

Model
SC18MNX

Sales code:
104H7870

Compressor Data

Refrigerant(s)	R290
Refr. charge - tech. limit	150g / 5.29oz
Weight	14.20 kg / 31.31lbs
Displacement	17.69 cm3 / 1.08cu.in
Compressors on pallet	80



General – Configurations With SC18MNX

-	Conf. 1	Conf. 2
Motor configuration	CSIR	CSCR
Power supply (nominal)	115 V/60 Hz	115 V/60 Hz
Number of phases	1	1
Voltage range	103-127 V	103-127 V
Approvals	UL	UL
Starting torque	HST	HST
Refrigerant	R290	R290
Application	MBP	MBP
Long interval pull down	OK	OK

Application Notes

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

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Compressor Design

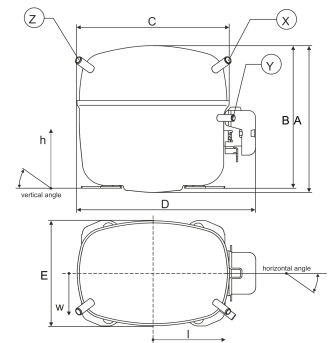
Oil type	POE	Winding resistance main	0.6 Ohm
Oil viscosity	32cSt	Winding resistance aux	3.2 Ohm
Oil quantity	550 / 18.60fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	1,460 cm³ / 49.37fl.oz	Max. discharge temp.	135°C / 275°F
Motor protection	external		

Compressor Dimensions

Housing

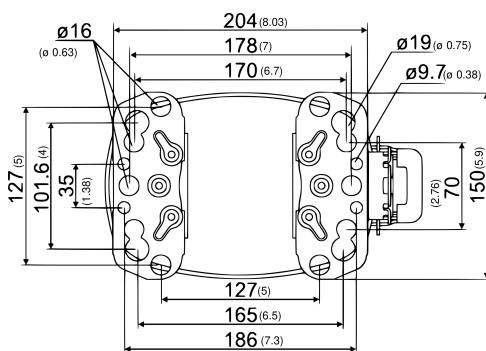
A Height	219mm / 8.62in
B Height	213mm / 8.39in
C Length shell	218mm / 8.58in
D Length w. cover	255mm / 10.04in
E Width	151mm / 5.94in

[Find 3D Model here](#)

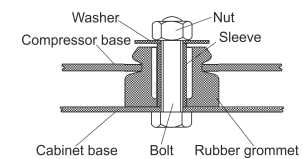


Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 9.54–9.72 / 0.38–0.38in	øi 6.41–6.59 / 0.25–0.26in	øi 6.41–6.59 / 0.25–0.26in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/193/55 / 4.21/7.60/2.17in	115/110/63 / 4.53/4.33/2.48in	-107/193/55 / -4.21/7.60/2.17in
Straight tube l. [mm]	12 / 0.47in	12 / 0.47in	12 / 0.47in

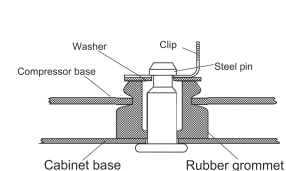
Mounting Accessories



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

Model
SC18MNX

Configuration 1

Sales code:
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Configuration

Motor configuration	CSIR
Power supply (nominal)	115 V/60 Hz 1~
Refrigerant	R290
Application	MBP
Voltage range	103-127 V
Starting torque	HST
Approvals	UL
Starting device type	relay
Run capacitor	-/-
Start capacitor	410 µF
LRA (locked rotor amps / 4s/ U(N))	63 A
RLA (rated load amps / 1s/ U(N))	9.6 A
Cut in current (U(N))	63 A

