

# Technical Data Sheet

Compressor model **MS34FB\_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.	38,0 °C

## COMPRESSOR

Displacement	34,42 cm <sup>3</sup>
Diameter	42,86 mm
Stroke	23,85 mm
Net Weight	22,13 Kg
Oil type	ISO VG 46 ESTER
Oil charge	887 cm <sup>3</sup>

## MOTOR

Nominal Power	1 hp
Voltage/Frequency	220-240V 50Hz
Voltage range	198-255 V
Type	CSR
Phase number	1 PH
Locked Rotor Amps (LRA)	39,00 A
Max. Cont. Current (MCC)	9,00 A
Main W. resist. at 25°C	2,13 Ω
Start W. resist. at 25°C	7,40 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.397 kCal/h	1.083 W
COP	1,35 W/W	0,95 W/W
EER	1,16 kCal/Wh	0,82 kCal/Wh
Input Power	1.204 W	1.139 W
Current	6,39 A	6,12 A

## APPROVALS



## 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	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 10AA3	RVA 4M..	
Pick-Up	239-270 V	242-270 V	
Drop-Out	50-110 V	50-110 V	
Protector	Option 1		
Reference	T0534		
Current	20,00 A		
Time check	7,5-14 seg		
Disc temp. (Open/Close)	105,00 / 52,00 °C		

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	520	683	4,31	0,89	0,76
40	-35	829	816	4,82	1,18	1,02
40	-30	1.189	957	5,37	1,45	1,24
40	-25	1.602	1.105	5,98	1,69	1,45
40	-23,3	1.754	1.157	6,19	1,76	1,52
40	-20	2.066	1.261	6,63	1,91	1,64
40	-15	2.582	1.424	7,34	2,11	1,81
40	-10	3.150	1.595	8,11	2,30	1,97

45	-40	440	655	4,20	0,78	0,67
45	-35	737	801	4,76	1,07	0,92
45	-30	1.086	955	5,37	1,32	1,14
45	-25	1.487	1.116	6,02	1,55	1,33
45	-23,3	1.635	1.173	6,26	1,62	1,39
45	-20	1.939	1.285	6,73	1,76	1,51
45	-15	2.444	1.461	7,50	1,95	1,67
45	-10	3.000	1.645	8,34	2,12	1,82

50	-40	360	628	4,10	0,67	0,57
50	-35	645	787	4,70	0,95	0,82
50	-30	983	953	5,36	1,20	1,03
50	-25	1.372	1.127	6,07	1,42	1,22
50	-23,3	1.516	1.188	6,32	1,48	1,28
50	-20	1.813	1.309	6,84	1,61	1,38
50	-15	2.305	1.498	7,67	1,79	1,54
50	-10	2.850	1.695	8,57	1,96	1,68

55	-40	280	600	4,00	0,54	0,47
55	-35	554	772	4,65	0,83	0,72
55	-30	879	952	5,35	1,07	0,92
55	-25	1.257	1.139	6,12	1,28	1,10
55	-23,3	1.397	1.204	6,39	1,35	1,16
55	-20	1.686	1.333	6,94	1,47	1,26
55	-15	2.167	1.535	7,84	1,64	1,41
55	-10	2.700	1.745	8,80	1,80	1,55

60	-40	200	573	3,90	0,41	0,35
60	-35	462	757	4,59	0,71	0,61
60	-30	776	950	5,35	0,95	0,82
60	-25	1.142	1.150	6,16	1,15	0,99
60	-23,3	1.278	1.220	6,46	1,22	1,05
60	-20	1.559	1.357	7,05	1,34	1,15
60	-15	2.029	1.572	8,00	1,50	1,29
60	-10	2.550	1.795	9,04	1,65	1,42

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	540	682	4,31	0,79	0,68
40	-35	897	816	4,82	1,10	0,95
40	-30	1.298	957	5,37	1,36	1,17
40	-25	1.741	1.105	5,98	1,58	1,36
40	-23,3	1.902	1.157	6,19	1,64	1,42
40	-20	2.228	1.261	6,63	1,77	1,53
40	-15	2.757	1.424	7,34	1,94	1,67
40	-10	3.330	1.595	8,11	2,09	1,80

