

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 ³	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	22,25 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 ³	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

APPROVALS

	ASHRAE	CECOMAF
Cooling Capacity	2.550 kCal/h	2.464 W
COP	2,70 W/W	2,30 W/W
EER	2,32 kCal/Wh	1,99 kCal/Wh
Input Power	1.100 W	1.070 W
Current	5,50 A	5,35 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	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	540	475	2,74	1,32	1,14
40	-20	824	583	3,15	1,64	1,41
40	-15	1.157	682	3,55	1,97	1,70
40	-10	1.538	771	3,93	2,32	1,99
40	-5	1.967	851	4,29	2,69	2,31
40	0	2.445	922	4,62	3,08	2,65
40	5	2.970	983	4,91	3,51	3,02
40	7,2	3.217	1.007	5,03	3,72	3,19
40	10	3.544	1.035	5,17	3,98	3,43

45	-25	460	443	2,62	1,21	1,04
45	-20	722	561	3,06	1,50	1,29
45	-15	1.033	670	3,50	1,79	1,54
45	-10	1.392	769	3,92	2,10	1,81
45	-5	1.799	859	4,32	2,44	2,09
45	0	2.254	939	4,70	2,79	2,40
45	5	2.758	1.010	5,04	3,18	2,73
45	7,2	2.995	1.038	5,18	3,36	2,89
45	10	3.310	1.071	5,35	3,59	3,09

50	-25	380	412	2,51	1,07	0,92
50	-20	620	539	2,98	1,34	1,15
50	-15	909	658	3,45	1,61	1,38
50	-10	1.245	766	3,91	1,89	1,62
50	-5	1.630	866	4,36	2,19	1,88
50	0	2.064	956	4,78	2,51	2,16
50	5	2.545	1.037	5,18	2,86	2,46
50	7,2	2.772	1.069	5,34	3,02	2,59
50	10	3.075	1.108	5,54	3,23	2,78

55	-25	300	380	2,40	0,92	0,79
55	-20	518	517	2,90	1,16	1,00
55	-15	784	645	3,40	1,41	1,22
55	-10	1.099	764	3,90	1,67	1,44
55	-5	1.462	873	4,39	1,95	1,67
55	0	1.873	973	4,86	2,24	1,93
55	5	2.333	1.063	5,31	2,55	2,19
55	7,2	2.550	1.100	5,50	2,70	2,32
55	10	2.840	1.144	5,73	2,89	2,48

60	-25	220	348	2,29	0,73	0,63
60	-20	416	495	2,81	0,98	0,84
60	-15	660	633	3,35	1,21	1,04
60	-10	953	762	3,89	1,46	1,25
60	-5	1.293	880	4,42	1,71	1,47
60	0	1.683	990	4,95	1,98	1,70
60	5	2.120	1.090	5,45	2,26	1,94
60	7,2	2.328	1.131	5,66	2,39	2,06
60	10	2.606	1.181	5,92	2,57	2,21

65	-25	140	317	2,19	0,51	0,44
65	-20	314	474	2,73	0,77	0,66
65	-15	536	621	3,30	1,00	0,86
65	-10	806	759	3,88	1,24	1,06
65	-5	1.125	888	4,46	1,47	1,27
65	0	1.492	1.007	5,03	1,72	1,48
65	5	1.907	1.117	5,59	1,99	1,71
65	7,2	2.105	1.162	5,82	2,11	1,81
65	10	2.371	1.217	6,12	2,27	1,95

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	582	478	2,75	1,22	1,05
40	-20	891	586	3,16	1,52	1,31
40	-15	1.251	686	3,57	1,82	1,58
40	-10	1.662	776	3,95	2,14	1,85
40	-5	2.123	856	4,31	2,48	2,14
40	0	2.635	928	4,65	2,84	2,45
40	5	3.198	989	4,94	3,23	2,79
40	7,2	3.462	1.013	5,06	3,42	2,95
40	10	3.812	1.042	5,20	3,66	3,16

45	-25	494	446	2,63	1,11	0,96
45	-20	777	564	3,08	1,38	1,19
45	-15	1.111	673	3,51	1,65	1,42
45	-10	1.495	773	3,94	1,93	1,67
45	-5	1.930	864	4,35	2,24	1,93
45	0	2.417	945	4,73	2,56	2,21
45	5	2.953	1.016	5,08	2,91	2,51
45	7,2	3.206	1.045	5,22	3,07	2,65
45	10	3.541	1.078	5,39	3,28	2,84

