

Single Pack SC12MLX 115-127V 60Hz CSIR

Single pack code number: **195B4005**

Position	Title	Code	Amount
1	Compressor SC12MLX	104L1606	1
2	SC starting device (600mm)	117-7053	1
3	Bolt joint for one compressor M6 ø16mm	118-1917	1

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Model

Designation	SC12MLX	115-127V/60Hz 1~	Sales code:	104L1606
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R404A, R507
Oil viscosity	32cST	Displacement	12,87cm ³ / 0,79cu.in
Oil quantity	556cm ³ / 18,8fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	1300g / 45,9oz		
Free gas volume comp.	1460cm ³ / 49,4fl.oz		
Weight	13,8kg / 30,4lbs		
Motor protection	external		
Winding resistance main	0,66Ω (at 25°C)		
Winding resistance aux	2,7Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



General - Configurations with SC12MLX

	Conf. 1	Conf. 2
Motorconfiguration	CSIR	CSCR
Power supply (nominal)	115-127V/60Hz	115-127V/60Hz
Number of phases	1	1
Voltage range	95-135V	95-135V
Approvals	UL	UL
Starting torque	HST	HST
Note	Protector and cover are included and pre-assembled to compressor.	

Applications with SC12MLX

	Conf. 1	Conf. 2
Refrigerant	R404A	R404A
Application	MBP	MBP
System cooling	fan 3m/s	fan 3m/s
Hot gas defrost	OK	OK
Long interval pull down	OK	OK

Electrical data - Configurations with SC12MLX

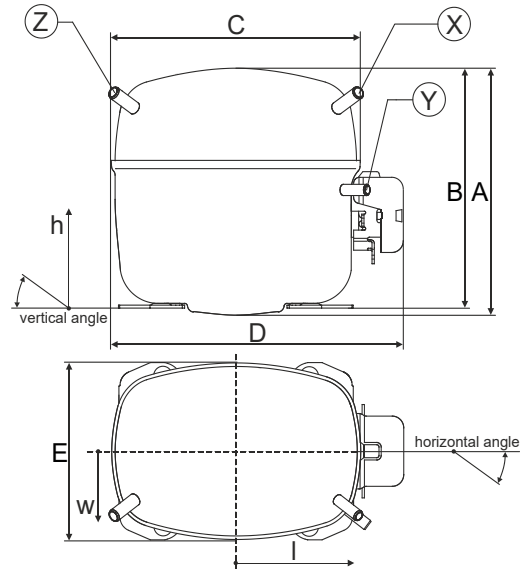
	Conf. 1	Conf. 2
Starting device type	relay	relay
Run capacitor	-/-	23,5μF
Start capacitor	410μF	410μF
LRA (locked rotor amps / 4s)	56,8A	54,2A
RLA (rated load amps / 1s)	9,8A	8,8A
Cut in current	56,8A	54,2A

Model

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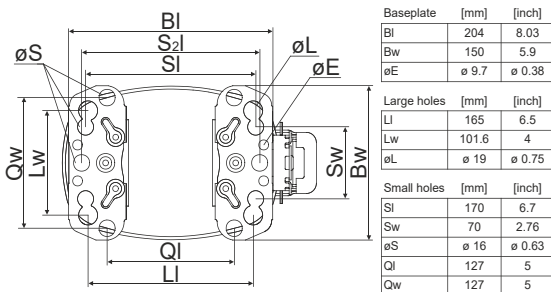
Compressor dimensions

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

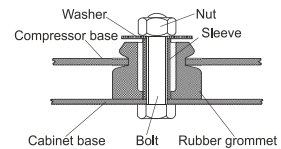


Connectors		Suction	Discharge	Process
		X	Y	Z
Diameter	[mm]	øi 8,11-8,29	øi 6,41-6,59	øi 6,41-6,59
	(i:inside, o:outside) [in]	øi 0,32-0,33	øi 0,25-0,26	øi 0,25-0,26
Material		copper	copper	copper
Horizontal angle	±2°	37°	37°	143°
Vertical angle	±2°	30°	0°	150°
Position l/h/w	[mm]	107/193/55	115/110/63	-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

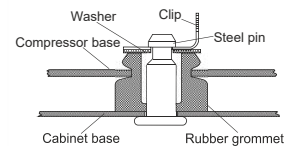
Compressor fixation



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

LRA value on compressor label and datasheet may differ due to different test conditions for UL approval.

