

Technical Data Sheet

ENGINEERING
TOMORROW



Compressor model **MPT12LD**
Voltage **115V 60Hz ~1**
Refrigerant **R404A**

APPLICATION

COMPRESSOR

MOTOR

Application	Low Back Pressure	Displacement	12,10 cm ³	Nominal Power	3/8 hp
Refrigerant	R404A	Diameter	27,00 mm	Voltage/Frequency	115V 60Hz
Evaporating Temp.	-40,0 °C to -10,0 °C	Stroke	21,13 mm	Voltage range	98-132 V
Expansion	Capillar/Valve	Net Weight	11,50 Kg	Type	CSR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	400 cm ³	Locked Rotor Amps (LRA)	42,00 A
				Max. Cont. Current (MCC)	10,80 A
				Main W. resist. at 25°C	1,04 Ω
				Start W. resist. at 25°C	6,66 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	650 kCal/h	515 W
COP	1,41 W/W	1,01 W/W
EER	1,21 kCal/Wh	0,87 kCal/Wh
Input Power	535 W	512 W
Current	5,50 A	5,31 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	115 V 60 Hz	115 V 60 Hz

ELECTRICAL COMPONENTS

Starting capacitor	250 µF 160 V		
Run capacitor	15 µF 250 V		
Relay	Option 1	Option 2	
Reference	2014 184. + NTC3Ω	QLZ-18.7A + NTC3Ω	
Pick-Up	18,70 A	18.70 A	
Drop-Out	15,60 A	15.60 A	
Protector	Option 1	Option 2	
Reference	MRA38142	T0258	
Current	24,00 A	23,50 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	120,00 / 52,00 °C	120,00 / 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	320	345	4,01	1,08	0,93
40	-35	418	392	4,37	1,24	1,06
40	-30	540	444	4,77	1,41	1,22
40	-25	688	501	5,22	1,60	1,37
40	-23,3	743	521	5,38	1,66	1,43
40	-20	860	562	5,72	1,78	1,53
40	-15	1.058	627	6,27	1,96	1,69
40	-10	1.280	698	6,87	2,13	1,84

45	-40	300	340	3,97	1,03	0,88
45	-35	394	390	4,35	1,18	1,01
45	-30	513	445	4,78	1,34	1,15
45	-25	658	504	5,25	1,52	1,30
45	-23,3	712	526	5,42	1,58	1,36
45	-20	827	568	5,77	1,69	1,45
45	-15	1.021	637	6,35	1,86	1,60
45	-10	1.240	710	6,98	2,03	1,75

50	-40	280	335	3,94	0,97	0,84
50	-35	371	388	4,34	1,11	0,96
50	-30	487	446	4,79	1,27	1,09
50	-25	628	508	5,28	1,44	1,24
50	-23,3	681	530	5,46	1,49	1,28
50	-20	793	575	5,83	1,61	1,38
50	-15	984	646	6,43	1,77	1,52
50	-10	1.200	723	7,09	1,93	1,66

55	-40	260	330	3,90	0,92	0,79
55	-35	348	386	4,32	1,05	0,90
55	-30	460	447	4,79	1,20	1,03
55	-25	598	512	5,31	1,36	1,17
55	-23,3	650	535	5,50	1,41	1,21
55	-20	760	582	5,88	1,52	1,31
55	-15	948	656	6,51	1,68	1,44
55	-10	1.160	735	7,20	1,84	1,58

60	-40	240	325	3,86	0,86	0,74
60	-35	324	384	4,31	0,98	0,84
60	-30	433	447	4,80	1,13	0,97
60	-25	568	516	5,34	1,28	1,10
60	-23,3	619	540	5,54	1,33	1,15
60	-20	727	588	5,94	1,44	1,24
60	-15	911	666	6,59	1,59	1,37
60	-10	1.120	748	7,31	1,74	1,50

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	338	345	4,01	0,98	0,85
40	-35	456	392	4,37	1,16	1,00
40	-30	594	444	4,77	1,34	1,16
40	-25	754	501	5,22	1,51	1,30
40	-23,3	813	521	5,38	1,56	1,35
40	-20	934	562	5,72	1,66	1,44
40	-15	1.135	627	6,27	1,81	1,56
40	-10	1.357	698	6,87	1,95	1,68

45	-40	300	340	3,97	0,88	0,76
45	-35	404	390	4,35	1,04	0,89
45	-30	529	445	4,78	1,19	1,03
45	-25	674	504	5,25	1,34	1,16
45	-23,3	728	526	5,42	1,39	1,20
45	-20	841	568	5,77	1,48	1,28
45	-15	1.028	637	6,35	1,61	1,39
45	-10	1.236	710	6,98	1,74	1,50

