

Technical Data Sheet

ENGINEERING
TOMORROW



Compressor model **MX23FBa**
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	23,20 cm ³
Diameter	34,93 mm
Stroke	24,20 mm
Net Weight	16,61 Kg
Oil type	ISO VG 32 ESTER
Oil charge	650 cm ³

MOTOR

Nominal Power	7/8 hp
Voltage/Frequency	220-240V 50Hz
Voltage range	187-255 V
Type	CSR
Phase number	1 PH
Locked Rotor Amps (LRA)	30,00 A
Max. Cont. Current (MCC)	6,70 A
Main W. resist. at 25°C	2,56 Ω
Start W. resist. at 25°C	6,50 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	915 kCal/h	718 W
COP	1,35 W/W	0,96 W/W
EER	1,16 kCal/Wh	0,83 kCal/Wh
Input Power	790 W	751 W
Current	4,00 A	3,81 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	72- 88 µF 330 V			
Run capacitor	16 µF 420 V			
Relay	Option 1	Option 2		
Reference	2014 180. + NTC15Ω	QLZ 16.7A + NTC15Ω		
Pick-Up	16.70 A	16.70 A		
Drop-Out	14.00 A	14.00 A		
Protector	Option 1			
Reference	T0535			
Current	18,00 A			
Time check	7,5-14 seg			
Disc temp. (Open/Close)	135,00 / 52,00 °C			

Technical Data Sheet

ENGINEERING
TOMORROW



ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	413	498	2,58	0,96	0,83
40	-35	577	565	2,90	1,19	1,02
40	-30	779	642	3,28	1,41	1,21
40	-25	1.017	729	3,70	1,62	1,40
40	-23,3	1.107	761	3,86	1,69	1,46
40	-20	1.293	825	4,17	1,82	1,57
40	-15	1.605	932	4,70	2,00	1,72
40	-10	1.955	1.048	5,28	2,17	1,87

45	-40	375	485	2,52	0,90	0,77
45	-35	532	559	2,88	1,11	0,95
45	-30	725	643	3,28	1,31	1,13
45	-25	956	736	3,74	1,51	1,30
45	-23,3	1.043	770	3,90	1,57	1,35
45	-20	1.224	840	4,24	1,70	1,46
45	-15	1.528	952	4,81	1,87	1,60
45	-10	1.870	1.075	5,42	2,02	1,74

50	-40	338	473	2,46	0,83	0,71
50	-35	486	553	2,85	1,02	0,88
50	-30	672	644	3,29	1,21	1,04
50	-25	895	744	3,77	1,40	1,20
50	-23,3	979	780	3,95	1,46	1,25
50	-20	1.155	854	4,32	1,57	1,35
50	-15	1.451	973	4,91	1,73	1,49
50	-10	1.785	1.103	5,56	1,88	1,62

55	-40	300	460	2,40	0,76	0,65
55	-35	441	547	2,82	0,94	0,81
55	-30	619	645	3,29	1,12	0,96
55	-25	834	751	3,81	1,29	1,11
55	-23,3	915	790	4,00	1,35	1,16
55	-20	1.085	868	4,39	1,45	1,25
55	-15	1.374	994	5,01	1,61	1,38
55	-10	1.700	1.130	5,70	1,75	1,50

60	-40	263	448	2,34	0,68	0,59
60	-35	395	542	2,79	0,85	0,73
60	-30	565	645	3,29	1,02	0,88
60	-25	772	759	3,85	1,18	1,02
60	-23,3	851	800	4,05	1,24	1,06
60	-20	1.016	882	4,46	1,34	1,15
60	-15	1.297	1.015	5,12	1,49	1,28
60	-10	1.615	1.158	5,84	1,62	1,40

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	434	498	2,58	0,87	0,75
40	-35	629	565	2,90	1,11	0,96
40	-30	855	642	3,28	1,33	1,15
40	-25	1.112	729	3,70	1,53	1,32
40	-23,3	1.206	761	3,86	1,59	1,37
40	-20	1.400	825	4,17	1,70	1,47
40	-15	1.719	932	4,70	1,84	1,59
40	-10	2.068	1.048	5,28	1,97	1,71

