

Model

SC12MNX

Sales code:

104H8275

Compressor Data

Refrigerant(s)	R290
Refr. charge - tech. limit	150g / 5.29oz
Weight	13.50 kg / 29.76lbs
Displacement	12.87 cm3 / 0.79cu.in
Compressors on pallet	80



General - Configurations With SC12MNX

-	Conf. 1
Motor configuration	CSIR
Power supply (nominal)	220-240 V/50 Hz
Number of phases	1
Voltage range	198-254 V
Approvals	CCC, EAC, VDE
Starting torque	HST
Refrigerant	R290
Application	MBP
Hot gas defrost	OK
Long interval pull down	OK

Application Notes

- Provision for PE Grounding is located at the PE Stamp on the compressor

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Compressor Design

Oil type	POE	Winding resistance main	3.700 Ohm
Oil viscosity	22cSt	Winding resistance aux	13.70 Ohm
Oil quantity	500 / 16.91fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	1,510 cm ³ / 51.06fl.oz	Max. discharge temp.	135°C / 275°F
Motor protection	internal		

Compressor Dimensions

Housing

A Height	219mm / 8.62in
B Height	213mm / 8.39in
C Length shell	218mm / 8.58in
D Length w. cover	255mm / 10.04in
E Width	151mm / 5.94in

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Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/193/55 / 4.21/7.60/2.17in	115/110/63 / 4.53/4.33/2.48in	-107/193/55 / -4.21/7.60/2.17in
Straight tube l. [mm]	12 / 0.47in	12 / 0.47in	12 / 0.47in

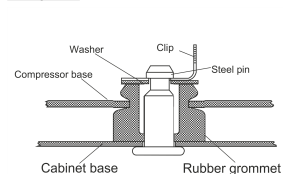
Mounting Accessories



Bolt joint



Snap-on



Dimensions in mm [in]

	one comp.	multi pack
Bolt joint M6 ø16mm	118-1917	118-1918
Bolt joint ø1/4" ø16mm	118-1946	-
Bolt joint ø1/4" ø19mm	118-1949	-
Snap-on ø7,3 ø16mm	118-1947	118-1919

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Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R290
Application	MBP
Voltage range	198-254 V
Starting torque	HST
Approvals	CCC, EAC, VDE
Starting device type	relay
Run capacitor	-/-
Start capacitor	80 µF
RLA (rated load amps / 1s/ U(N))	-/-A

Ambient/ machine room temperatures minimum /maximum

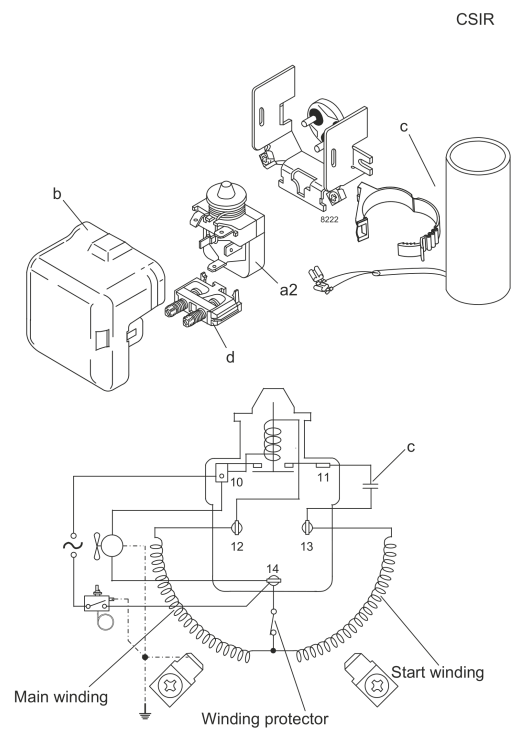
Ambient temperature range: 10 - 43°C / 50 - 109°F

Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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Components

