

Technical Data Sheet

ENGINEERING
TOMORROW



Compressor model **MX21FBa**
Voltage **220-240V 50Hz ~1**
Refrigerant **R404A**

APPLICATION

COMPRESSOR

MOTOR

Application	Low Back Pressure	Displacement	20,72 cm ³	Nominal Power	3/4 hp
Refrigerant	R404A	Diameter	34,93 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-40,0 °C to -10,0 °C	Stroke	21,62 mm	Voltage range	187-255 V
Expansion	Capillar/Valve	Net Weight	16,66 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)	24,00 A
				Max. Cont. Current (MCC)	6,50 A
				Main W. resist. at 25°C	2,76 Ω
				Start W. resist. at 25°C	7,10 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	805 kCal/h	630 W
COP	1,35 W/W	0,96 W/W
EER	1,16 kCal/Wh	0,83 kCal/Wh
Input Power	695 W	659 W
Current	3,50 A	3,33 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		
Reference	2014 170. + NTC15Ω		
Pick-Up	12,10 A		
Drop-Out	10,30 A		
Protector	Option 1	Option 2	
Reference	MRA38134	T0348	
Current	15,80 A	15,40 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	

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ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	358	435	2,31	0,96	0,82
40	-35	509	501	2,61	1,18	1,01
40	-30	693	575	2,94	1,40	1,21
40	-25	911	655	3,31	1,62	1,39
40	-23,3	993	684	3,45	1,69	1,45
40	-20	1.162	742	3,72	1,82	1,57
40	-15	1.446	836	4,17	2,01	1,73
40	-10	1.763	938	4,67	2,19	1,88

45	-40	320	415	2,23	0,90	0,77
45	-35	464	489	2,55	1,10	0,95
45	-30	641	569	2,92	1,31	1,13
45	-25	851	656	3,32	1,51	1,30
45	-23,3	930	688	3,47	1,57	1,35
45	-20	1.094	751	3,76	1,70	1,46
45	-15	1.371	852	4,25	1,87	1,61
45	-10	1.680	960	4,78	2,04	1,75

50	-40	283	395	2,14	0,83	0,72
50	-35	419	476	2,50	1,02	0,88
50	-30	588	563	2,89	1,22	1,04
50	-25	791	658	3,33	1,40	1,20
50	-23,3	868	691	3,48	1,46	1,25
50	-20	1.027	759	3,80	1,57	1,35
50	-15	1.296	867	4,32	1,74	1,49
50	-10	1.598	983	4,89	1,89	1,63

55	-40	245	375	2,05	0,76	0,65
55	-35	374	463	2,44	0,94	0,81
55	-30	536	557	2,86	1,12	0,96
55	-25	731	659	3,33	1,29	1,11
55	-23,3	805	695	3,50	1,35	1,16
55	-20	959	767	3,84	1,45	1,25
55	-15	1.221	883	4,40	1,61	1,38
55	-10	1.515	1.005	5,00	1,75	1,51

60	-40	208	355	1,96	0,68	0,58
60	-35	329	450	2,38	0,85	0,73
60	-30	483	552	2,84	1,02	0,88
60	-25	671	660	3,34	1,18	1,02
60	-23,3	742	699	3,52	1,24	1,06
60	-20	892	776	3,88	1,34	1,15
60	-15	1.146	898	4,47	1,48	1,28
60	-10	1.433	1.028	5,11	1,62	1,39

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	375	435	2,31	0,86	0,74
40	-35	554	501	2,61	1,10	0,95
40	-30	760	575	2,94	1,32	1,14
40	-25	995	655	3,31	1,52	1,31
40	-23,3	1.081	684	3,45	1,58	1,37
40	-20	1.257	742	3,72	1,69	1,46
40	-15	1.546	836	4,17	1,85	1,60
40	-10	1.863	938	4,67	1,99	1,72

45	-40	320	415	2,23	0,77	0,67
45	-35	477	489	2,55	0,98	0,84
45	-30	661	569	2,92	1,16	1,00
45	-25	873	656	3,32	1,33	1,15
45	-23,3	951	688	3,47	1,38	1,20
45	-20	1.113	751	3,76	1,48	1,28
45	-15	1.380	852	4,25	1,62	1,40
45	-10	1.674	960	4,78	1,74	1,51

