

Model

Designation	SCE21MFX	220-230V/50Hz 1~	Sales code:	104G8150
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R134a
Oil viscosity	22cSt	Displacement	20,95cm ³ / 1,28cu.in
Oil quantity	500cm ³ / 16,9fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	700g / 24,7oz		
Free gas volume comp.	1460cm ³ / 49,4fl.oz		
Weight	13,1kg / 28,9lbs		
Motor protection	external		
Winding resistance main	4,7Ω (at 25°C)		
Winding resistance aux	15,9Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	140°C / 284°F		



General - Configurations with SCE21MFX

	Conf. 1
Motorconfiguration	CSIR
Power supply (nominal)	220-230V/50Hz
Number of phases	1
Voltage range	198-244V
Approvals	CCC, VDE
Starting torque	HST
Note	Protector, relay and cover are included and pre-assembled to compressor.

Applications with SCE21MFX

	Conf. 1
Refrigerant	R134a
Application	MBP
System cooling	fan 3m/s
Hot gas defrost	OK
Long interval pull down	OK

Electrical data - Configurations with SCE21MFX

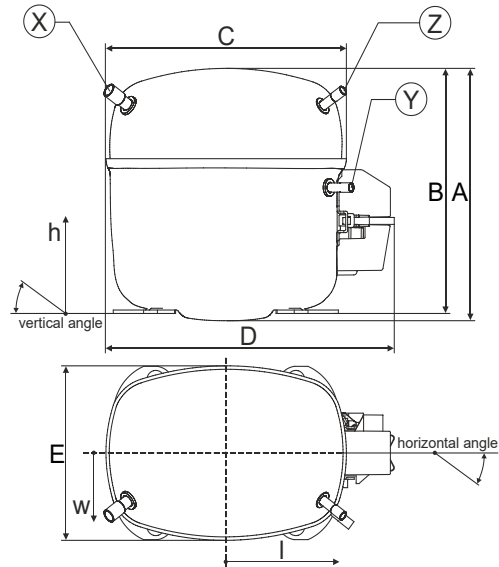
	Conf. 1
Starting device type	relay
Run capacitor	-/-
Start capacitor	80μF
LRA (locked rotor amps / 4s/ U(N))	18A
RLA (rated load amps / 1s/ U(N))	3,5A
Cut in current (U(N))	18A

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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		Discharge		Process	
	X		Y		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	

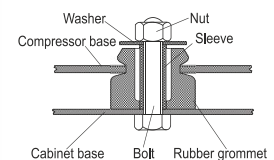
Compressor fixation

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

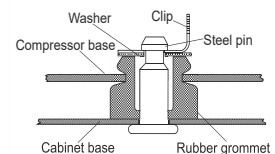
Large holes	[mm]	[inch]
LI	165	6.5
Lw	101.6	4
øL	ø 19	ø 0.75

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

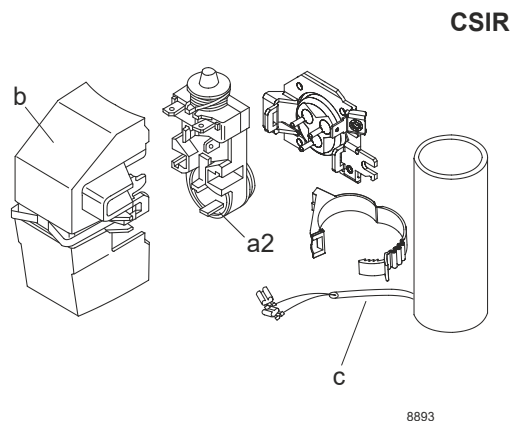
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Configuration

Motor configuration CSIR
 Power supply (nominal) 220-230V/50Hz 1~
 Refrigerant R134a
 Application MBP
 Voltage range 198-244V
 Starting torque HST
 Approvals CCC
 VDE