Ambient/ machine room temperatures minimum /maximum

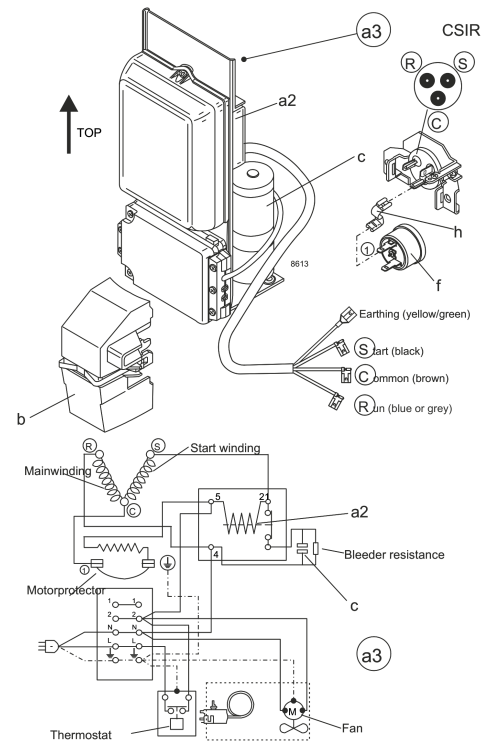
Ambient temperature range: 10 - 38°C / 50 - 100°F

Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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Components

a3 SC starter kit 117-7053

f ext. protector (T0761/46) 117U3212

b plastic cover + clamp 117U1021

Alternative components

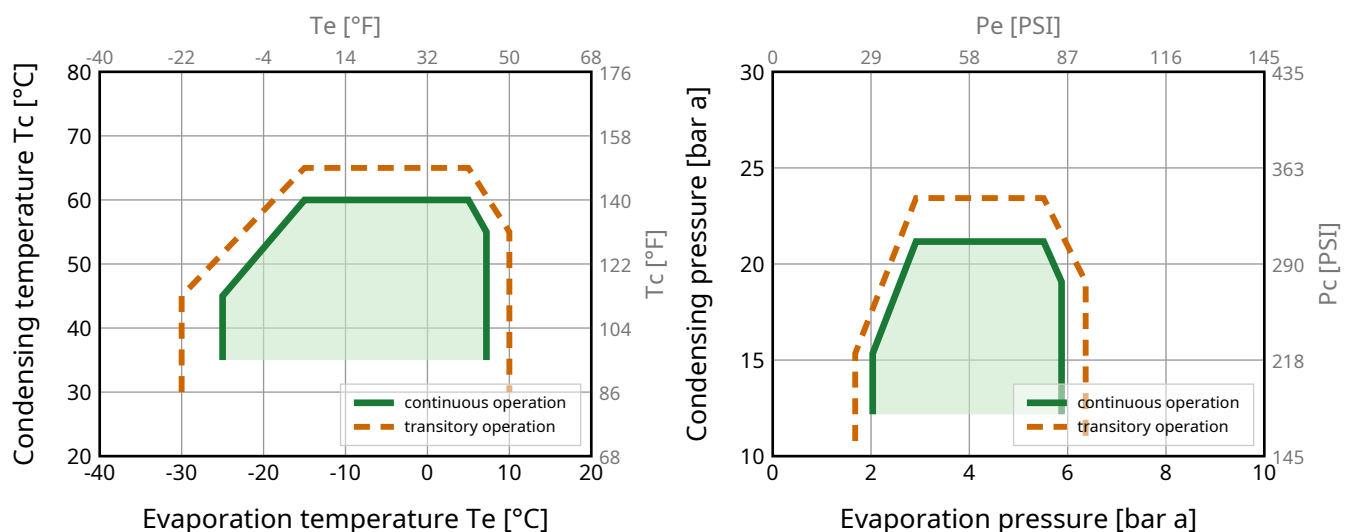
a2 potential relay (RVA 7AA3R) 117-7441

c start capacitor (410µF, 6.3mm) 117U5043

f ext. protector (T0761/46) 117U3212

b plastic cover + clamp 117U1021

Operation Pressure Range



Model
SC18MNX

Configuration 1

Sales code:
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Standard Conditions

R290, 115 V/60 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	1561	5326	1343	1.70	5.81	916	10.86	17.87	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	1241	4236	1068	1.41	4.82	878	10.58	15.79	CECOMAF MBP
-10 14	45 113	20 68	45 113	1420	4844	1221	1.71	5.83	831	10.38	17.47	EN12900 MBP
-6.7 20	48.8 119.8	18.3 64.9	48.8 119.8	1491	5088	1282	1.68	5.75	885	10.72	19.39	ARI540 MBP
-10 14	45 113	32 89.6	45 113	1476	5036	1269	1.78	6.06	831	10.38	16.95	opt MBP 1
-25 -13	45 113	32 89.6	45 113	824	2811	708	1.23	4.18	672	9.66	9.34	opt MBP 2

