

Technical Data Sheet

ENGINEERING
TOMORROW



Compressor model **MX21TBa**
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	198-255 V
Expansion	Capillar/Valve	Net Weight	16,52 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)	37,00 A
				Max. Cont. Current (MCC)	9,60 A
				Main W. resist. at 25°C	2,14 Ω
				Start W. resist. at 25°C	6,24 Ω

NOMINAL PERFORMANCE

APPROVALS

	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

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	88-108 μF 330 V			
Run capacitor	20 μF 420 V			
Relay	Option 1			
Reference	2014 184. + NTC15Ω			
Pick-Up	18,7 A			
Drop-Out	15,6 A			
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	-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	737	3,79	1,21	1,05
40	-20	1.180	817	4,14	1,44	1,25
40	-15	1.510	897	4,51	1,68	1,45
40	-10	1.882	976	4,87	1,93	1,67
40	-5	2.297	1.053	5,24	2,18	1,88
40	0	2.755	1.129	5,62	2,44	2,11
40	5	3.255	1.204	5,99	2,70	2,34
40	7,2	3.489	1.237	6,16	2,82	2,44
40	10	3.798	1.278	6,37	2,97	2,57

45	-25	802	754	3,86	1,06	0,92
45	-20	1.058	842	4,26	1,26	1,09
45	-15	1.355	929	4,65	1,46	1,26
45	-10	1.696	1.014	5,06	1,67	1,44
45	-5	2.079	1.099	5,47	1,89	1,63
45	0	2.505	1.182	5,88	2,12	1,83
45	5	2.973	1.264	6,30	2,35	2,03
45	7,2	3.193	1.300	6,49	2,46	2,12
45	10	3.484	1.345	6,73	2,59	2,24

50	-25	712	772	3,94	0,92	0,80
50	-20	935	867	4,37	1,08	0,93
50	-15	1.201	960	4,80	1,25	1,08
50	-10	1.510	1.053	5,24	1,43	1,24
50	-5	1.861	1.145	5,69	1,63	1,40
50	0	2.255	1.235	6,15	1,83	1,58
50	5	2.691	1.324	6,61	2,03	1,76
50	7,2	2.897	1.363	6,82	2,13	1,84
50	10	3.171	1.412	7,08	2,25	1,94

55	-25	621	789	4,02	0,79	0,68
55	-20	812	891	4,48	0,91	0,79
55	-15	1.047	992	4,95	1,05	0,91
55	-10	1.323	1.092	5,43	1,21	1,05
55	-5	1.643	1.190	5,92	1,38	1,19
55	0	2.005	1.288	6,42	1,56	1,35
55	5	2.409	1.384	6,93	1,74	1,50
55	7,2	2.601	1.426	7,16	1,82	1,58
55	10	2.857	1.479	7,45	1,93	1,67

60	-25	530	807	4,10	0,66	0,57
60	-20	690	916	4,59	0,75	0,65
60	-15	892	1.024	5,10	0,87	0,75
60	-10	1.137	1.131	5,62	1,01	0,87
60	-5	1.425	1.236	6,16	1,15	1,00
60	0	1.755	1.340	6,70	1,31	1,13
60	5	2.128	1.444	7,26	1,47	1,27
60	7,2	2.305	1.489	7,50	1,55	1,34
60	10	2.543	1.546	7,82	1,65	1,42

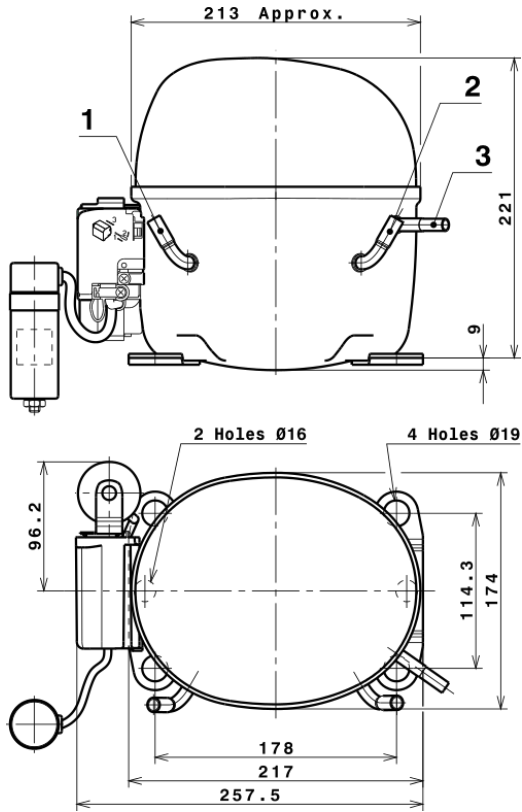


EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	4.760,8389400612	726,8546976497	3,4327670063	92,334606883747
2	146,7705716795	4,4296584541	0,0154432803	3,302560506221
3	-51,9811557001	10,9210148681	0,0581754481	-0,40570387879372
4	0,8075496888	-0,0096296998	0,0002820418	0,037387132506048
5	-1,3471951004	0,2926832034	0,0016863924	-0,0068717596984554

