

Technical Data Sheet

ENGINEERING
TOMORROW



Compressor model **MPT12LA**
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	12,10 cm ³
Diameter	27,00 mm
Stroke	21,13 mm
Net Weight	12,23 Kg
Oil type	ISO VG 32 ESTER
Oil charge	350 cm ³

MOTOR

Nominal Power	3/8 hp
Voltage/Frequency	220-240V 50Hz
Voltage range	187-264 V
Type	CSR
Phase number	1 PH
Locked Rotor Amps (LRA)	13,90 A
Max. Cont. Current (MCC)	3,80 A
Main W. resist. at 25°C	6,40 Ω
Start W. resist. at 25°C	10,40 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	570 kCal/h	451 W
COP	1,42 W/W	1,01 W/W
EER	1,22 kCal/Wh	0,87 kCal/Wh
Input Power	467 W	447 W
Current	2,22 A	2,13 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	220 V 50 Hz	220 V 50 Hz

ELECTRICAL COMPONENTS

Starting capacitor	47- 56 µF 330 V		
Run capacitor	10 µF 420 V		
Relay	Option 1		
Reference	2014 149. + NTC15Ω		
Pick-Up	7,70 A		
Drop-Out	6,50 A		
Protector	Option 1	Option 2	
Reference	MRA38139	T0269	
Current	10,30 A	9,60 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	

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ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	277	297	1,44	1,08	0,93
40	-35	363	342	1,65	1,24	1,06
40	-30	472	390	1,87	1,41	1,21
40	-25	602	440	2,10	1,59	1,37
40	-23,3	652	457	2,17	1,66	1,43
40	-20	755	492	2,33	1,79	1,53
40	-15	929	546	2,58	1,98	1,70
40	-10	1.125	603	2,84	2,17	1,87

45	-40	259	292	1,42	1,03	0,89
45	-35	343	340	1,64	1,17	1,01
45	-30	449	390	1,87	1,34	1,15
45	-25	576	442	2,11	1,52	1,30
45	-23,3	624	460	2,19	1,58	1,36
45	-20	726	497	2,36	1,70	1,46
45	-15	897	553	2,61	1,89	1,62
45	-10	1.090	612	2,88	2,07	1,78

50	-40	242	288	1,40	0,98	0,84
50	-35	322	338	1,63	1,11	0,95
50	-30	425	390	1,87	1,27	1,09
50	-25	550	445	2,12	1,44	1,24
50	-23,3	597	464	2,20	1,50	1,29
50	-20	696	501	2,38	1,62	1,39
50	-15	865	560	2,65	1,79	1,54
50	-10	1.055	622	2,93	1,97	1,70

55	-40	224	283	1,38	0,92	0,79
55	-35	302	336	1,62	1,05	0,90
55	-30	402	390	1,87	1,20	1,03
55	-25	524	447	2,13	1,36	1,17
55	-23,3	570	467	2,22	1,42	1,22
55	-20	667	506	2,40	1,53	1,32
55	-15	833	568	2,68	1,71	1,47
55	-10	1.020	631	2,97	1,88	1,62

60	-40	207	279	1,36	0,86	0,74
60	-35	282	333	1,61	0,98	0,84
60	-30	379	390	1,87	1,13	0,97
60	-25	497	450	2,14	1,29	1,11
60	-23,3	543	470	2,24	1,34	1,15
60	-20	638	511	2,42	1,45	1,25
60	-15	801	575	2,71	1,62	1,39
60	-10	985	641	3,01	1,79	1,54

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	292	297	1,44	0,99	0,85
40	-35	397	342	1,65	1,16	1,00
40	-30	519	390	1,87	1,33	1,15
40	-25	660	440	2,10	1,50	1,30
40	-23,3	713	457	2,17	1,56	1,35
40	-20	820	492	2,33	1,67	1,44
40	-15	997	546	2,58	1,83	1,58
40	-10	1.193	603	2,84	1,98	1,71

45	-40	259	292	1,42	0,89	0,77
45	-35	352	340	1,64	1,03	0,89
45	-30	462	390	1,87	1,18	1,02
45	-25	591	442	2,11	1,34	1,15
45	-23,3	639	460	2,19	1,39	1,20
45	-20	738	497	2,36	1,49	1,28
45	-15	903	553	2,61	1,63	1,41
45	-10	1.086	612	2,88	1,78	1,53

50	-40	226	288	1,40	0,79	0,68
50	-35	306	338	1,63	0,91	0,78
50	-30	404	390	1,87	1,04	0,90
50	-25	521	445	2,12	1,17	1,01
50	-23,3	565	464	2,20	1,22	1,05
50	-20	656	501	2,38	1,31	1,13
50	-15	808	560	2,65	1,44	1,25
50	-10	980	622	2,93	1,58	1,36

55	-40	194	283	1,38	0,68	0,59
55	-35	261	336	1,62	0,78	0,67
55	-30	347	390	1,87	0,89	0,77
55	-25	451	447	2,13	1,01	0,87
55	-23,3	491	467	2,22	1,05	0,91
55	-20	573	506	2,40	1,13	0,98
55	-15	714	568	2,68	1,26	1,09
55	-10	873	631	2,97	1,38	1,20

