

Technical Data Sheet

Compressor model **MS30FG_T**
 Voltage **230V 60Hz ~1**
 Refrigerant **R404A**

APPLICATION

COMPRESSOR

MOTOR

Application	Low Back Pressure	Displacement	29,95 cm ³	Nominal Power	7/8 hp
Refrigerant	R404A	Diameter	39,98 mm	Voltage/Frequency	230V 60Hz
Evaporating Temp.	-40,0 °C to -10,0 °C	Stroke	23,85 mm	Voltage range	196-253 V
Expansion	Capillar/Valve	Net Weight	22,70 Kg	Type	CSR
Comp. Cooling	Fan cooled	Oil type	ISO VG 46 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	887 cm ³	Locked Rotor Amps (LRA)	38,00 A
				Max. Cont. Current (MCC)	9,70 A
				Main W. resist. at 25°C	1,46 Ω
				Start W. resist. at 25°C	4,64 Ω

NOMINAL PERFORMANCE

APPROVALS

	ASHRAE	CECOMAF
Cooling Capacity	1.400 kCal/h	1.086 W
COP	1,36 W/W	0,95 W/W
EER	1,17 kCal/Wh	0,82 kCal/Wh
Input Power	1.200 W	1.138 W
Current	5,50 A	5,23 A

TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T _e)	-23,3 °C	-25,0 °C
Condensing temp. (T _c)	55,0 °C	55,0 °C
Liquid temp. (T _{liq.})	32,0 °C	55,0 °C
Ambient temp. (T _{amb.})	32,0 °C	32,0 °C
Suction temp. (T _{suction})	32,0 °C	32,0 °C
Voltage/Frequency	230 V 60 Hz	230 V 60 Hz

ELECTRICAL COMPONENTS

Starting capacitor	88-108 μF 330 V		
Run capacitor	25 μF 420 V		
Relay	Option 1	Option 2	
Reference	3ARR3 10S3	RVA 3AG..	
Pick-Up	180-195 V	180-195 V	
Drop-Out	40-105 V	40-105 V	
Protector	Option 1	Option 2	
Reference	MRA38088	T0452	
Current	22,00 A	21,00 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 57,00 °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	-40	520	720	3,29	0,84	0,72
40	-35	844	866	4,00	1,13	0,97
40	-30	1.219	1.016	4,69	1,40	1,20
40	-25	1.643	1.168	5,36	1,64	1,41
40	-23,3	1.799	1.220	5,58	1,71	1,47
40	-20	2.117	1.322	6,02	1,86	1,60
40	-15	2.641	1.480	6,66	2,08	1,78
40	-10	3.215	1.640	7,28	2,28	1,96

45	-40	440	680	3,10	0,75	0,65
45	-35	749	836	3,86	1,04	0,90
45	-30	1.107	996	4,59	1,29	1,11
45	-25	1.516	1.158	5,32	1,52	1,31
45	-23,3	1.666	1.213	5,56	1,60	1,37
45	-20	1.974	1.322	6,02	1,74	1,49
45	-15	2.482	1.490	6,70	1,94	1,67
45	-10	3.040	1.660	7,35	2,13	1,83

50	-40	360	640	2,90	0,65	0,56
50	-35	653	806	3,71	0,94	0,81
50	-30	995	976	4,50	1,19	1,02
50	-25	1.388	1.148	5,27	1,41	1,21
50	-23,3	1.533	1.207	5,53	1,48	1,27
50	-20	1.830	1.322	6,02	1,61	1,38
50	-15	2.323	1.500	6,74	1,80	1,55
50	-10	2.865	1.680	7,43	1,98	1,71

55	-40	280	600	2,70	0,54	0,47
55	-35	557	776	3,57	0,83	0,72
55	-30	884	956	4,41	1,08	0,92
55	-25	1.261	1.138	5,23	1,29	1,11
55	-23,3	1.400	1.200	5,50	1,36	1,17
55	-20	1.687	1.322	6,02	1,48	1,28
55	-15	2.164	1.510	6,77	1,67	1,43
55	-10	2.690	1.700	7,50	1,84	1,58

60	-40	200	560	2,50	0,42	0,36
60	-35	461	746	3,42	0,72	0,62
60	-30	772	936	4,32	0,96	0,83
60	-25	1.133	1.128	5,18	1,17	1,00
60	-23,3	1.267	1.193	5,47	1,23	1,06
60	-20	1.544	1.322	6,02	1,36	1,17
60	-15	2.004	1.520	6,81	1,53	1,32
60	-10	2.515	1.720	7,57	1,70	1,46

