

Technical Data Sheet

Compressor model **MX21TGa**
Voltage **200-220/220-230V 50/60Hz ~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	220-230V 60Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	21,62 mm	Voltage range	196-253 V
Expansion	Capillar/Valve	Net Weight	16,74 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	650 cm ³	Locked Rotor Amps (LRA)	39,50 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	3.025 kCal/h	2.781 W
COP	2,12 W/W	1,72 W/W
EER	1,82 kCal/Wh	1,48 kCal/Wh
Input Power	1.660 W	1.621 W
Current	7,70 A	7,49 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	230 V 60 Hz	230 V 60 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	995	865	3,88	1,34	1,15
40	-20	1.299	951	4,25	1,59	1,37
40	-15	1.655	1.037	4,62	1,86	1,60
40	-10	2.062	1.125	5,02	2,13	1,83
40	-5	2.521	1.214	5,43	2,42	2,08
40	0	3.032	1.304	5,86	2,70	2,33
40	5	3.594	1.395	6,31	3,00	2,58
40	7,2	3.858	1.435	6,52	3,13	2,69
40	10	4.208	1.487	6,78	3,29	2,83

45	-25	905	890	3,99	1,18	1,02
45	-20	1.180	983	4,39	1,40	1,20
45	-15	1.506	1.078	4,81	1,63	1,40
45	-10	1.885	1.173	5,24	1,87	1,61
45	-5	2.315	1.270	5,70	2,12	1,82
45	0	2.796	1.368	6,18	2,38	2,04
45	5	3.329	1.466	6,68	2,64	2,27
45	7,2	3.580	1.510	6,90	2,76	2,37
45	10	3.914	1.566	7,20	2,91	2,50

50	-25	815	915	4,09	1,04	0,89
50	-20	1.061	1.016	4,53	1,21	1,04
50	-15	1.358	1.118	4,99	1,41	1,21
50	-10	1.707	1.222	5,47	1,63	1,40
50	-5	2.108	1.326	5,97	1,85	1,59
50	0	2.560	1.431	6,50	2,08	1,79
50	5	3.064	1.538	7,05	2,32	1,99
50	7,2	3.303	1.585	7,30	2,42	2,08
50	10	3.620	1.645	7,62	2,56	2,20

55	-25	725	940	4,20	0,90	0,77
55	-20	942	1.049	4,68	1,04	0,90
55	-15	1.210	1.159	5,18	1,21	1,04
55	-10	1.530	1.270	5,70	1,40	1,20
55	-5	1.902	1.382	6,25	1,60	1,38
55	0	2.325	1.495	6,83	1,81	1,55
55	5	2.800	1.609	7,43	2,02	1,74
55	7,2	3.025	1.660	7,70	2,12	1,82
55	10	3.326	1.725	8,06	2,24	1,93

60	-25	635	965	4,31	0,77	0,66
60	-20	823	1.082	4,82	0,88	0,76
60	-15	1.062	1.199	5,36	1,03	0,89
60	-10	1.353	1.318	5,93	1,19	1,03
60	-5	1.695	1.438	6,53	1,37	1,18
60	0	2.089	1.559	7,16	1,56	1,34
60	5	2.535	1.681	7,81	1,75	1,51
60	7,2	2.748	1.735	8,11	1,84	1,58
60	10	3.032	1.804	8,50	1,96	1,68

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	1.043	870	3,90	1,20	1,04
40	-20	1.370	956	4,27	1,43	1,24
40	-15	1.747	1.043	4,65	1,67	1,45
40	-10	2.175	1.132	5,05	1,92	1,66
40	-5	2.653	1.222	5,47	2,17	1,88
40	0	3.181	1.313	5,91	2,42	2,09
40	5	3.759	1.405	6,36	2,68	2,31
40	7,2	4.029	1.446	6,57	2,79	2,41
40	10	4.387	1.498	6,84	2,93	2,53

45	-25	937	895	4,01	1,05	0,90
45	-20	1.228	989	4,41	1,24	1,07
45	-15	1.568	1.084	4,83	1,45	1,25
45	-10	1.959	1.181	5,28	1,66	1,43
45	-5	2.400	1.278	5,74	1,88	1,62
45	0	2.892	1.377	6,22	2,10	1,81
45	5	3.433	1.477	6,73	2,32	2,01
45	7,2	3.687	1.522	6,96	2,42	2,09
45	10	4.025	1.578	7,26	2,55	2,20

