

Model

Designation	SC21CNX.2	220-240V/50Hz 1~	Sales code:	104H8166
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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

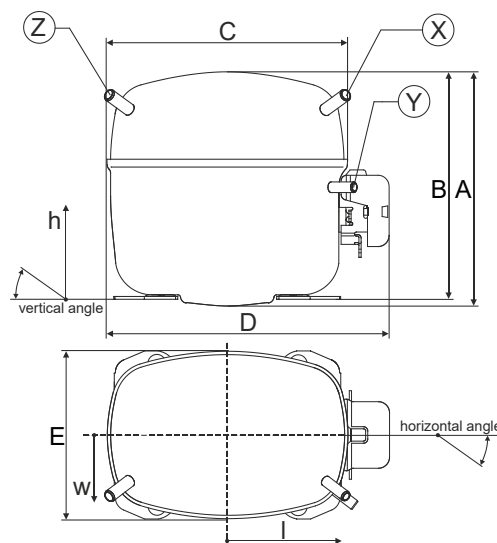
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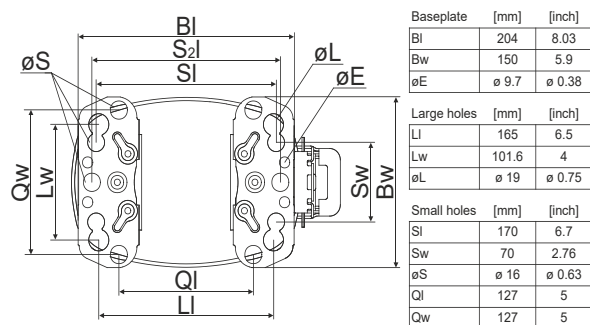
Compressor dimensions

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 10,11-10,29	øi 6,11-6,29	øi 6,11-6,29
(i:inside, o:outside) [in]	øi 0,4-0,41	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

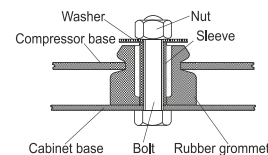


Compressor fixation

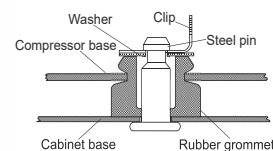


Baseplate	[mm]	[inch]
BI	204	8.03
Bw	150	5.9
øE	ø 9.7	ø 0.38
Large holes	[mm]	[inch]
LI	165	6.5
Lw	101.6	4
øL	ø 19	ø 0.75
Small holes	[mm]	[inch]
SI	170	6.7
Sw	70	2.76
øS	ø 16	ø 0.63
QI	127	5
Qw	127	5

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

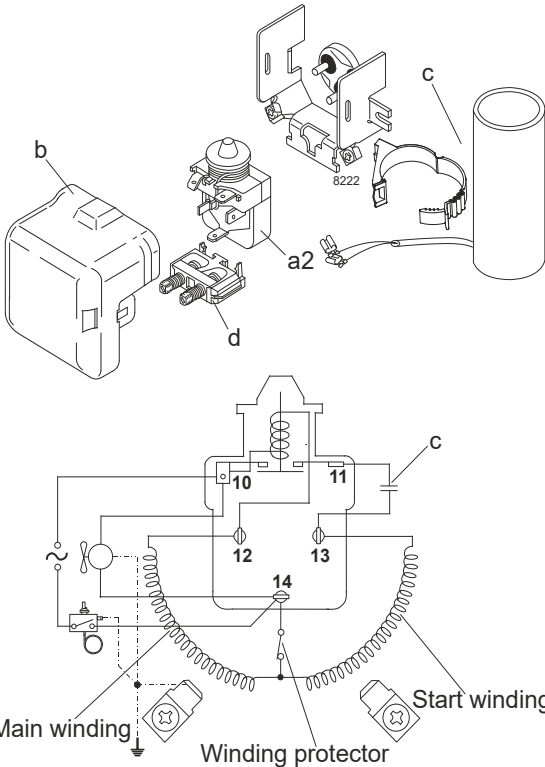
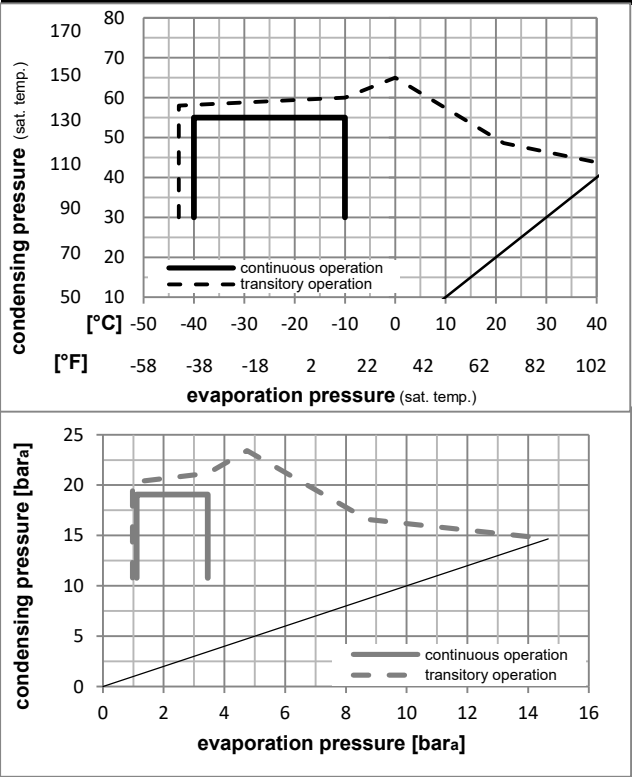
Model				
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Configuration		Electrical accessories / wiring diagram		
Motor configuration	CSIR	CSIR		
Power supply (nominal)	220-240V/50Hz 1~			
Refrigerant	R290			
Application	LBP			
Voltage range	198-254V			
Starting torque	HST			
Approvals	VDE			
	CCC			

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

Alternative components		
c	start capacitor (125µF)	117U5069

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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		m	
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]	[W]	[A]	[kg/h]	[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				