

Technical Data Sheet

Compressor model **MX21TB**
 Voltage **220-240V 50Hz ~1**
 Refrigerant **R404A**

APPLICATION

COMPRESSOR

MOTOR

Application	High-Medium Back Pressure	Displacement	20,72 cm ³	Nominal Power	1 hp
Refrigerant	R404A	Diameter	34,93 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	21,62 mm	Voltage range	187-255 V
Expansion	Capillar/Valve	Net Weight	17,40 Kg	Type	CSR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	500 cm ³	Locked Rotor Amps (LRA)	33,00 A
				Main W. resist. at 25°C	2,14 Ω
				Start W. resist. at 25°C	6,24 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	2.620 kCal/h	2.409 W
COP	2,15 W/W	1,74 W/W
EER	1,85 kCal/Wh	1,50 kCal/Wh
Input Power	1.415 W	1.384 W
Current	7,10 A	6,93 A

APPROVALS



TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T _e)	7,2 °C	5,0 °C
Condensing temp. (T _c)	55,0 °C	55,0 °C
Liquid temp. (T _{liq.})	46,0 °C	55,0 °C
Ambient temp. (T _{amb.})	35,0 °C	32,0 °C
Suction temp. (T _{suction})	35,0 °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	20 µF 420 V			
Relay	Option 1	Option 2		
Reference	3ARR3 10AS3	RVA 3G..		
Pick-Up	180-195 V	180-195 V		
Drop-Out	40-105 V	40-105 V		
Protector	Option 1	Option 2		
Reference	MRA38123	T0534		
Current	22,00 A	20,00 A		
Time check	7,5-14 seg	7,5-14 seg		
Disc temp. (Open/Close)	105,00 / 52,00 °C	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	-25	853	733	3,77	1,35	1,16
40	-20	1.119	813	4,12	1,60	1,38
40	-15	1.430	892	4,48	1,86	1,60
40	-10	1.785	970	4,85	2,14	1,84
40	-5	2.183	1.046	5,21	2,43	2,09
40	0	2.626	1.121	5,58	2,72	2,34
40	5	3.112	1.195	5,95	3,03	2,60
40	7,2	3.340	1.228	6,11	3,16	2,72
40	10	3.642	1.268	6,32	3,34	2,87

45	-25	775	750	3,85	1,20	1,03
45	-20	1.017	837	4,23	1,41	1,21
45	-15	1.302	923	4,63	1,64	1,41
45	-10	1.631	1.008	5,03	1,88	1,62
45	-5	2.005	1.092	5,43	2,14	1,84
45	0	2.422	1.174	5,84	2,40	2,06
45	5	2.883	1.255	6,25	2,67	2,30
45	7,2	3.100	1.290	6,44	2,79	2,40
45	10	3.388	1.334	6,67	2,95	2,54

50	-25	698	768	3,92	1,06	0,91
50	-20	914	862	4,35	1,23	1,06
50	-15	1.174	955	4,78	1,43	1,23
50	-10	1.478	1.047	5,21	1,64	1,41
50	-5	1.826	1.137	5,66	1,87	1,61
50	0	2.218	1.226	6,11	2,10	1,81
50	5	2.654	1.314	6,56	2,35	2,02
50	7,2	2.860	1.353	6,77	2,46	2,11
50	10	3.134	1.401	7,02	2,60	2,24

55	-25	620	785	4,00	0,92	0,79
55	-20	811	886	4,46	1,06	0,92
55	-15	1.046	986	4,92	1,23	1,06
55	-10	1.325	1.085	5,40	1,42	1,22
55	-5	1.648	1.182	5,88	1,62	1,39
55	0	2.015	1.279	6,38	1,83	1,58
55	5	2.425	1.374	6,88	2,05	1,77
55	7,2	2.620	1.415	7,10	2,15	1,85
55	10	2.880	1.467	7,38	2,28	1,96

60	-25	543	803	4,08	0,79	0,68
60	-20	708	911	4,57	0,90	0,78
60	-15	918	1.018	5,07	1,05	0,90
60	-10	1.172	1.123	5,59	1,21	1,04
60	-5	1.469	1.228	6,12	1,39	1,20
60	0	1.811	1.331	6,65	1,58	1,36
60	5	2.196	1.433	7,20	1,78	1,53
60	7,2	2.380	1.478	7,44	1,87	1,61
60	10	2.626	1.534	7,75	1,99	1,71

