

Technical Data Sheet

Compressor model **MX21TGa**
Voltage **200-220/220-230V 50/60Hz ~1**
Refrigerant **R404A**

APPLICATION

Application High-Medium Back Pressure
Refrigerant R404A
Evaporating Temp. -25,0 °C to 10,0 °C
Expansion Capillar/Valve
Comp. Cooling Fan cooled
Max. ambient temp. 43,0 °C

COMPRESSOR

Displacement 20,72 cm³
Diameter 34,93 mm
Stroke 21,62 mm
Net Weight 16,74 Kg
Oil type ISO VG 32 ESTER
Oil charge 650 cm³

MOTOR

Nominal Power 1 hp
Voltage/Frequency 200-220V 50Hz
Voltage range 175-242 V
Type CSR
Phase number 1 PH
Locked Rotor Amps (LRA) 38,50 A
Max. Cont. Current (MCC) 11,00 A
Main W. resist. at 25°C 1,90 Ω
Start W. resist. at 25°C 6,25 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	7,30 A	7,13 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	88-108 µF 330 V			
Run capacitor	20 µF 450 V			
Relay	Option 1			
Reference	2014 184. + NTC15Î©			
Pick-Up	18,7 A			
Drop-Out	15,6 A			
Protector	Option 1			
Reference	T0257			
Current	24,00 A			
Time check	6,0-16 seg			
Disc temp. (Open/Close)	120,00 / 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	4,10	1,35	1,16
40	-20	1.119	813	4,41	1,60	1,38
40	-15	1.430	892	4,74	1,86	1,60
40	-10	1.785	970	5,07	2,14	1,84
40	-5	2.183	1.046	5,42	2,43	2,09
40	0	2.626	1.121	5,77	2,72	2,34
40	5	3.112	1.195	6,14	3,03	2,60
40	7,2	3.340	1.228	6,30	3,16	2,72
40	10	3.642	1.268	6,51	3,34	2,87

45	-25	775	750	4,16	1,20	1,03
45	-20	1.017	837	4,51	1,41	1,21
45	-15	1.302	923	4,87	1,64	1,41
45	-10	1.631	1.008	5,24	1,88	1,62
45	-5	2.005	1.092	5,63	2,14	1,84
45	0	2.422	1.174	6,03	2,40	2,06
45	5	2.883	1.255	6,44	2,67	2,30
45	7,2	3.100	1.290	6,62	2,79	2,40
45	10	3.388	1.334	6,86	2,95	2,54

50	-25	698	768	4,23	1,06	0,91
50	-20	914	862	4,61	1,23	1,06
50	-15	1.174	955	5,01	1,43	1,23
50	-10	1.478	1.047	5,42	1,64	1,41
50	-5	1.826	1.137	5,85	1,87	1,61
50	0	2.218	1.226	6,29	2,10	1,81
50	5	2.654	1.314	6,75	2,35	2,02
50	7,2	2.860	1.353	6,96	2,46	2,11
50	10	3.134	1.401	7,22	2,60	2,24

55	-25	620	785	4,30	0,92	0,79
55	-20	811	886	4,71	1,06	0,92
55	-15	1.046	986	5,15	1,23	1,06
55	-10	1.325	1.085	5,60	1,42	1,22
55	-5	1.648	1.182	6,07	1,62	1,39
55	0	2.015	1.279	6,56	1,83	1,58
55	5	2.425	1.374	7,07	2,05	1,77
55	7,2	2.620	1.415	7,30	2,15	1,85
55	10	2.880	1.467	7,60	2,28	1,96

60	-25	543	803	4,37	0,79	0,68
60	-20	708	911	4,82	0,90	0,78
60	-15	918	1.018	5,29	1,05	0,90
60	-10	1.172	1.123	5,78	1,21	1,04
60	-5	1.469	1.228	6,30	1,39	1,20
60	0	1.811	1.331	6,84	1,58	1,36
60	5	2.196	1.433	7,40	1,78	1,53
60	7,2	2.380	1.478	7,65	1,87	1,61
60	10	2.626	1.534	7,98	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	4,11	1,21	1,05
40	-20	1.180	817	4,43	1,44	1,25
40	-15	1.510	897	4,76	1,68	1,45
40	-10	1.882	976	5,10	1,93	1,67
40	-5	2.297	1.053	5,45	2,18	1,88
40	0	2.755	1.129	5,81	2,44	2,11
40	5	3.255	1.204	6,18	2,70	2,34
40	7,2	3.489	1.237	6,35	2,82	2,44
40	10	3.798	1.278	6,56	2,97	2,57