50	-40	266	395	2,14	0,67	0,58
50	-35	400	476	2,50	0,84	0,73
50	-30	562	563	2,89	1,00	0,86
50	-25	751	658	3,33	1,14	0,99
50	-23,3	822	691	3,48	1,19	1,03
50	-20	968	759	3,80	1,28	1,10
50	-15	1.213	867	4,32	1,40	1,21
50	-10	1.485	983	4,89	1,51	1,31

55	-40	212	375	2,05	0,56	0,49
55	-35	324	463	2,44	0,70	0,60
55	-30	463	557	2,86	0,83	0,72
55	-25	630	659	3,33	0,96	0,83
55	-23,3	693	695	3,50	1,00	0,86
55	-20	824	767	3,84	1,07	0,93
55	-15	1.047	883	4,40	1,19	1,02
55	-10	1.296	1.005	5,00	1,29	1,11

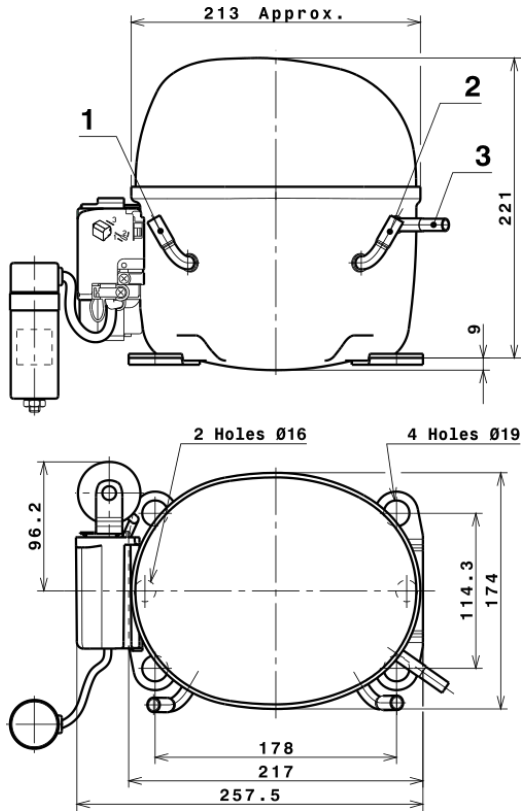
60	-40	157	355	1,96	0,44	0,38
60	-35	247	450	2,38	0,55	0,47
60	-30	364	552	2,84	0,66	0,57
60	-25	508	660	3,34	0,77	0,67
60	-23,3	564	699	3,52	0,81	0,70
60	-20	680	776	3,88	0,88	0,76
60	-15	880	898	4,47	0,98	0,85
60	-10	1.107	1.028	5,11	1,08	0,93

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	4.395,9487453346	893,2342539940	4,4979564456	95,89251285007
2	111,0511619266	13,0110853038	0,0724366987	2,7695655680726
3	-47,5109628787	7,5239227734	0,0367678645	-0,57645950401137
4	0,5233556543	0,1471144203	0,0009225056	0,020757610985128
5	-0,9195471692	0,2903121726	0,0013692594	-0,0091703189235223