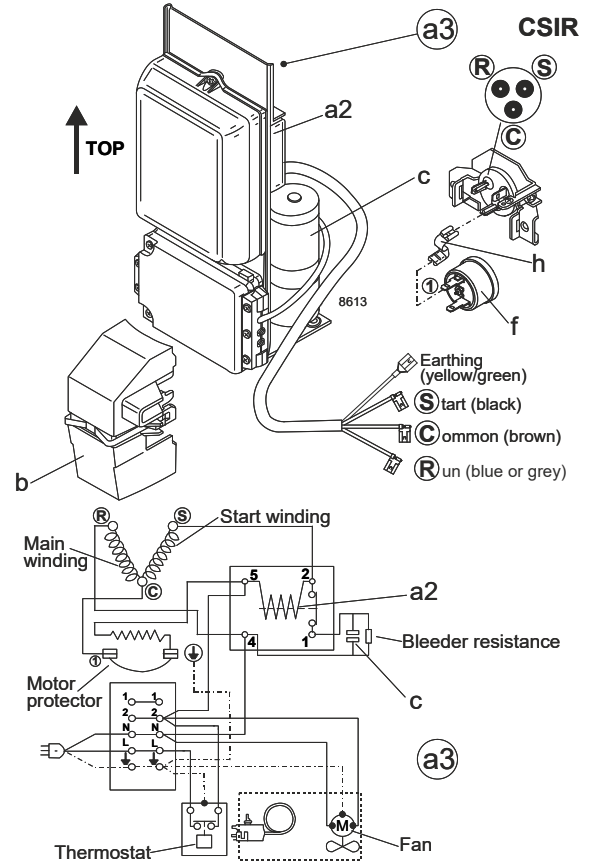
Model

Designation	SC12MLX	115-127V/60Hz	Conf. 1	Sales code:	104L1606
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Configuration

Motorconfiguration	CSIR	
Power supply (nominal)	115-127V/60Hz 1~	
Refrigerant	R404A	
Application	MBP	
Voltage range	95-135V	
Starting torque	HST	
Approvals	UL	SA3693

Electrical accessories / wiring diagram

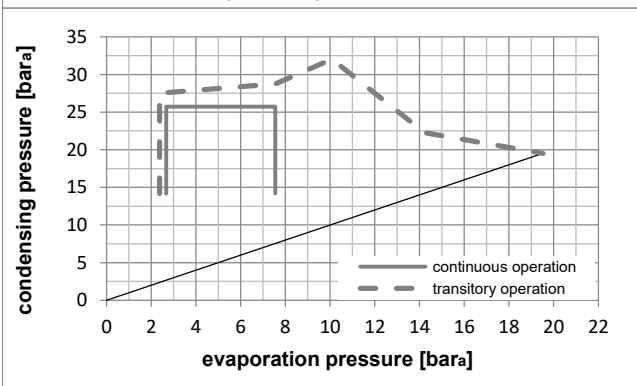
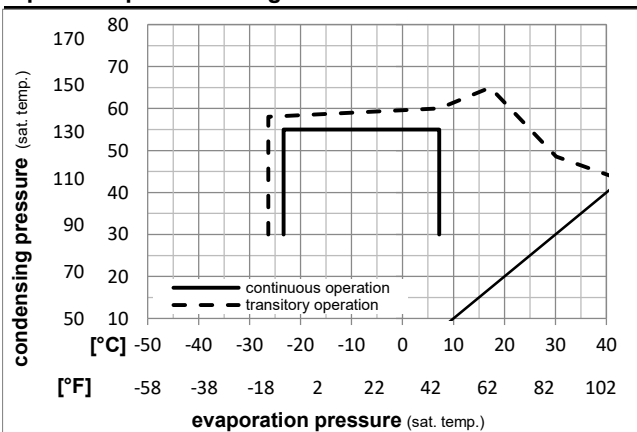


