

Technical Data Sheet

Compressor model **P12TN**
 Voltage **220-240V 50Hz ~1**
 Refrigerant **R22**

APPLICATION

COMPRESSOR

MOTOR

Application	High-Medium Back Pressure	Displacement	12,05 cm ³	Nominal Power	1/2 hp
Refrigerant	R22	Diameter	29,37 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	17,78 mm	Voltage range	198-255 V
Expansion	Capillar/Valve	Net Weight	12,00 Kg	Type	CSR
Comp. Cooling	Fan cooled	Oil type	ISO VG 46 MINER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	400 cm ³	Locked Rotor Amps (LRA)	14,00 A
				Max. Cont. Current (MCC)	5,40 A
				Main W. resist. at 25°C	4,79 Ω
				Start W. resist. at 25°C	10,20 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.323 kCal/h	1.311 W
COP	2,26 W/W	1,98 W/W
EER	1,95 kCal/Wh	1,71 kCal/Wh
Input Power	680 W	661 W
Current	3,20 A	3,11 A

APPROVALS



TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T _e)	7,2 °C	5,0 °C
Condensing temp. (T _c)	55,0 °C	55,0 °C
Liquid temp. (T _{liq.})	46,0 °C	55,0 °C
Ambient temp. (T _{amb.})	35,0 °C	32,0 °C
Suction temp. (T _{suction})	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

ELECTRICAL COMPONENTS

Starting capacitor	64- 77 μF 330 V		
Run capacitor	10 μF 420 V		
Relay	Option 1		
Reference	2014 145. + NTC15Ω		
Pick-Up	7,00 A		
Drop-Out	5,90 A		
Protector	Option 1	Option 2	
Reference	MST18AMK	T0267	
Current	11,50 A	11,00 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 61,00 °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	-25	385	331	1,61	1,35	1,16
40	-20	516	367	1,76	1,63	1,40
40	-15	673	404	1,92	1,94	1,67
40	-10	855	440	2,08	2,26	1,95
40	-5	1.063	476	2,23	2,60	2,24
40	0	1.297	512	2,40	2,95	2,54
40	5	1.556	547	2,56	3,31	2,84
40	7,2	1.679	563	2,64	3,47	2,98
40	10	1.841	583	2,73	3,67	3,16

45	-25	354	334	1,63	1,23	1,06
45	-20	472	376	1,80	1,46	1,25
45	-15	615	418	1,98	1,71	1,47
45	-10	784	459	2,16	1,98	1,71
45	-5	978	501	2,35	2,27	1,95
45	0	1.198	543	2,54	2,57	2,21
45	5	1.444	584	2,73	2,88	2,47
45	7,2	1.560	602	2,82	3,01	2,59
45	10	1.715	625	2,93	3,19	2,74

50	-25	323	337	1,64	1,11	0,96
50	-20	427	385	1,84	1,29	1,11
50	-15	557	432	2,04	1,50	1,29
50	-10	712	479	2,25	1,73	1,49
50	-5	893	526	2,47	1,97	1,70
50	0	1.099	573	2,68	2,23	1,92
50	5	1.331	620	2,91	2,50	2,15
50	7,2	1.442	641	3,01	2,62	2,25
50	10	1.589	667	3,14	2,77	2,38

55	-25	292	340	1,65	1,00	0,86
55	-20	382	393	1,87	1,13	0,97
55	-15	498	446	2,10	1,30	1,12
55	-10	640	499	2,34	1,49	1,28
55	-5	807	552	2,58	1,70	1,46
55	0	1.000	604	2,83	1,92	1,65
55	5	1.219	657	3,09	2,16	1,86
55	7,2	1.323	680	3,20	2,26	1,95
55	10	1.463	709	3,35	2,40	2,06

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	421	333	1,62	1,26	1,09
40	-20	565	369	1,77	1,53	1,32
40	-15	737	406	1,93	1,82	1,57
40	-10	937	442	2,09	2,12	1,83
40	-5	1.164	479	2,25	2,43	2,10
40	0	1.418	515	2,41	2,76	2,38
40	5	1.700	551	2,58	3,09	2,67
40	7,2	1.833	567	2,65	3,23	2,79
40	10	2.009	587	2,75	3,42	2,96

45	-25	385	336	1,63	1,15	0,99
45	-20	514	378	1,81	1,36	1,18
45	-15	670	420	1,99	1,60	1,38
45	-10	854	462	2,17	1,85	1,60
45	-5	1.065	504	2,36	2,11	1,83
45	0	1.304	546	2,56	2,39	2,06
45	5	1.570	588	2,75	2,67	2,31
45	7,2	1.696	606	2,84	2,80	2,42
45	10	1.864	629	2,95	2,96	2,56

50	-25	350	339	1,65	1,03	0,89
50	-20	463	387	1,85	1,20	1,03
50	-15	604	434	2,05	1,39	1,20
50	-10	772	482	2,26	1,60	1,38
50	-5	967	530	2,48	1,83	1,58
50	0	1.190	577	2,70	2,06	1,78
50	5	1.440	624	2,93	2,31	1,99
50	7,2	1.559	645	3,03	2,42	2,09
50	10	1.718	672	3,16	2,56	2,21

55	-25	315	342	1,66	0,92	0,80
55	-20	412	395	1,88	1,04	0,90
55	-15	537	449	2,11	1,20	1,03
55	-10	689	502	2,35	1,37	1,19
55	-5	869	555	2,60	1,57	1,35
55	0	1.076	608	2,85	1,77	1,53
55	5	1.311	661	3,11	1,98	1,71
55	7,2	1.423	685	3,22	2,08	1,80
55	10	1.573	714	3,37	2,20	1,90

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.361,4011625500	272,0768547542	1,1954895280	41,085718657258
2	79,9806754340	-1,6811685917	-0,0101604111	1,5169684387191
3	-23,4436016856	6,4135211332	0,0315281100	-0,27540852451772
4	0,5532021775	0,0025426471	0,0001588497	0,014826191585909
5	-0,6502993051	0,2318610884	0,0011583846	-0,0072828450009256

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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Technical Data Sheet

COMPRESSOR DIMENSIONS



DESIGNATION INTERNAL DIAM.

DESIGNATION	INTERNAL DIAM.
1 Service	8,1 mm
2 Suction	9,7 mm
3 Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSR CONNECTION (CURRENT RELAY + NTC) (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 R22 HMBP

