

## Model

Designation	<b>SC12MNX</b>	220-240V/50Hz 1~	Sales code:	<b>104H8275</b>
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## Compressor design

Oil type	Polyolester	Refrigerant(s)	<b>R290</b>
Oil viscosity	22cST	Displacement	12,87cm <sup>3</sup> / 0,79cu.in
Oil quantity	500cm <sup>3</sup> / 16,9fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	150g / 5,3oz		
Free gas volume comp.	1510cm <sup>3</sup> / 51,1fl.oz		
Weight	13,5kg / 29,8lbs		
Motor protection	1# internal		
Winding resistance main	3,7Ω (at 25°C)		
Winding resistance aux	14Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	135°C / 275°F		



## General - Configurations with SC12MNX

	<b>Conf. 1</b>
Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz
Number of phases	1
Voltage range	198-254V
Approvals	CCC, EAC, VDE
Starting torque	HST
Note	- / -

## Applications with SC12MNX

	<b>Conf. 1</b>
Refrigerant	R290
Application	MBP
System cooling	fan 3m/s
Hot gas defrost	OK
Long interval pull down	OK

## Electrical data - Configurations with SC12MNX

	<b>Conf. 1</b>
Starting device type	relay
Run capacitor	-/-
Start capacitor	80μF
LRA (locked rotor amps / 4s)	
RLA (rated load amps / 1s)	-/-A
Cut in current	

## Model

Designation

**SC12MNX**

220-240V/50Hz 1~

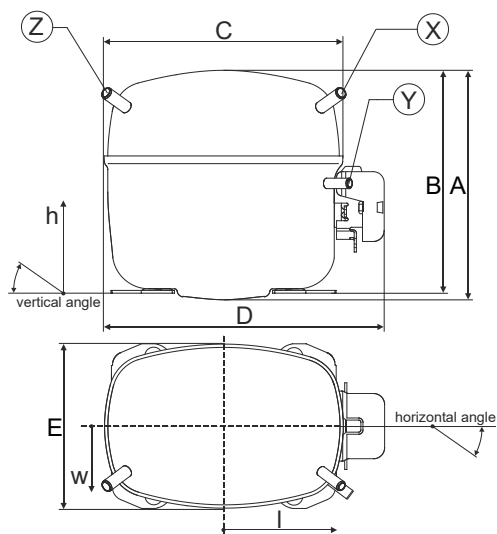
Sales code:

**104H8275**

## 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

Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8,11-8,29	øi 6,11-6,29	øi 6,11-6,29
(i:inside, o:outside) [in]	øi 0,32-0,33	øi 0,24-0,25	øi 0,24-0,25
Material	copper	copper	copper
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/193/55	115/110/63	-107/193/55
[in]	4,2/7,6/2,2	4,5/4,3/2,5	-4,2/7,6/2,2
Straight tube l. [mm]	12	12	12
[in]	0,5	0,5	0,5



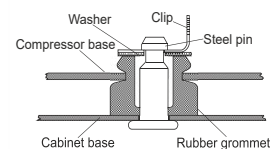
## Compressor fixation



### Bolt joint



### Snap-on



## Mounting accessories

	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

## Application notes

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

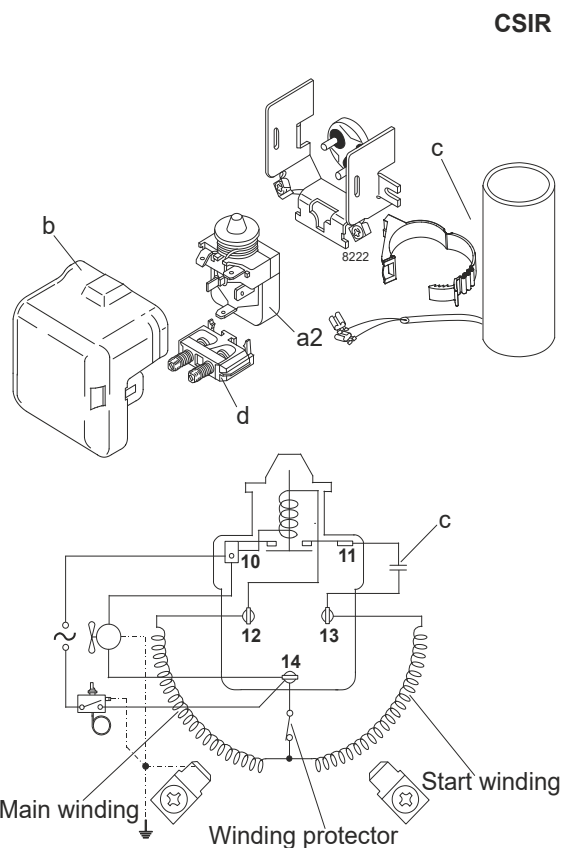
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## Configuration

Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R290
Application	MBP
Voltage range	198-254V
Starting torque	HST
Approvals	CCC EAC VDE