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

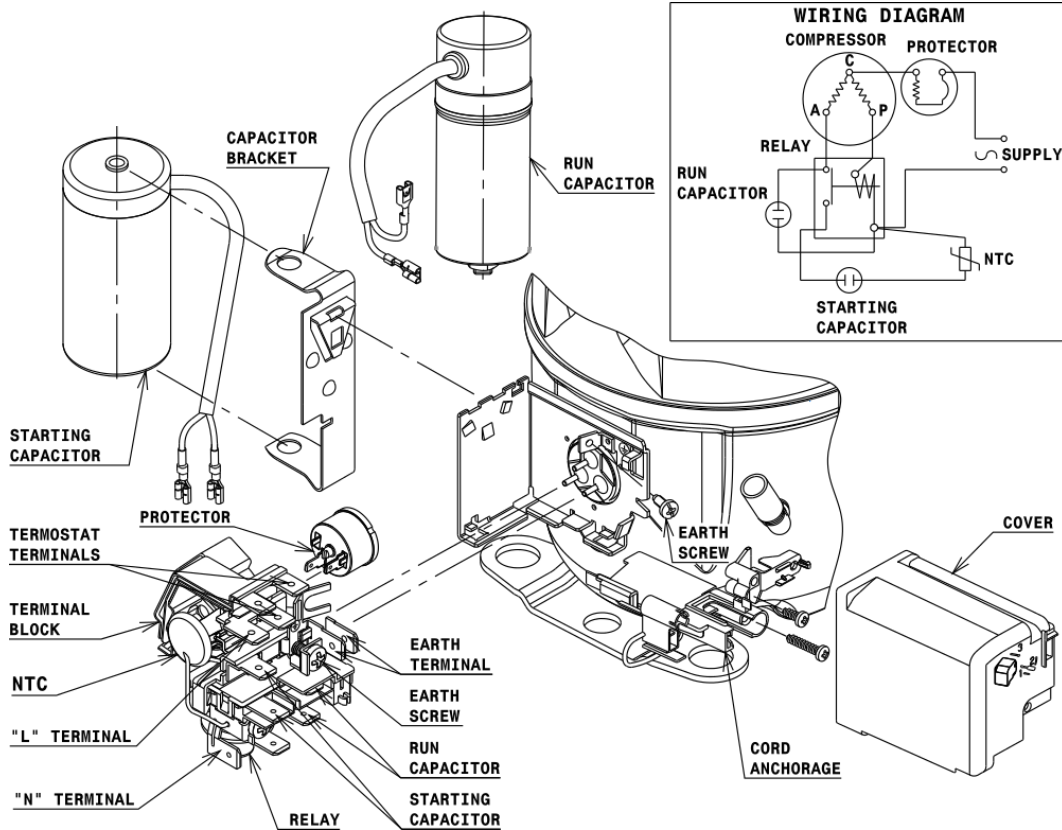


DESIGNATION INTERNAL DIAM.

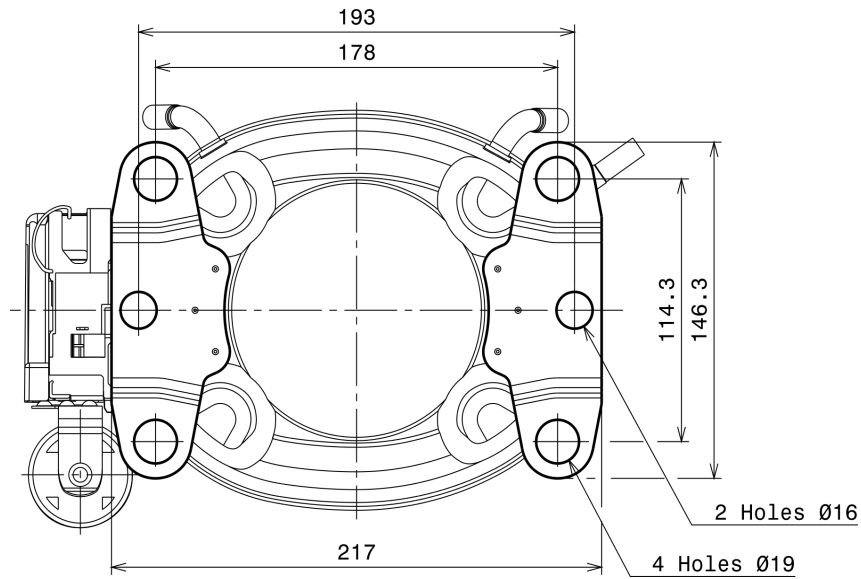
DESIGNATION	INTERNAL DIAM.
1 Service	9,7 mm
2 Suction	9,7 mm
3 Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

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



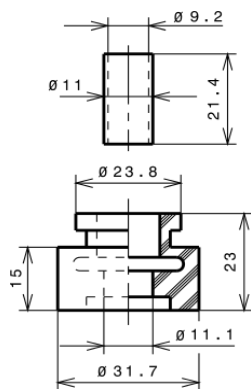
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

Ø19 holes (178x114.3 net)



SOA

SOA R404A HMBP

