

# Technical Data Sheet

Compressor model **ML45FB**  
 Voltage **220-240V 50Hz ~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 cm<sup>3</sup>  
 Diameter 19,09 mm  
 Stroke 15,93 mm  
 Net Weight 8,57 Kg  
 Oil type ISO VG 32 ESTER  
 Oil charge 260 cm<sup>3</sup>

## MOTOR

Nominal Power 1/6 hp  
 Voltage/Frequency 220-240V 50Hz  
 Voltage range 187-264 V  
 Type CSIR  
 Phase number 1 PH  
 Locked Rotor Amps (LRA) 8,50 A  
 Max. Cont. Current (MCC) 2,20 A  
 Main W. resist. at 25°C 16,00 Ω  
 Start W. resist. at 25°C 36,00 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	170 kCal/h	133 W
COP	0,94 W/W	0,66 W/W
EER	0,81 kCal/Wh	0,57 kCal/Wh
Input Power	210 W	202 W
Current	1,40 A	1,38 A

## APPROVALS

## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °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 118.	QLZ-3.75A		
Pick-Up	3.75 A	3.75 A		
Drop-Out	3.2 A	3.2 A		
Protector	Option 1	Option 2		
Reference	MRP61AMJ	T0073		
Current	6,90 A	6,20 A		
Time check	7,5-14 seg	7,5-14 seg		
Disc temp. (Open/Close)	90,00 / 57,00 °C	110,00 / 62,00 °C		

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	83	140	1,25	0,69	0,59
40	-35	113	156	1,27	0,84	0,72
40	-30	150	175	1,31	1,00	0,86
40	-25	196	194	1,35	1,17	1,01
40	-23,3	213	202	1,37	1,23	1,06
40	-20	250	216	1,42	1,34	1,15
40	-15	311	240	1,51	1,51	1,30
40	-10	380	265	1,62	1,67	1,43

45	-40	75	140	1,25	0,62	0,54
45	-35	103	157	1,27	0,76	0,65
45	-30	139	176	1,31	0,92	0,79
45	-25	182	197	1,36	1,08	0,93
45	-23,3	199	204	1,38	1,13	0,97
45	-20	234	220	1,43	1,24	1,06
45	-15	293	244	1,53	1,40	1,20
45	-10	360	270	1,65	1,55	1,33

50	-40	68	140	1,25	0,56	0,48
50	-35	93	158	1,27	0,69	0,59
50	-30	127	178	1,31	0,83	0,71
50	-25	169	199	1,37	0,98	0,85
50	-23,3	184	207	1,39	1,04	0,89
50	-20	218	223	1,44	1,14	0,98
50	-15	275	248	1,54	1,29	1,11
50	-10	340	275	1,67	1,44	1,24

55	-40	60	140	1,25	0,50	0,43
55	-35	84	159	1,28	0,61	0,53
55	-30	115	180	1,32	0,75	0,64
55	-25	155	202	1,38	0,89	0,77
55	-23,3	170	210	1,40	0,94	0,81
55	-20	202	226	1,46	1,04	0,89
55	-15	257	252	1,56	1,19	1,02
55	-10	320	280	1,70	1,33	1,14

60	-40	53	140	1,25	0,44	0,38
60	-35	74	160	1,28	0,54	0,46
60	-30	104	181	1,32	0,67	0,57
60	-25	141	204	1,38	0,80	0,69
60	-23,3	156	213	1,41	0,85	0,73
60	-20	186	230	1,47	0,94	0,81
60	-15	239	256	1,58	1,09	0,93
60	-10	300	285	1,73	1,22	1,05

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	87	140	1,25	0,62	0,54
40	-35	123	156	1,27	0,79	0,68
40	-30	165	175	1,31	0,95	0,82
40	-25	215	194	1,35	1,10	0,95
40	-23,3	233	202	1,37	1,15	1,00
40	-20	270	216	1,42	1,25	1,08
40	-15	332	240	1,51	1,39	1,20
40	-10	401	265	1,62	1,51	1,31

45	-40	75	140	1,25	0,54	0,46
45	-35	106	157	1,27	0,67	0,58
45	-30	143	176	1,31	0,81	0,70
45	-25	187	197	1,36	0,95	0,82
45	-23,3	204	204	1,38	1,00	0,86
45	-20	238	220	1,43	1,08	0,94
45	-15	295	244	1,53	1,21	1,05
45	-10	359	270	1,65	1,33	1,15