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

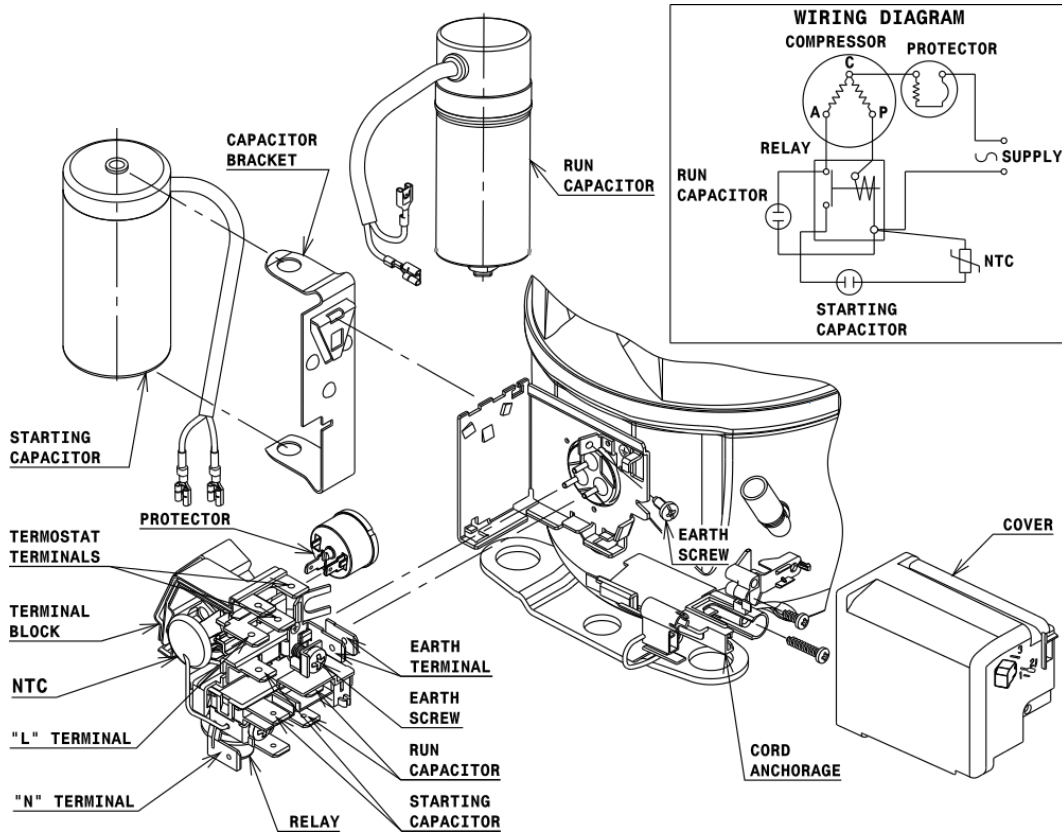


DESIGNATION INTERNAL DIAM.

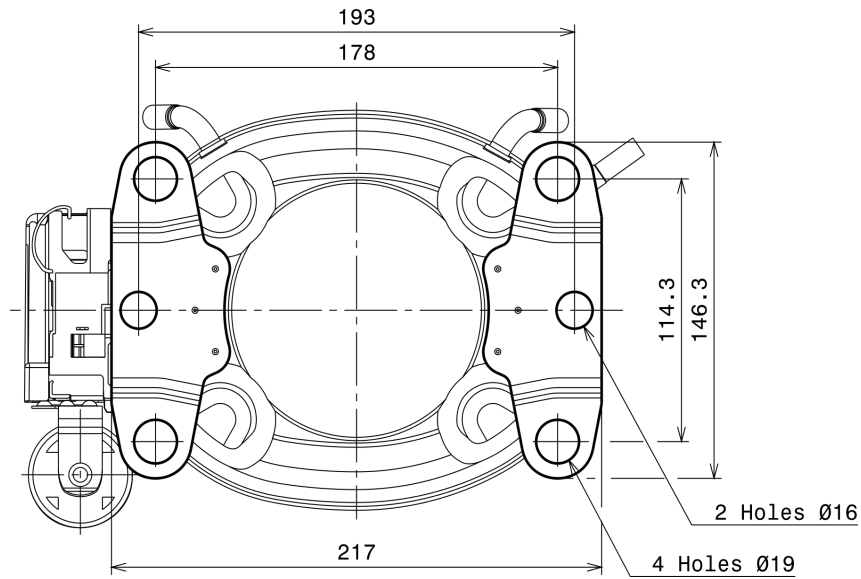
DESIGNATION	INTERNAL DIAM.
1 Service	9,7 mm
2 Suction	9,7 mm
3 Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

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



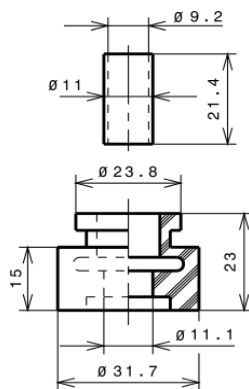
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

$\varnothing 19$ holes (178x114.3 net)



SOA

SOA R404A LBP

