

# Technical Data Sheet

Compressor model **ML80FB**  
 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 8,10 cm<sup>3</sup>  
 Diameter 24,29 mm  
 Stroke 17,47 mm  
 Net Weight 9,38 Kg  
 Oil type ISO VG 32 ESTER  
 Oil charge 295 cm<sup>3</sup>

## MOTOR

Nominal Power 1/4 hp  
 Voltage/Frequency 220-240V 50Hz  
 Voltage range 187-255 V  
 Type CSIR  
 Phase number 1 PH  
 Locked Rotor Amps (LRA) 13,00 A  
 Max. Cont. Current (MCC) 2,80 A  
 Main W. resist. at 25°C 8,60 Ω  
 Start W. resist. at 25°C 27,80 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	319 kCal/h	251 W
COP	1,09 W/W	0,77 W/W
EER	0,94 kCal/Wh	0,67 kCal/Wh
Input Power	340 W	324 W
Current	2,10 A	2,04 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 145.	QLZ-7.1A		
Pick-Up	7,10 A	7,10 A		
Drop-Out	6,00 A	6,00 A		
Protector	Option 1	Option 2		
Reference	T0137	T0102		
Current	9,50 A	9,80 A		
Time check	7,5-14 seg	7,5-14 seg		
Disc temp. (Open/Close)	110,00 / 61,00 °C	95,00 / 62,00 °C		

# Technical Data Sheet

## ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	153	215	1,69	0,82	0,71
40	-35	199	243	1,77	0,95	0,82
40	-30	259	274	1,87	1,10	0,94
40	-25	333	309	1,99	1,25	1,08
40	-23,3	361	322	2,03	1,30	1,12
40	-20	420	347	2,13	1,41	1,21
40	-15	521	389	2,29	1,55	1,34
40	-10	635	435	2,49	1,70	1,46

45	-40	140	210	1,68	0,78	0,67
45	-35	186	241	1,77	0,90	0,77
45	-30	246	276	1,87	1,04	0,89
45	-25	319	314	2,00	1,18	1,02
45	-23,3	347	328	2,05	1,23	1,06
45	-20	406	356	2,16	1,33	1,14
45	-15	506	401	2,34	1,47	1,26
45	-10	620	450	2,56	1,60	1,38

50	-40	128	205	1,66	0,72	0,62
50	-35	173	239	1,76	0,84	0,72
50	-30	232	277	1,88	0,97	0,84
50	-25	305	319	2,02	1,11	0,96
50	-23,3	333	334	2,08	1,16	1,00
50	-20	391	364	2,19	1,25	1,08
50	-15	491	413	2,39	1,38	1,19
50	-10	605	465	2,63	1,51	1,30

55	-40	115	200	1,65	0,67	0,58
55	-35	160	238	1,76	0,78	0,67
55	-30	219	279	1,89	0,91	0,78
55	-25	291	324	2,04	1,05	0,90
55	-23,3	319	340	2,10	1,09	0,94
55	-20	377	372	2,23	1,18	1,01
55	-15	477	424	2,44	1,31	1,12
55	-10	590	480	2,70	1,43	1,23

60	-40	103	195	1,64	0,61	0,53
60	-35	147	236	1,75	0,73	0,62
60	-30	206	281	1,89	0,85	0,73
60	-25	278	329	2,06	0,98	0,84
60	-23,3	305	346	2,12	1,03	0,88
60	-20	363	381	2,26	1,11	0,95
60	-15	462	436	2,50	1,23	1,06
60	-10	575	495	2,77	1,35	1,16

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	161	215	1,69	0,75	0,65
40	-35	218	243	1,77	0,90	0,78
40	-30	286	274	1,87	1,04	0,90
40	-25	366	309	1,99	1,19	1,02
40	-23,3	396	322	2,03	1,23	1,06
40	-20	458	347	2,13	1,32	1,14
40	-15	560	389	2,29	1,44	1,24
40	-10	674	435	2,49	1,55	1,34

45	-40	140	210	1,68	0,67	0,58
45	-35	191	241	1,77	0,79	0,69
45	-30	254	276	1,87	0,92	0,80
45	-25	328	314	2,00	1,04	0,90
45	-23,3	356	328	2,05	1,08	0,94
45	-20	413	356	2,16	1,16	1,00
45	-15	510	401	2,34	1,27	1,10
45	-10	618	450	2,56	1,37	1,19