Ambient temperatures / system cooling

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°F

System cooling (n/a: outside limits)			
T ambient	LBP	MBP	HBP
32°C / 90°F	n/a	fan 3m/s	n/a
38°C / 100°F	n/a	fan 3m/s	n/a
43°C / 110°F	n/a	fan 3m/s	n/a

Operation pressure range



Components (protector + ~holder + cover: pre assembled)

a3	SC starter kit	117-7053
f	ext. protector (T0761/46)	117U3212
h	protector holder	117U0439
b	plastic cover	117U1021

Alternative comp. (protector + ~holder + cover: pre assemb.)

a2	potential relay (RVA 7AA3R)	117-7441
c	start capacitor (410µF, 6.3mm)	117U5042
f	ext. protector (T0761/46)	117U3212
h	protector holder	117U0439
b	plastic cover	117U1021

Model

Designation **SC12MLX 115-127V/60Hz** Conf. 1 Sales code: **104L1606**

Optimization + standard conditions

R404A, 115V/60Hz, CSIR, fan 3m/s, UL

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)					Power consumption								
						Return gas temp.					Current consumption								
						Liquid temp.					Ref. mass flow								
						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]	-6,66	54,4	35	46,1	1284,6	4387	1105,6	1,52	5,20	1,31	844,0	9,09	35,35	ASHRAE					
[°F]	20	130	95	115										MBP					
[°C]	-10	55	32	55	950,6	3246	818,1	1,20	4,10	1,03	791,2	8,92	30,43	cecomaf					
[°F]	14	131	89,6	131										MBP					
[°C]	-10	45	20	45	1125,2	3843	968,3	1,51	5,14	1,30	747,3	8,30	33,89	EN12900					
[°F]	14	113	68	113										MBP					
[°C]	-6,66	48,9	18,3	48,9	1173,2	4007	1009,7	1,44	4,93	1,24	812,9	8,88	38,34	ARI540					
[°F]	20	120	65	120										MBP					
[°C]	-10	45	32	45	1194,1	4078	1027,7	1,60	5,46	1,38	747,3	8,30	32,88	opt					
[°F]	14	113	89,6	113															
[°C]	-25	45	32	45	606,0	2070	521,6	1,09	3,72	0,94	555,9	6,50	16,35	opt					
[°F]	-13	113	89,6	113															

Performance tables

R404A, 115V/60Hz, CSIR, fan 3m/s, UL

	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	606,0	2070	521,6	1,09	3,72	0,94	555,9	6,50	16,35		
cond. pressure	-23,3	-10	657,0	2244	565,4	1,14	3,89	0,98	576,7	6,85	17,75		
pc= 45/113	-15	5	963,9	3292	829,5	1,41	4,82	1,22	682,3	7,90	26,33		
return gas temp.	-9,4	15	1222,0	4173	1051,7	1,62	5,53	1,39	754,6	8,35	33,69		
RGT= 32/90	-3,9	25	1528,5	5220	1315,4	1,84	6,29	1,59	829,5	8,97	42,59		
liquid temp	0	32	1774,2	6059	1526,9	2,01	6,86	1,73	883,7	9,69	49,88		
Tliq= 45/113	7,2	45	2304,7	7871	1983,4	2,33	7,95	2,00	989,7	12,08	66,09		
[°C / °F]	-25	-13	453,7	1549	390,4	0,84	2,88	0,72	538,6	6,61	14,18		
cond. pressure	-23,3	-10	496,7	1696	427,4	0,88	2,99	0,75	567,0	7,11	15,56		
pc= 55/131	-15	5	755,6	2581	650,3	1,07	3,65	0,92	707,5	8,55	23,96		
return gas temp	-9,4	15	974,3	3327	838,5	1,22	4,16	1,05	800,5	8,95	31,22		
RGT= 32/90	-3,9	25	1235,1	4218	1062,9	1,38	4,72	1,19	893,9	9,27	40,09		
liquid temp	0	32	1445,3	4936	1243,8	1,51	5,14	1,30	959,9	9,63	47,40		
Tliq= 55/131	7,2	45	1901,9	6495	1636,8	1,75	5,99	1,51	1085,0	11,03	63,83		

