

Technical Data Sheet

Compressor model **MS30F3_T**
Voltage **400/440V 50/60Hz ~3**
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 cm³
Diameter 39,98 mm
Stroke 23,85 mm
Net Weight 24,00 Kg
Oil type ISO VG 46 ESTER
Oil charge 887 cm³

MOTOR

Nominal Power 7/8 hp
Voltage/Frequency 440V 60Hz
Voltage range 374-484 V
Type 3PHASE
Phase number 3 PH
Locked Rotor Amps (LRA) 14,40 A
Max. Cont. Current (MCC) 3,80 A
Main W. resist. at 25°C 10,50 Ω
Start W. resist. at 25°C 14,70 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.400 kCal/h	1.086 W
COP	1,32 W/W	0,94 W/W
EER	1,14 kCal/Wh	0,81 kCal/Wh
Input Power	1.230 W	1.157 W
Current	2,20 A	2,13 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	440 V 60 Hz	440 V 60 Hz

ELECTRICAL COMPONENTS

Relay				
Reference				
Voltage				
Resistance				
Protector	Option 1			
Reference	INTERNAL			
Current				
Time check				
Disc temp. (Open/Close)				

ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	520	690	1,72	0,88	0,75
40	-35	844	851	1,86	1,15	0,99
40	-30	1.219	1.016	2,00	1,39	1,20
40	-25	1.643	1.187	2,16	1,61	1,38
40	-23,3	1.799	1.246	2,22	1,68	1,44
40	-20	2.117	1.363	2,33	1,81	1,55
40	-15	2.641	1.544	2,51	1,99	1,71
40	-10	3.215	1.730	2,70	2,16	1,86

45	-40	440	640	1,68	0,80	0,69
45	-35	749	814	1,83	1,07	0,92
45	-30	1.107	993	1,98	1,30	1,11
45	-25	1.516	1.177	2,15	1,50	1,29
45	-23,3	1.666	1.241	2,21	1,56	1,34
45	-20	1.974	1.366	2,33	1,68	1,44
45	-15	2.482	1.561	2,53	1,85	1,59
45	-10	3.040	1.760	2,74	2,01	1,73

50	-40	360	590	1,64	0,71	0,61
50	-35	653	777	1,79	0,98	0,84
50	-30	995	970	1,96	1,19	1,03
50	-25	1.388	1.167	2,14	1,38	1,19
50	-23,3	1.533	1.235	2,21	1,44	1,24
50	-20	1.830	1.370	2,33	1,55	1,34
50	-15	2.323	1.577	2,54	1,71	1,47
50	-10	2.865	1.790	2,77	1,86	1,60

55	-40	280	540	1,60	0,60	0,52
55	-35	557	741	1,76	0,87	0,75
55	-30	884	946	1,94	1,09	0,93
55	-25	1.261	1.157	2,13	1,27	1,09
55	-23,3	1.400	1.230	2,20	1,32	1,14
55	-20	1.687	1.373	2,34	1,43	1,23
55	-15	2.164	1.594	2,56	1,58	1,36
55	-10	2.690	1.820	2,80	1,72	1,48

60	-40	200	490	1,56	0,47	0,41
60	-35	461	704	1,73	0,76	0,66
60	-30	772	923	1,92	0,97	0,84
60	-25	1.133	1.147	2,12	1,15	0,99
60	-23,3	1.267	1.225	2,19	1,20	1,03
60	-20	1.544	1.376	2,34	1,30	1,12
60	-15	2.004	1.611	2,58	1,45	1,24
60	-10	2.515	1.850	2,83	1,58	1,36

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	540	690	1,72	0,78	0,68
40	-35	912	851	1,86	1,07	0,93
40	-30	1.326	1.016	2,00	1,30	1,13
40	-25	1.781	1.187	2,16	1,50	1,30
40	-23,3	1.945	1.246	2,22	1,56	1,35
40	-20	2.277	1.363	2,33	1,67	1,44
40	-15	2.815	1.544	2,51	1,82	1,58
40	-10	3.394	1.730	2,70	1,96	1,69