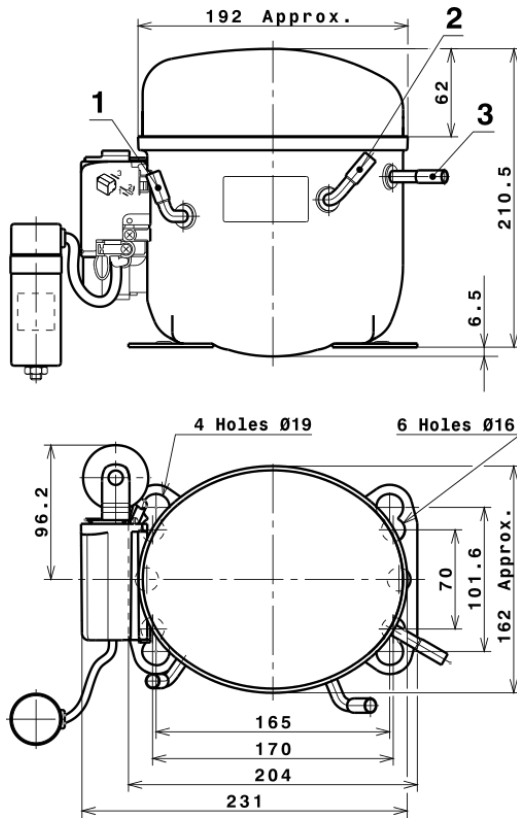
60	-40	161	279	1,36	0,58	0,50
60	-35	216	333	1,61	0,65	0,56
60	-30	290	390	1,87	0,74	0,64
60	-25	381	450	2,14	0,85	0,73
60	-23,3	417	470	2,24	0,89	0,77
60	-20	491	511	2,42	0,96	0,83
60	-15	620	575	2,71	1,08	0,93
60	-10	766	641	3,01	1,20	1,03

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.663,4732145583	626,8092998302	2,9513285048	55,992765126697
2	66,7918740744	9,0988485828	0,0417278846	1,6567940459824
3	-26,9423776668	2,9079821587	0,0133057272	-0,24432446429139
4	0,3460399789	0,0481290855	0,0002232254	0,01368885427249
5	-0,5092260717	0,0956977272	0,0004375496	-0,0036472926117696

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

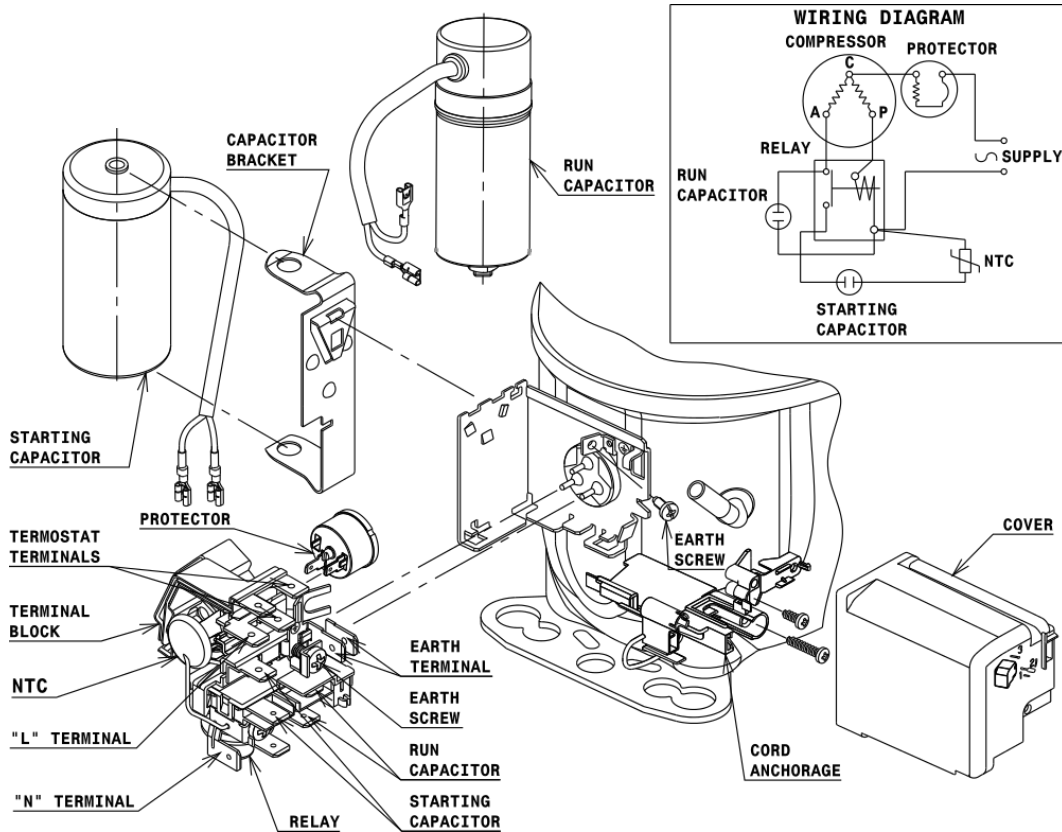


DESIGNATION INTERNAL DIAM.

DESIGNATION	INTERNAL DIAM.
1 Suction	8,1 mm
2 Service	8,1 mm
3 Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSR CONNECTION (CURRENT RELAY + NTC) (L, P ranges)



FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

$\varnothing 16$ holes (170x70 net)



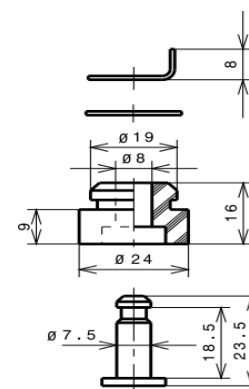
AMERICAN FEET

$\varnothing 19$ holes (165x101.6 net)



SNAP-ON

$\varnothing 16$ holes (170x70 net)



SOA

SOA R404A LBP