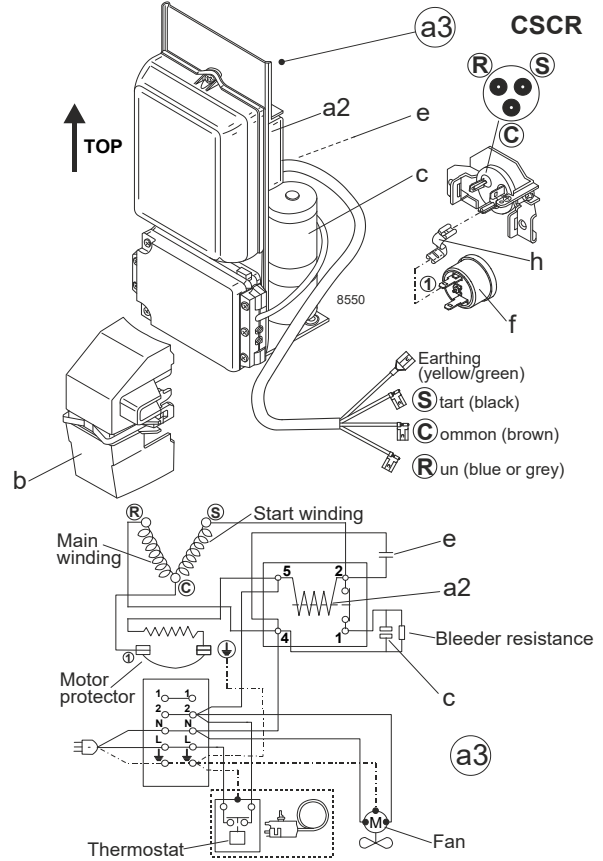
Model

Designation	SC12MLX	115-127V/60Hz	Conf. 2	Sales code:	104L1606
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Configuration

Motorconfiguration	CSCR	
Power supply (nominal)	115-127V/60Hz 1~	
Refrigerant	R404A	
Application	MBP	
Voltage range	95-135V	
Starting torque	HST	
Approvals	UL	SA3693

Electrical accessories / wiring diagram

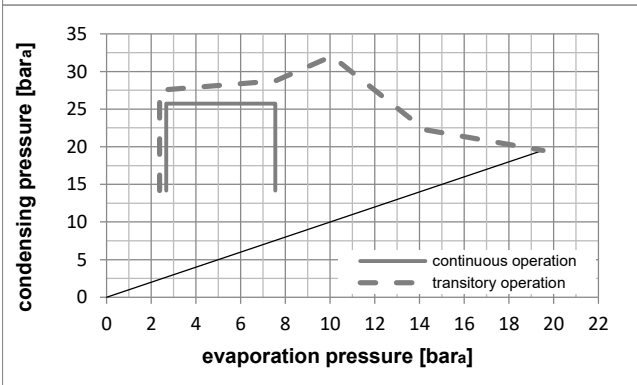
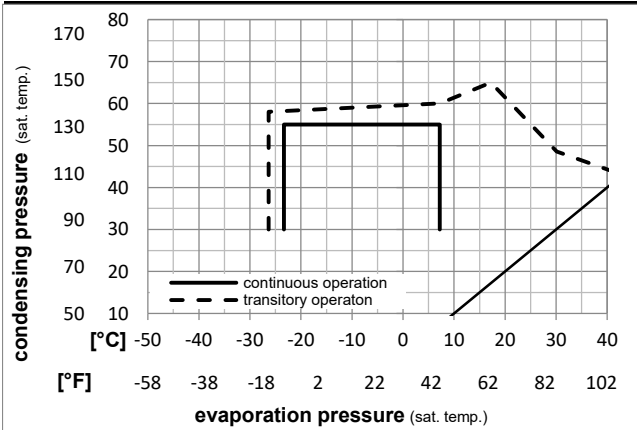


Ambient temperatures / system cooling

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°F

System cooling (n/a: outside limits)			
T ambient	LBP	MBP	HBP
32°C / 90°F	n/a	fan 3m/s	n/a
38°C / 100°F	n/a	fan 3m/s	n/a
43°C / 110°F	n/a	fan 3m/s	n/a

