

Technical Data Sheet

ENGINEERING
TOMORROW



Compressor model **ML40TB**
Voltage **220-240V 50Hz ~1**
Refrigerant **R404A**

APPLICATION

COMPRESSOR

MOTOR

Application	High-Medium Back Pressure	Displacement	4,05 cm ³	Nominal Power	1/6 hp
Refrigerant	R404A	Diameter	20,88 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	11,83 mm	Voltage range	187-264 V
Expansion	Capillar/Valve	Net Weight	9,47 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	295 cm ³	Locked Rotor Amps (LRA)	9,70 A
				Max. Cont. Current (MCC)	3,20 A
				Main W. resist. at 25°C	12,00 Ω
				Start W. resist. at 25°C	30,00 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	510 kCal/h	470 W
COP	1,74 W/W	1,41 W/W
EER	1,50 kCal/Wh	1,22 kCal/Wh
Input Power	340 W	332 W
Current	1,90 A	1,87 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	47- 56 μF 330 V			
Relay	Option 1	Option 2		
Reference	2014 127.	QLZ-4.8A		
Pick-Up	4,80 A	4,8 A		
Drop-Out	4,10 A	4,1 A		
Protector	Option 1	Option 2		
Reference	MRP56AMK	T0057		
Current	9,40 A	8,50 A		
Time check	7,5-14 seg	7,5-14 seg		
Disc temp. (Open/Close)	105,00 / 61,00 °C	105,00 / 61,00 °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	-25	177	181	1,35	1,14	0,98
40	-20	230	198	1,40	1,35	1,16
40	-15	291	215	1,45	1,58	1,36
40	-10	360	231	1,51	1,81	1,56
40	-5	438	248	1,56	2,05	1,77
40	0	524	265	1,62	2,30	1,98
40	5	619	282	1,68	2,56	2,20
40	7,2	663	289	1,70	2,67	2,29
40	10	722	298	1,74	2,81	2,42

45	-25	162	184	1,36	1,02	0,88
45	-20	209	203	1,42	1,20	1,03
45	-15	265	222	1,48	1,39	1,19
45	-10	329	241	1,54	1,59	1,36
45	-5	401	260	1,60	1,79	1,54
45	0	481	279	1,67	2,01	1,73
45	5	570	298	1,73	2,23	1,92
45	7,2	612	306	1,77	2,33	2,00
45	10	667	317	1,81	2,45	2,11

50	-25	147	187	1,37	0,91	0,79
50	-20	189	208	1,43	1,05	0,91
50	-15	238	229	1,50	1,21	1,04
50	-10	297	250	1,57	1,38	1,18
50	-5	363	272	1,64	1,56	1,34
50	0	438	293	1,72	1,74	1,50
50	5	522	314	1,80	1,93	1,66
50	7,2	561	323	1,83	2,02	1,74
50	10	613	335	1,88	2,13	1,83

55	-25	132	190	1,38	0,81	0,69
55	-20	168	213	1,45	0,92	0,79
55	-15	212	237	1,52	1,04	0,90
55	-10	265	260	1,60	1,19	1,02
55	-5	326	283	1,68	1,34	1,15
55	0	395	307	1,77	1,50	1,29
55	5	473	330	1,86	1,67	1,43
55	7,2	510	340	1,90	1,74	1,50
55	10	559	353	1,95	1,84	1,58

60	-25	117	193	1,39	0,71	0,61
60	-20	147	219	1,46	0,78	0,67
60	-15	186	244	1,55	0,89	0,76
60	-10	233	270	1,63	1,01	0,87
60	-5	289	295	1,72	1,14	0,98
60	0	352	320	1,82	1,28	1,10
60	5	425	346	1,92	1,43	1,23
60	7,2	459	357	1,97	1,50	1,29
60	10	505	371	2,03	1,58	1,36

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	186	182	1,36	1,02	0,88
40	-20	242	199	1,41	1,22	1,05
40	-15	307	216	1,46	1,42	1,23
40	-10	380	233	1,51	1,63	1,41
40	-5	461	250	1,57	1,84	1,59
40	0	550	267	1,62	2,06	1,78
40	5	647	284	1,68	2,28	1,97
40	7,2	692	291	1,71	2,38	2,05
40	10	752	301	1,75	2,50	2,16

45	-25	168	185	1,37	0,91	0,78
45	-20	218	204	1,42	1,07	0,92
45	-15	275	223	1,48	1,23	1,07
45	-10	341	242	1,54	1,41	1,22
45	-5	415	262	1,61	1,59	1,37
45	0	498	281	1,67	1,77	1,53
45	5	588	300	1,74	1,96	1,69
45	7,2	630	308	1,78	2,04	1,77
45	10	686	319	1,82	2,15	1,86

