Technical Data Compressor

SECOP

Model

Designation	**SC18MNX**	**220-240V/50Hz 1~**	Sales code:	**104H8875**

Compressor design

Oil type	Polyolester	Refrigerant(s)	**R290**
Oil viscosity	32cST	Displacement	17,69cm³ / 1,08cu.in
Oil quantity	550cm³ / 18,6fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	150g / 5,3oz		
Free gas volume comp.	1460cm³ / 49,4fl.oz		
Weight	14kg / 30,9lbs		
Motor protection	1# internal		
Winding resistance main	3,4Ω (at 25°C)		
Winding resistance aux	14,4Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	135°C / 275°F		

General - Configurations with SC18MNX

	Conf. 1
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 SC18MNX

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

Electrical data - Configurations with SC18MNX

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

Model

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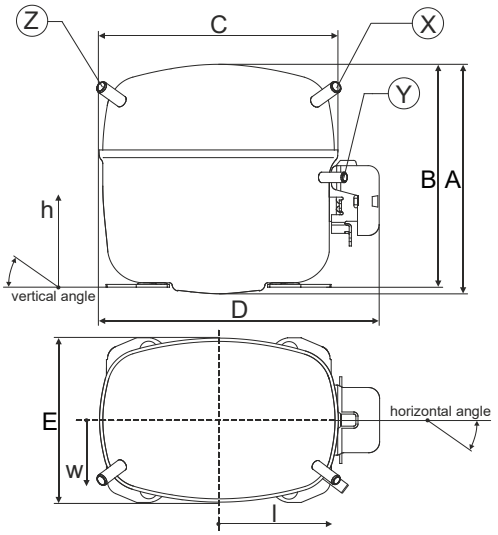
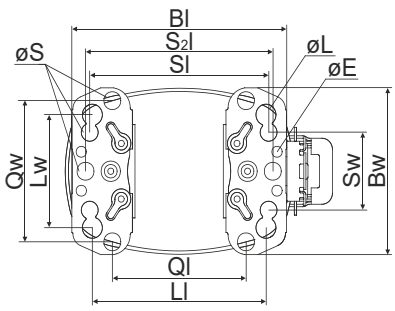
Compressor dimensions

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

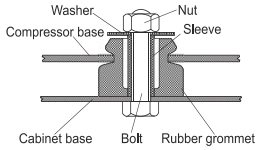


Baseplate	[mm]	[inch]
Bl	204	8.03
Bw	150	5.9
øE	ø 9.7	ø 0.38

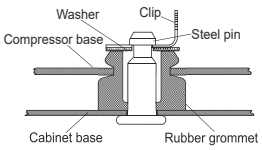
Large holes	[mm]	[inch]
Ll	165	6.5
Lw	101.6	4
øL	ø 19	ø 0.75

Small holes	[mm]	[inch]
Sl	170	6.7
Sw	70	2.76
øS	ø 16	ø 0.63
Ql	127	5
Qw	127	5

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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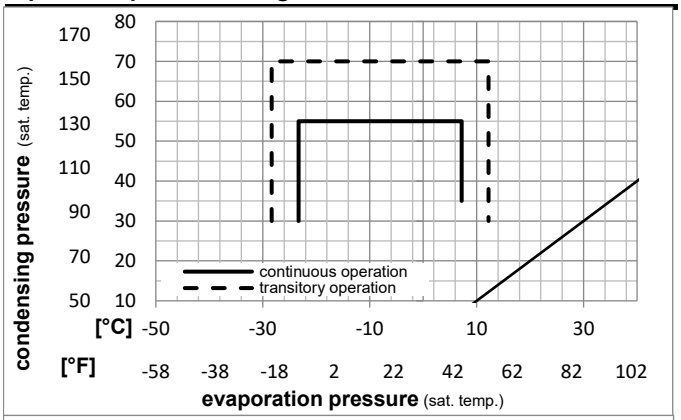
Application	MBP
Voltage range	198-254V
Starting torque	HST
Approvals	CCC
	EAC
	VDE

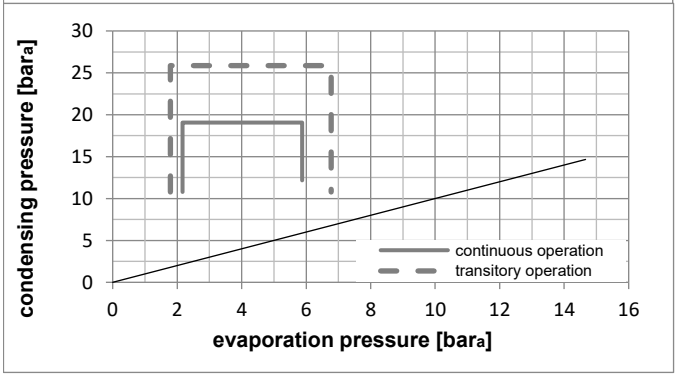
Ambient/ machine room temperatures minimum /maximum

