

# Technical Data Sheet

Compressor model **ML80FG**  
 Voltage **200-220/220-230V 50/60Hz ~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	8,10 cm <sup>3</sup>
Diameter	24,29 mm
Stroke	17,47 mm
Net Weight	12,20 Kg
Oil type	ISO VG 32 ESTER
Oil charge	595 cm <sup>3</sup>

## MOTOR

Nominal Power	1/4 hp
Voltage/Frequency	200-220V 50Hz
Voltage range	170-242 V
Type	CSIR
Phase number	1 PH
Locked Rotor Amps (LRA)	16,00 A
Max. Cont. Current (MCC)	4,50 A
Main W. resist. at 25°C	4,23 Ω
Start W. resist. at 25°C	34,16 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	320 kCal/h	252 W
COP	1,08 W/W	0,77 W/W
EER	0,93 kCal/Wh	0,66 kCal/Wh
Input Power	345 W	329 W
Current	2,60 A	2,55 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	200 V 50 Hz	200 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	47- 56 µF 330 V		
Relay	Option 1		
Reference	2014 158.		
Pick-Up	9,05 A		
Drop-Out	7,70 A		
Protector	Option 1	Option 2	
Reference	MRA38145	T0266	
Current	14,90 A	11,00 A	
Time check	2,8-5,2 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 52,00 °C	105,00 / 52,00 °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	217	2,19	0,82	0,70
40	-35	199	247	2,28	0,94	0,81
40	-30	260	279	2,38	1,08	0,93
40	-25	334	314	2,50	1,24	1,06
40	-23,3	362	327	2,54	1,29	1,11
40	-20	421	352	2,62	1,39	1,20
40	-15	521	392	2,77	1,55	1,33
40	-10	635	435	2,93	1,70	1,46

45	-40	140	212	2,18	0,77	0,66
45	-35	187	245	2,28	0,89	0,76
45	-30	246	281	2,39	1,02	0,88
45	-25	320	319	2,51	1,17	1,00
45	-23,3	348	333	2,56	1,22	1,05
45	-20	406	360	2,65	1,31	1,13
45	-15	507	404	2,81	1,46	1,25
45	-10	620	450	2,98	1,60	1,38

50	-40	128	207	2,16	0,72	0,62
50	-35	174	243	2,27	0,83	0,71
50	-30	233	282	2,39	0,96	0,83
50	-25	306	324	2,53	1,10	0,94
50	-23,3	334	339	2,58	1,15	0,99
50	-20	392	368	2,68	1,24	1,06
50	-15	492	415	2,85	1,38	1,18
50	-10	605	465	3,04	1,51	1,30

55	-40	115	202	2,15	0,66	0,57
55	-35	161	242	2,27	0,77	0,66
55	-30	220	284	2,40	0,90	0,77
55	-25	292	329	2,55	1,03	0,89
55	-23,3	320	345	2,60	1,08	0,93
55	-20	378	377	2,71	1,17	1,00
55	-15	477	427	2,90	1,30	1,12
55	-10	590	480	3,10	1,43	1,23

60	-40	103	197	2,14	0,61	0,52
60	-35	148	240	2,26	0,72	0,62
60	-30	206	286	2,40	0,84	0,72
60	-25	279	334	2,56	0,97	0,83
60	-23,3	306	351	2,62	1,01	0,87
60	-20	364	385	2,74	1,10	0,95
60	-15	463	439	2,94	1,23	1,05
60	-10	575	495	3,16	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	217	2,19	0,74	0,64
40	-35	218	247	2,28	0,88	0,76
40	-30	287	279	2,38	1,03	0,89
40	-25	367	314	2,50	1,17	1,01
40	-23,3	397	327	2,54	1,22	1,05
40	-20	458	352	2,62	1,30	1,13
40	-15	561	392	2,77	1,43	1,24
40	-10	674	435	2,93	1,55	1,34

45	-40	140	212	2,18	0,66	0,57
45	-35	192	245	2,28	0,78	0,68
45	-30	255	281	2,39	0,91	0,78
45	-25	329	319	2,51	1,03	0,89
45	-23,3	356	333	2,56	1,07	0,93
45	-20	414	360	2,65	1,15	0,99
45	-15	510	404	2,81	1,26	1,09
45	-10	618	450	2,98	1,37	1,19

50	-40	120	207	2,16	0,58	0,50
50	-35	165	243	2,27	0,68	0,59
50	-30	222	282	2,39	0,79	0,68
50	-25	290	324	2,53	0,90	0,77
50	-23,3	316	339	2,58	0,93	0,81
50	-20	369	368	2,68	1,00	0,87
50	-15	460	415	2,85	1,11	0,96
50	-10	561	465	3,04	1,21	1,04

55	-40	99	202	2,15	0,49	0,43
55	-35	139	242	2,27	0,58	0,50
55	-30	190	284	2,40	0,67	0,58
55	-25	252	329	2,55	0,77	0,66
55	-23,3	275	345	2,60	0,80	0,69
55	-20	325	377	2,71	0,86	0,75
55	-15	409	427	2,90	0,96	0,83
55	-10	505	480	3,10	1,05	0,91