45	-25	802	754	4,18	1,06	0,92
45	-20	1.058	842	4,53	1,26	1,09
45	-15	1.355	929	4,89	1,46	1,26
45	-10	1.696	1.014	5,27	1,67	1,44
45	-5	2.079	1.099	5,67	1,89	1,63
45	0	2.505	1.182	6,07	2,12	1,83
45	5	2.973	1.264	6,49	2,35	2,03
45	7,2	3.193	1.300	6,67	2,46	2,12
45	10	3.484	1.345	6,92	2,59	2,24

50	-25	712	772	4,25	0,92	0,80
50	-20	935	867	4,63	1,08	0,93
50	-15	1.201	960	5,03	1,25	1,08
50	-10	1.510	1.053	5,45	1,43	1,24
50	-5	1.861	1.145	5,89	1,63	1,40
50	0	2.255	1.235	6,34	1,83	1,58
50	5	2.691	1.324	6,80	2,03	1,76
50	7,2	2.897	1.363	7,01	2,13	1,84
50	10	3.171	1.412	7,28	2,25	1,94

55	-25	621	789	4,32	0,79	0,68
55	-20	812	891	4,73	0,91	0,79
55	-15	1.047	992	5,17	1,05	0,91
55	-10	1.323	1.092	5,63	1,21	1,05
55	-5	1.643	1.190	6,11	1,38	1,19
55	0	2.005	1.288	6,61	1,56	1,35
55	5	2.409	1.384	7,13	1,74	1,50
55	7,2	2.601	1.426	7,36	1,82	1,58
55	10	2.857	1.479	7,66	1,93	1,67

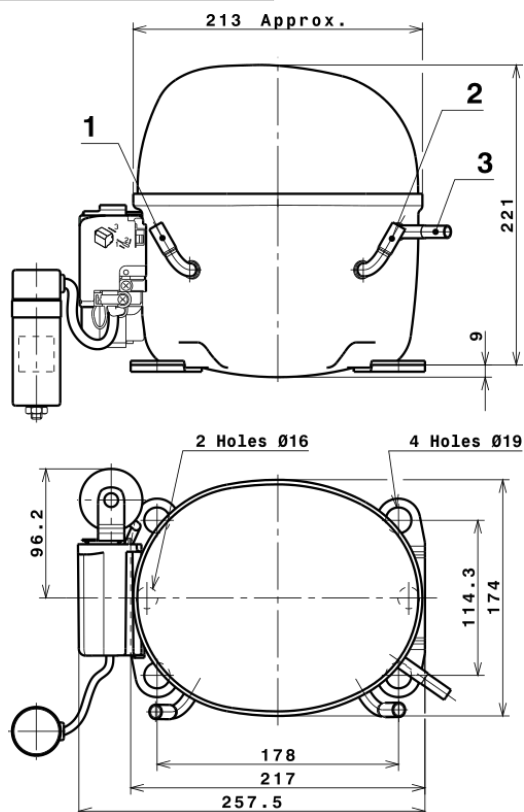
60	-25	530	807	4,39	0,66	0,57
60	-20	690	916	4,84	0,75	0,65
60	-15	892	1.024	5,32	0,87	0,75
60	-10	1.137	1.131	5,82	1,01	0,87
60	-5	1.425	1.236	6,34	1,15	1,00
60	0	1.755	1.340	6,89	1,31	1,13
60	5	2.128	1.444	7,46	1,47	1,27
60	7,2	2.305	1.489	7,72	1,55	1,34
60	10	2.543	1.546	8,05	1,65	1,42

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	4.760,8389400612	726,8546976497	3,5487256022	92,334606883747
2	146,7705716795	4,4296584541	0,0103721618	3,302560506221
3	-51,9811557001	10,9210148681	0,0594924743	-0,40570387879372
4	0,8075496888	-0,0096296998	0,0005100508	0,037387132506048
5	-1,3471951004	0,2926832034	0,0018092009	-0,0068717596984554