50	-25	832	920	4,12	0,90	0,78
50	-20	1.085	1.022	4,56	1,06	0,92
50	-15	1.389	1.125	5,02	1,24	1,07
50	-10	1.744	1.229	5,51	1,42	1,23
50	-5	2.148	1.335	6,02	1,61	1,39
50	0	2.602	1.441	6,55	1,81	1,56
50	5	3.107	1.549	7,11	2,01	1,73
50	7,2	3.345	1.597	7,36	2,09	1,81
50	10	3.662	1.658	7,69	2,21	1,91

55	-25	726	945	4,22	0,77	0,66
55	-20	943	1.055	4,70	0,89	0,77
55	-15	1.211	1.166	5,21	1,04	0,90
55	-10	1.528	1.278	5,74	1,20	1,03
55	-5	1.896	1.391	6,30	1,36	1,18
55	0	2.313	1.506	6,88	1,54	1,33
55	5	2.781	1.621	7,49	1,72	1,48
55	7,2	3.003	1.673	7,77	1,80	1,55
55	10	3.299	1.738	8,13	1,90	1,64

60	-25	621	970	4,33	0,64	0,55
60	-20	801	1.088	4,85	0,74	0,64
60	-15	1.032	1.207	5,40	0,86	0,74
60	-10	1.312	1.327	5,97	0,99	0,85
60	-5	1.643	1.448	6,58	1,14	0,98
60	0	2.024	1.570	7,22	1,29	1,11
60	5	2.455	1.694	7,88	1,45	1,25
60	7,2	2.661	1.748	8,19	1,52	1,32
60	10	2.937	1.818	8,58	1,62	1,40

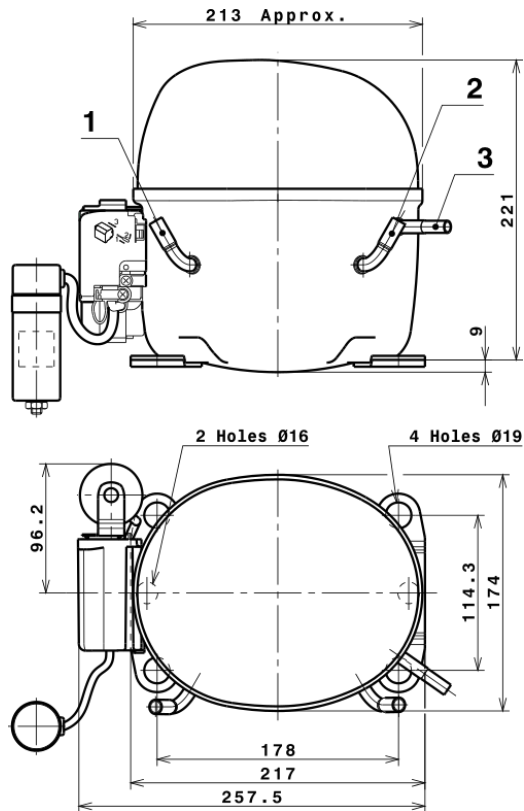
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	5.500,7885880365	821,4519882693	3,2294993998	106,6726784736
2	169,3842645873	6,4893381742	0,0212092575	3,8190222860509
3	-60,1109084491	13,2894118466	0,0708506948	-0,47033352931002
4	0,9497540718	0,0408465197	0,0006532889	0,043762957865916
5	-1,5533942012	0,3256373434	0,0019522220	-0,0080182762127243