50	-40	120	205	1,66	0,58	0,50
50	-35	165	239	1,76	0,69	0,60
50	-30	221	277	1,88	0,80	0,69
50	-25	289	319	2,02	0,91	0,78
50	-23,3	315	334	2,08	0,94	0,82
50	-20	369	364	2,19	1,01	0,88
50	-15	459	413	2,39	1,11	0,96
50	-10	561	465	2,63	1,21	1,04

55	-40	99	200	1,65	0,50	0,43
55	-35	139	238	1,76	0,58	0,50
55	-30	189	279	1,89	0,68	0,59
55	-25	251	324	2,04	0,77	0,67
55	-23,3	275	340	2,10	0,81	0,70
55	-20	324	372	2,23	0,87	0,75
55	-15	409	424	2,44	0,96	0,83
55	-10	505	480	2,70	1,05	0,91

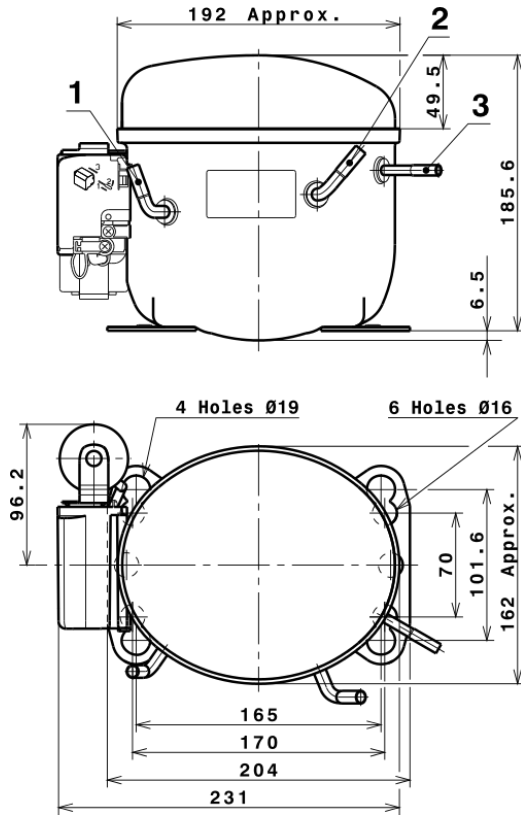
60	-40	79	195	1,64	0,41	0,35
60	-35	112	236	1,75	0,47	0,41
60	-30	157	281	1,89	0,56	0,48
60	-25	212	329	2,06	0,65	0,56
60	-23,3	234	346	2,12	0,68	0,58
60	-20	280	381	2,26	0,73	0,63
60	-15	358	436	2,50	0,82	0,71
60	-10	448	495	2,77	0,91	0,78

## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.472,3552335491	374,6865913455	2,2522620627	30,283678373246
2	37,5030237409	5,8803971694	0,0367867618	0,91985069552858
3	-14,1575073526	4,4480923864	0,0206618052	-0,096604721101961
4	0,2156748390	0,0757345367	0,0006473950	0,0084698180965222
5	-0,2526257328	0,1367558355	0,0005868575	-0,00066352068351407

