

# Technical Data Sheet

Compressor model **MS34FF\_V**  
 Voltage **208V 60Hz ~1**  
 Refrigerant **R404A**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	Low Back Pressure	Displacement	34,42 cm <sup>3</sup>	Nominal Power	1 hp
Refrigerant	R404A	Diameter	42,86 mm	Voltage/Frequency	208V 60Hz
Evaporating Temp.	-40,0 °C to -10,0 °C	Stroke	23,85 mm	Voltage range	177-229 V
Expansion	Capillar/Valve	Net Weight	22,90 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 <sup>3</sup>	Locked Rotor Amps (LRA)	57,00 A
				Max. Cont. Current (MCC)	14,00 A
				Main W. resist. at 25°C	0,84 Ω
				Start W. resist. at 25°C	3,21 Ω

## NOMINAL PERFORMANCE

## APPROVALS

	ASHRAE	CECOMAF
Cooling Capacity	1.580 kCal/h	1.216 W
COP	1,30 W/W	0,91 W/W
EER	1,12 kCal/Wh	0,79 kCal/Wh
Input Power	1.415 W	1.338 W
Current	8,80 A	8,50 A



## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °C	32,0 °C
Voltage/Frequency	208 V 60 Hz	208 V 60 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	88-108 μF 330 V		
Run capacitor	20 μF 450 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	CST00AGN	GA3PMV00	
Current	36,00 A	35,00 A	
Time check	7,5-14 seg	6,0-16 seg	
Disc temp. (Open/Close)	120,00 / 69,00 °C	120,00 / 57,00 °C	

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	563	721	6,26	0,91	0,78
40	-35	860	888	6,84	1,13	0,97
40	-30	1.235	1.070	7,49	1,34	1,15
40	-25	1.686	1.265	8,22	1,55	1,33
40	-23,3	1.857	1.335	8,49	1,62	1,39
40	-20	2.214	1.474	9,03	1,75	1,50
40	-15	2.819	1.698	9,93	1,93	1,66
40	-10	3.500	1.935	10,92	2,10	1,81

45	-40	480	725	6,27	0,77	0,66
45	-35	775	899	6,88	1,00	0,86
45	-30	1.146	1.087	7,56	1,23	1,05
45	-25	1.595	1.289	8,32	1,44	1,24
45	-23,3	1.764	1.361	8,59	1,51	1,30
45	-20	2.120	1.506	9,16	1,64	1,41
45	-15	2.721	1.736	10,09	1,82	1,57
45	-10	3.400	1.980	11,11	2,00	1,72

50	-40	398	729	6,29	0,63	0,55
50	-35	689	910	6,92	0,88	0,76
50	-30	1.058	1.105	7,62	1,11	0,96
50	-25	1.503	1.314	8,41	1,33	1,14
50	-23,3	1.672	1.388	8,70	1,40	1,20
50	-20	2.025	1.537	9,28	1,53	1,32
50	-15	2.624	1.774	10,24	1,72	1,48
50	-10	3.300	2.025	11,31	1,90	1,63

55	-40	315	733	6,30	0,50	0,43
55	-35	604	921	6,96	0,76	0,66
55	-30	970	1.123	7,69	1,00	0,86
55	-25	1.412	1.338	8,50	1,23	1,06
55	-23,3	1.580	1.415	8,80	1,30	1,12
55	-20	1.931	1.568	9,41	1,43	1,23
55	-15	2.527	1.812	10,40	1,62	1,39
55	-10	3.200	2.070	11,50	1,80	1,55

60	-40	232	737	6,31	0,37	0,32
60	-35	519	932	7,00	0,65	0,56
60	-30	881	1.140	7,75	0,90	0,77
60	-25	1.321	1.363	8,60	1,13	0,97
60	-23,3	1.488	1.442	8,90	1,20	1,03
60	-20	1.837	1.600	9,53	1,34	1,15
60	-15	2.430	1.850	10,56	1,53	1,31
60	-10	3.100	2.115	11,70	1,70	1,47

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	585	721	6,26	0,81	0,70
40	-35	946	888	6,84	1,06	0,92
40	-30	1.371	1.070	7,49	1,28	1,11
40	-25	1.860	1.265	8,22	1,47	1,27
40	-23,3	2.041	1.335	8,49	1,53	1,32
40	-20	2.414	1.474	9,03	1,64	1,41
40	-15	3.032	1.698	9,93	1,79	1,54
40	-10	3.714	1.935	10,92	1,92	1,66

