

Model

Designation	SC21CNX.2	220-240V/50Hz 1~	Sales code:	104H8156
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R290
Oil viscosity	32cSt	Displacement	20,95cm ³ / 1,28cu.in
Oil quantity	550cm ³ / 18,6fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	150g / 5,3oz		
Free gas volume comp.	1410cm ³ / 47,7fl.oz		
Weight	14,1kg / 31,1lbs		
Motor protection	1# internal		
Winding resistance main	3,3Ω (at 25°C)		
Winding resistance aux	16Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	135°C / 275°F		



General - Configurations with SC21CNX.2

Conf. 1

Motor configuration	CSIR
Power supply (nominal)	220-240V/50Hz
Number of phases	1
Voltage range	198-254V
Approvals	VDE, CCC
Starting torque	HST
Note	- / -

Applications with SC21CNX.2

Conf. 1

Refrigerant	R290
Application	LBP
System cooling	fan 3m/s
Hot gas defrost	OK
Long interval pull down	OK

Electrical data - Configurations with SC21CNX.2

Conf. 1

Starting device type	relay
Run capacitor	-/-
Start capacitor	125μF
LRA (locked rotor amps / 4s/ U(N))	25A
RLA (rated load amps / 1s/ U(N))	4,5A
Cut in current (U(N))	25A

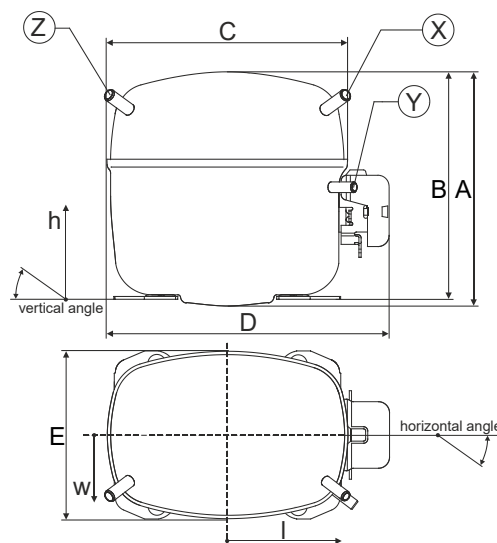
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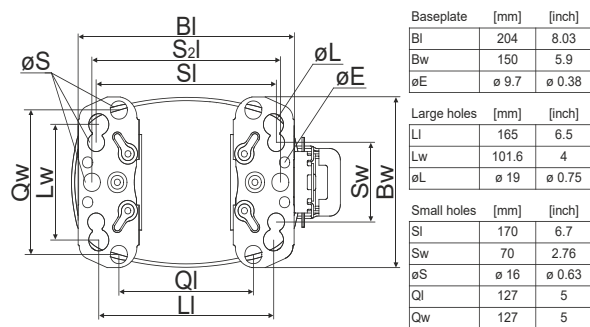
Compressor dimensions

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 9,54-9,72	øi 6,41-6,59	øi 6,41-6,59
(i:inside, o:outside) [in]	øi 0,38-0,38	øi 0,25-0,26	øi 0,25-0,26
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

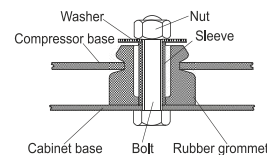


Compressor fixation

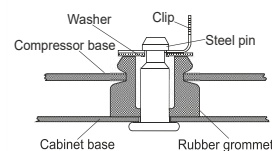


Baseplate	[mm]	[inch]
BI	204	8.03
Bw	150	5.9
øE	ø 9.7	ø 0.38
Large holes	[mm]	[inch]
LI	165	6.5
Lw	101.6	4
øL	ø 19	ø 0.75
Small holes	[mm]	[inch]
SI	170	6.7
Sw	70	2.76
øS	ø 16	ø 0.63
QI	127	5
Qw	127	5

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

Model

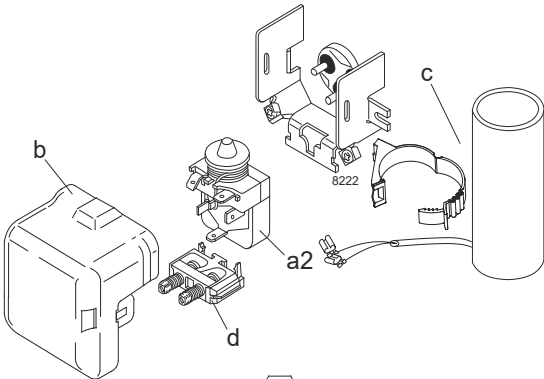
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Configuration

Electrical accessories / wiring diagram

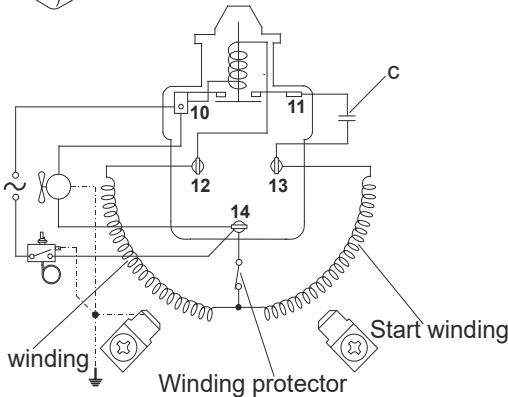
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Approvals	VDE
	CCC