Performance Tables

R290, 115 V/60 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]
-25	-13	824	2811	708	1.23	4.18	672	9.66	9.34
-20	-4	1012	3453	870	1.39	4.75	727	9.85	11.51
-15	5	1225	4179	1053	1.57	5.36	780	10.09	14.00
-10	14	1476	5036	1269	1.78	6.06	831	10.38	16.95
-5	23	1778	6066	1529	2.02	6.89	881	10.71	20.53
0	32	2144	7316	1844	2.31	7.86	930	11.08	24.93
5	41	2588	8829	2225	2.64	9.01	980	11.48	30.32
7.2	45	2810	9589	2417	2.81	9.58	1001	11.66	33.06

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

-25	-13	650	2218	559	0.96	3.28	677	9.18	8.15
-20	-4	831	2834	714	1.11	3.80	746	9.64	10.46
-15	5	1023	3492	880	1.26	4.30	813	10.11	12.94
-10	14	1241	4236	1068	1.41	4.82	878	10.58	15.79
-5	23	1498	5110	1288	1.59	5.43	942	11.04	19.17
0	32	1806	6160	1553	1.80	6.13	1005	11.49	23.28
5	41	2178	7431	1873	2.04	6.95	1068	11.93	28.33
7.2	45	2365	8071	2034	2.16	7.36	1096	12.12	30.90

Model
SC18MNX

Configuration 2

Sales code:
104H7870

Configuration

Motor configuration	CSCR
Power supply (nominal)	115 V/60 Hz 1~
Refrigerant	R290
Application	MBP
Voltage range	103-127 V
Starting torque	HST
Approvals	UL
Starting device type	relay
Run capacitor	23.5 μF
Start capacitor	410 μF
LRA (locked rotor amps / 4s/ U(N))	63 A
RLA (rated load amps / 1s/ U(N))	9.6 A
Cut in current (U(N))	63 A

Ambient/ machine room temperatures minimum /maximum

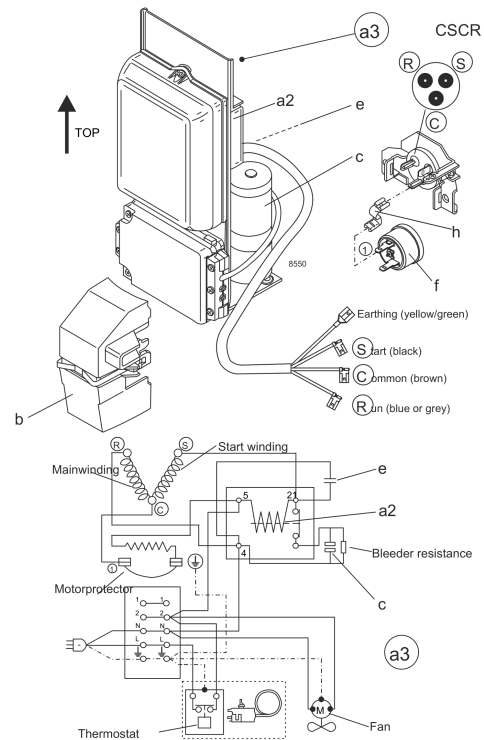
Ambient temperature range: 10 - 38°C / 50 - 100°F

Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



[View full size](#)