45	-40	481	725	6,27	0,66	0,57
45	-35	805	899	6,88	0,90	0,77
45	-30	1.193	1.087	7,56	1,10	0,95
45	-25	1.646	1.289	8,32	1,28	1,10
45	-23,3	1.814	1.361	8,59	1,33	1,15
45	-20	2.163	1.506	9,16	1,44	1,24
45	-15	2.744	1.736	10,09	1,58	1,37
45	-10	3.389	1.980	11,11	1,71	1,48

50	-40	376	729	6,29	0,52	0,45
50	-35	664	910	6,92	0,73	0,63
50	-30	1.015	1.105	7,62	0,92	0,79
50	-25	1.431	1.314	8,41	1,09	0,94
50	-23,3	1.587	1.388	8,70	1,14	0,99
50	-20	1.911	1.537	9,28	1,24	1,07
50	-15	2.455	1.774	10,24	1,38	1,20
50	-10	3.064	2.025	11,31	1,51	1,31

55	-40	272	733	6,30	0,37	0,32
55	-35	523	921	6,96	0,57	0,49
55	-30	838	1.123	7,69	0,75	0,64
55	-25	1.216	1.338	8,50	0,91	0,79
55	-23,3	1.360	1.415	8,80	0,96	0,83
55	-20	1.660	1.568	9,41	1,06	0,91
55	-15	2.167	1.812	10,40	1,20	1,03
55	-10	2.738	2.070	11,50	1,32	1,14

60	-40	168	737	6,31	0,23	0,20
60	-35	382	932	7,00	0,41	0,35
60	-30	660	1.140	7,75	0,58	0,50
60	-25	1.002	1.363	8,60	0,74	0,64
60	-23,3	1.133	1.442	8,90	0,79	0,68
60	-20	1.408	1.600	9,53	0,88	0,76
60	-15	1.879	1.850	10,56	1,02	0,88
60	-10	2.413	2.115	11,70	1,14	0,99

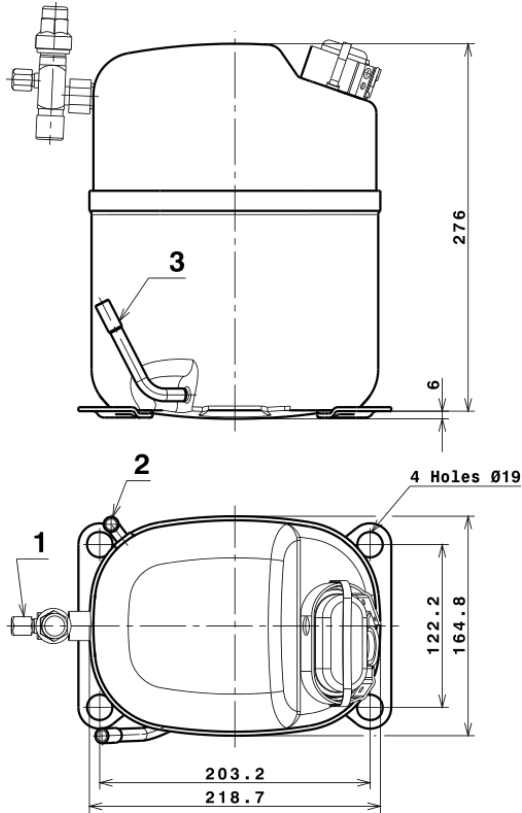
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	8.380,2871841406	2.041,0992489339	11,3988796099	174,30964521184
2	223,6372954076	45,3688169972	0,2058155506	5,4230264400523
3	-82,0866893032	12,0495651845	0,0526897538	-0,64070009525937
4	1,2163118845	0,2986928765	0,0018967392	0,047902160693304
5	-1,5420560950	0,2807963090	0,0012468971	-0,0045174476085759