50	-40	263	335	3,94	0,78	0,68
50	-35	352	388	4,34	0,91	0,78
50	-30	463	446	4,79	1,04	0,90
50	-25	594	508	5,28	1,17	1,01
50	-23,3	644	530	5,46	1,21	1,05
50	-20	747	575	5,83	1,30	1,12
50	-15	920	646	6,43	1,42	1,23
50	-10	1.114	723	7,09	1,54	1,33

55	-40	225	330	3,90	0,68	0,59
55	-35	301	386	4,32	0,78	0,67
55	-30	397	447	4,79	0,89	0,77
55	-25	515	512	5,31	1,01	0,87
55	-23,3	559	535	5,50	1,05	0,90
55	-20	653	582	5,88	1,12	0,97
55	-15	812	656	6,51	1,24	1,07
55	-10	993	735	7,20	1,35	1,17

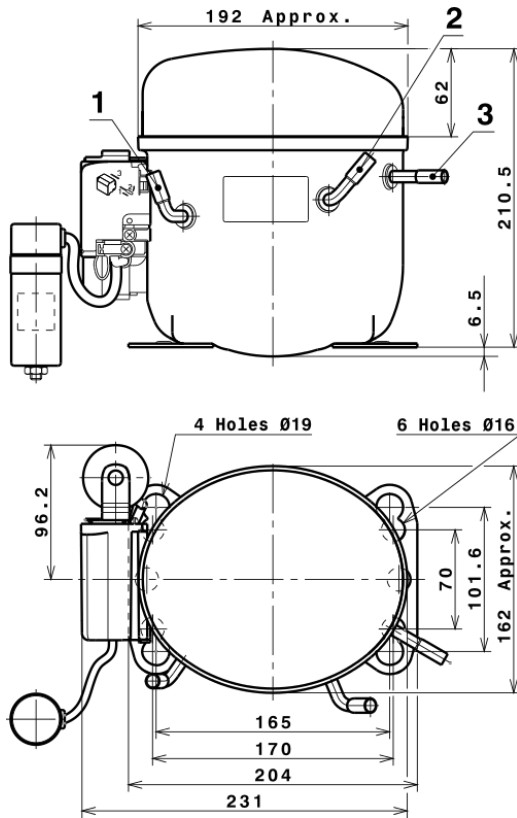
60	-40	187	325	3,86	0,58	0,50
60	-35	249	384	4,31	0,65	0,56
60	-30	331	447	4,80	0,74	0,64
60	-25	435	516	5,34	0,84	0,73
60	-23,3	475	540	5,54	0,88	0,76
60	-20	559	588	5,94	0,95	0,82
60	-15	705	666	6,59	1,06	0,91
60	-10	871	748	7,31	1,17	1,01

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	3.029,4969466570	726,1364679085	7,1619875647	63,728706296621
2	75,8183191617	12,2411350167	0,1152852489	1,8837111256232
3	-30,6592513811	3,7635292682	0,0329037696	-0,27917631789305
4	0,3956550263	0,0981457689	0,0011408491	0,015634651349446
5	-0,5772433608	0,1196417575	0,0010141345	-0,0041664984468097