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

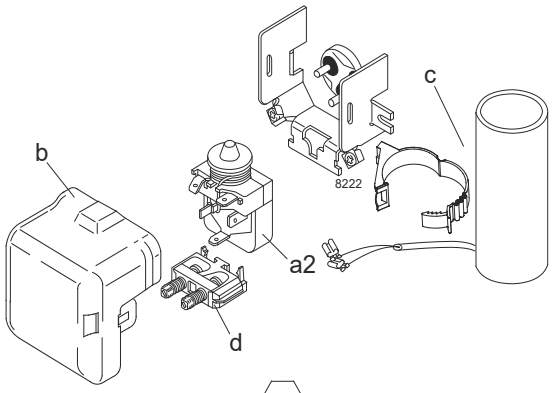
Operation pressure range

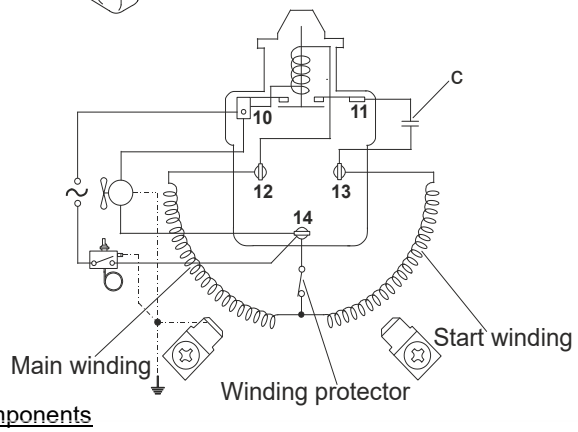




Electrical accessories / wiring diagram

CSIR





Components

a2	relay	117U7011
c	start capacitor (80µF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2009

Alternative components

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) pe	Condensing pressure (saturation temperature) pc	Return gas temp. RGT	Liquid temp. Tliq	Cooling capacity [W]	[Btu/h]	[kcal/h]	COP [W/W]	EER [Btu/Wh]	[kcal/Wh]	Power consumption P1 [W]	Current consumption I [A]	Ref. mass flow ṁ [kg/h]	
[°C]	-7	54	35	46	1365,6	4664	1175,3	1,71	5,83	1,47	799,9	4,74	15,58	**ASHRAE MBP**
[°F]	20	130	95	115										
[°C]	-10	55	32	55	1087,8	3715	936,2	1,42	4,86	1,22	764,5	4,61	13,76	**cecomaf MBP**
[°F]	14	131	90	131										
[°C]	-10	45	20	45	1204,1	4112	1036,3	1,69	5,77	1,45	712,9	4,41	14,78	**EN12900 MBP**
[°F]	14	113	68	113										
[°C]	-7	49	18	49	1280,4	4373	1101,9	1,67	5,70	1,44	766,9	4,61	16,63	**ARI540 MBP**
[°F]	20	120	65	120										
[°C]	-10	45	32	45	1253,6	4281	1078,8	1,76	6,01	1,51	712,9	4,41	14,34	**opt**
[°F]	14	113	90	113										
[°C]	-25	45	32	45	675,0	2305	580,9	1,22	4,17	1,05	552,2	3,90	7,61	**opt**
[°F]	-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	730,5	2495	628,7	1,27	4,35	1,10	573,7	3,97	8,25
cond. pressure	-20	-4	844,3	2883	726,6	1,38	4,71	1,19	612,5	4,08	9,56
pc= 45/113	-15	5	1035,1	3535	890,8	1,56	5,31	1,34	665,4	4,25	11,78
return gas temp.	-10	14	1253,6	4281	1078,8	1,76	6,01	1,51	712,9	4,41	14,34
RGT= 32/90	-5	23	1505,9	5143	1296,0	1,99	6,79	1,71	756,9	4,56	17,34
liquid temp	0	32	1798,3	6142	1547,7	2,25	7,68	1,94	799,2	4,71	20,86
Tliq= 45/113	7,2	45	2302,2	7862	1981,3	2,67	9,13	2,30	861,1	4,95	27,05
[°C / °F]	-23	-10	628,4	2146	540,8	1,06	3,61	0,91	594,9	4,02	7,84
cond. pressure	-20	-4	729,1	2490	627,4	1,14	3,89	0,98	640,4	4,17	9,12
pc= 55/131	-15	5	896,6	3062	771,6	1,27	4,35	1,10	704,5	4,39	11,27
return gas temp	-10	14	1087,8	3715	936,2	1,42	4,86	1,22	764,5	4,61	13,76
RGT= 32/90	-5	23	1308,8	4470	1126,4	1,59	5,44	1,37	822,4	4,83	16,67
liquid temp	0	32	1565,9	5348	1347,6	1,78	6,08	1,53	879,9	5,05	20,11
Tliq= 55/131	7,2	45	2011,7	6870	1731,3	2,08	7,11	1,79	966,0	5,39	26,21