

Technical Data Sheet

Compressor model **MST38LA_T**
 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	38,00 cm ³
Diameter	45,00 mm
Stroke	23,85 mm
Net Weight	22,67 Kg
Oil type	ISO VG 46 ESTER
Oil charge	700 cm ³

MOTOR

Nominal Power	1 5/8 hp
Voltage/Frequency	220-240V 50Hz
Voltage range	198-255 V
Type	CSR
Phase number	1 PH
Locked Rotor Amps (LRA)	40,40 A
Max. Cont. Current (MCC)	10,30 A
Main W. resist. at 25°C	1,38 Ω
Start W. resist. at 25°C	4,62 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.620 kCal/h	1.275 W
COP	1,40 W/W	1,00 W/W
EER	1,20 kCal/Wh	0,86 kCal/Wh
Input Power	1.345 W	1.279 W
Current	6,38 A	6,07 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	25 μF 420 V			
Relay	Option 1			
Reference	3ARR3 10AA3			
Pick-Up	239-270 V			
Drop-Out	50-110 V			
Protector	Option 1			
Reference	T0257			
Current	24,00 A			
Time check	6,0-16 seg			
Disc temp. (Open/Close)	120,00 / 52,00 °C			

ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	700	803	3,88	1,01	0,87
40	-35	996	922	4,41	1,26	1,08
40	-30	1.356	1.055	5,03	1,49	1,28
40	-25	1.780	1.204	5,72	1,72	1,48
40	-23,3	1.939	1.258	5,97	1,79	1,54
40	-20	2.268	1.368	6,49	1,93	1,66
40	-15	2.819	1.546	7,34	2,12	1,82
40	-10	3.435	1.740	8,28	2,30	1,97

45	-40	655	793	3,83	0,96	0,83
45	-35	933	923	4,42	1,17	1,01
45	-30	1.274	1.069	5,09	1,39	1,19
45	-25	1.680	1.229	5,84	1,59	1,37
45	-23,3	1.832	1.287	6,11	1,66	1,42
45	-20	2.149	1.404	6,66	1,78	1,53
45	-15	2.683	1.595	7,57	1,96	1,68
45	-10	3.280	1.800	8,57	2,12	1,82

50	-40	610	783	3,79	0,91	0,78
50	-35	869	925	4,43	1,09	0,94
50	-30	1.193	1.082	5,15	1,28	1,10
50	-25	1.580	1.254	5,95	1,47	1,26
50	-23,3	1.726	1.316	6,24	1,53	1,31
50	-20	2.031	1.441	6,84	1,64	1,41
50	-15	2.546	1.643	7,81	1,80	1,55
50	-10	3.125	1.860	8,86	1,95	1,68

55	-40	565	773	3,74	0,85	0,73
55	-35	806	927	4,44	1,01	0,87
55	-30	1.111	1.095	5,21	1,18	1,01
55	-25	1.480	1.279	6,07	1,35	1,16
55	-23,3	1.620	1.345	6,38	1,40	1,20
55	-20	1.913	1.478	7,01	1,51	1,29
55	-15	2.409	1.691	8,04	1,66	1,42
55	-10	2.970	1.920	9,16	1,80	1,55

60	-40	520	763	3,69	0,79	0,68
60	-35	743	928	4,44	0,93	0,80
60	-30	1.029	1.109	5,27	1,08	0,93
60	-25	1.380	1.304	6,19	1,23	1,06
60	-23,3	1.514	1.374	6,52	1,28	1,10
60	-20	1.794	1.514	7,19	1,38	1,18
60	-15	2.273	1.740	8,27	1,52	1,31
60	-10	2.815	1.980	9,46	1,65	1,42

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	740	803	3,88	0,92	0,80
40	-35	1.088	922	4,41	1,18	1,02
40	-30	1.491	1.055	5,03	1,41	1,22
40	-25	1.946	1.204	5,72	1,62	1,40
40	-23,3	2.113	1.258	5,97	1,68	1,45
40	-20	2.455	1.368	6,49	1,79	1,55
40	-15	3.017	1.546	7,34	1,95	1,69
40	-10	3.633	1.740	8,28	2,09	1,80