50	-25	406	414	2,52	0,98	0,85
50	-20	663	542	2,99	1,22	1,06
50	-15	970	661	3,46	1,47	1,27
50	-10	1.329	771	3,93	1,72	1,49
50	-5	1.738	871	4,38	2,00	1,72
50	0	2.198	962	4,81	2,29	1,97
50	5	2.709	1.043	5,21	2,60	2,24
50	7,2	2.949	1.076	5,38	2,74	2,37
50	10	3.270	1.115	5,58	2,93	2,53

55	-25	317	382	2,41	0,83	0,72
55	-20	548	520	2,91	1,05	0,91
55	-15	830	649	3,41	1,28	1,10
55	-10	1.162	768	3,92	1,51	1,31
55	-5	1.545	878	4,41	1,76	1,52
55	0	1.979	979	4,89	2,02	1,75
55	5	2.464	1.070	5,35	2,30	1,99
55	7,2	2.693	1.107	5,54	2,43	2,10
55	10	2.999	1.152	5,77	2,60	2,25

60	-25	229	350	2,30	0,66	0,57
60	-20	434	498	2,82	0,87	0,75
60	-15	690	637	3,36	1,08	0,94
60	-10	996	766	3,91	1,30	1,12
60	-5	1.353	886	4,45	1,53	1,32
60	0	1.761	996	4,98	1,77	1,53
60	5	2.219	1.097	5,48	2,02	1,75
60	7,2	2.437	1.138	5,70	2,14	1,85
60	10	2.728	1.188	5,97	2,30	1,98

65	-25	141	318	2,19	0,44	0,38
65	-20	320	476	2,74	0,67	0,58
65	-15	549	624	3,31	0,88	0,76
65	-10	829	763	3,90	1,09	0,94
65	-5	1.160	893	4,48	1,30	1,12
65	0	1.542	1.013	5,06	1,52	1,32
65	5	1.974	1.124	5,62	1,76	1,52
65	7,2	2.181	1.169	5,86	1,86	1,61
65	10	2.457	1.225	6,16	2,01	1,73

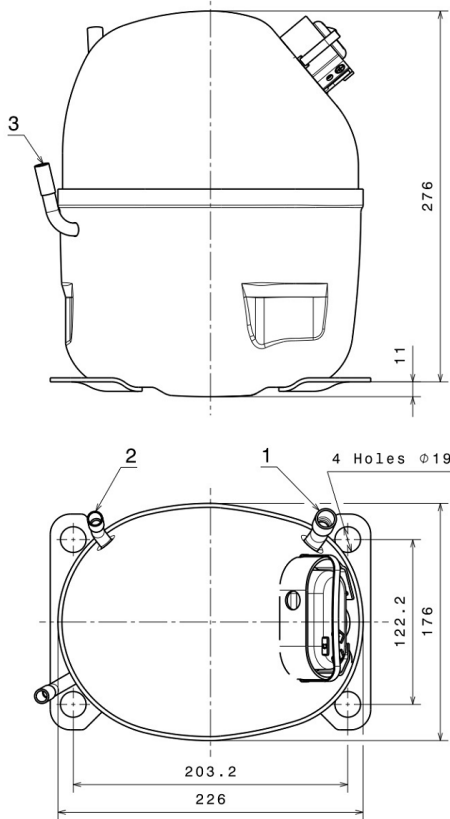
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	4.390,0783652635	810,5599046877	3,8798921221	76,750120577433
2	149,6795931096	-2,1667431072	0,0020666815	2,7982405482993
3	-44,7104185886	3,5252211898	0,0203617132	-0,46917937547332
4	0,9985408185	-0,1859651785	-0,0001701076	0,029120911056712
5	-1,0879711517	0,4013567592	0,0017493608	-0,0063395352344866