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	893	733	3,77	1,22	1,05
40	-20	1.180	813	4,12	1,45	1,25
40	-15	1.510	892	4,48	1,69	1,46
40	-10	1.882	970	4,85	1,94	1,68
40	-5	2.297	1.046	5,21	2,20	1,90
40	0	2.755	1.121	5,58	2,46	2,12
40	5	3.255	1.195	5,95	2,72	2,35
40	7,2	3.489	1.228	6,11	2,84	2,46
40	10	3.798	1.268	6,32	3,00	2,59

45	-25	802	750	3,85	1,07	0,92
45	-20	1.058	837	4,23	1,26	1,09
45	-15	1.355	923	4,63	1,47	1,27
45	-10	1.696	1.008	5,03	1,68	1,45
45	-5	2.079	1.092	5,43	1,90	1,65
45	0	2.505	1.174	5,84	2,13	1,84
45	5	2.973	1.255	6,25	2,37	2,05
45	7,2	3.193	1.290	6,44	2,48	2,14
45	10	3.484	1.334	6,67	2,61	2,26

50	-25	712	768	3,92	0,93	0,80
50	-20	935	862	4,35	1,09	0,94
50	-15	1.201	955	4,78	1,26	1,09
50	-10	1.510	1.047	5,21	1,44	1,25
50	-5	1.861	1.137	5,66	1,64	1,41
50	0	2.255	1.226	6,11	1,84	1,59
50	5	2.691	1.314	6,56	2,05	1,77
50	7,2	2.897	1.353	6,77	2,14	1,85
50	10	3.171	1.401	7,02	2,26	1,96

55	-25	621	785	4,00	0,79	0,68
55	-20	812	886	4,46	0,92	0,79
55	-15	1.047	986	4,92	1,06	0,92
55	-10	1.323	1.085	5,40	1,22	1,05
55	-5	1.643	1.182	5,88	1,39	1,20
55	0	2.005	1.279	6,38	1,57	1,35
55	5	2.409	1.374	6,88	1,75	1,52
55	7,2	2.601	1.415	7,10	1,84	1,59
55	10	2.857	1.467	7,38	1,95	1,68

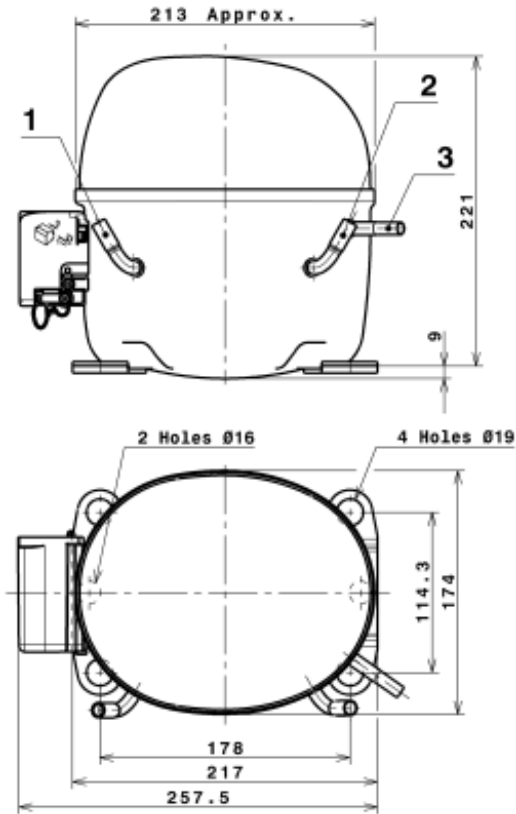
60	-25	530	803	4,08	0,66	0,57
60	-20	690	911	4,57	0,76	0,65
60	-15	892	1.018	5,07	0,88	0,76
60	-10	1.137	1.123	5,59	1,01	0,87
60	-5	1.425	1.228	6,12	1,16	1,00
60	0	1.755	1.331	6,65	1,32	1,14
60	5	2.128	1.433	7,20	1,48	1,28
60	7,2	2.305	1.478	7,44	1,56	1,35
60	10	2.543	1.534	7,75	1,66	1,43

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	4.760,8389400612	701,8637151524	3,6909721219	54,984442083387
2	146,7705716795	3,7425971400	0,0139120805	1,9666455840314
3	-51,9811557001	10,4875776398	0,0488198758	-0,24159307305683
4	0,8075496888	-0,0252780586	0,0001709278	0,022263706873534
5	-1,3471951004	0,2795031056	0,0015527950	-0,0040920721482725

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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COMPRESSOR DIMENSIONS