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

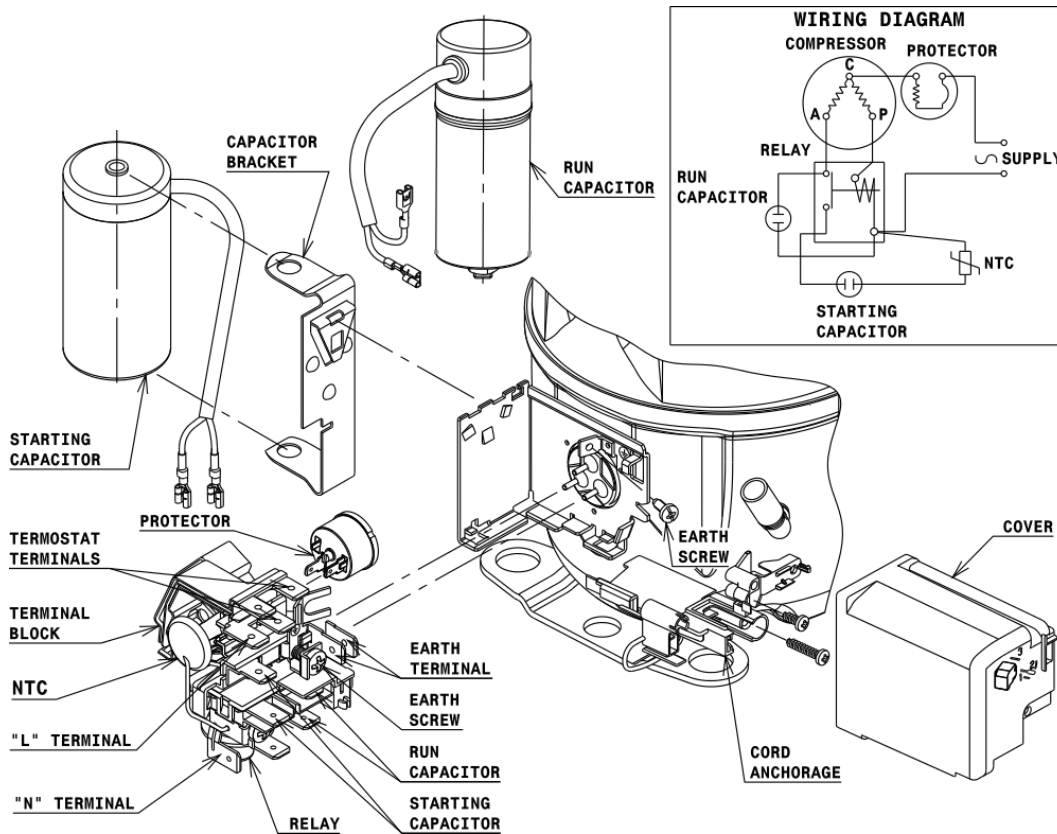


DESIGNATION INTERNAL DIAM.

1	Service	9,7 mm
2	Suction	9,7 mm
3	Discharge	6,5 mm

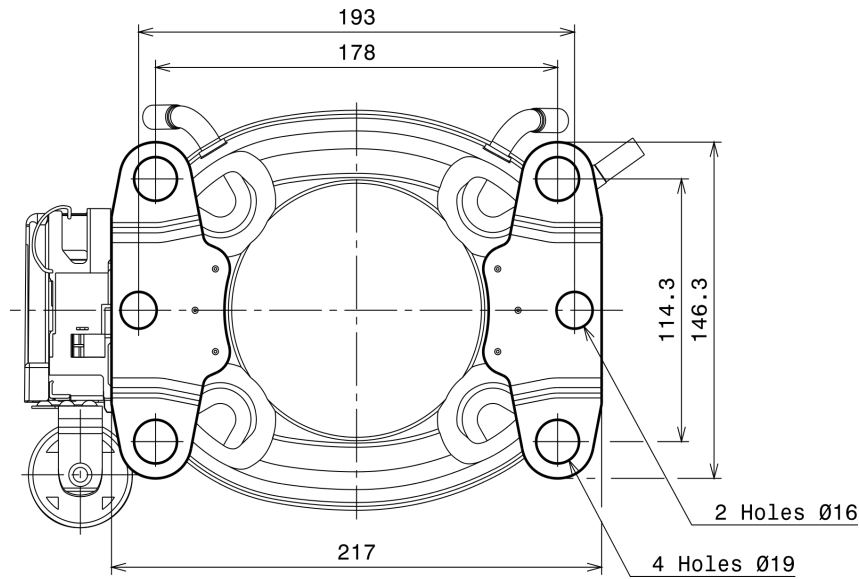
WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

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



Technical Data Sheet

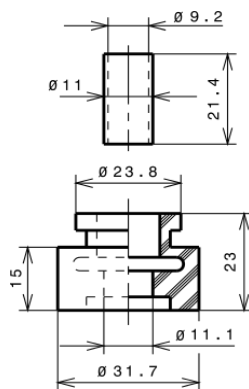
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

Ø19 holes (178x114.3 net)



SOA

SOA R404A HMBP