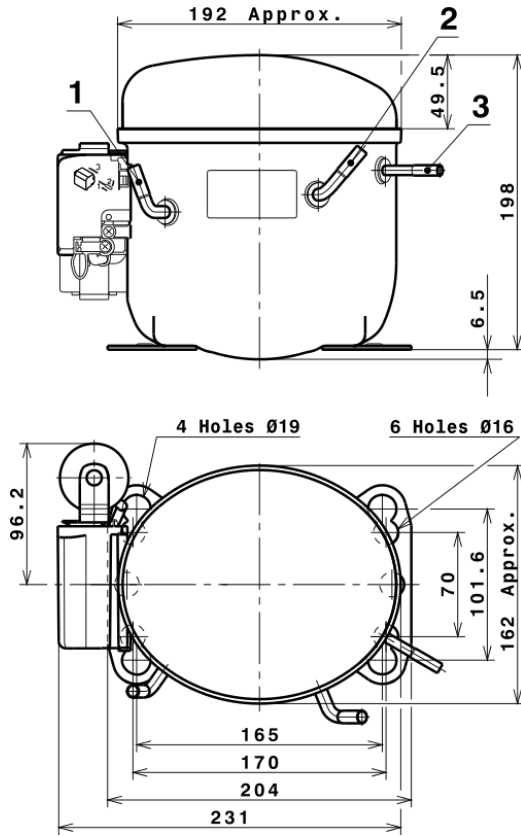
60	-40	79	197	2,14	0,40	0,35
60	-35	113	240	2,26	0,47	0,41
60	-30	157	286	2,40	0,55	0,48
60	-25	213	334	2,56	0,64	0,55
60	-23,3	235	351	2,62	0,67	0,58
60	-20	281	385	2,74	0,73	0,63
60	-15	359	439	2,94	0,82	0,71
60	-10	448	495	3,16	0,91	0,78

## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.470,8834588336	366,4161037729	2,6836002422	30,232945913678
2	37,3190519015	4,8636219067	0,0241760356	0,91350913808263
3	-14,1575073526	4,4480923864	0,0172694457	-0,096604721101962
4	0,2119954022	0,0567618862	0,0003807743	0,0083429869476031
5	-0,2526257328	0,1367558355	0,0005058109	-0,0006635206835141

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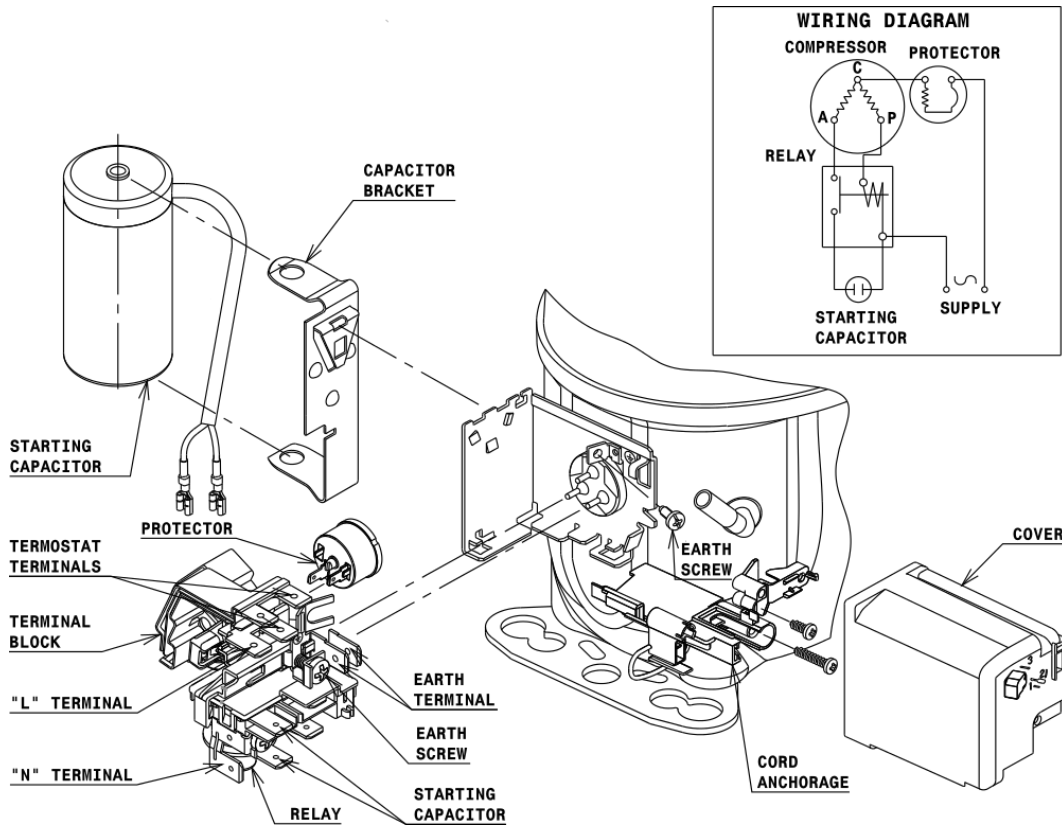
## COMPRESSOR DIMENSIONS



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)



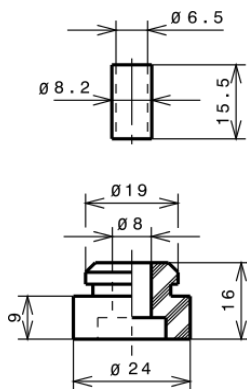
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## FIXINGS

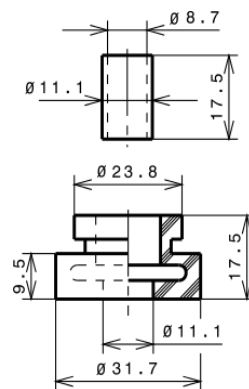


## SILENT BLOCKS (MOUNTING ACCESSORIES)

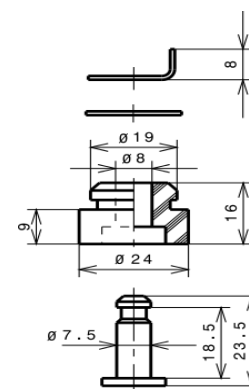
### STANDARD



### AMERICAN FEET



### SNAP-ON



## SOA

### SOA R404A LBP

