

Model

Designation	SC12MLX	220-240V/50Hz 1~ 208-230V/60Hz 1~	Sales code:	104L2606
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R404A, R452A, R507
Oil viscosity	32cST	Displacement	12,87cm ³ / 0,79cu.in
Oil quantity	549cm ³ / 18,6fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	1300g / 45,9oz		
Free gas volume comp.	1410cm ³ / 47,7fl.oz		
Weight	13kg / 28,7lbs		
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.	130°C / 266°F		



General - Configurations with SC12MLX

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Motorconfiguration	CSIR	CSIR	CSIR	CSIR
Power supply (nominal)	220-240V/50Hz	208-230V/60Hz	220-240V/50Hz	208-230V/60Hz
Number of phases	1	1	1	1
Voltage range	187-254V	187-254V	187-254V	187-254V
Approvals	VDE, UL, CCC, EAC, KC	VDE, UL, CCC, EAC, KC	VDE, UL, CCC	VDE, UL, CCC
Starting torque	HST	HST	HST	HST
Note	- / -			

Applications with SC12MLX

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Refrigerant	R404A	R404A	R452A	R452A
Application	MBP	MBP	MBP	MBP
System cooling	fan 3m/s	fan 3m/s	fan 3m/s	fan 3m/s
Hot gas defrost	OK	OK	OK	OK
Long interval pull down	OK	OK	OK	OK

Electrical data - Configurations with SC12MLX

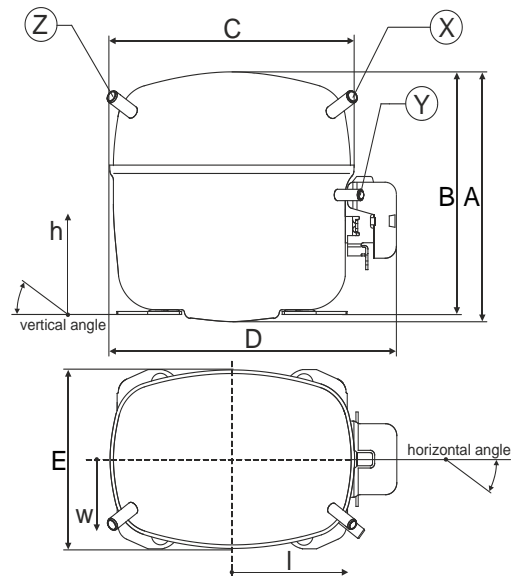
	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Starting device type	relay	relay	relay	relay
Run capacitor	- / -	- / -	- / -	- / -
Start capacitor	80μF	80μF	80μF	80μF
LRA (locked rotor amps / 4s)	23,4A	23,4A	23,4A	23,4A
RLA (rated load amps / 1s)	4,3A	4,3A	4,3A	4,3A
Cut in current	23,4A	23,4A	23,4A	23,4A

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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			

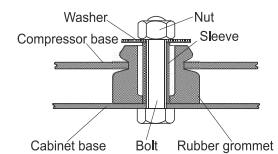
Compressor fixation

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

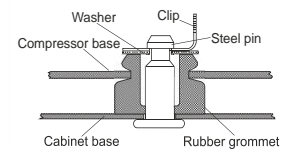
Large holes	[mm]	[inch]
LI	165	6.5
Lw	101.6	4
øL	ø 19	ø 0.75

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

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

Model

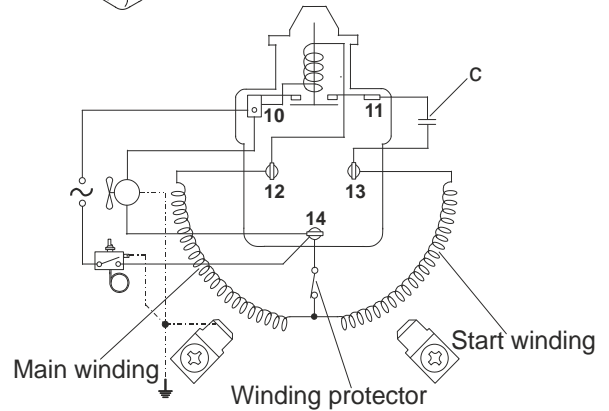
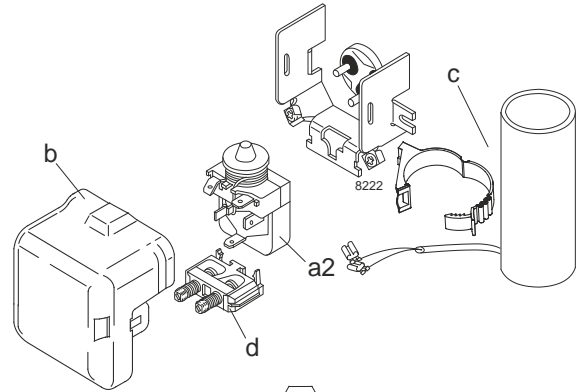
Designation	SC12MLX	220-240V/50Hz	Conf. 1	Sales code:	104L2606
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Configuration

Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R404A
Application	MBP
Voltage range	187-254V
Starting torque	HST
Approvals	VDE UL CCC EAC KC