45	-40	441	655	4,20	0,67	0,58
45	-35	758	801	4,76	0,95	0,82
45	-30	1.118	955	5,37	1,17	1,01
45	-25	1.522	1.116	6,02	1,36	1,18
45	-23,3	1.669	1.173	6,26	1,42	1,23
45	-20	1.968	1.285	6,73	1,53	1,32
45	-15	2.458	1.461	7,50	1,68	1,45
45	-10	2.990	1.645	8,34	1,82	1,57

50	-40	341	628	4,10	0,54	0,47
50	-35	619	787	4,70	0,79	0,68
50	-30	939	953	5,36	0,98	0,85
50	-25	1.302	1.127	6,07	1,16	1,00
50	-23,3	1.436	1.188	6,32	1,21	1,04
50	-20	1.709	1.309	6,84	1,31	1,13
50	-15	2.158	1.498	7,67	1,44	1,24
50	-10	2.650	1.695	8,57	1,56	1,35

55	-40	242	600	4,00	0,40	0,35
55	-35	479	772	4,65	0,62	0,54
55	-30	759	952	5,35	0,80	0,69
55	-25	1.083	1.139	6,12	0,95	0,82
55	-23,3	1.202	1.204	6,39	1,00	0,86
55	-20	1.449	1.333	6,94	1,09	0,94
55	-15	1.858	1.535	7,84	1,21	1,05
55	-10	2.311	1.745	8,80	1,32	1,14

60	-40	143	573	3,90	0,25	0,22
60	-35	340	757	4,59	0,45	0,39
60	-30	580	950	5,35	0,61	0,53
60	-25	863	1.150	6,16	0,75	0,65
60	-23,3	969	1.220	6,46	0,79	0,69
60	-20	1.189	1.357	7,05	0,88	0,76
60	-15	1.559	1.572	8,00	0,99	0,86
60	-10	1.971	1.795	9,04	1,10	0,95

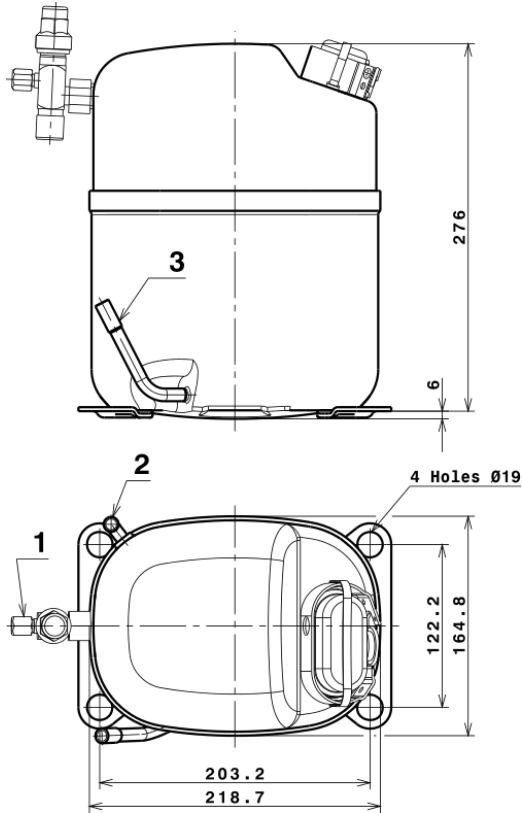
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	7.866,2830571158	1.394,1248074672	7,3121881026	170,71964994434
2	196,7850135386	18,3423680464	0,1074893733	4,7849163090711
3	-85,3332911288	15,5651875892	0,0711475323	-1,0261018992897
4	0,8145428566	0,1637826227	0,0013687272	0,033102833711425
5	-1,6477686049	0,5296740817	0,0023029708	-0,014504446980782