45	-40	441	640	1,68	0,69	0,59
45	-35	769	814	1,83	0,94	0,82
45	-30	1.138	993	1,98	1,15	0,99
45	-25	1.549	1.177	2,15	1,32	1,14
45	-23,3	1.698	1.241	2,21	1,37	1,18
45	-20	2.001	1.366	2,33	1,46	1,27
45	-15	2.495	1.561	2,53	1,60	1,38
45	-10	3.030	1.760	2,74	1,72	1,49

50	-40	341	590	1,64	0,58	0,50
50	-35	625	777	1,79	0,80	0,70
50	-30	951	970	1,96	0,98	0,85
50	-25	1.318	1.167	2,14	1,13	0,98
50	-23,3	1.452	1.235	2,21	1,17	1,02
50	-20	1.726	1.370	2,33	1,26	1,09
50	-15	2.175	1.577	2,54	1,38	1,19
50	-10	2.666	1.790	2,77	1,49	1,29

55	-40	242	540	1,60	0,45	0,39
55	-35	482	741	1,76	0,65	0,56
55	-30	763	946	1,94	0,81	0,70
55	-25	1.086	1.157	2,13	0,94	0,81
55	-23,3	1.205	1.230	2,20	0,98	0,85
55	-20	1.450	1.373	2,34	1,06	0,91
55	-15	1.855	1.594	2,56	1,16	1,01
55	-10	2.302	1.820	2,80	1,26	1,09

60	-40	143	490	1,56	0,29	0,25
60	-35	339	704	1,73	0,48	0,42
60	-30	576	923	1,92	0,62	0,54
60	-25	854	1.147	2,12	0,74	0,64
60	-23,3	958	1.225	2,19	0,78	0,68
60	-20	1.174	1.376	2,34	0,85	0,74
60	-15	1.535	1.611	2,58	0,95	0,82
60	-10	1.938	1.850	2,83	1,05	0,91

EN12900

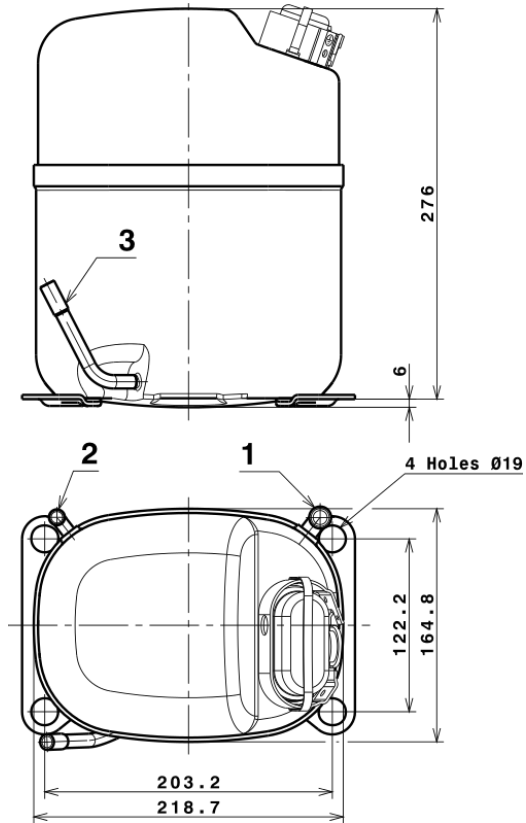
X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	8.184,1907413692	1.714,4244074169	2,7577243293	180,46706135161
2	203,4769788821	19,5876894331	0,0306642133	4,9845235581915
3	-91,5386317962	11,6218941929	0,0116877225	-1,2183202108138
4	0,7831496875	0,1145105596	0,0003316608	0,03200088280989
5	-1,8029021216	0,5460826130	0,0004978066	-0,019309904768886