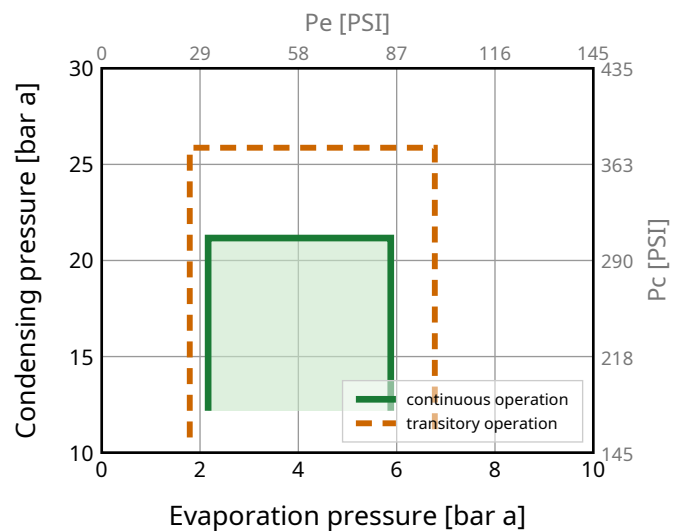
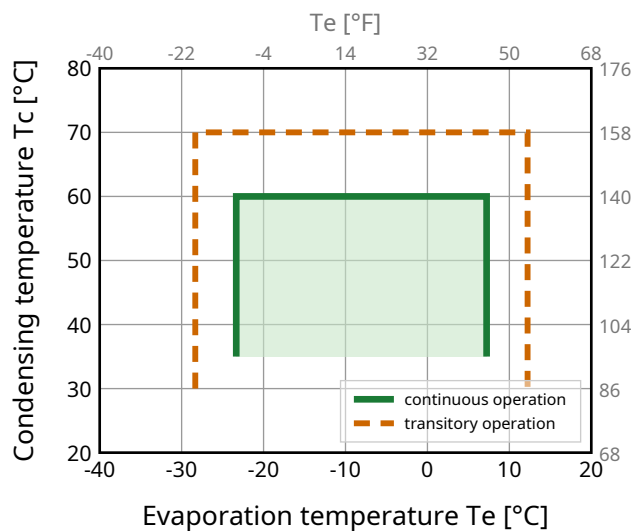
a2 current relay 117U7019

c start capacitor (80µF) 117U5017

d cord relief 103N1004

b plastic cover 103N2008

Operation Pressure Range



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Standard Conditions

R290, 220 V/50 Hz, CSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	m	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-6.7 20	54.4 129.9	35 95	46.1 115	996	3399	857	1.77	6.06	561	3.55	11.41	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	775	2644	666	1.44	4.91	539	3.47	9.85	CECOMAF MBP
-10 14	45 113	20 68	45 113	886	3022	762	1.78	6.09	496	3.34	10.90	EN12900 MBP
-6.7 20	48.8 119.8	18.3 64.9	48.8 119.8	948	3235	815	1.78	6.06	534	3.46	12.33	ARI540 MBP
-10 14	45 113	32 89.6	45 113	921	3142	792	1.86	6.33	496	3.34	10.57	opt MBP
-23.3 -10	45 113	32.2 90	32.2 90	549	1873	472	1.37	4.68	400	3.05	5.58	opt LBP

Performance Tables

R290, 220 V/50 Hz, CSIR, fan 3m/s

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-23.3	-10	492	1677	423	1.23	4.19	400	3.05	5.58
-20	-4	584	1992	502	1.37	4.67	426	3.13	6.64
-15	5	741	2528	637	1.60	5.46	463	3.24	8.46
-10	14	921	3142	792	1.86	6.33	496	3.34	10.57
-5	23	1126	3844	969	2.14	7.29	527	3.44	13.01
0	32	1361	4642	1170	2.45	8.35	556	3.52	15.82
5	41	1626	5547	1398	2.79	9.53	582	3.60	19.05
7.2	45	1753	5981	1508	2.95	10.08	593	3.64	20.62

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-23.3	-10	381	1299	327	0.91	3.09	420	3.08	4.78
-20	-4	466	1590	401	1.03	3.52	452	3.18	5.87
-15	5	610	2082	525	1.23	4.19	497	3.33	7.72
-10	14	775	2644	666	1.44	4.91	539	3.47	9.85
-5	23	963	3285	828	1.67	5.69	577	3.61	12.32
0	32	1177	4015	1012	1.92	6.56	612	3.73	15.18
5	41	1419	4842	1221	2.20	7.52	644	3.85	18.46
7.2	45	1536	5239	1321	2.34	7.97	657	3.90	20.06