45	-40	656	793	3,83	0,83	0,71
45	-35	958	923	4,42	1,04	0,90
45	-30	1.314	1.069	5,09	1,23	1,06
45	-25	1.722	1.229	5,84	1,40	1,21
45	-23,3	1.874	1.287	6,11	1,46	1,26
45	-20	2.185	1.404	6,66	1,56	1,34
45	-15	2.700	1.595	7,57	1,69	1,46
45	-10	3.269	1.800	8,57	1,82	1,57

50	-40	572	783	3,79	0,73	0,63
50	-35	828	925	4,43	0,89	0,77
50	-30	1.137	1.082	5,15	1,05	0,91
50	-25	1.499	1.254	5,95	1,19	1,03
50	-23,3	1.634	1.316	6,24	1,24	1,07
50	-20	1.914	1.441	6,84	1,33	1,15
50	-15	2.383	1.643	7,81	1,45	1,25
50	-10	2.905	1.860	8,86	1,56	1,35

55	-40	488	773	3,74	0,63	0,55
55	-35	697	927	4,44	0,75	0,65
55	-30	959	1.095	5,21	0,88	0,76
55	-25	1.275	1.279	6,07	1,00	0,86
55	-23,3	1.394	1.345	6,38	1,04	0,90
55	-20	1.644	1.478	7,01	1,11	0,96
55	-15	2.066	1.691	8,04	1,22	1,06
55	-10	2.542	1.920	9,16	1,32	1,14

60	-40	405	763	3,69	0,53	0,46
60	-35	567	928	4,44	0,61	0,53
60	-30	782	1.109	5,27	0,71	0,61
60	-25	1.051	1.304	6,19	0,81	0,70
60	-23,3	1.155	1.374	6,52	0,84	0,73
60	-20	1.373	1.514	7,19	0,91	0,78
60	-15	1.749	1.740	8,27	1,01	0,87
60	-10	2.178	1.980	9,46	1,10	0,95

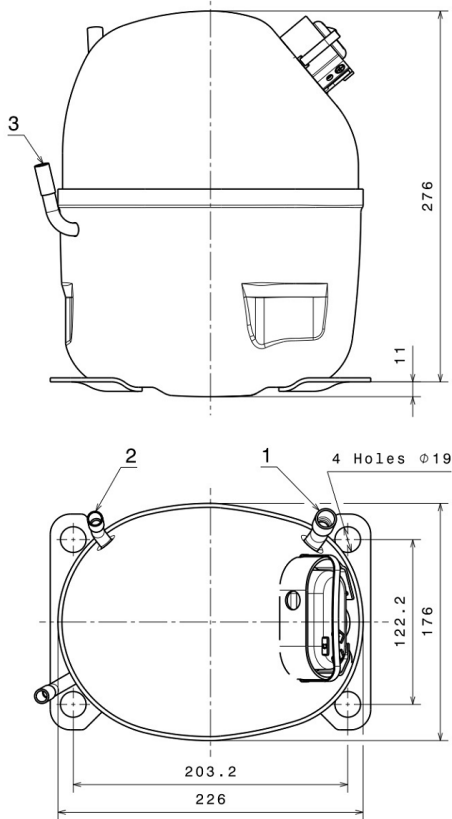
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	8.572,2691676434	1.551,0536258954	7,3685020750	187,00181165435
2	220,1114877736	28,8930518963	0,1481943167	5,5382640428517
3	-92,8450758485	17,1109421905	0,0842544813	-1,1309482197072
4	1,0107085567	0,3170118636	0,0018026585	0,040067925384862
5	-1,9024833579	0,4788806064	0,0023371835	-0,021947383787586