50	-40	63	140	1,25	0,45	0,39
50	-35	89	158	1,27	0,56	0,49
50	-30	122	178	1,31	0,68	0,59
50	-25	160	199	1,37	0,80	0,69
50	-23,3	175	207	1,39	0,85	0,73
50	-20	206	223	1,44	0,92	0,80
50	-15	258	248	1,54	1,04	0,90
50	-10	316	275	1,67	1,15	0,99

55	-40	52	140	1,25	0,37	0,32
55	-35	72	159	1,28	0,46	0,39
55	-30	100	180	1,32	0,56	0,48
55	-25	133	202	1,38	0,66	0,57
55	-23,3	146	210	1,40	0,70	0,60
55	-20	174	226	1,46	0,77	0,66
55	-15	220	252	1,56	0,87	0,76
55	-10	274	280	1,70	0,98	0,84

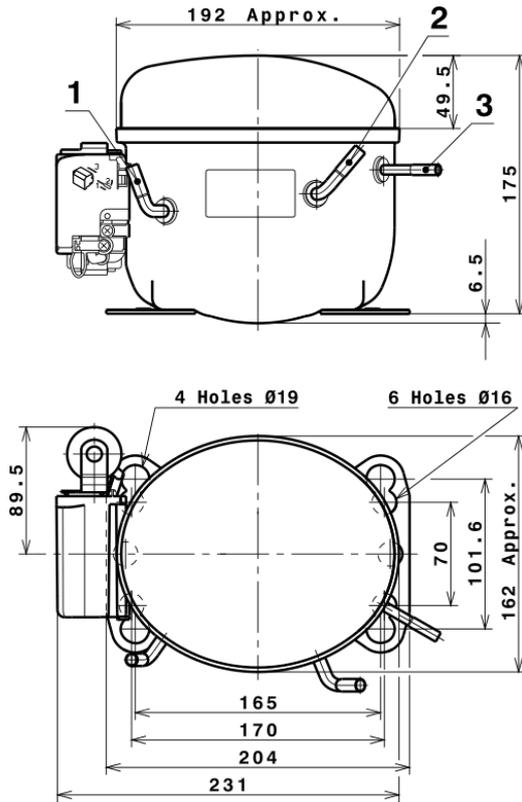
60	-40	40	140	1,25	0,29	0,25
60	-35	56	160	1,28	0,35	0,30
60	-30	78	181	1,32	0,43	0,37
60	-25	106	204	1,38	0,52	0,45
60	-23,3	118	213	1,41	0,55	0,48
60	-20	141	230	1,47	0,62	0,53
60	-15	183	256	1,58	0,71	0,62
60	-10	231	285	1,73	0,81	0,70

## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	967,3062190897	275,5505787772	1,6898319018	21,493639694895
2	24,7519678571	4,8309799021	0,0304131343	0,6318311618164
3	-10,6824033385	1,3691262363	0,0074344513	-0,14232537262891
4	0,1241878389	0,0379927262	0,0004876011	0,004845150942639
5	-0,2094867184	0,0342281559	0,0001858613	-0,0025084020112827

