

Technical Data Sheet

Compressor model **ML45FR**
 Voltage **115-127V 60Hz ~1**
 Refrigerant **R404A**

APPLICATION

Application Low Back Pressure
 Refrigerant R404A
 Evaporating Temp. -40,0 °C to -10,0 °C
 Expansion Capillar/Valve
 Comp. Cooling Fan cooled
 Max. ambient temp. 43,0 °C

COMPRESSOR

Displacement 4,56 cm³
 Diameter 19,09 mm
 Stroke 15,93 mm
 Net Weight 9,21 Kg
 Oil type ISO VG 32 ESTER
 Oil charge 300 cm³

MOTOR

Nominal Power 1/6 hp
 Voltage/Frequency 115-127V 60Hz
 Voltage range 98-140 V
 Type CSIR
 Phase number 1 PH
 Locked Rotor Amps (LRA) 23,00 A
 Max. Cont. Current (MCC) 4,80 A
 Main W. resist. at 25°C 2,98 Ω
 Start W. resist. at 25°C 9,22 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	200 kCal/h	157 W
COP	1,01 W/W	0,72 W/W
EER	0,87 kCal/Wh	0,62 kCal/Wh
Input Power	230 W	219 W
Current	2,90 A	2,83 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	115 V 60 Hz	115 V 60 Hz

ELECTRICAL COMPONENTS

Starting capacitor	150 µF 160 V			
Relay	Option 1			
Reference	2014 158.			
Pick-Up	9,05 A			
Drop-Out	7,70 A			
Protector	Option 1			
Reference	T0252			
Current	11,50 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	-40	97	158	2,43	0,72	0,62
40	-35	132	177	2,55	0,87	0,75
40	-30	176	199	2,69	1,03	0,89
40	-25	229	223	2,85	1,20	1,03
40	-23,3	250	232	2,91	1,25	1,08
40	-20	292	249	3,04	1,36	1,17
40	-15	363	279	3,25	1,51	1,30
40	-10	443	310	3,48	1,66	1,43

45	-40	88	150	2,39	0,68	0,59
45	-35	121	171	2,52	0,82	0,71
45	-30	163	195	2,67	0,97	0,83
45	-25	214	222	2,84	1,12	0,96
45	-23,3	233	231	2,91	1,17	1,01
45	-20	274	250	3,04	1,27	1,09
45	-15	342	281	3,27	1,41	1,22
45	-10	420	315	3,52	1,55	1,33

50	-40	79	143	2,34	0,64	0,55
50	-35	110	166	2,48	0,77	0,66
50	-30	149	192	2,65	0,90	0,78
50	-25	198	220	2,83	1,04	0,90
50	-23,3	217	231	2,90	1,09	0,94
50	-20	256	251	3,05	1,18	1,02
50	-15	322	284	3,29	1,32	1,13
50	-10	398	320	3,56	1,44	1,24

55	-40	70	135	2,30	0,60	0,52
55	-35	98	161	2,45	0,71	0,61
55	-30	136	189	2,63	0,84	0,72
55	-25	182	219	2,83	0,97	0,83
55	-23,3	200	230	2,90	1,01	0,87
55	-20	238	252	3,05	1,10	0,94
55	-15	302	287	3,31	1,22	1,05
55	-10	375	325	3,60	1,34	1,15

60	-40	61	128	2,26	0,56	0,48
60	-35	87	155	2,42	0,65	0,56
60	-30	122	185	2,61	0,77	0,66
60	-25	166	218	2,82	0,89	0,76
60	-23,3	183	229	2,90	0,93	0,80
60	-20	220	253	3,06	1,01	0,87
60	-15	282	290	3,33	1,13	0,97
60	-10	353	330	3,64	1,24	1,07

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	102	158	2,43	0,65	0,56
40	-35	144	177	2,55	0,81	0,70
40	-30	194	199	2,69	0,98	0,84
40	-25	251	223	2,85	1,13	0,97
40	-23,3	272	232	2,91	1,17	1,01
40	-20	316	249	3,04	1,27	1,09
40	-15	388	279	3,25	1,39	1,20
40	-10	467	310	3,48	1,51	1,30

45	-40	88	150	2,39	0,59	0,51
45	-35	124	171	2,52	0,73	0,63
45	-30	168	195	2,67	0,86	0,74
45	-25	220	222	2,84	0,99	0,86
45	-23,3	239	231	2,91	1,03	0,89
45	-20	278	250	3,04	1,11	0,96
45	-15	345	281	3,27	1,23	1,06
45	-10	419	315	3,52	1,33	1,15