45	-40	376	485	2,52	0,77	0,67
45	-35	546	559	2,88	0,98	0,84
45	-30	748	643	3,28	1,16	1,01
45	-25	981	736	3,74	1,33	1,15
45	-23,3	1.067	770	3,90	1,38	1,20
45	-20	1.244	840	4,24	1,48	1,28
45	-15	1.538	952	4,81	1,62	1,40
45	-10	1.864	1.075	5,42	1,73	1,50

50	-40	317	473	2,46	0,67	0,58
50	-35	464	553	2,85	0,84	0,72
50	-30	641	644	3,29	1,00	0,86
50	-25	849	744	3,77	1,14	0,99
50	-23,3	927	780	3,95	1,19	1,03
50	-20	1.088	854	4,32	1,27	1,10
50	-15	1.358	973	4,91	1,40	1,21
50	-10	1.659	1.103	5,56	1,51	1,30

55	-40	259	460	2,40	0,56	0,49
55	-35	381	547	2,82	0,70	0,60
55	-30	534	645	3,29	0,83	0,72
55	-25	718	751	3,81	0,96	0,83
55	-23,3	788	790	4,00	1,00	0,86
55	-20	933	868	4,39	1,07	0,93
55	-15	1.178	994	5,01	1,19	1,02
55	-10	1.455	1.130	5,70	1,29	1,11

60	-40	201	448	2,34	0,45	0,39
60	-35	299	542	2,79	0,55	0,48
60	-30	427	645	3,29	0,66	0,57
60	-25	587	759	3,85	0,77	0,67
60	-23,3	648	800	4,05	0,81	0,70
60	-20	777	882	4,46	0,88	0,76
60	-15	998	1.015	5,12	0,98	0,85
60	-10	1.250	1.158	5,84	1,08	0,93

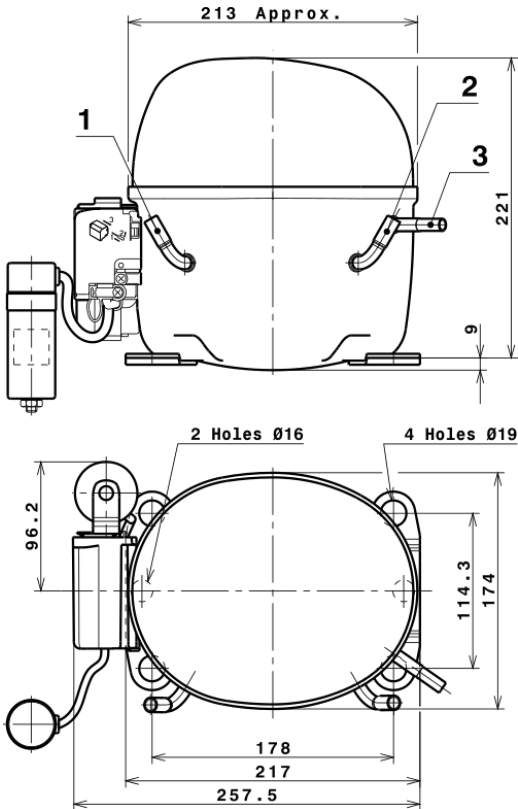
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	4.828,0268416739	1.011,0622312961	5,1137945967	104,5915165413
2	122,1226407710	18,1769934174	0,0949753201	3,0460607554745
3	-51,5475406858	8,3819784934	0,0423122373	-0,59702585332988
4	0,5853243902	0,2042167327	0,0011289133	0,023196304581239
5	-1,0008216918	0,2734332769	0,0013634416	-0,0096769848110464