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

## COMPRESSOR DIMENSIONS

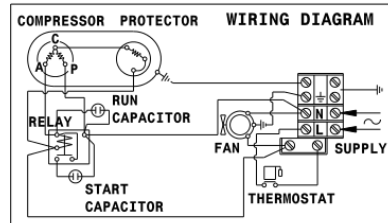
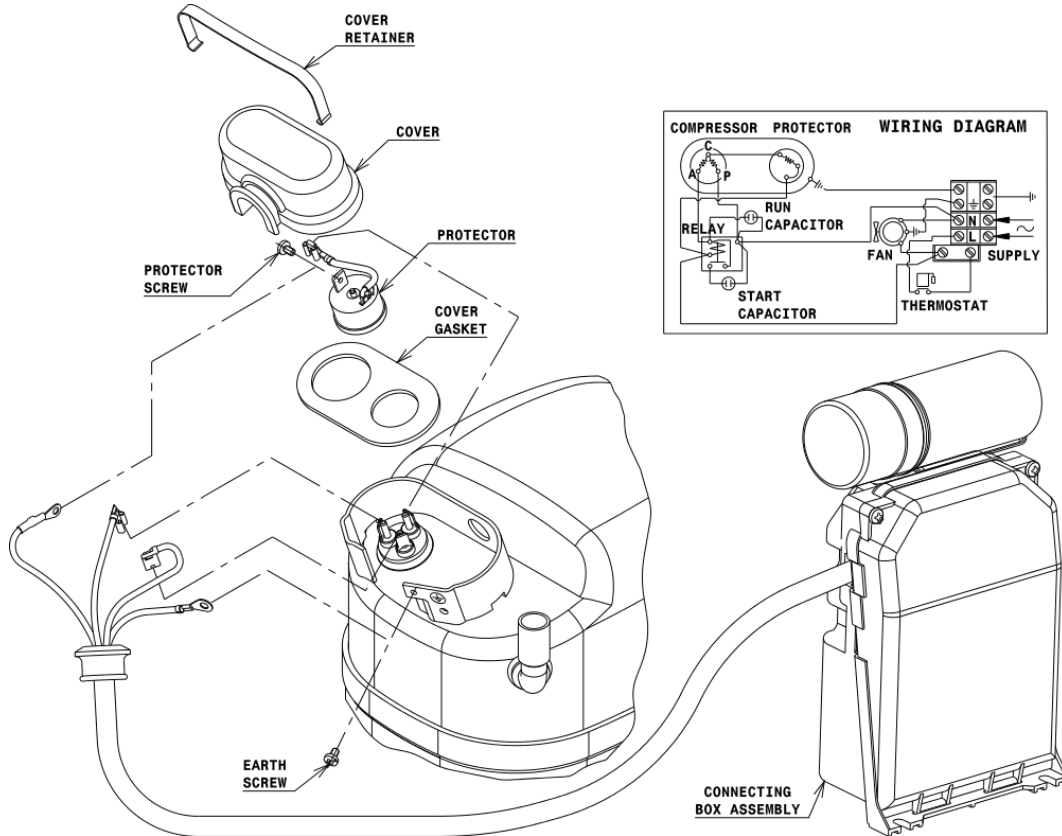


## DESIGNATION INTERNAL DIAM.

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

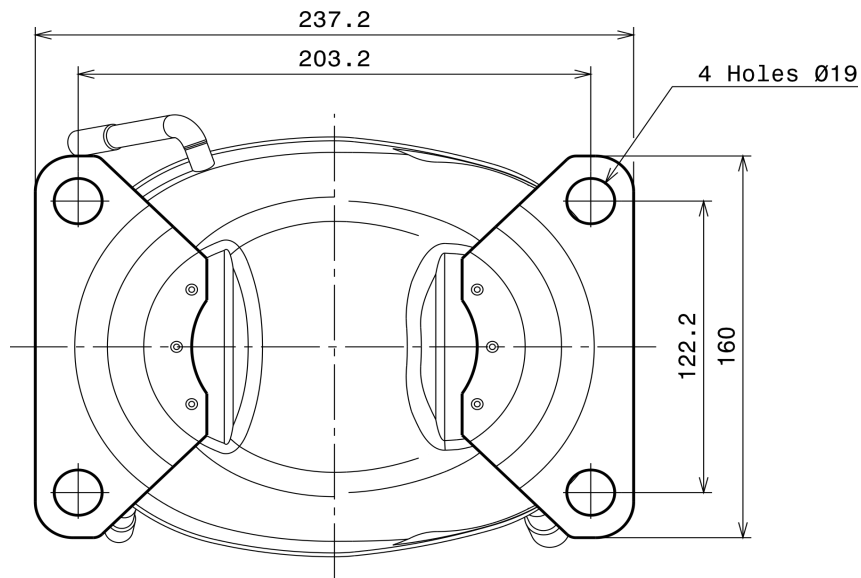
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSR CONNECTION (EXTERNAL CONNECTING BOX) (S range)



# Technical Data Sheet

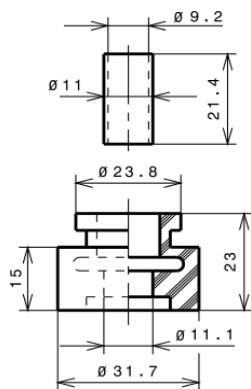
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

### STANDARD

Ø19 holes (203.2x122.2 net)



## SOA

SOA R404A LBP