50	-40	74	143	2,34	0,52	0,45
50	-35	105	166	2,48	0,63	0,55
50	-30	143	192	2,65	0,74	0,64
50	-25	188	220	2,83	0,85	0,74
50	-23,3	205	231	2,90	0,89	0,77
50	-20	241	251	3,05	0,96	0,83
50	-15	302	284	3,29	1,06	0,92
50	-10	370	320	3,56	1,16	1,00

55	-40	61	135	2,30	0,45	0,39
55	-35	85	161	2,45	0,53	0,46
55	-30	117	189	2,63	0,62	0,54
55	-25	157	219	2,83	0,72	0,62
55	-23,3	172	230	2,90	0,75	0,65
55	-20	204	252	3,05	0,81	0,70
55	-15	259	287	3,31	0,90	0,78
55	-10	321	325	3,60	0,99	0,85

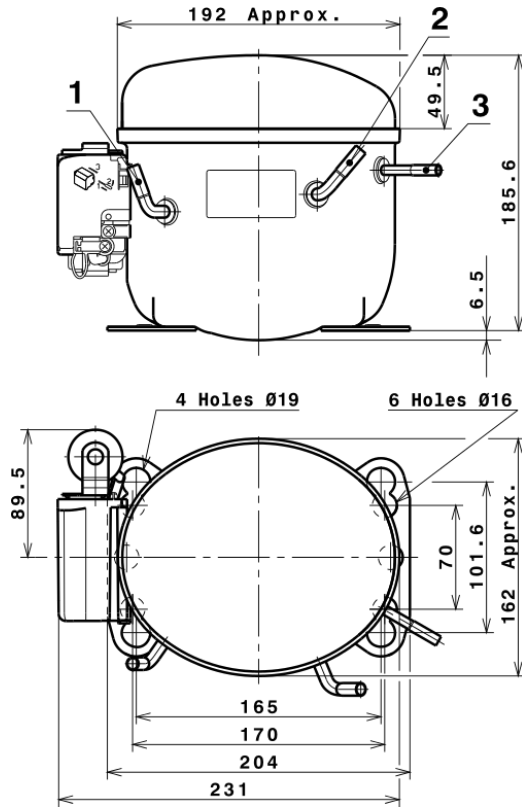
60	-40	47	128	2,26	0,37	0,32
60	-35	66	155	2,42	0,42	0,36
60	-30	92	185	2,61	0,50	0,43
60	-25	126	218	2,82	0,58	0,50
60	-23,3	139	229	2,90	0,61	0,52
60	-20	167	253	3,06	0,66	0,57
60	-15	216	290	3,33	0,74	0,64
60	-10	272	330	3,64	0,82	0,71

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.118,4227487155	316,1144799156	3,5939495002	24,726134203507
2	28,4488984424	4,4005322313	0,0432148636	0,72283666900905
3	-12,2662583722	1,8801967526	0,0138825248	-0,15918643050526
4	0,1421458938	0,0513890524	0,0005938513	0,0055615337606768
5	-0,2382826002	0,0853352075	0,0005735007	-0,0027202544644102