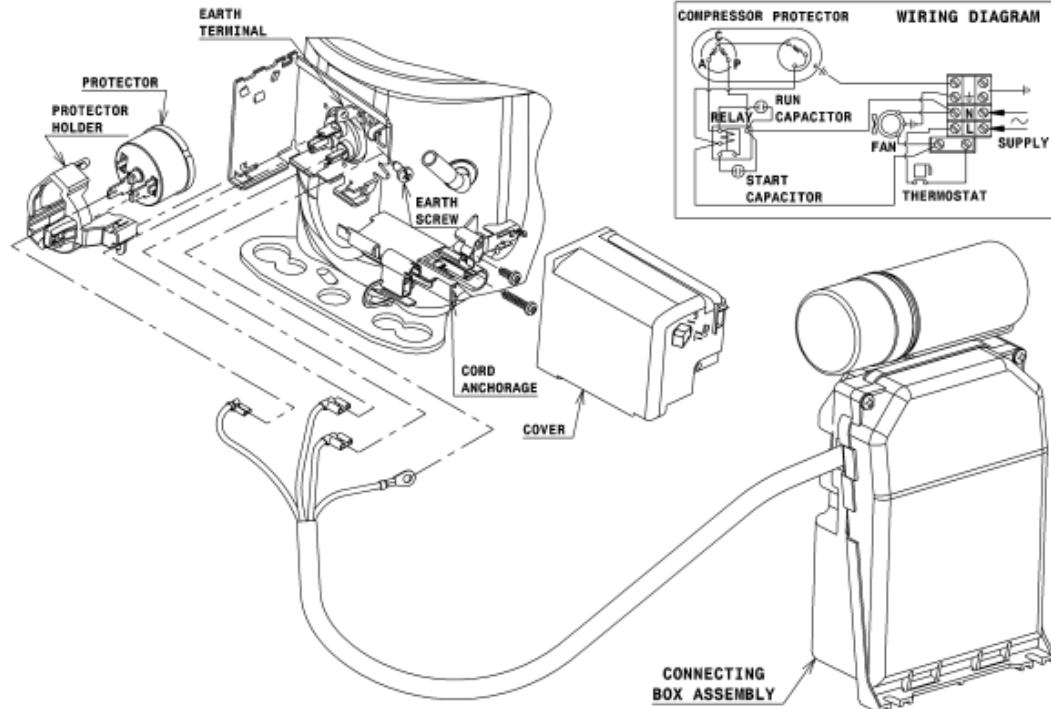


DESIGNATION INTERNAL DIAM.

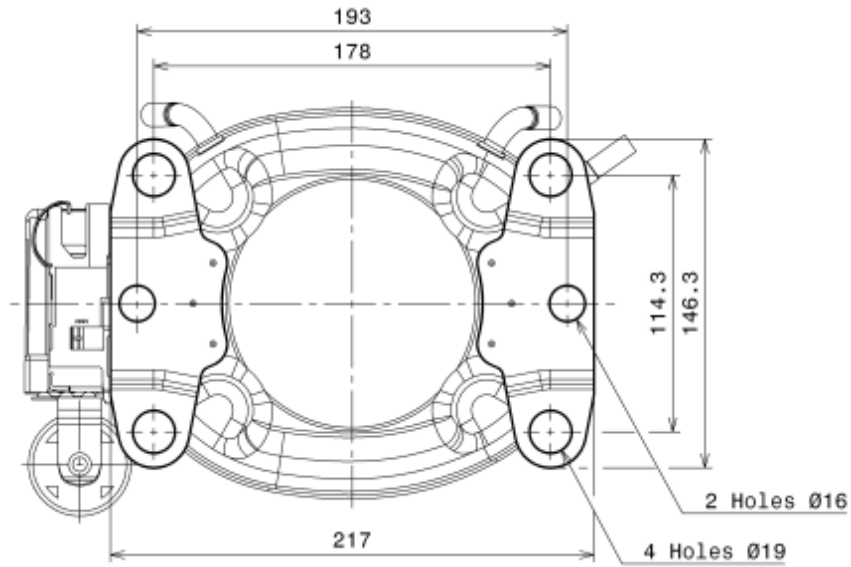
DESIGNATION	INTERNAL DIAM.
1 Service	9,7 mm
2 Suction	9,7 mm
3 Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSR CONNECTION (EXTERNAL CONNECTING BOX) (P, X ranges)



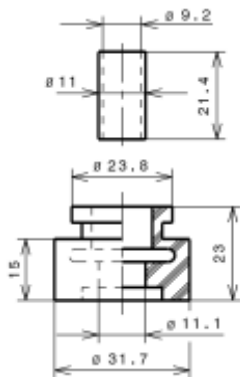
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

Ø19 holes (178x114.3 net)



SOA

SOA R404A HMBP

