

# Technical Data Sheet

Compressor model **GS34TB\_T**  
 Voltage **220-240V 50Hz ~1**  
 Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	34,42 cm <sup>3</sup>	Nominal Power	1 hp
Refrigerant	R134a	Diameter	42,86 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	23,85 mm	Voltage range	198-255 V
Expansion	Capillar/Valve	Net Weight	20,92 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	700 cm <sup>3</sup>	Locked Rotor Amps (LRA)	37,00 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	9,60 A
				Main W. resist. at 25°C	2,24 Ω
				Start W. resist. at 25°C	7,38 Ω

## NOMINAL PERFORMANCE

## APPROVALS

	ASHRAE	CECOMAF
Cooling Capacity	2.930 kCal/h	2.850 W
COP	2,62 W/W	2,26 W/W
EER	2,25 kCal/Wh	1,95 kCal/Wh
Input Power	1.300 W	1.260 W
Current	6,60 A	6,44 A

## 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	108-130 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	Option 3
Reference	MRT18AJN	T0161	T0452
Current	20,20 A	26,50 A	21,00 A
Time check	8,5-13 seg	2,8-5,2 seg	7,5-14 seg
Disc temp. (Open/Close)	120,00 / 69,00 °C	120,00 / 69,00 °C	95,00 / 57,00 °C

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	750	560	3,38	1,56	1,34
40	-20	1.079	658	3,82	1,91	1,64
40	-15	1.455	751	4,24	2,25	1,94
40	-10	1.879	839	4,63	2,61	2,24
40	-5	2.350	921	4,99	2,97	2,55
40	0	2.869	998	5,33	3,34	2,87
40	5	3.436	1.070	5,64	3,73	3,21
40	7,2	3.700	1.100	5,76	3,91	3,36
40	10	4.050	1.137	5,92	4,14	3,56

45	-25	650	540	3,28	1,40	1,20
45	-20	954	652	3,79	1,70	1,46
45	-15	1.306	758	4,27	2,00	1,72
45	-10	1.706	859	4,72	2,31	1,99
45	-5	2.153	955	5,14	2,62	2,25
45	0	2.648	1.046	5,53	2,95	2,53
45	5	3.190	1.131	5,89	3,28	2,82
45	7,2	3.443	1.167	6,04	3,43	2,95
45	10	3.779	1.211	6,23	3,63	3,12

50	-25	550	520	3,19	1,23	1,06
50	-20	830	645	3,76	1,50	1,29
50	-15	1.158	765	4,30	1,76	1,51
50	-10	1.533	880	4,81	2,03	1,74
50	-5	1.956	989	5,29	2,30	1,98
50	0	2.426	1.093	5,73	2,58	2,22
50	5	2.944	1.192	6,15	2,87	2,47
50	7,2	3.187	1.233	6,32	3,01	2,58
50	10	3.509	1.285	6,54	3,18	2,73

55	-25	450	500	3,10	1,05	0,90
55	-20	706	639	3,74	1,29	1,11
55	-15	1.009	772	4,33	1,52	1,31
55	-10	1.360	900	4,90	1,76	1,51
55	-5	1.758	1.023	5,43	2,00	1,72
55	0	2.204	1.140	5,93	2,25	1,93
55	5	2.698	1.252	6,40	2,51	2,15
55	7,2	2.930	1.300	6,60	2,62	2,25
55	10	3.239	1.359	6,84	2,77	2,38

60	-25	350	480	3,01	0,85	0,73
60	-20	581	632	3,71	1,07	0,92
60	-15	860	779	4,37	1,28	1,10
60	-10	1.187	920	4,99	1,50	1,29
60	-5	1.561	1.057	5,58	1,72	1,48
60	0	1.983	1.187	6,13	1,94	1,67
60	5	2.452	1.313	6,65	2,17	1,87
60	7,2	2.673	1.367	6,87	2,28	1,96
60	10	2.969	1.433	7,14	2,41	2,07

65	-25	250	460	2,91	0,63	0,54
65	-20	457	626	3,68	0,85	0,73
65	-15	712	786	4,40	1,05	0,91
65	-10	1.014	941	5,08	1,25	1,08
65	-5	1.364	1.090	5,72	1,45	1,25
65	0	1.761	1.235	6,33	1,66	1,43
65	5	2.206	1.374	6,90	1,87	1,61
65	7,2	2.417	1.433	7,14	1,96	1,69
65	10	2.698	1.508	7,44	2,08	1,79

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	808	563	3,39	1,44	1,24
40	-20	1.165	662	3,84	1,76	1,52
40	-15	1.572	755	4,26	2,08	1,80
40	-10	2.029	844	4,65	2,41	2,08
40	-5	2.536	927	5,02	2,74	2,36
40	0	3.092	1.004	5,35	3,08	2,66
40	5	3.699	1.077	5,66	3,44	2,97
40	7,2	3.982	1.107	5,79	3,60	3,11
40	10	4.356	1.144	5,95	3,81	3,29