Equation

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

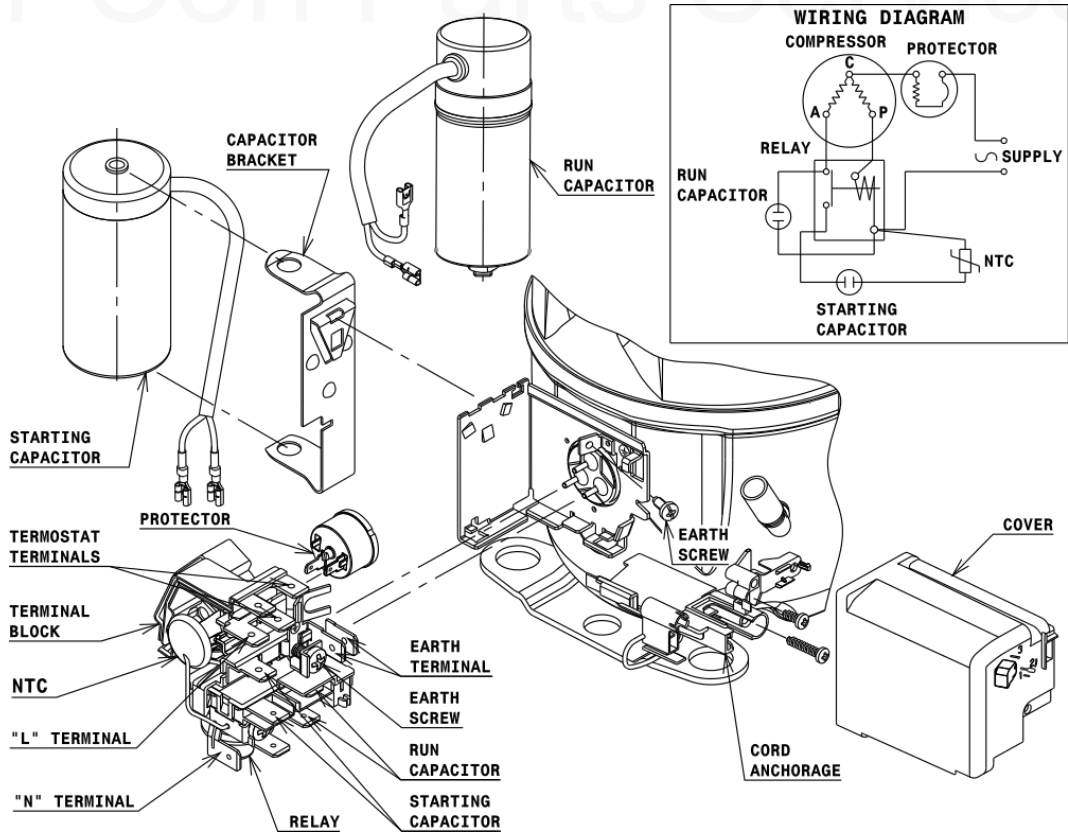
COMPRESSOR DIMENSIONS



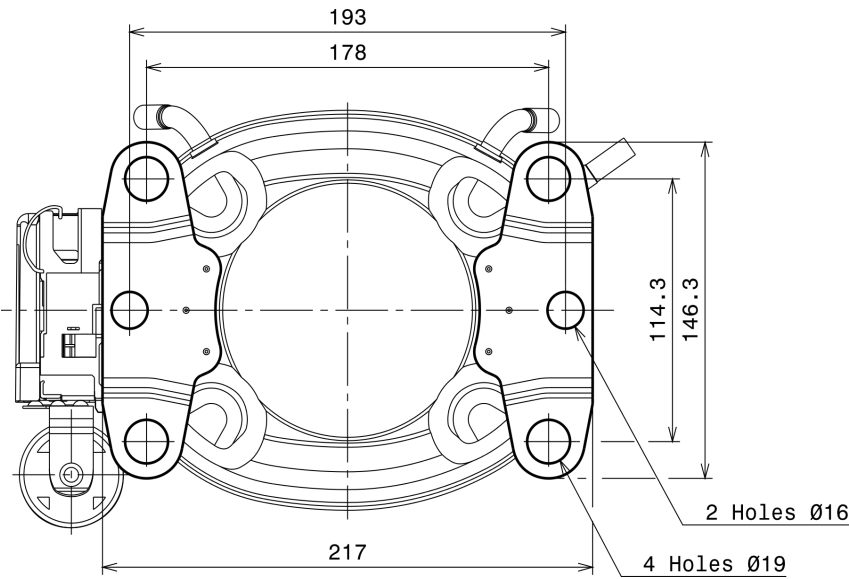
	DESIGNATION	INTERNAL DIAM.
1	Service	9,7 mm
2	Suction	9,7 mm
3	Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSR CONNECTION (CURRENT RELAY + NTC) (X range)



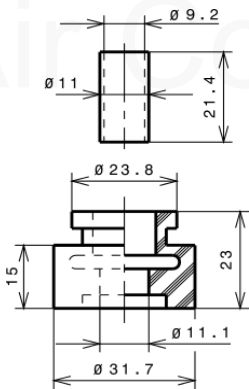
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

Ø19 holes (178x114.3 net)



SOA

SOA R404A LBP

