

Technical Data Sheet

Compressor model **MS30FB_V**
 Voltage **220-240V 50Hz ~1**
 Refrigerant **R404A**

APPLICATION

Application	Low Back Pressure
Refrigerant	R404A
Evaporating Temp.	-40,0 °C to -10,0 °C
Expansion	Capillar/Valve
Comp. Cooling	Fan cooled
Max. ambient temp.	43,0 °C

COMPRESSOR

Displacement	29,95 cm ³
Diameter	39,98 mm
Stroke	23,85 mm
Net Weight	22,70 Kg
Oil type	ISO VG 46 ESTER
Oil charge	887 cm ³

MOTOR

Nominal Power	7/8 hp
Voltage/Frequency	220-240V 50Hz
Voltage range	187-264 V
Type	CSR
Phase number	1 PH
Locked Rotor Amps (LRA)	30,00 A
Max. Cont. Current (MCC)	9,50 A
Main W. resist. at 25°C	1,99 Ω
Start W. resist. at 25°C	3,72 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.201 kCal/h	932 W
COP	1,35 W/W	0,95 W/W
EER	1,16 kCal/Wh	0,82 kCal/Wh
Input Power	1.036 W	980 W
Current	5,10 A	4,86 A

APPROVALS



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	220 V 50 Hz	220 V 50 Hz

ELECTRICAL COMPONENTS

Starting capacitor	88-108 μF 330 V		
Run capacitor	20 μF 420 V		
Relay	Option 1	Option 2	
Reference	3ARR3 3AP3	RVA 2E..	
Pick-Up	162-175 V	162-175 V	
Drop-Out	40-90 V	40-90 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	450	575	3,20	0,91	0,78
40	-35	729	700	3,70	1,21	1,04
40	-30	1.049	827	4,22	1,48	1,27
40	-25	1.412	957	4,77	1,71	1,47
40	-23,3	1.545	1.002	4,96	1,79	1,54
40	-20	1.816	1.091	5,34	1,94	1,67
40	-15	2.263	1.227	5,93	2,14	1,84
40	-10	2.751	1.366	6,55	2,34	2,01

45	-40	380	550	3,10	0,80	0,69
45	-35	645	685	3,64	1,10	0,94
45	-30	953	824	4,21	1,34	1,16
45	-25	1.302	965	4,80	1,57	1,35
45	-23,3	1.430	1.014	5,00	1,64	1,41
45	-20	1.693	1.109	5,42	1,78	1,53
45	-15	2.126	1.256	6,06	1,97	1,69
45	-10	2.601	1.406	6,73	2,15	1,85

50	-40	310	525	3,00	0,69	0,59
50	-35	562	671	3,58	0,97	0,84
50	-30	856	820	4,19	1,21	1,04
50	-25	1.192	972	4,83	1,43	1,23
50	-23,3	1.316	1.025	5,05	1,49	1,28
50	-20	1.570	1.127	5,49	1,62	1,39
50	-15	1.989	1.285	6,19	1,80	1,55
50	-10	2.451	1.446	6,92	1,97	1,70

55	-40	240	500	2,90	0,56	0,48
55	-35	479	657	3,52	0,85	0,73
55	-30	759	817	4,18	1,08	0,93
55	-25	1.082	980	4,86	1,28	1,10
55	-23,3	1.201	1.036	5,10	1,35	1,16
55	-20	1.446	1.146	5,57	1,47	1,26
55	-15	1.853	1.314	6,32	1,64	1,41
55	-10	2.301	1.486	7,10	1,80	1,55

60	-40	170	475	2,80	0,42	0,36
60	-35	395	643	3,47	0,72	0,61
60	-30	663	814	4,16	0,95	0,81
60	-25	972	987	4,89	1,14	0,98
60	-23,3	1.086	1.047	5,15	1,21	1,04
60	-20	1.323	1.164	5,66	1,32	1,14
60	-15	1.716	1.344	6,45	1,49	1,28
60	-10	2.151	1.526	7,28	1,64	1,41

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	467	575	3,20	0,81	0,70
40	-35	786	700	3,70	1,12	0,97
40	-30	1.140	827	4,22	1,38	1,19
40	-25	1.529	957	4,77	1,60	1,38
40	-23,3	1.669	1.002	4,96	1,67	1,44
40	-20	1.953	1.091	5,34	1,79	1,55
40	-15	2.411	1.227	5,93	1,97	1,70
40	-10	2.904	1.366	6,55	2,13	1,84