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

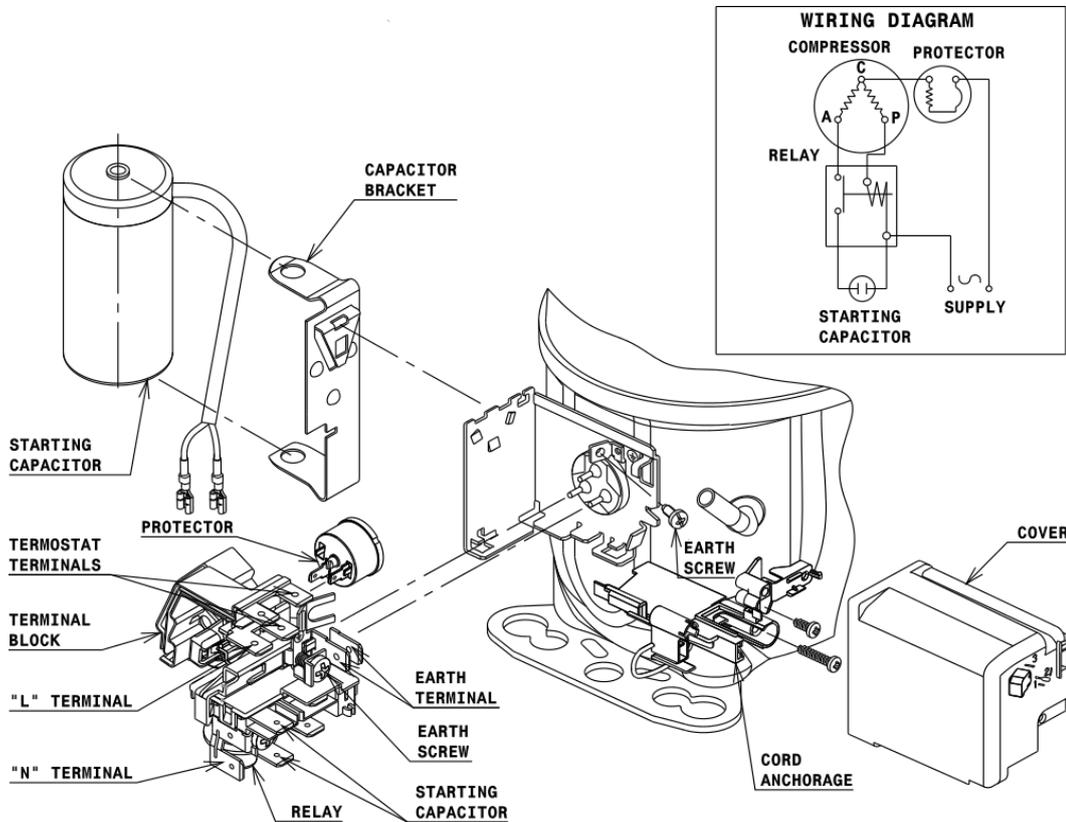


## DESIGNATION INTERNAL DIAM.

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

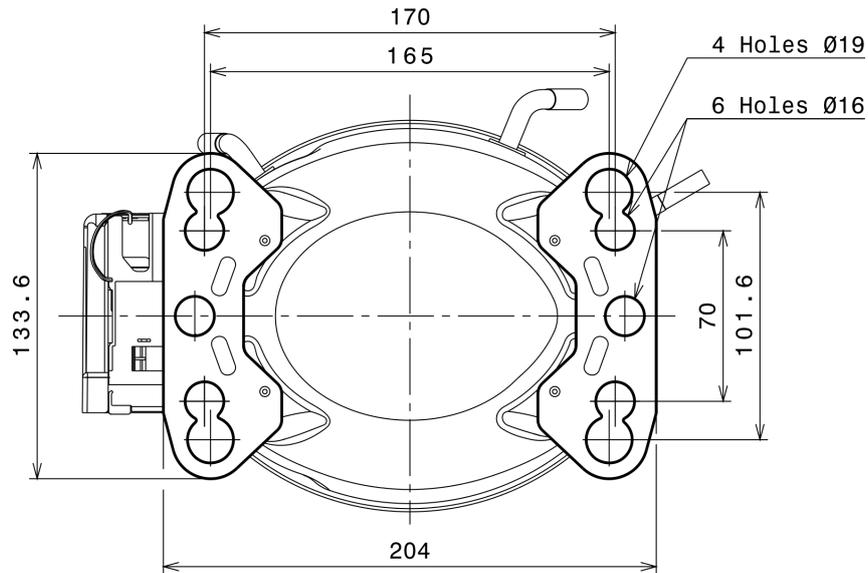
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



# Technical Data Sheet

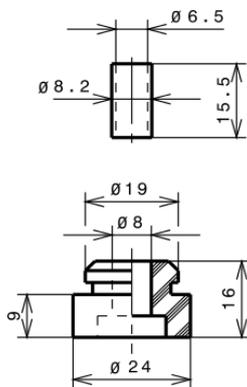
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

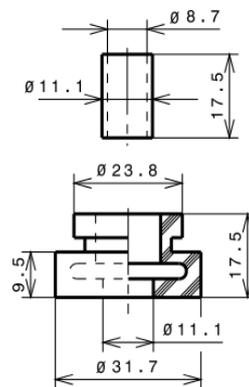
### STANDARD

Ø16 holes (170x70 net)



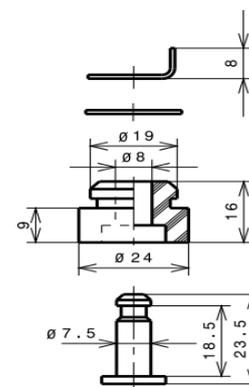
### AMERICAN FEET

Ø19 holes (165x101.6 net)



### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R404A LBP