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

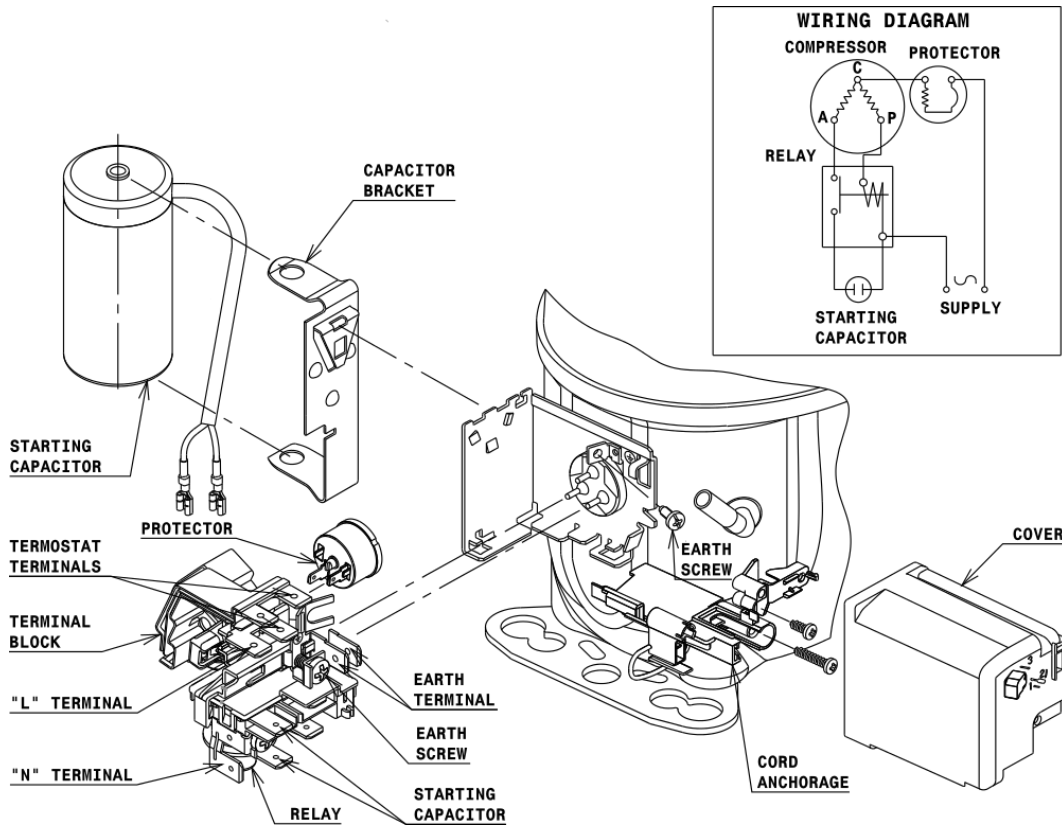


## DESIGNATION INTERNAL DIAM.

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

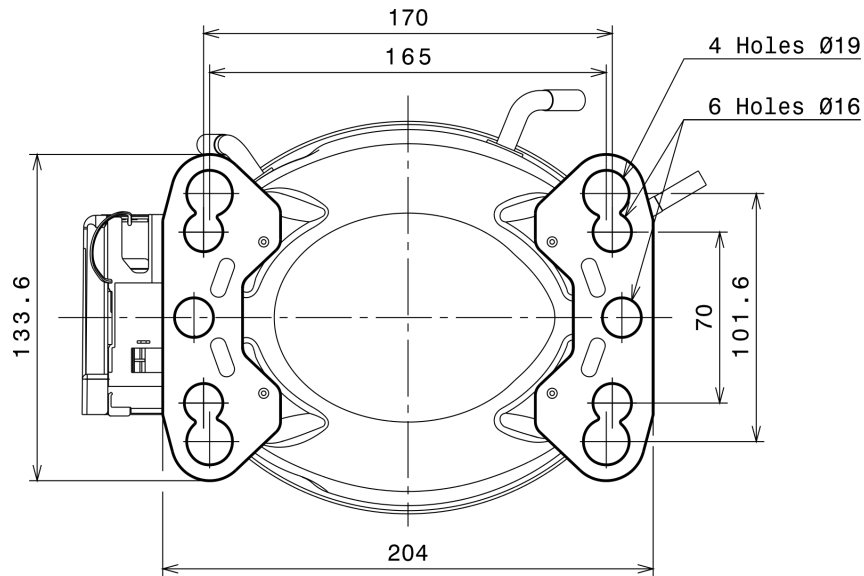
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



# Technical Data Sheet

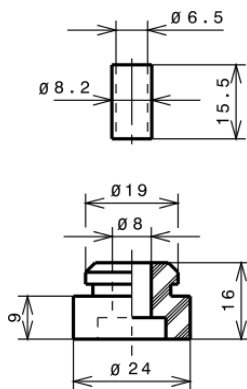
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

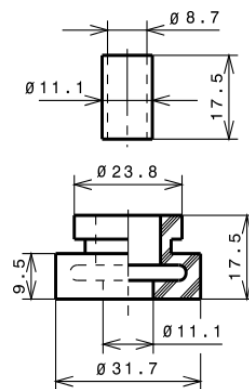
### STANDARD

Ø16 holes (170x70 net)



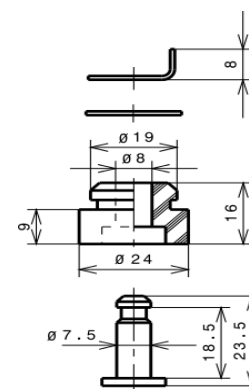
### AMERICAN FEET

Ø19 holes (165x101.6 net)



### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R404A LBP