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	540	720	3,29	0,75	0,65
40	-35	912	866	4,00	1,05	0,91
40	-30	1.326	1.016	4,69	1,31	1,13
40	-25	1.781	1.168	5,36	1,53	1,32
40	-23,3	1.945	1.220	5,58	1,59	1,38
40	-20	2.277	1.322	6,02	1,72	1,49
40	-15	2.815	1.480	6,66	1,90	1,64
40	-10	3.394	1.640	7,28	2,07	1,79

45	-40	441	680	3,10	0,65	0,56
45	-35	769	836	3,86	0,92	0,79
45	-30	1.138	996	4,59	1,14	0,99
45	-25	1.549	1.158	5,32	1,34	1,16
45	-23,3	1.698	1.213	5,56	1,40	1,21
45	-20	2.001	1.322	6,02	1,51	1,31
45	-15	2.495	1.490	6,70	1,67	1,45
45	-10	3.030	1.660	7,35	1,83	1,58

50	-40	341	640	2,90	0,53	0,46
50	-35	625	806	3,71	0,78	0,67
50	-30	951	976	4,50	0,97	0,84
50	-25	1.318	1.148	5,27	1,15	0,99
50	-23,3	1.452	1.207	5,53	1,20	1,04
50	-20	1.726	1.322	6,02	1,31	1,13
50	-15	2.175	1.500	6,74	1,45	1,25
50	-10	2.666	1.680	7,43	1,59	1,37

55	-40	242	600	2,70	0,40	0,35
55	-35	482	776	3,57	0,62	0,54
55	-30	763	956	4,41	0,80	0,69
55	-25	1.086	1.138	5,23	0,95	0,82
55	-23,3	1.205	1.200	5,50	1,00	0,87
55	-20	1.450	1.322	6,02	1,10	0,95
55	-15	1.855	1.510	6,77	1,23	1,06
55	-10	2.302	1.700	7,50	1,35	1,17

60	-40	143	560	2,50	0,25	0,22
60	-35	339	746	3,42	0,45	0,39
60	-30	576	936	4,32	0,62	0,53
60	-25	854	1.128	5,18	0,76	0,65
60	-23,3	958	1.193	5,47	0,80	0,69
60	-20	1.174	1.322	6,02	0,89	0,77
60	-15	1.535	1.520	6,81	1,01	0,87
60	-10	1.938	1.720	7,57	1,13	0,97

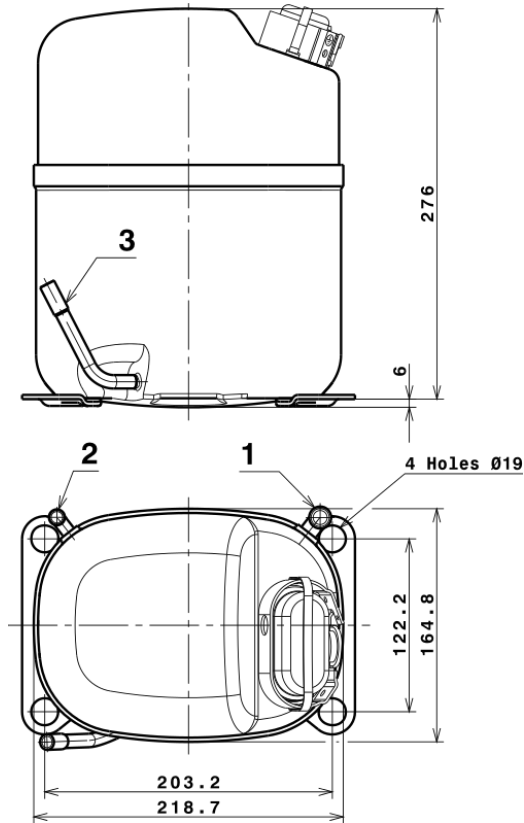
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	8.184,1907413692	1.698,5308113622	7,2201375368	180,46706135161
2	203,4769788821	18,5442240657	0,0322921476	4,9845235581915
3	-91,5386317962	8,2022143653	0,0336120323	-1,2183202108138
4	0,7831496875	0,0664155157	-0,0005805779	0,03200088280989
5	-1,8029021216	0,4094835656	0,0018552137	-0,019309904768886