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

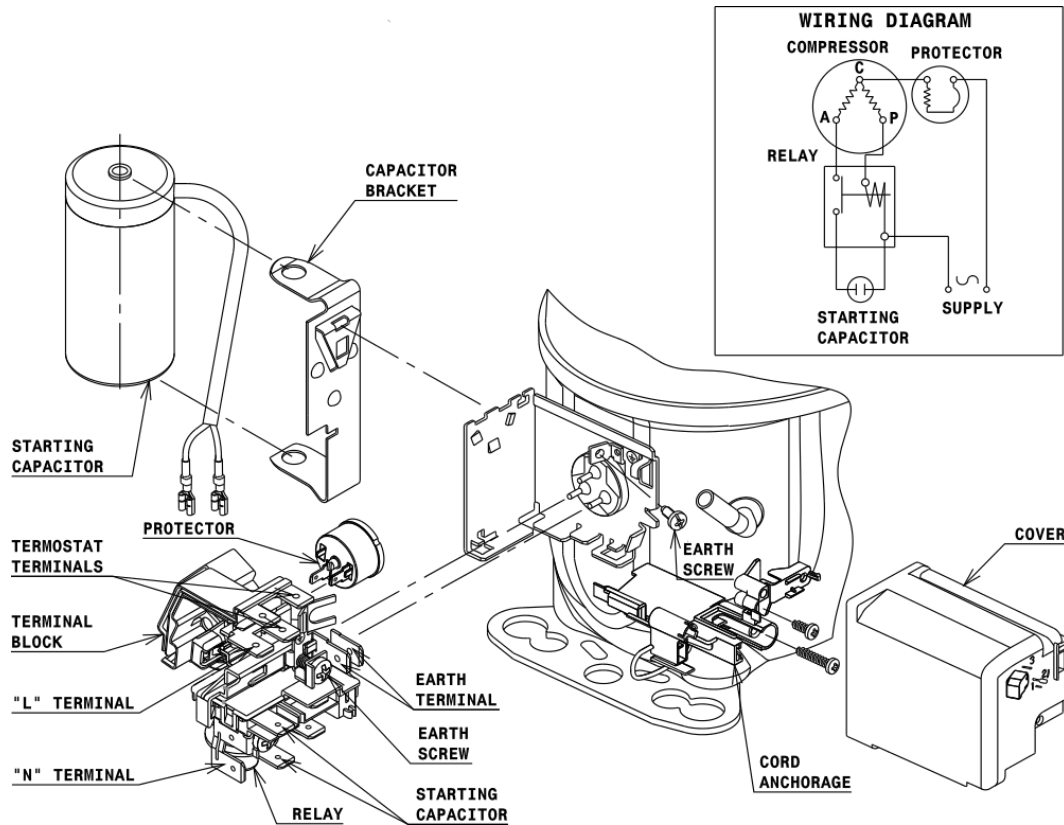


DESIGNATION INTERNAL DIAM.

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

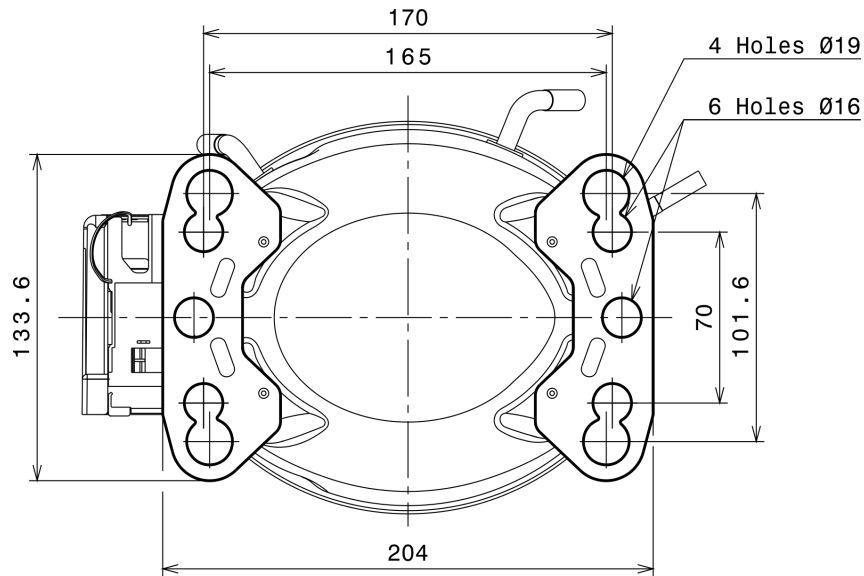
WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSIR CONNECTION (L, P ranges)



Technical Data Sheet

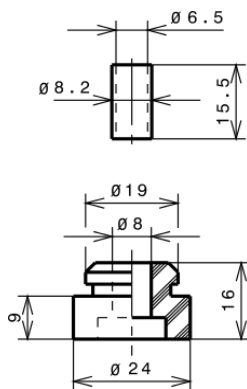
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

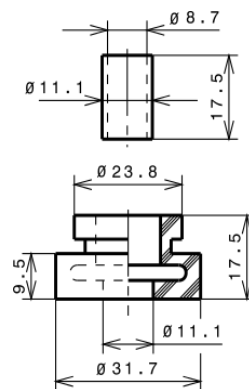
STANDARD

Ø16 holes (170x70 net)



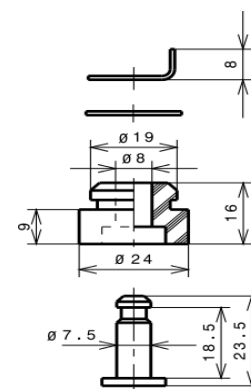
AMERICAN FEET

Ø19 holes (165x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R404A LBP