45	-25	697	543	3,30	1,28	1,11
45	-20	1.026	655	3,81	1,57	1,35
45	-15	1.404	762	4,29	1,84	1,59
45	-10	1.832	864	4,74	2,12	1,83
45	-5	2.310	961	5,16	2,40	2,08
45	0	2.838	1.052	5,56	2,70	2,33
45	5	3.416	1.138	5,92	3,00	2,59
45	7,2	3.686	1.174	6,08	3,14	2,71
45	10	4.044	1.219	6,26	3,32	2,87

50	-25	587	523	3,21	1,12	0,97
50	-20	886	649	3,78	1,37	1,18
50	-15	1.236	769	4,32	1,61	1,39
50	-10	1.635	885	4,83	1,85	1,60
50	-5	2.084	995	5,31	2,10	1,81
50	0	2.584	1.100	5,76	2,35	2,03
50	5	3.133	1.199	6,18	2,61	2,26
50	7,2	3.390	1.241	6,36	2,73	2,36
50	10	3.732	1.293	6,57	2,89	2,49

55	-25	476	503	3,11	0,95	0,82
55	-20	747	642	3,75	1,16	1,01
55	-15	1.068	776	4,35	1,38	1,19
55	-10	1.438	905	4,92	1,59	1,37
55	-5	1.859	1.029	5,46	1,81	1,56
55	0	2.329	1.147	5,96	2,03	1,75
55	5	2.850	1.260	6,44	2,26	1,95
55	7,2	3.095	1.308	6,63	2,37	2,04
55	10	3.420	1.368	6,88	2,50	2,16

60	-25	366	483	3,02	0,76	0,65
60	-20	608	635	3,72	0,96	0,83
60	-15	900	783	4,38	1,15	0,99
60	-10	1.241	926	5,01	1,34	1,16
60	-5	1.633	1.063	5,60	1,54	1,33
60	0	2.075	1.195	6,16	1,74	1,50
60	5	2.567	1.321	6,69	1,94	1,68
60	7,2	2.799	1.375	6,91	2,03	1,76
60	10	3.108	1.443	7,18	2,15	1,86

65	-25	255	462	2,93	0,55	0,48
65	-20	468	629	3,69	0,74	0,64
65	-15	732	790	4,42	0,93	0,80
65	-10	1.045	946	5,10	1,10	0,95
65	-5	1.408	1.097	5,75	1,28	1,11
65	0	1.821	1.242	6,36	1,47	1,27
65	5	2.284	1.383	6,94	1,65	1,43
65	7,2	2.503	1.443	7,18	1,74	1,50
65	10	2.796	1.518	7,48	1,84	1,59

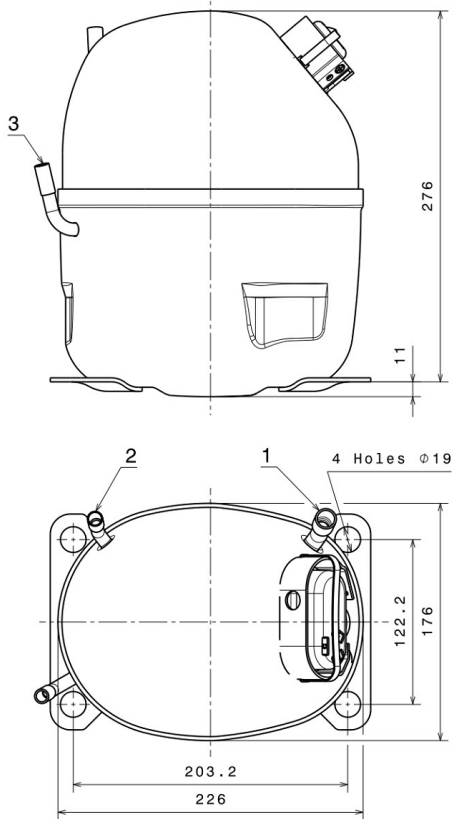
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	5.132,4154247227	638,6381803025	3,8723923551	90,030403206836
2	162,8733649526	-6,5480464528	-0,0293426309	3,034776802411
3	-51,9986378774	9,7917540667	0,0403479388	-0,54717645839035
4	0,9836097531	-0,0998450750	-0,0006442019	0,029137804026277
5	-1,1986788924	0,5561004226	0,0023698163	-0,006969165028115

