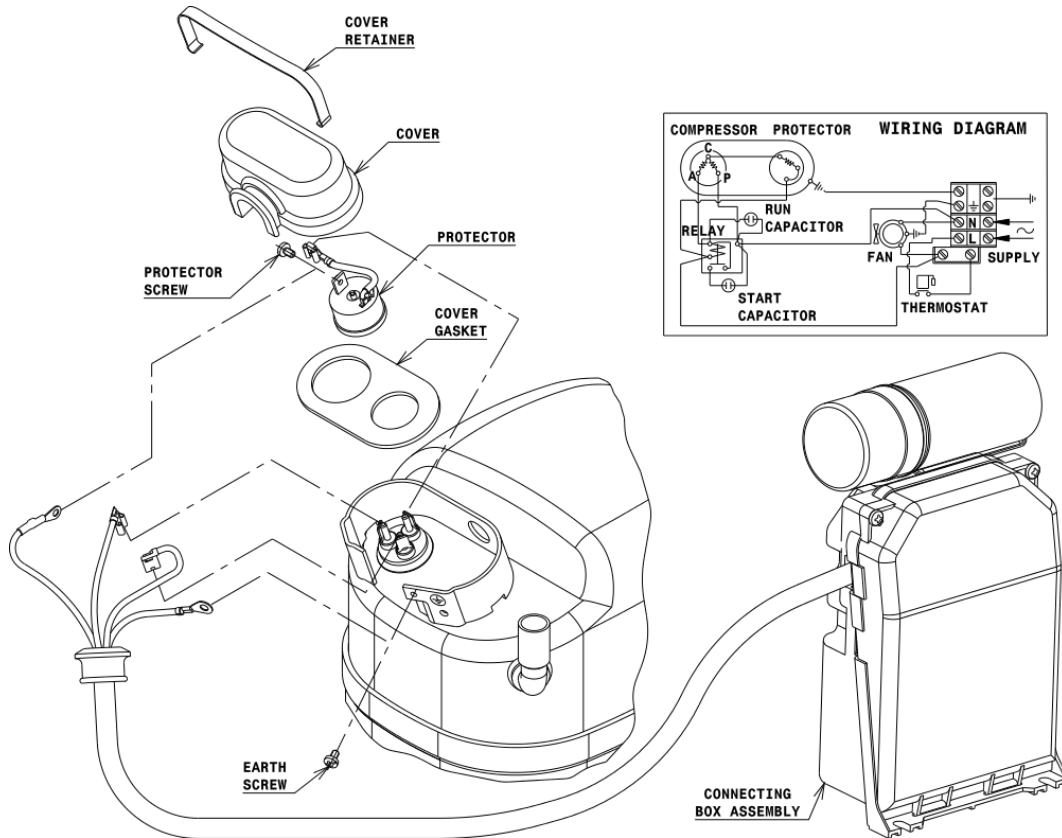


## DESIGNATION INTERNAL DIAM.

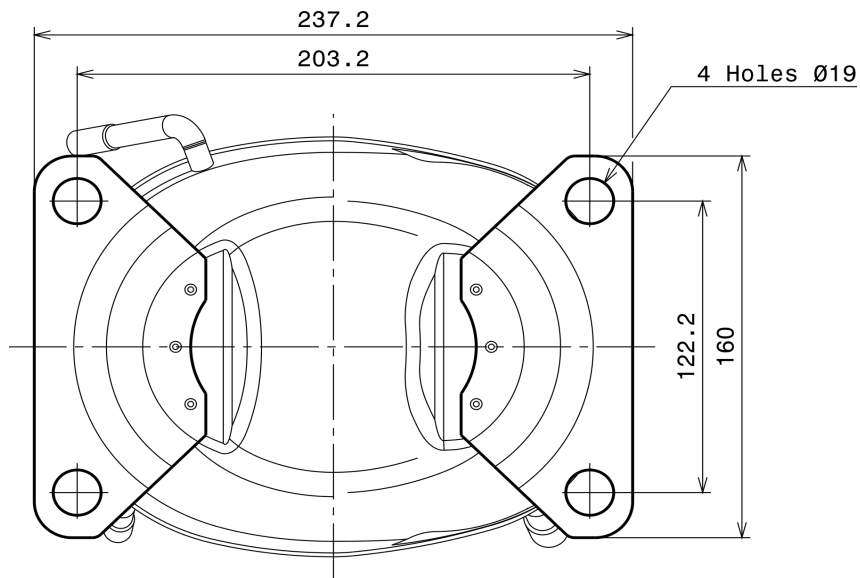
DESIGNATION	INTERNAL DIAM.
1 Suction	12,7 mm
2 Service	9,7 mm
3 Discharge	8,0 mm

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSR CONNECTION (EXTERNAL CONNECTING BOX) (S range)



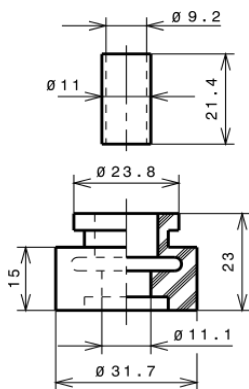
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

### STANDARD

Ø19 holes (203.2x122.2 net)



## SOA

SOA R134a HMBP