50	-25	150	188	1,37	0,80	0,69
50	-20	193	209	1,44	0,92	0,80
50	-15	244	231	1,50	1,06	0,91
50	-10	303	252	1,57	1,20	1,04
50	-5	370	273	1,65	1,35	1,17
50	0	446	295	1,72	1,51	1,31
50	5	529	316	1,80	1,67	1,45
50	7,2	568	325	1,84	1,75	1,51
50	10	621	337	1,89	1,84	1,59

55	-25	132	191	1,38	0,69	0,60
55	-20	168	215	1,45	0,78	0,68
55	-15	212	238	1,53	0,89	0,77
55	-10	265	262	1,61	1,01	0,87
55	-5	325	285	1,69	1,14	0,98
55	0	393	309	1,78	1,27	1,10
55	5	470	332	1,87	1,41	1,22
55	7,2	506	343	1,91	1,48	1,28
55	10	555	356	1,97	1,56	1,35

60	-25	114	194	1,39	0,59	0,51
60	-20	144	220	1,47	0,65	0,56
60	-15	181	245	1,55	0,74	0,64
60	-10	226	271	1,64	0,83	0,72
60	-5	280	297	1,73	0,94	0,81
60	0	341	323	1,83	1,06	0,91
60	5	411	348	1,93	1,18	1,02
60	7,2	444	360	1,98	1,24	1,07
60	10	489	374	2,04	1,31	1,13

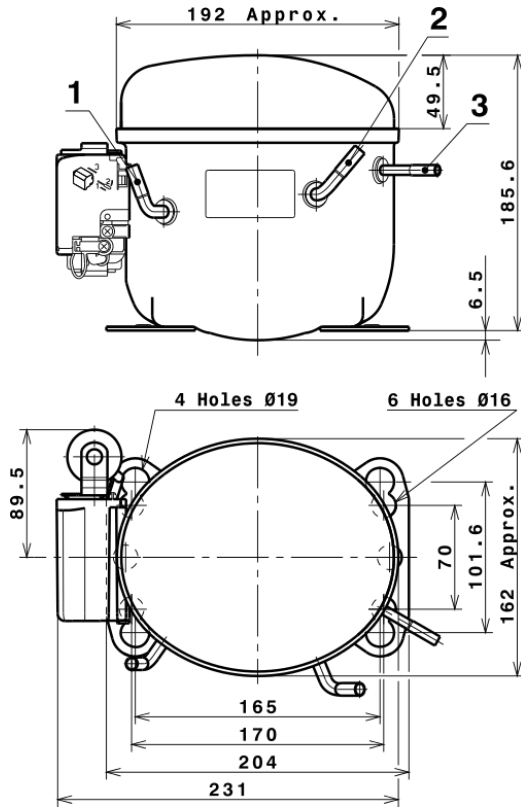


EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	966,6168816134	159,3358333078	1,1793412403	19,180285533583
2	29,5650671860	-0,0066840896	-0,0020009138	0,68230334038576
3	-10,7877560830	2,8894706820	0,0115316948	-0,098899238191598
4	0,1534623654	0,0034548510	0,0001104479	0,0071215700658738
5	-0,2876191364	0,0908661316	0,0003900905	-0,0023140779613686