45	-40	381	550	3,10	0,69	0,60
45	-35	662	685	3,64	0,97	0,83
45	-30	979	824	4,21	1,19	1,03
45	-25	1.330	965	4,80	1,38	1,19
45	-23,3	1.457	1.014	5,00	1,44	1,24
45	-20	1.716	1.109	5,42	1,55	1,34
45	-15	2.137	1.256	6,06	1,70	1,47
45	-10	2.592	1.406	6,73	1,84	1,59

50	-40	294	525	3,00	0,56	0,48
50	-35	538	671	3,58	0,80	0,69
50	-30	817	820	4,19	1,00	0,86
50	-25	1.131	972	4,83	1,16	1,00
50	-23,3	1.246	1.025	5,05	1,22	1,05
50	-20	1.479	1.127	5,49	1,31	1,13
50	-15	1.863	1.285	6,19	1,45	1,25
50	-10	2.281	1.446	6,92	1,58	1,36

55	-40	207	500	2,90	0,41	0,36
55	-35	414	657	3,52	0,63	0,54
55	-30	656	817	4,18	0,80	0,69
55	-25	932	980	4,86	0,95	0,82
55	-23,3	1.034	1.036	5,10	1,00	0,86
55	-20	1.243	1.146	5,57	1,08	0,94
55	-15	1.589	1.314	6,32	1,21	1,04
55	-10	1.969	1.486	7,10	1,33	1,14

60	-40	121	475	2,80	0,25	0,22
60	-35	290	643	3,47	0,45	0,39
60	-30	494	814	4,16	0,61	0,52
60	-25	733	987	4,89	0,74	0,64
60	-23,3	822	1.047	5,15	0,78	0,68
60	-20	1.006	1.164	5,66	0,86	0,75
60	-15	1.314	1.344	6,45	0,98	0,85
60	-10	1.657	1.526	7,28	1,09	0,94

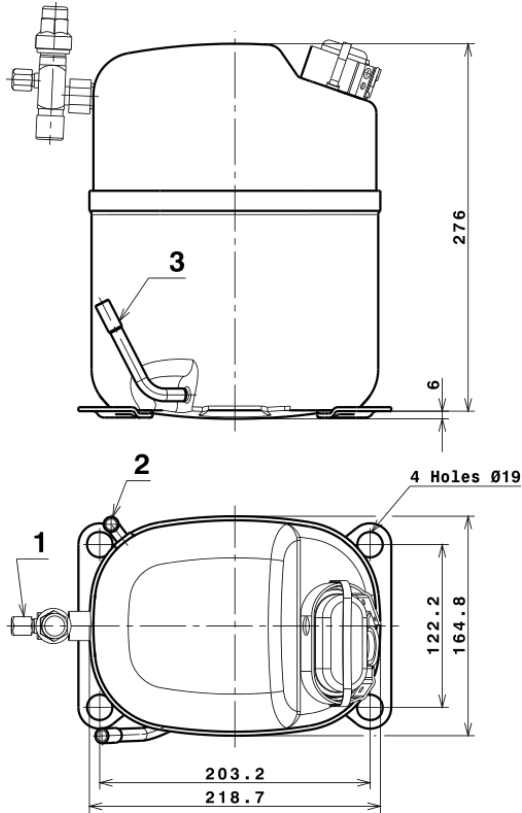
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	6.994,4292340913	1.195,1716499514	5,8656377442	154,17083128897
2	172,9843487772	12,7871794305	0,0728076864	4,229978796413
3	-78,2766610639	12,6565782779	0,0570909980	-1,0415926292118
4	0,6579958620	0,0677967672	0,0006868615	0,026962381316591
5	-1,5338337599	0,4441820860	0,0019313085	-0,016285908959284