Equation

$$x_1 + x_2 Te + x_3 Tc + x_4 Te^2 + x_5 Te Tc$$

Technical Data Sheet

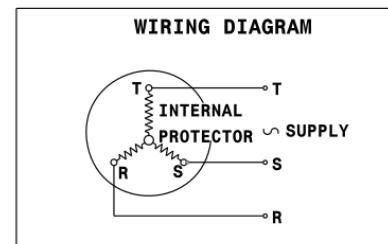
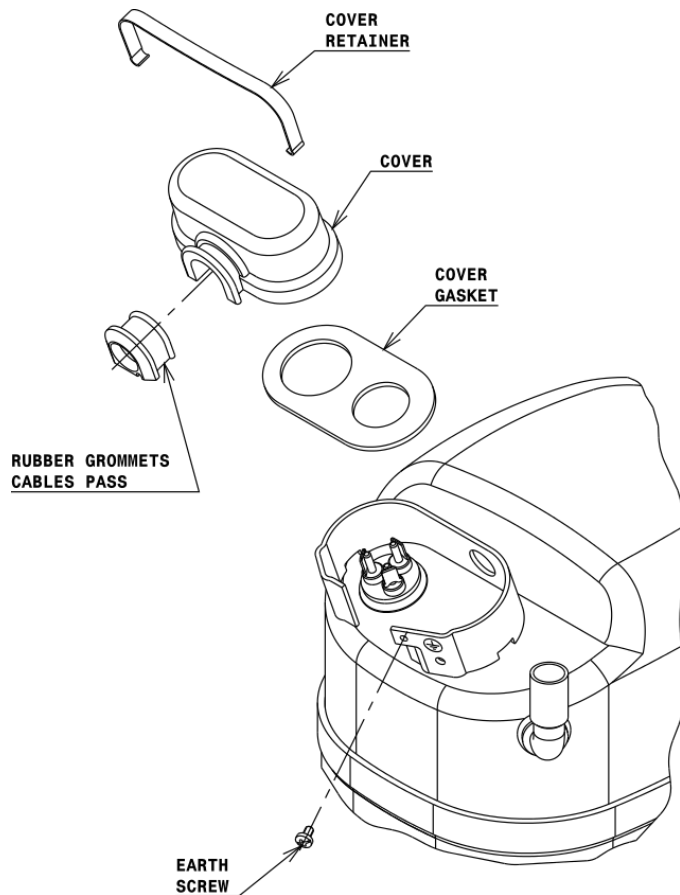
COMPRESSOR DIMENSIONS



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

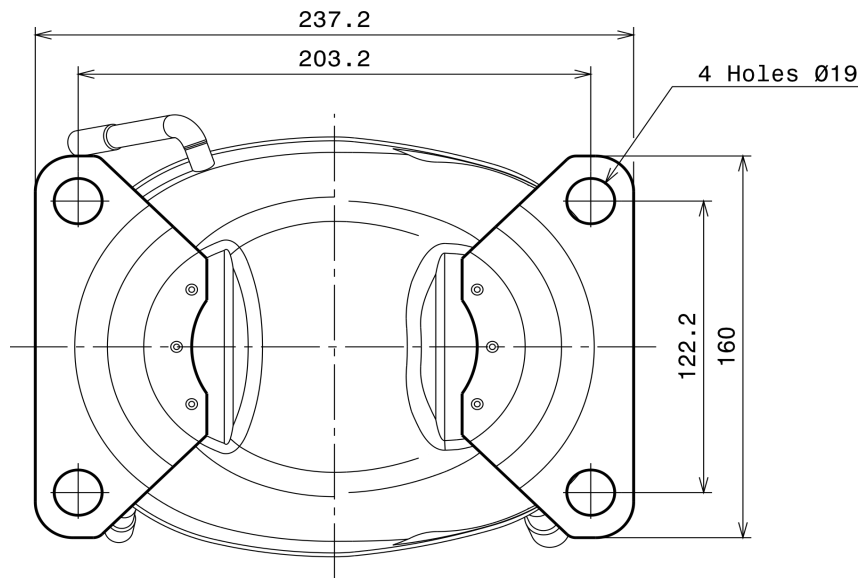
WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

3PH CONNECTION (S range)



Technical Data Sheet

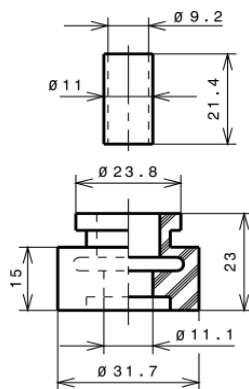
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

Ø19 holes (203.2x122.2 net)



SOA

SOA R404A LBP