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

## COMPRESSOR DIMENSIONS

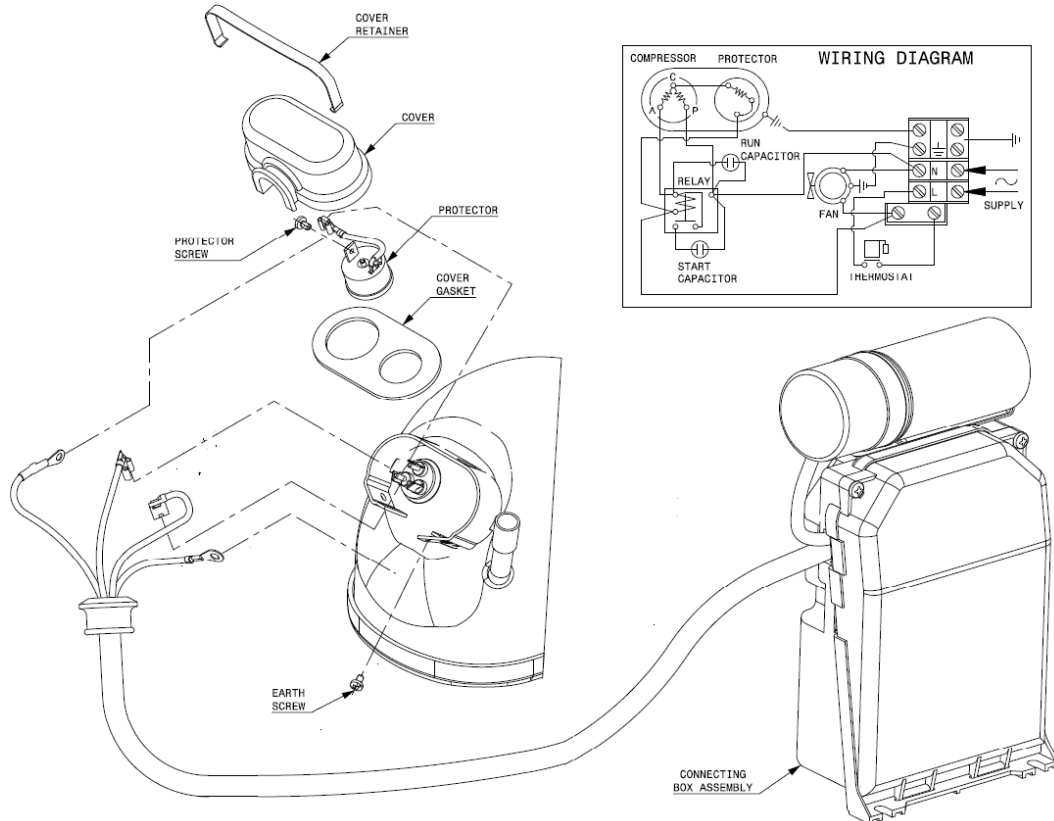


## DESIGNATION INTERNAL DIAM.

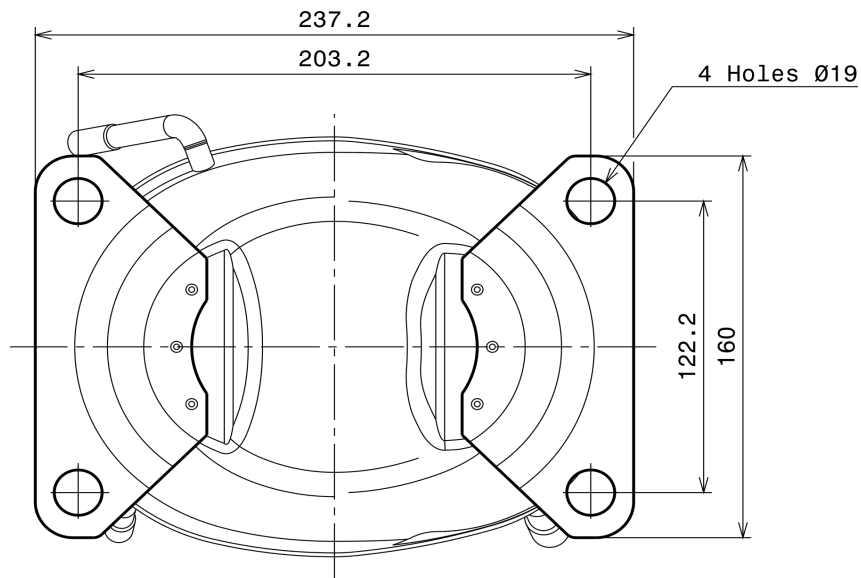
1	Suction	12,7 mm
2	Service	9,7 mm
3	Discharge	8,0 mm

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSR CONNECTION (EXTERNAL CONNECTING BOX) (NS Range)



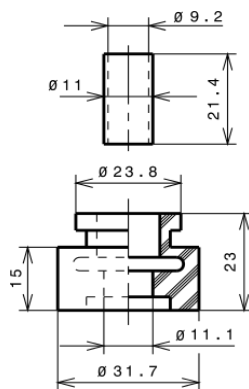
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

### STANDARD

$\varnothing 19$  holes (203.2x122.2 net)



## SOA

SOA R134a HMBP

