

# Technical Data Sheet

Compressor model **ML80FR**  
 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 8,10 cm<sup>3</sup>  
 Diameter 24,29 mm  
 Stroke 17,47 mm  
 Net Weight 11,97 Kg  
 Oil type ISO VG 32 ESTER  
 Oil charge 400 cm<sup>3</sup>

## MOTOR

Nominal Power 1/4 hp  
 Voltage/Frequency 115-127V 60Hz  
 Voltage range 98-140 V  
 Type CSIR  
 Phase number 1 PH  
 Locked Rotor Amps (LRA) 34,00 A  
 Max. Cont. Current (MCC) 7,70 A  
 Main W. resist. at 25°C 1,04 Ω  
 Start W. resist. at 25°C 7,30 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	376 kCal/h	296 W
COP	1,05 W/W	0,75 W/W
EER	0,91 kCal/Wh	0,64 kCal/Wh
Input Power	415 W	397 W
Current	5,20 A	5,08 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	115 V 60 Hz	115 V 60 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	170 µF 160 V			
Relay	Option 1			
Reference	2014 180.			
Pick-Up	16,70 A			
Drop-Out	14,00 A			
Protector	Option 1	Option 2		
Reference	MRA38123	T0534		
Current	22,00 A	20,00 A		
Time check	7,5-14 seg	7,5-14 seg		
Disc temp. (Open/Close)	105,00 / 52,00 °C	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	179	270	4,37	0,77	0,66
40	-35	234	305	4,54	0,89	0,77
40	-30	305	342	4,74	1,04	0,89
40	-25	392	382	4,98	1,19	1,02
40	-23,3	425	397	5,08	1,24	1,07
40	-20	493	425	5,27	1,35	1,16
40	-15	610	471	5,61	1,51	1,29
40	-10	743	520	6,00	1,66	1,43

45	-40	164	265	4,34	0,72	0,62
45	-35	219	303	4,53	0,84	0,72
45	-30	290	344	4,75	0,98	0,84
45	-25	376	387	5,02	1,13	0,97
45	-23,3	408	403	5,12	1,18	1,01
45	-20	477	434	5,33	1,28	1,10
45	-15	593	483	5,70	1,43	1,23
45	-10	725	535	6,13	1,58	1,36

50	-40	150	260	4,32	0,67	0,58
50	-35	204	301	4,52	0,79	0,68
50	-30	274	345	4,76	0,92	0,79
50	-25	360	392	5,05	1,07	0,92
50	-23,3	392	409	5,16	1,12	0,96
50	-20	460	442	5,39	1,21	1,04
50	-15	576	495	5,79	1,36	1,17
50	-10	708	550	6,26	1,50	1,29

55	-40	135	255	4,30	0,62	0,53
55	-35	189	300	4,51	0,73	0,63
55	-30	259	347	4,77	0,87	0,75
55	-25	344	397	5,08	1,01	0,87
55	-23,3	376	415	5,20	1,05	0,91
55	-20	444	450	5,45	1,15	0,99
55	-15	559	506	5,89	1,28	1,10
55	-10	690	565	6,40	1,42	1,22

60	-40	121	250	4,28	0,56	0,48
60	-35	174	298	4,50	0,68	0,58
60	-30	243	349	4,78	0,81	0,70
60	-25	328	402	5,11	0,95	0,81
60	-23,3	360	421	5,24	0,99	0,85
60	-20	427	459	5,51	1,08	0,93
60	-15	542	518	5,99	1,22	1,05
60	-10	673	580	6,54	1,35	1,16

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	188	270	4,37	0,70	0,60
40	-35	256	305	4,54	0,84	0,73
40	-30	337	342	4,74	0,99	0,85
40	-25	431	382	4,98	1,13	0,97
40	-23,3	466	397	5,08	1,17	1,01
40	-20	537	425	5,27	1,26	1,09
40	-15	657	471	5,61	1,39	1,20
40	-10	789	520	6,00	1,52	1,31

45	-40	164	265	4,34	0,62	0,54
45	-35	225	303	4,53	0,74	0,64
45	-30	299	344	4,75	0,87	0,75
45	-25	386	387	5,02	1,00	0,86
45	-23,3	418	403	5,12	1,04	0,90
45	-20	485	434	5,33	1,12	0,97
45	-15	598	483	5,70	1,24	1,07
45	-10	723	535	6,13	1,35	1,17

50	-40	140	260	4,32	0,54	0,47
50	-35	195	301	4,52	0,65	0,56
50	-30	261	345	4,76	0,76	0,65
50	-25	341	392	5,05	0,87	0,75
50	-23,3	371	409	5,16	0,91	0,78
50	-20	433	442	5,39	0,98	0,85
50	-15	539	495	5,79	1,09	0,94
50	-10	657	550	6,26	1,19	1,03

55	-40	117	255	4,30	0,46	0,40
55	-35	164	300	4,51	0,55	0,47
55	-30	223	347	4,77	0,64	0,56
55	-25	296	397	5,08	0,75	0,64
55	-23,3	324	415	5,20	0,78	0,67
55	-20	381	450	5,45	0,85	0,73
55	-15	480	506	5,89	0,95	0,82
55	-10	590	565	6,40	1,05	0,90