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

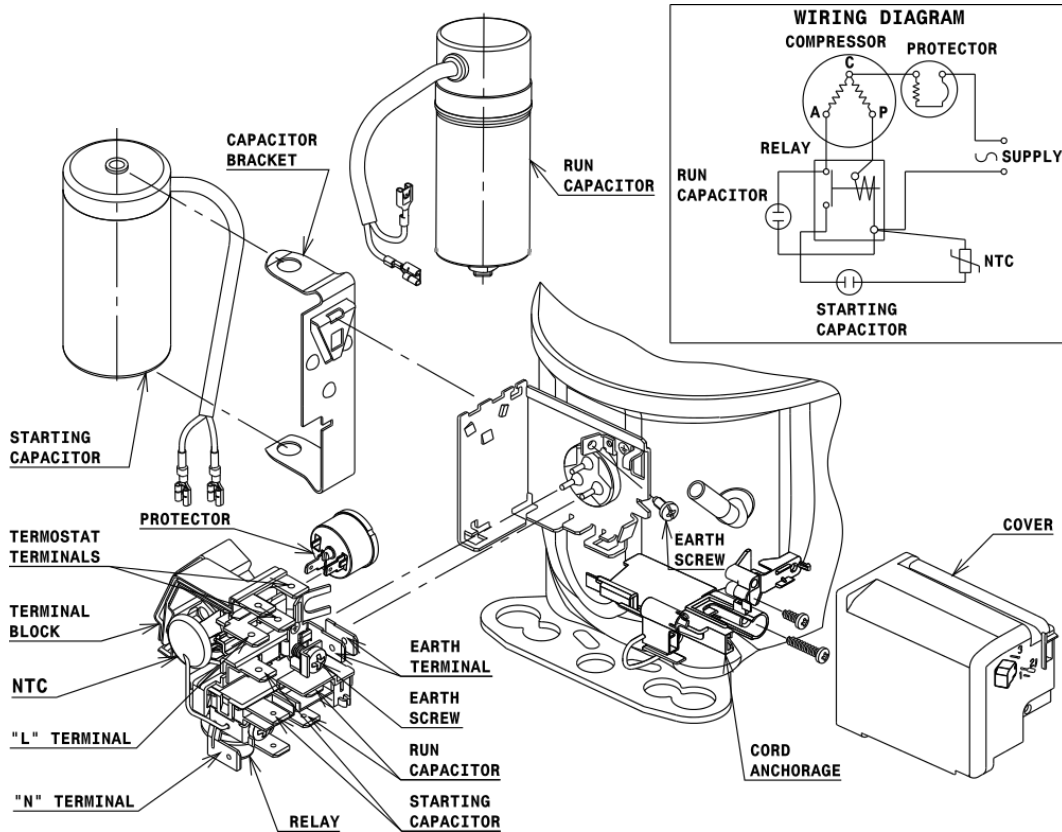


DESIGNATION INTERNAL DIAM.

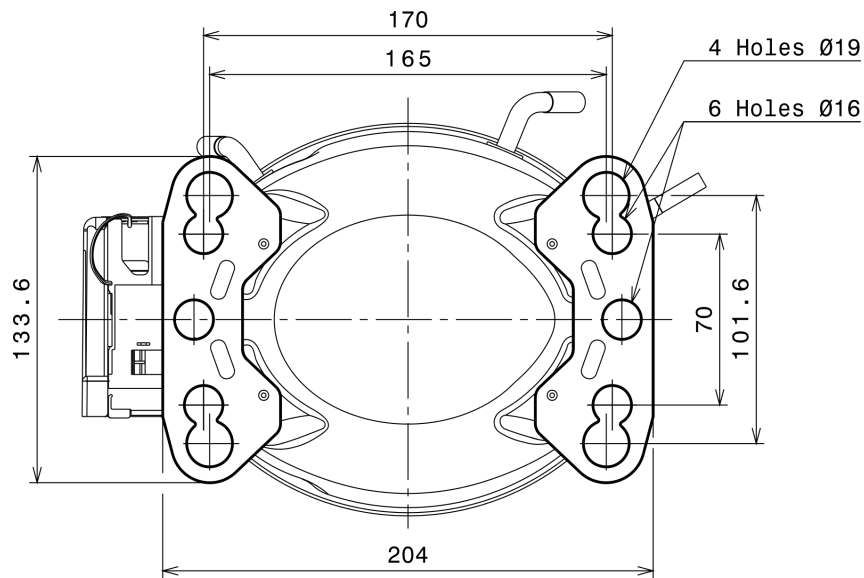
DESIGNATION	INTERNAL DIAM.
1 Suction	8,1 mm
2 Service	8,1 mm
3 Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

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



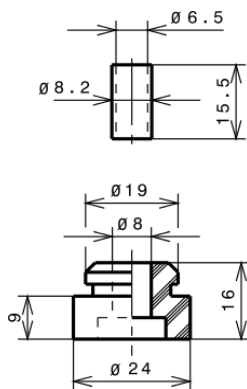
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

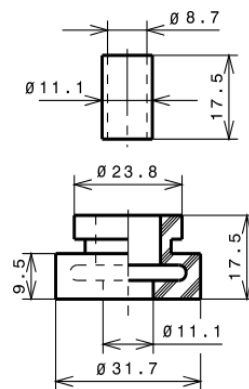
STANDARD

$\varnothing 16$ holes (170x70 net)



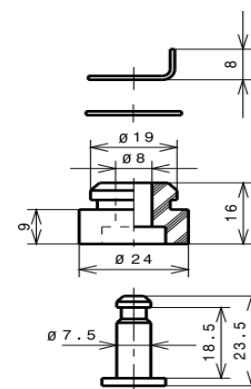
AMERICAN FEET

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



SNAP-ON

$\varnothing 16$ holes (170x70 net)



SOA

SOA R404A LBP