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

## COMPRESSOR DIMENSIONS

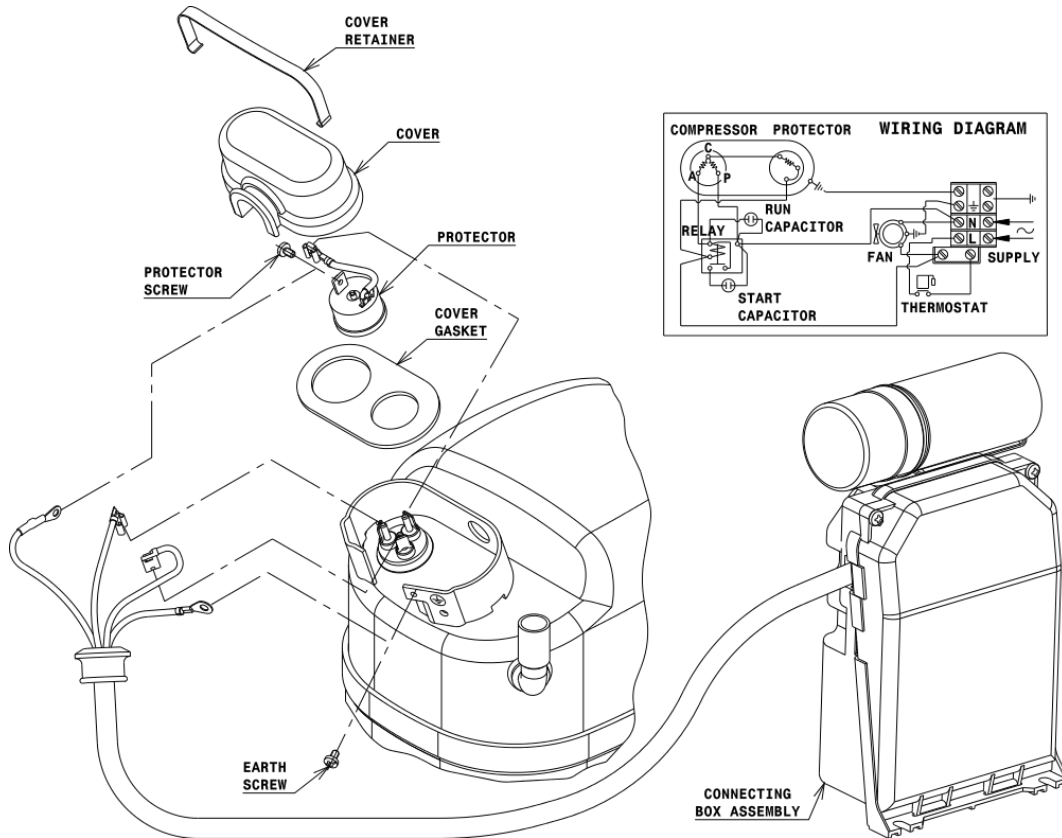


## DESIGNATION INTERNAL DIAM.

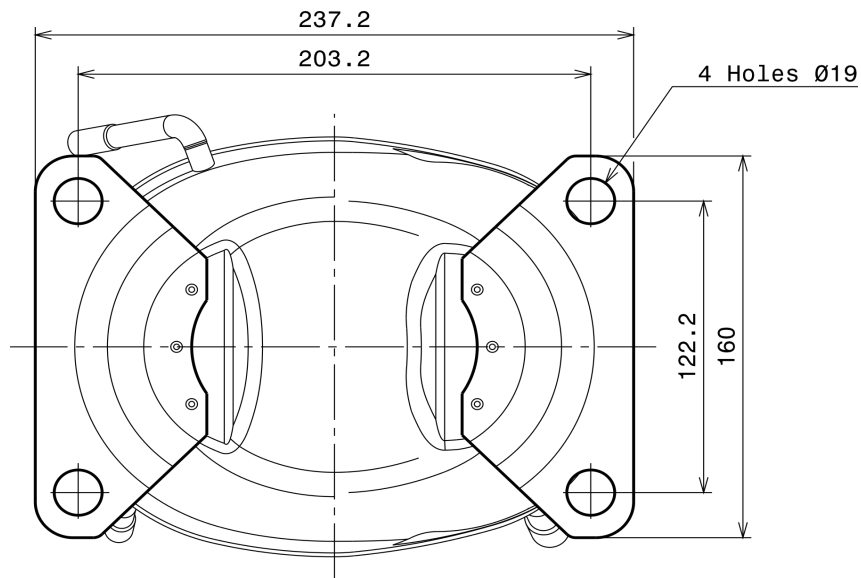
DESIGNATION	INTERNAL DIAM.
1 Service Valve	5/8" SAE
2 Service	9,7 mm
3 Discharge	8,0 mm

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

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



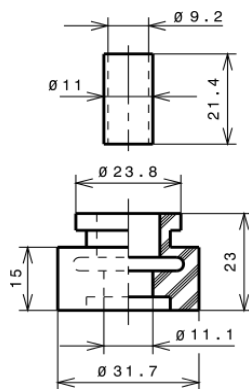
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

### STANDARD

Ø19 holes (203.2x122.2 net)



## SOA

SOA R404A LBP