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

COMPRESSOR DIMENSIONS

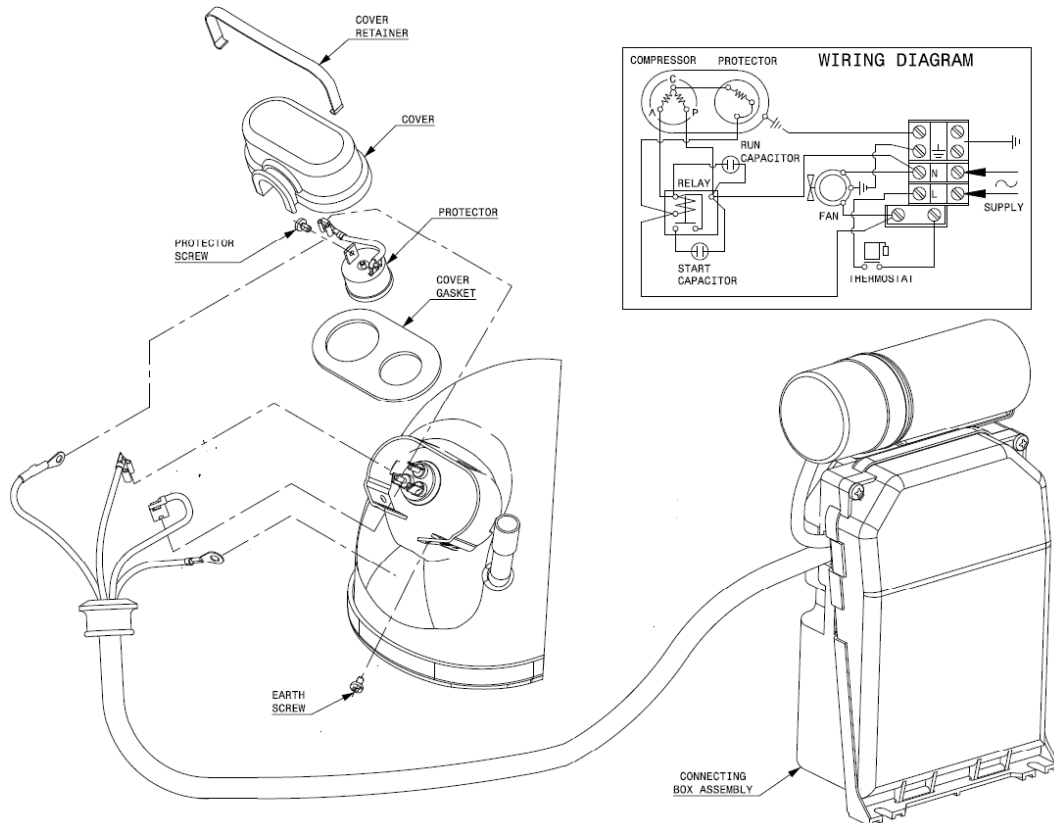


DESIGNATION INTERNAL DIAM.

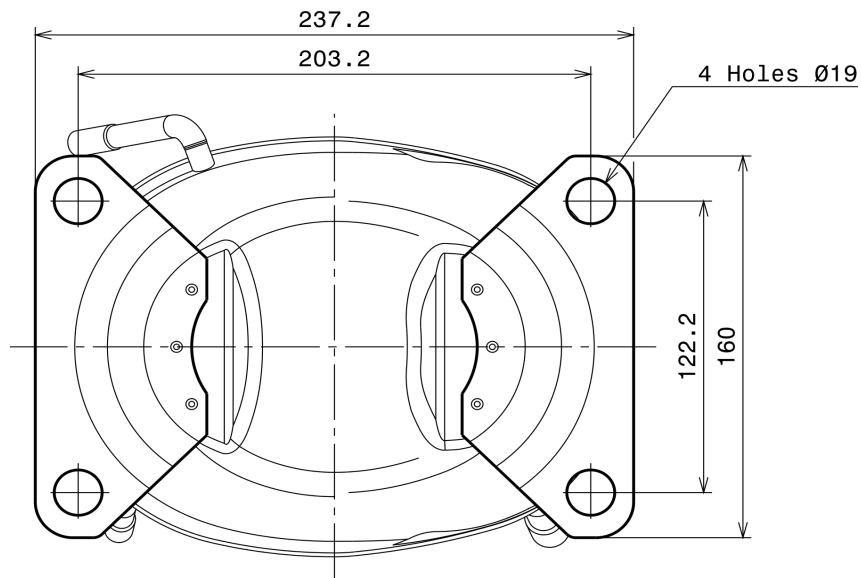
1	Suction	12,7 mm
2	Service	9,7 mm
3	Discharge	8,0 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSR CONNECTION (EXTERNAL CONNECTING BOX) (NS Range)



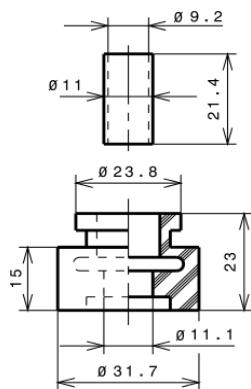
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

Ø19 holes (203.2x122.2 net)



SOA

SOA R404A LBP