Components

a3 SC starter kit 117-7045

f ext. protector (T0761/46) 117U3212

b plastic cover + clamp 117U1021

Alternative components

a2 potential relay (RVA 7AA3R) 117-7441

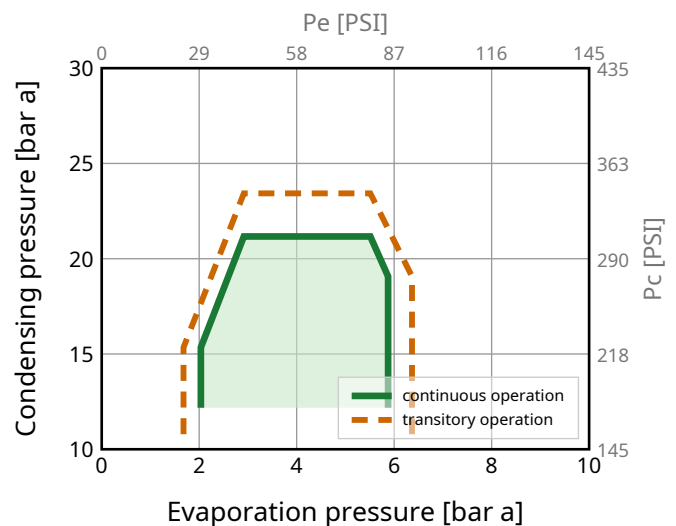
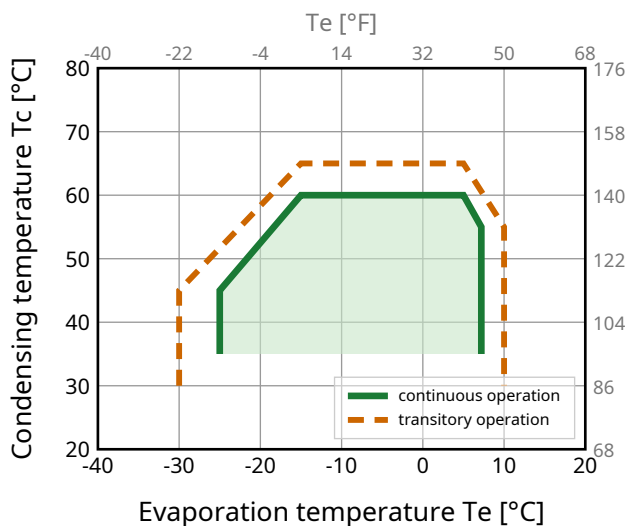
e run capacitor (23,5 μ F, 6.3mm) 117-7114

c start capacitor (410 μ F, 6.3mm) 117U5043

f ext. protector (T0761/46) 117U3212

b plastic cover + clamp 117U1021

Operation Pressure Range



Model

SC18MNX

Configuration 2

Sales code:

104H7870

Standard Conditions

R290, 115 V/60 Hz, CSCR, 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	1587	5415	1365	1.82	6.22	870	10.31	18.17	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	1264	4312	1087	1.52	5.17	834	10.05	16.07	CECOMAF MBP
-10 14	45 113	20 68	45 113	1445	4930	1243	1.83	6.25	789	9.86	17.78	EN12900 MBP
-6.7 20	48.8 119.8	18.3 64.9	48.8 119.8	1516	5173	1304	1.80	6.15	841	10.18	19.71	ARI540 MBP
-10 14	45 113	32 89.6	45 113	1502	5125	1292	1.90	6.49	789	9.86	17.25	opt MBP 1
-25 -13	45 113	32 89.6	45 113	849	2896	730	1.33	4.53	639	9.18	9.62	opt MBP 2

Performance Tables

R290, 115 V/60 Hz, CSCR, 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]
-25	-13	849	2896	730	1.33	4.53	639	9.18	9.62
-20	-4	1037	3539	892	1.50	5.12	691	9.36	11.80
-15	5	1250	4265	1075	1.69	5.76	741	9.59	14.28
-10	14	1502	5125	1292	1.90	6.49	789	9.86	17.25
-5	23	1807	6165	1554	2.16	7.37	836	10.17	20.87
0	32	2179	7436	1874	2.47	8.42	883	10.52	25.34
5	41	2633	8984	2265	2.83	9.66	930	10.90	30.86
7.2	45	2862	9767	2462	3.01	10.27	951	11.07	33.67

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

-25	-13	671	2288	577	1.04	3.56	643	8.72	8.41
-20	-4	852	2908	733	1.20	4.10	708	9.16	10.73
-15	5	1045	3566	899	1.35	4.62	772	9.60	13.22
-10	14	1264	4312	1087	1.52	5.17	834	10.05	16.07
-5	23	1522	5193	1309	1.70	5.81	894	10.48	19.48
0	32	1835	6260	1578	1.92	6.56	955	10.91	23.66
5	41	2215	7559	1905	2.18	7.45	1014	11.33	28.82
7.2	45	2408	8216	2071	2.31	7.89	1041	11.51	31.46