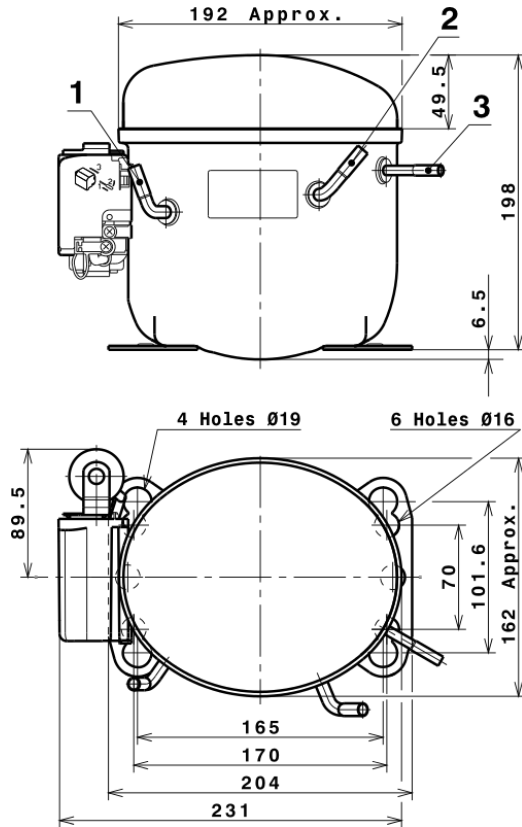
60	-40	93	250	4,28	0,37	0,32
60	-35	133	298	4,50	0,45	0,39
60	-30	186	349	4,78	0,53	0,46
60	-25	251	402	5,11	0,62	0,54
60	-23,3	276	421	5,24	0,66	0,57
60	-20	329	459	5,51	0,72	0,62
60	-15	421	518	5,99	0,81	0,70
60	-10	524	580	6,54	0,90	0,78

## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.717,4748932619	466,3897314573	5,6482181872	35,268408706215
2	43,3614732860	6,1741979816	0,0787411697	1,0588547766223
3	-16,5514356860	4,4480923864	0,0391194078	-0,11287124203455
4	0,2422744005	0,0609011924	0,0013019307	0,0095616197245766
5	-0,2956926858	0,1367558355	0,0010946118	-0,00078971015809779

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
----------	---

## COMPRESSOR DIMENSIONS

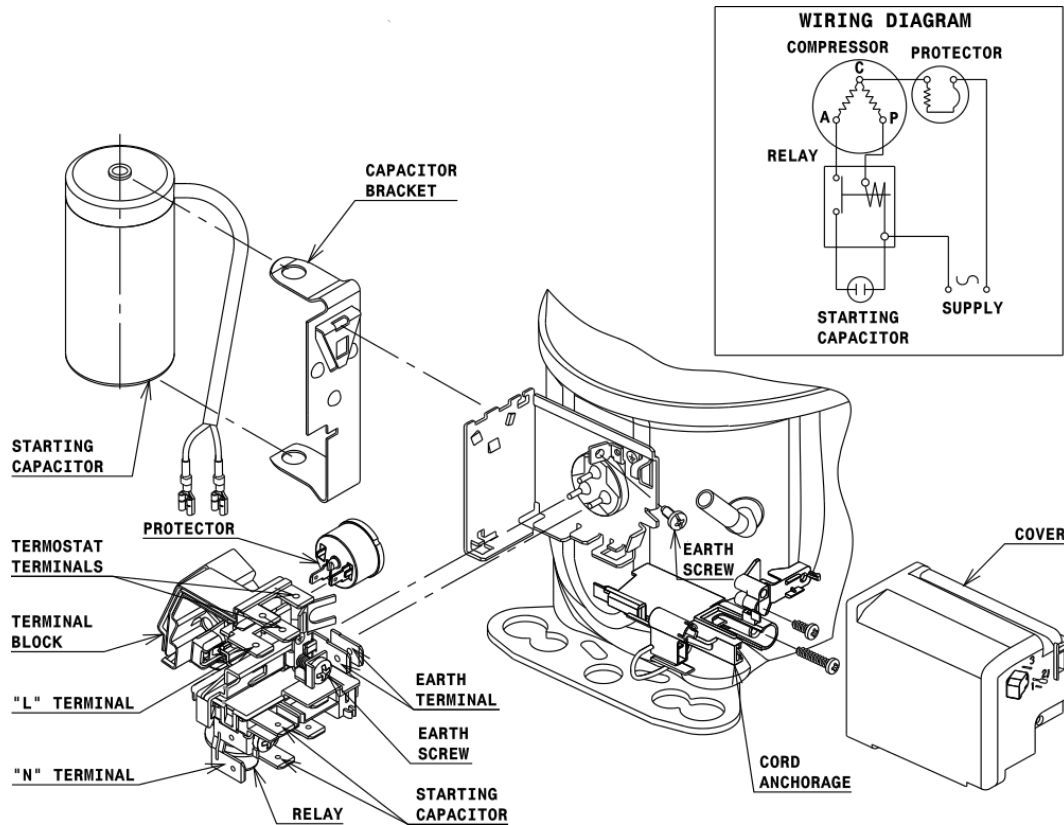


## DESIGNATION INTERNAL DIAM.

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)



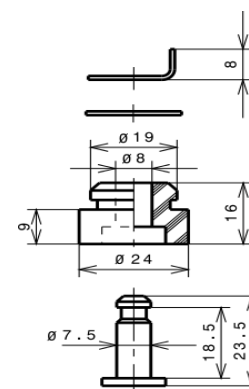
### AMERICAN FEET

Ø19 holes (165x101.6 net)



### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R404A LBP