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

COMPRESSOR DIMENSIONS

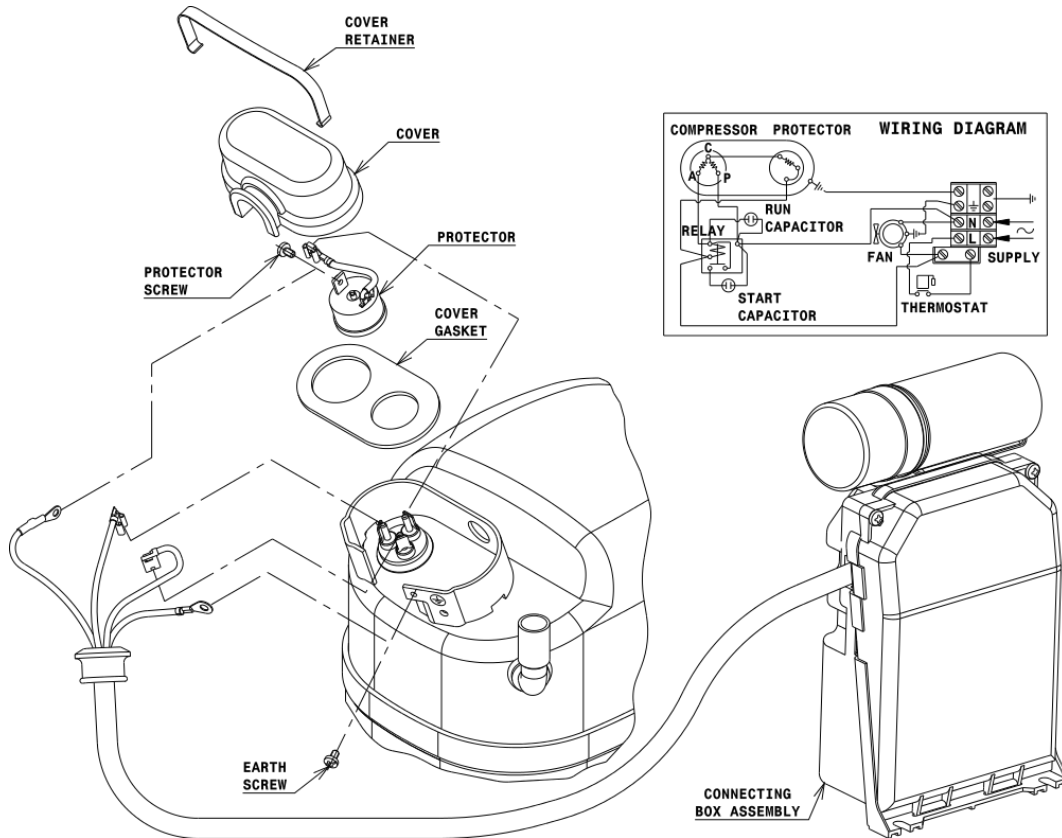


DESIGNATION INTERNAL DIAM.

1	Service Valve	5/8" SAE
2	Service	9,7 mm
3	Discharge	8,0 mm

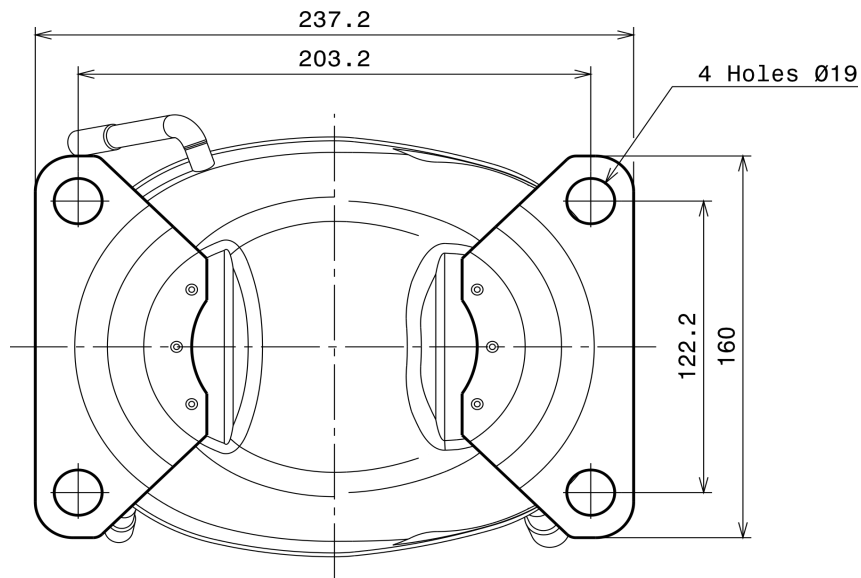
WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSR CONNECTION (EXTERNAL CONNECTING BOX) (S range)



Technical Data Sheet

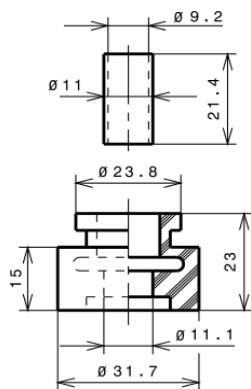
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

Ø19 holes (203.2x122.2 net)



SOA

SOA R404A LBP