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

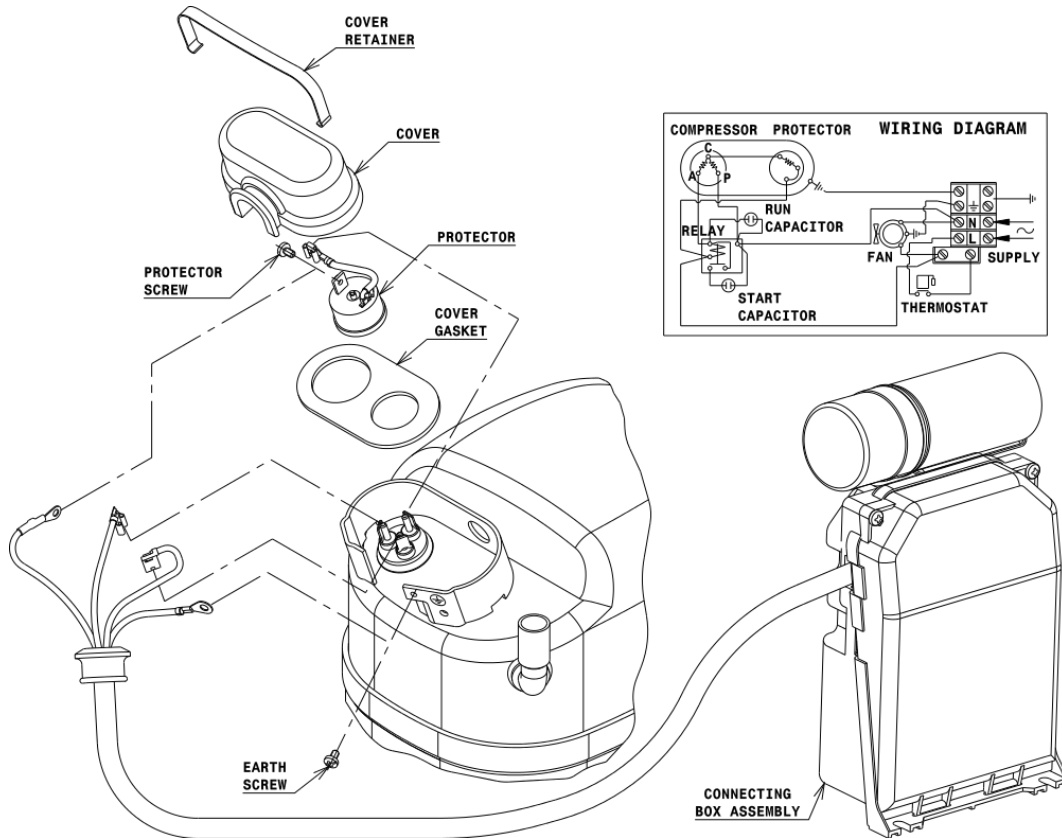
COMPRESSOR DIMENSIONS



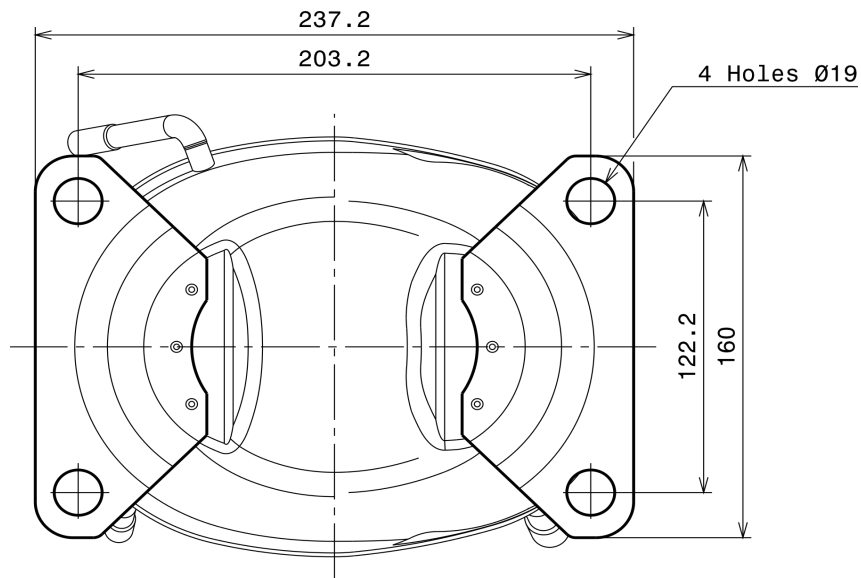
	DESIGNATION	INTERNAL DIAM.
1	Suction	12,7 mm
2	Service	9,7 mm
3	Discharge	8,0 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSR CONNECTION (EXTERNAL CONNECTING BOX) (S range)



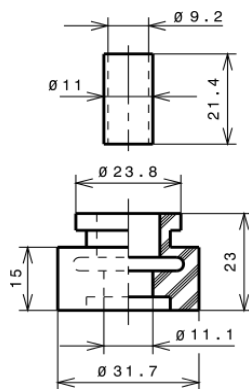
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

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



SOA

SOA R404A LBP