CSIR

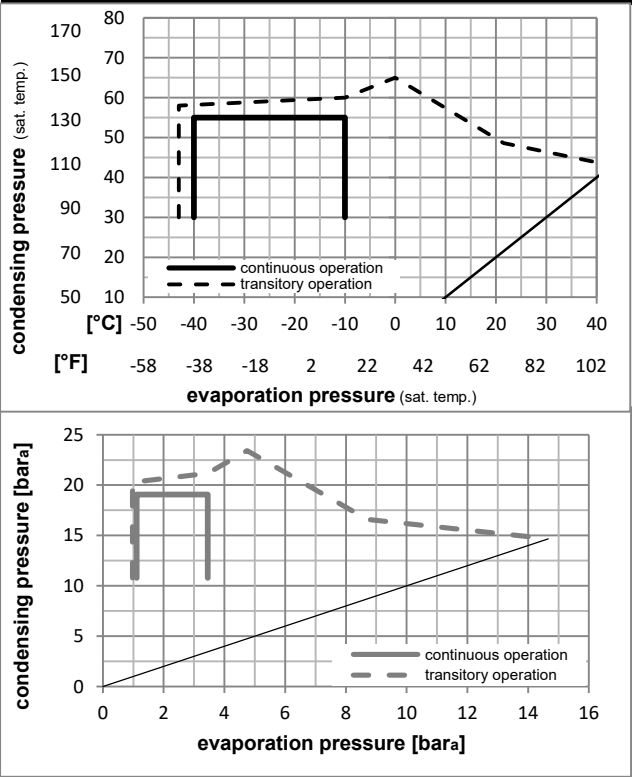


Ambient/ machine room temperatures minimum /maximum

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 pressure range



Components

a2	relay	117U7013
c	start capacitor (125µF)	117U5012
d	cord relief	103N1004
b	plastic cover	103N2009

Model

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Optimization + standard conditions

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

Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)						Power consumption																																																																			
Return gas temp.					Current consumption						Ref. mass flow																																																																			
Liquid temp.					Cooling capacity						COP				EER				P1				I				ṁ																																																			
pe					pc					RGT					Tliq					[W]					[Btu/h]					[kcal/h]					[W/W]					[Btu/Wh]					[kcal/Wh]					[W]					[A]					[kg/h]																		
[°C]					-23	54	32	32	960,5					3280					826,6					1,45					4,96					1,25					661,4					4,19					9,73					ASHRAE LBP																								
[°F]					-10	130	90	90																																																																						
[°C]					-25	55	32	55	715,7					2444					616,0					1,12					3,82					0,96					639,2					4,10					8,91					cecomaf LBP																								
[°F]					-13	131	90	131																																																																						
[°C]					-35	40	20	40	540,5					1846					465,2					1,09					3,72					0,94					495,6					3,59					6,18					EN12900 LBP																								
[°F]					-31	104	68	104																																																																						
[°C]					-23	49	4,4	49	767,9					2622					660,9					1,18					4,04					1,02					648,4					4,11					10,63					ARI540 LBP																								
[°F]					-10	120	40	120																																																																						
[°C]					-23	41	32	32	1008,0					3443					867,5					1,57					5,36					1,35					642,8					4,01					10,21					AHAM LBP																								
[°F]					-10	105	90	90																																																																						
[°C]					-35	45	32	45	491,9					1680					423,4					1,00					3,42					0,86					491,2					3,58					5,51					opt																								
[°F]					-31	113	90	113																																																																						

Performance tables

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

	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]	-40	-40	338,6	1156	291,4	0,78	2,68	0,68	431,4	3,43	3,79
cond. pressure	-35	-31	491,9	1680	423,4	1,00	3,42	0,86	491,2	3,58	5,51
pc= 45/113	-30	-22	653,8	2233	562,6	1,18	4,02	1,01	554,9	3,76	7,35
return gas temp.	-25	-13	828,3	2829	712,9	1,33	4,54	1,14	622,9	3,98	9,34
RGT= 32/90	-20	-4	1019,8	3483	877,7	1,47	5,01	1,26	695,3	4,23	11,55
liquid temp	-15	5	1232,6	4209	1060,8	1,60	5,45	1,37	772,5	4,52	14,02
Tliq= 45/113	-10	14	1470,7	5023	1265,7	1,72	5,88	1,48	854,6	4,84	16,83
[°C / °F]	-40	-40	219,1	748	188,6	0,47	1,62	0,41	462,4	3,39	2,70
cond. pressure	-35	-31	372,3	1271	320,4	0,73	2,48	0,63	512,3	3,59	4,60
pc= 55/131	-30	-22	536,4	1832	461,7	0,94	3,21	0,81	571,2	3,83	6,65
return gas temp	-25	-13	715,7	2444	616,0	1,12	3,82	0,96	639,2	4,10	8,91
RGT= 32/90	-20	-4	914,4	3123	786,9	1,28	4,36	1,10	716,6	4,41	11,44
liquid temp	-15	5	1136,7	3882	978,2	1,41	4,83	1,22	803,7	4,75	14,29
Tliq= 55/131	-10	14	1386,8	4736	1193,5	1,54	5,26	1,33	900,6	5,13	17,54