Operation pressure range



Components (protector + ~holder + cover: pre assembled)

a3	SC starter kit	117-7045
f	ext. protector (T0761/46)	117U3212
h	protector holder	117U0439
b	plastic cover	117U1021

Alternative comp. (protector + ~holder + cover: pre assemb.)

a2	potential relay (RVA 7AA3R)	117-7441
f	ext. protector (T0761/46)	117U3212
h	protector holder	117U0439
c	start capacitor (410µF, 6.3mm)	117U5042
c	start capacitor (410µF, 6.3mm)	117U5379
e	run capacitor (23,5µF, 6.3mm)	117-7133

Model

Designation **SC12MLX 115-127V/60Hz** Conf. 2 Sales code: **104L1606**

Optimization + standard conditions

R404A, 115V/60Hz, CSCR, fan 3m/s, UL

Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)						Power consumption			ASHRAE MBP
Return gas temp.					Liquid temp.						Current consumption		Ref. mass flow ṁ	
Cooling capacity					COP		EER		P1	I				
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]		
[°C]	-6,7	54,4	35	46,1	1300,3	4441	1119,0	1,61	5,48	1,38	809,6	8,05	35,78	ASHRAE MBP
[°F]	20	130	95	115										
[°C]	-10	55	32	55	961,9	3285	827,8	1,27	4,32	1,09	760,0	7,70	30,79	cecomaf MBP
[°F]	14	131	89,6	131										
[°C]	-10	45	20	45	1138,4	3888	979,8	1,59	5,42	1,37	717,6	7,42	34,29	EN12900 MBP
[°F]	14	113	68	113										
[°C]	-6,7	48,9	18,3	48,9	1187,3	4055	1021,8	1,52	5,20	1,31	780,1	7,84	38,80	ARI540 MBP
[°F]	20	120	65	120										
[°C]	-10	45	32	45	1208,2	4126	1039,8	1,68	5,75	1,45	717,6	7,42	33,27	opt
[°F]	14	113	89,6	113										
[°C]	-25	45	32	45	613,0	2093	527,5	1,15	3,91	0,99	534,8	6,16	16,53	opt
[°F]	-13	113	89,6	113										

Performance tables

R404A, 115V/60Hz, CSCR, fan 3m/s, UL

	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	613,0	2093	527,5	1,15	3,91	0,99	534,8	6,16	16,53	
cond. pressure	-23	-10	664,5	2269	571,9	1,20	4,09	1,03	555,3	6,29	17,96	
pc= 45/113	-15	5	975,1	3330	839,2	1,49	5,07	1,28	656,2	6,98	26,64	
return gas temp.	-9,4	15	1236,5	4223	1064,1	1,71	5,83	1,47	724,5	7,47	34,08	
RGT= 32/90	-3,9	25	1547,0	5283	1331,3	1,94	6,64	1,67	795,7	8,00	43,11	
liquid temp	0	32	1796,0	6134	1545,7	2,12	7,23	1,82	848,4	8,41	50,49	
Tliq= 45/113	7,2	45	2334,0	7971	2008,7	2,44	8,35	2,10	954,8	9,26	66,93	
[°C / °F]	-25	-13	458,8	1567	394,9	0,88	3,02	0,76	519,1	5,94	14,34	
cond. pressure	-23	-10	502,3	1716	432,3	0,92	3,14	0,79	547,0	6,15	15,73	
pc= 55/131	-15	5	764,4	2610	657,8	1,12	3,83	0,97	681,4	7,13	24,24	
return gas temp	-9,4	15	985,9	3367	848,5	1,28	4,38	1,10	768,8	7,76	31,60	
RGT= 32/90	-3,9	25	1250,4	4270	1076,1	1,46	4,99	1,26	856,5	8,40	40,58	
liquid temp	0	32	1463,7	4999	1259,7	1,59	5,44	1,37	919,3	8,85	48,00	
Tliq= 55/131	7,2	45	1927,4	6582	1658,8	1,85	6,32	1,59	1041,0	9,75	64,69	



SC Compressors

(External Protector)





SC Compressors (External Protector)



Service/Repair – R290



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