## Electrical accessories / wiring diagram

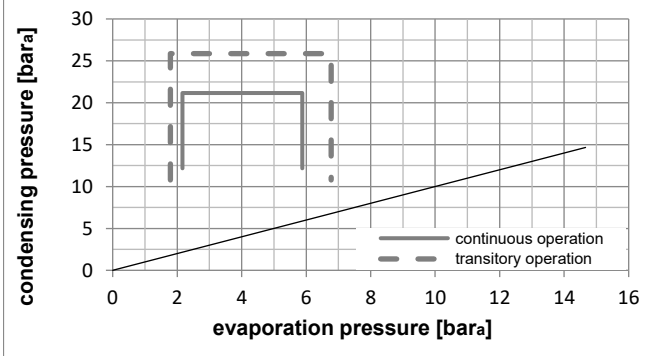
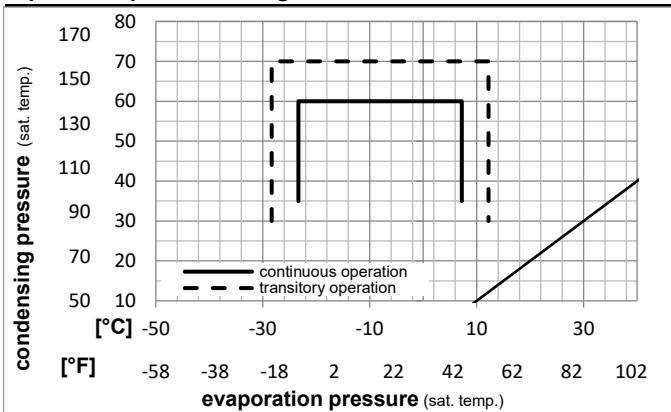


## Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 3m/s

## Operation Limits

### Operation pressure range



### Components

a2	current relay	117U7019
c	start capacitor (80μF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2008

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## Optimization + standard conditions

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

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.			Liquid temp.			Cooling capacity			COP	EER	Power consumption		
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	Ref. mass flow								
[°C]											[W]	[A]	[kg/h]	ASHRAE MBP							
[°F]																					
	-7	54	35	46	996,6	3404	857,7	1,77	6,06	1,53	561,9	3,55	11,37	ASHRAE MBP							
	20	130	95	115																	
	-10	55	32	55	774,9	2646	666,8	1,44	4,91	1,24	538,9	3,47	9,80	cecomaf MBP							
	14	131	90	131																	
	-10	45	20	45	884,5	3021	761,2	1,78	6,09	1,53	496,2	3,34	10,86	EN12900 MBP							
	14	113	68	113																	
	-7	49	18	49	946,8	3233	814,8	1,77	6,05	1,52	534,6	3,47	12,29	ARI540 MBP							
	20	120	65	120																	
	-10	45	32	45	920,8	3145	792,5	1,86	6,34	1,60	496,2	3,34	10,53	opt							
	14	113	90	113																	
	-25	45	32	45	447,2	1527	384,9	1,16	3,95	1,00	386,6	3,01	5,04	opt							
	-13	113	90	113																	

## Performance tables

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

	pe		Cooling capacity			COP	EER	P1	I	m	
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-23	-10	491,5	1679	423,0	1,23	4,19	1,06	400,4	3,05	5,55
cond. pressure	-20	-4	583,8	1994	502,4	1,37	4,68	1,18	426,1	3,13	6,61
pc= 45/113	-15	5	740,8	2530	637,6	1,60	5,47	1,38	462,6	3,24	8,43
return gas temp.	-10	14	920,8	3145	792,5	1,86	6,34	1,60	496,2	3,34	10,53
RGT= 32/90	-5	23	1126,5	3847	969,5	2,14	7,30	1,84	527,3	3,44	12,97
liquid temp	0	32	1360,6	4647	1171,0	2,45	8,36	2,11	555,9	3,52	15,78
Tliq= 45/113	7,2	45	1753,0	5987	1508,6	2,95	10,09	2,54	593,3	3,64	20,59
[°C / °F]	-23	-10	380,7	1300	327,7	0,91	3,10	0,78	419,9	3,08	4,75
cond. pressure	-20	-4	465,9	1591	401,0	1,03	3,52	0,89	451,9	3,18	5,83
pc= 55/131	-15	5	610,1	2084	525,1	1,23	4,19	1,06	497,2	3,33	7,67
return gas temp	-10	14	774,9	2646	666,8	1,44	4,91	1,24	538,9	3,47	9,80
RGT= 32/90	-5	23	962,8	3288	828,6	1,67	5,70	1,44	577,1	3,61	12,27
liquid temp	0	32	1176,7	4019	1012,7	1,92	6,56	1,65	612,1	3,73	15,11
Tliq= 55/131	7,2	45	1535,6	5244	1321,6	2,34	7,98	2,01	657,3	3,90	20,01