Electrical accessories / wiring diagram

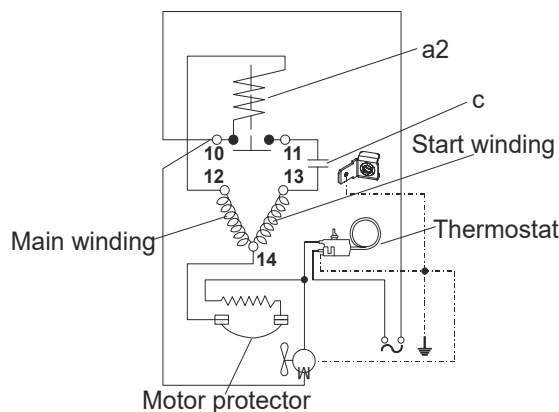


Ambient/ machine room temperatures minimum /maximum

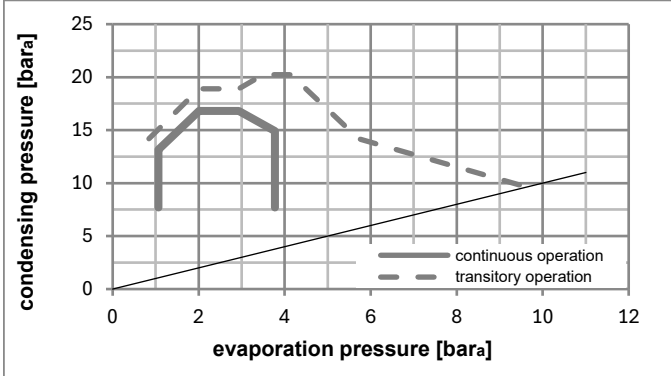
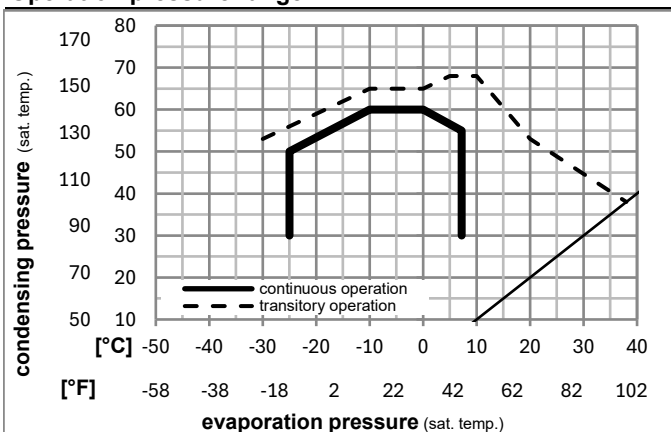
Ambient temperature range: 10 - 38°C / 50 - 101°F

Machine room temperature range: 10 - 43°C / 50 - 110°F

Compressor cooling: fan 3m/s



Operation pressure range



Components (relay (a2)+ cover (b): pre-assembled)

a2	assy. relay + ext. protector (T1134)	117U7411
c	start capacitor (80µF)	117U5017
d	cord relief	103N1004
b	plastic cover + clamp	117U1033

Noise emission

Operation pressures:	pe: -10°C / 14°F
	pc: 45°C / 113°F
Motor speed appr.:	2900rpm
Lw(A):	55dB(A)

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Optimization + standard conditions

R134a, 220V/50Hz, CSIR, fan 3m/s, CCC, 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]	[°F]											[W]	[A]	[kg/h]						
-7	20	54	35	46	1131,9	3866	974,1	1,82	6,21	1,57	622,4	3,43	24,70		ASHRAE MBP					
-10	14	55	32	55	864,5	2952	744,0	1,51	5,16	1,30	572,2	3,23	20,90		cecomaf MBP					
-10	14	45	20	45	995,9	3401	857,1	1,78	6,09	1,54	558,2	3,22	23,31		EN12900 MBP					
-7	20	49	18	49	1085,4	3707	934,1	1,79	6,12	1,54	605,8	3,37	26,81		ARI540 MBP					
-10	14	45	32	45	1033,2	3529	889,2	1,85	6,32	1,59	558,2	3,22	22,61		opt					
-25	-13	45	32	45	446,9	1526	384,6	1,23	4,18	1,05	364,8	2,63	9,68		opt					

Performance tables

R134a, 220V/50Hz, CSIR, fan 3m/s, CCC, 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]	-25	-13	446,9	1526	384,6	1,23	4,18	1,05	364,8	2,63	9,68
cond. pressure	-20	-4	605,3	2067	520,9	1,39	4,74	1,19	436,2	2,82	13,15
pc= 45/113	-15	5	800,3	2733	688,8	1,60	5,47	1,38	500,0	3,01	17,45
return gas temp.	-10	14	1033,2	3529	889,2	1,85	6,32	1,59	558,2	3,22	22,61
RGT= 32/90	-5	23	1305,3	4458	1123,3	2,13	7,28	1,83	612,6	3,43	28,70
liquid temp	0	32	1617,7	5525	1392,2	2,43	8,30	2,09	665,3	3,65	35,77
Tliq= 45/113	7,2	45	2140,9	7312	1842,5	2,89	9,85	2,48	742,0	3,99	47,82
[°C / °F]	-25	-13	340,7	1164	293,2	0,98	3,35	0,84	347,2	2,52	8,15
cond. pressure	-20	-4	483,7	1652	416,2	1,15	3,91	0,99	422,2	2,71	11,60
pc= 55/131	-15	5	657,8	2247	566,1	1,32	4,52	1,14	496,6	2,95	15,84
return gas temp	-10	14	864,5	2952	744,0	1,51	5,16	1,30	572,2	3,23	20,90
RGT= 32/90	-5	23	1104,9	3773	950,9	1,70	5,79	1,46	651,2	3,55	26,86
liquid temp	0	32	1380,2	4714	1187,8	1,88	6,41	1,62	735,3	3,92	33,76
Tliq= 55/131	7,2	45	1840,7	6286	1584,1	2,12	7,23	1,82	869,4	4,51	45,52