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

COMPRESSOR DIMENSIONS

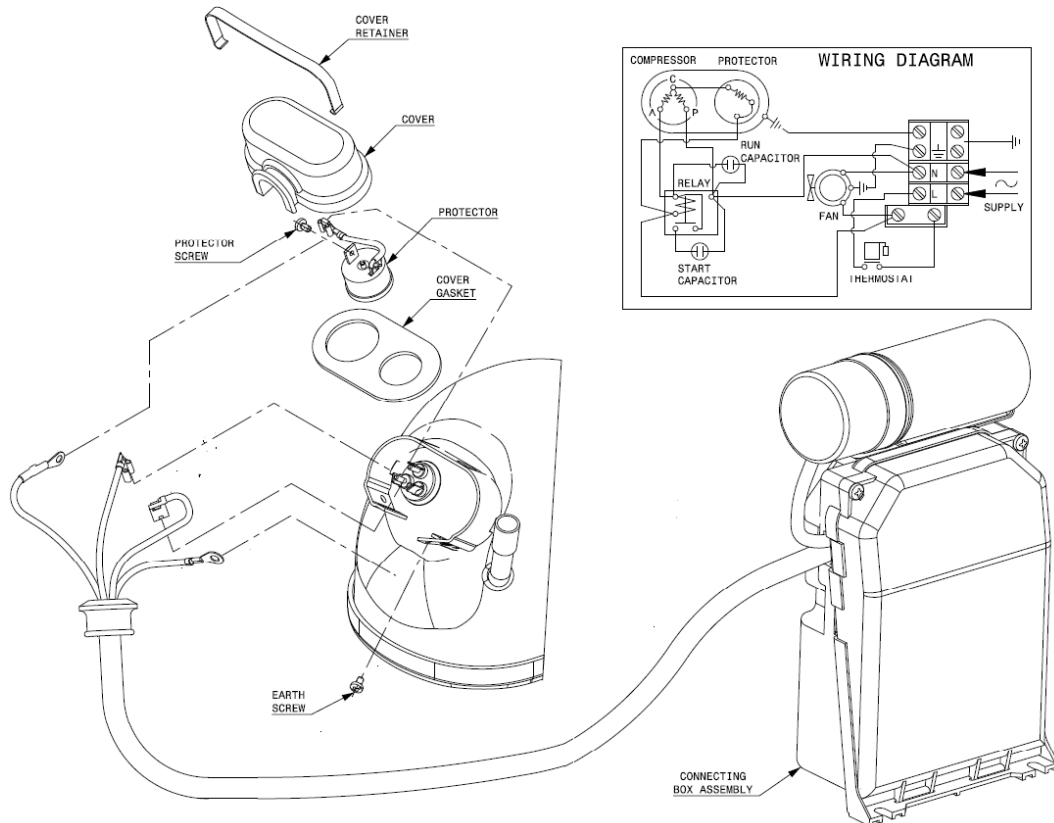


DESIGNATION INTERNAL DIAM.

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

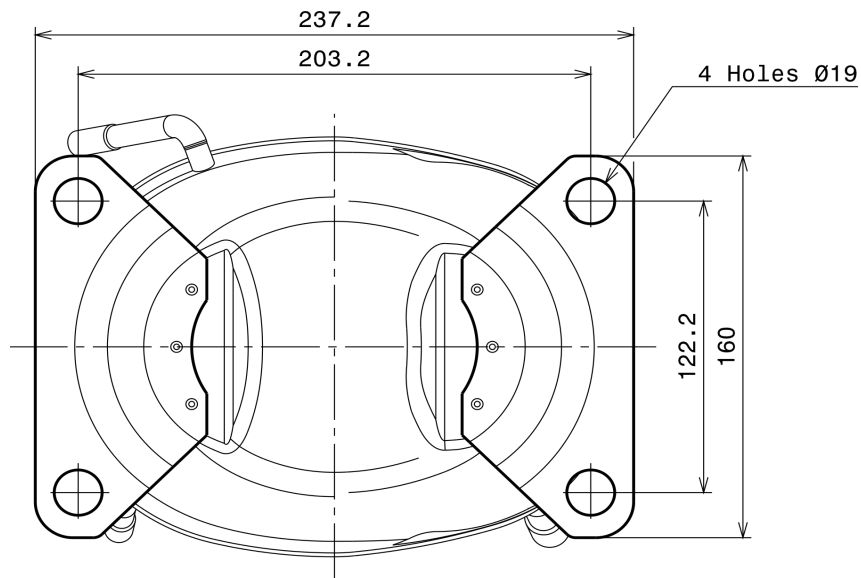
WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSR CONNECTION (EXTERNAL CONNECTING BOX) (NS Range)



Technical Data Sheet

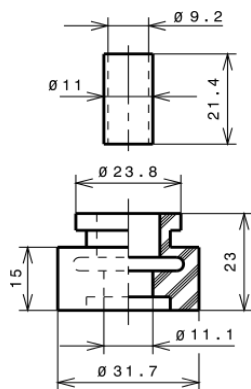
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

Ø19 holes (203.2x122.2 net)



SOA

SOA R134a HMBP