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

COMPRESSOR DIMENSIONS

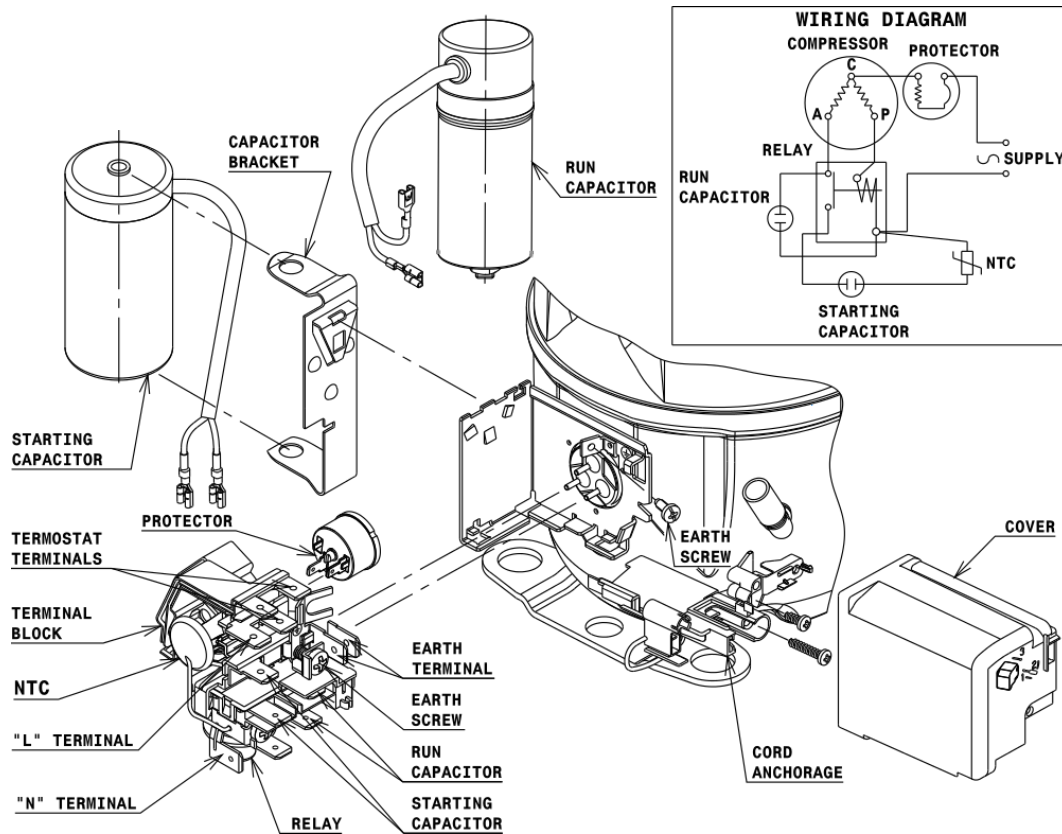


DESIGNATION INTERNAL DIAM.

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

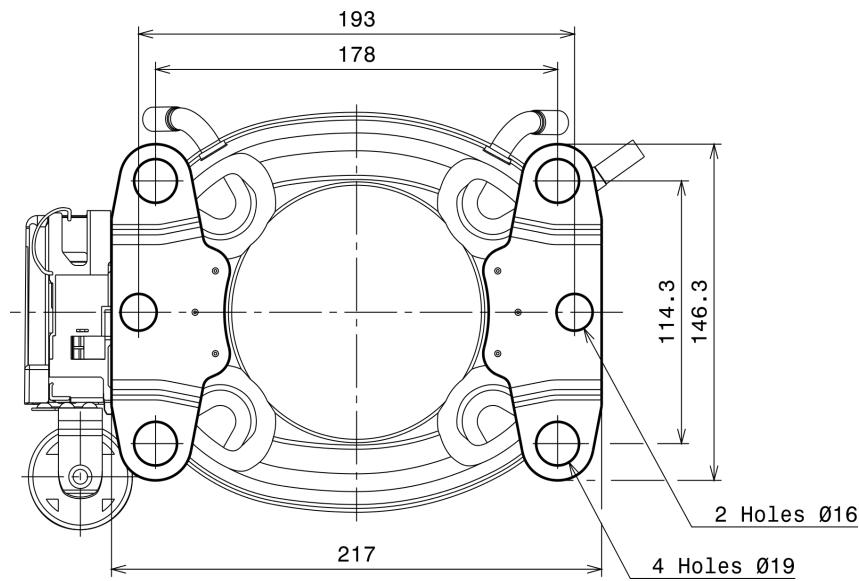
WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

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



Technical Data Sheet

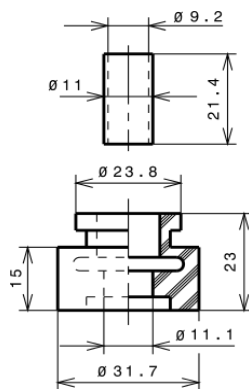
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

Ø19 holes (178x114.3 net)



SOA

SOA R404A HMBP