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

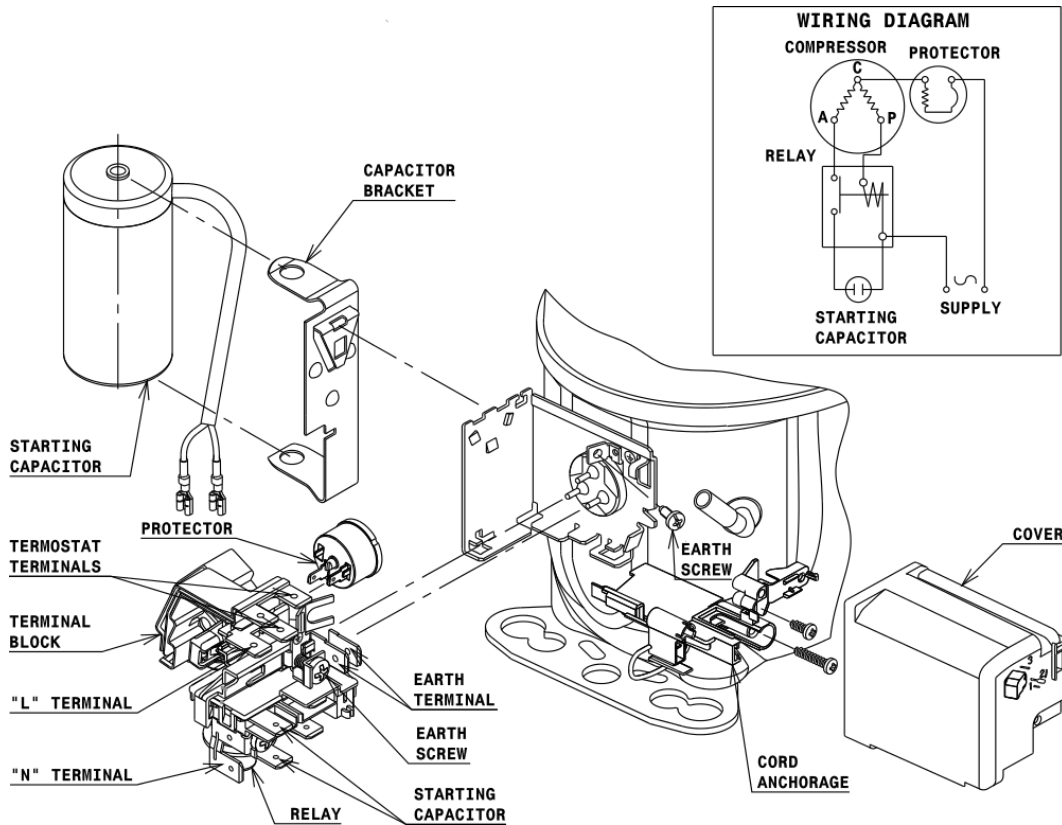


DESIGNATION INTERNAL DIAM.

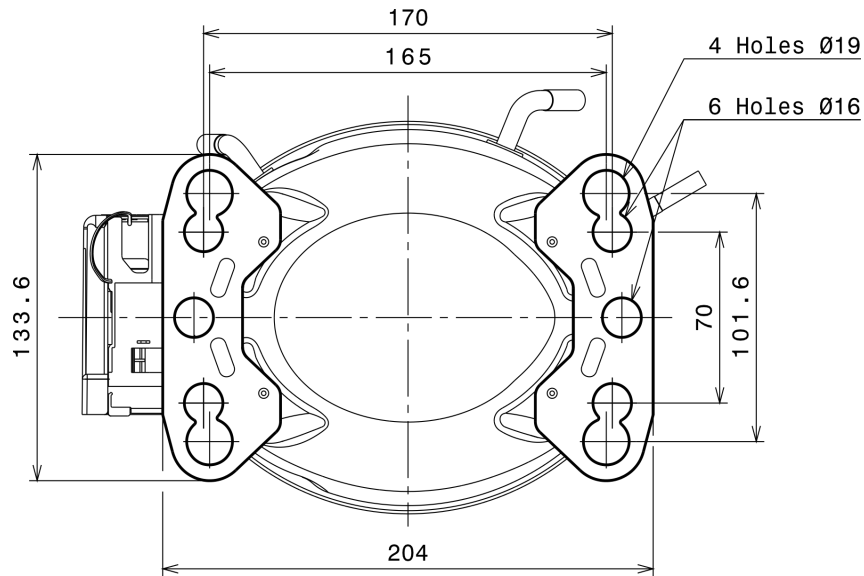
DESIGNATION	INTERNAL DIAM.
1 Suction	6,5 mm
2 Service	6,5 mm
3 Discharge	4,9 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSIR CONNECTION (L, P ranges)



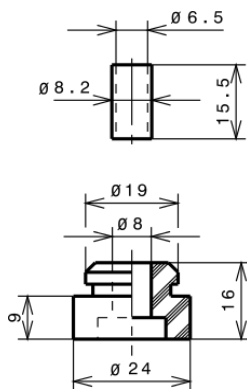
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

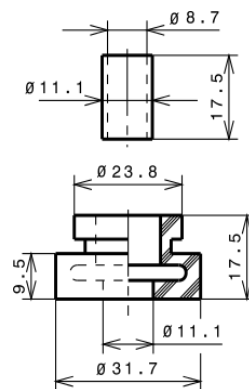
STANDARD

Ø16 holes (170x70 net)



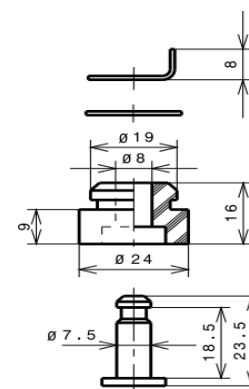
AMERICAN FEET

Ø19 holes (165x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R404A HMBP