Electrical accessories / wiring diagram

CSIR

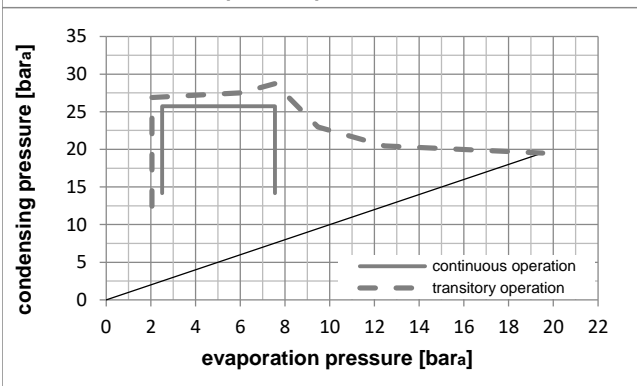
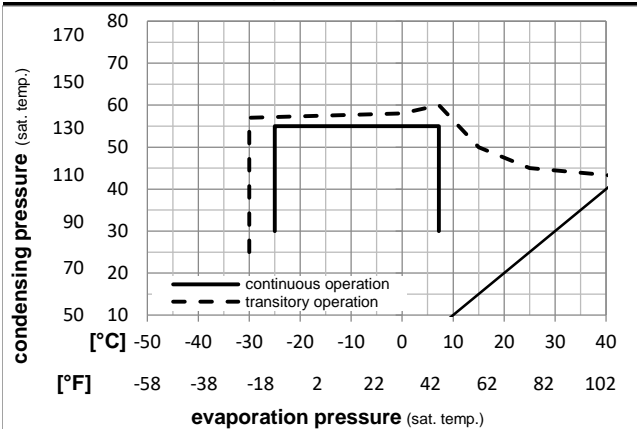


Ambient temperatures / system cooling

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

a2	relay	117U6011
c	start capacitor (80µF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2008

Model

Designation **SC12MLX 220-240V/50Hz** Conf. 1 Sales code: **104L2606**

Optimization + standard conditions

R404A, 220V/50Hz, CSIR, fan 3m/s, VDE, UL, CCC, EAC, KC

Evaporating pressure (saturation temperature)		Condensing pressure (saturation temperature)				Return gas temp.		Liquid temp.		Cooling capacity			COP	EER	Power consumption		Ref. mass flow m	ASHRAE MBP
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	[kg/h]						
[°C]	[°F]	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]						
-6,66	20	54,4	130	35	95	46,1	115	1097,6	3749	944,6	1,56	5,31	1,34	705,6	4,40	30,20	ASHRAE MBP	
-10	14	55	131	32	89,6	55	131	815,0	2784	701,4	1,22	4,15	1,05	670,1	4,26	26,09	cecomaf MBP	
-10	14	45	113	20	68	45	113	978,0	3340	841,7	1,58	5,39	1,36	619,6	4,08	29,46	EN12900 MBP	
-6,66	20	48,9	120	18,3	65	48,9	120	1013,5	3461	872,2	1,51	5,14	1,30	673,3	4,28	33,12	ARI540 MBP	
-10	14	45	113	32	89,6	45	113	1037,9	3545	893,2	1,68	5,72	1,44	619,6	4,08	28,58	opt	
-25	-13	45	113	32	89,6	45	113	527,1	1800	453,6	1,11	3,78	0,95	476,0	3,63	14,22	opt	

Performance tables

R404A, 220V/50Hz, CSIR, fan 3m/s, VDE, UL, CCC, EAC, KC

[°C / °F]	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]
-25	-13	527,1	1800	453,6	1,11	3,78	0,95	476,0	3,63	14,22	
cond. pressure	-20	-4	668,6	2283	575,4	1,27	4,35	1,10	524,7	3,76	18,14
pc= 45/113	-15	5	837,9	2862	721,1	1,46	5,00	1,26	572,4	3,91	22,89
return gas temp.	-10	14	1037,9	3545	893,2	1,68	5,72	1,44	619,6	4,08	28,58
RGT= 32/90	-5	23	1271,6	4343	1094,4	1,91	6,51	1,64	666,6	4,27	35,35
liquid temp	0	32	1541,9	5266	1327,0	2,16	7,38	1,86	713,9	4,47	43,35
Tliq= 45/113	7,2	45	2001,3	6835	1722,3	2,55	8,73	2,20	783,3	4,79	57,39
-25	-13	390,8	1335	336,3	0,80	2,75	0,69	485,7	3,66	12,21	
cond. pressure	-20	-4	511,5	1747	440,2	0,93	3,18	0,80	549,4	3,84	16,09
pc= 55/131	-15	5	651,9	2226	561,0	1,07	3,65	0,92	610,7	4,04	20,67
return gas temp	-10	14	815,0	2784	701,4	1,22	4,15	1,05	670,1	4,26	26,09
RGT= 32/90	-5	23	1003,8	3428	863,9	1,38	4,71	1,19	727,9	4,49	32,49
liquid temp	0	32	1221,2	4170	1050,9	1,56	5,32	1,34	784,6	4,74	40,05
Tliq= 55/131	7,2	45	1590,2	5431	1368,6	1,84	6,28	1,58	865,1	5,13	53,37

Model

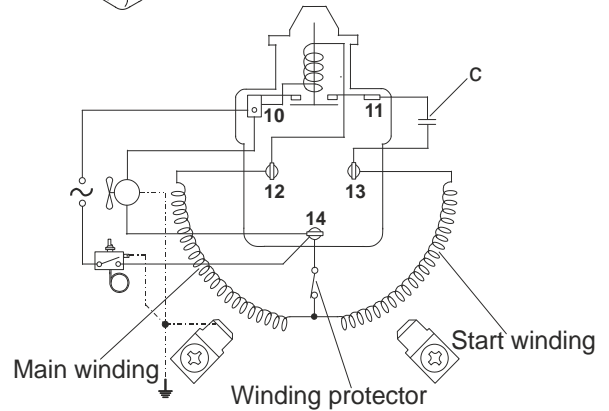
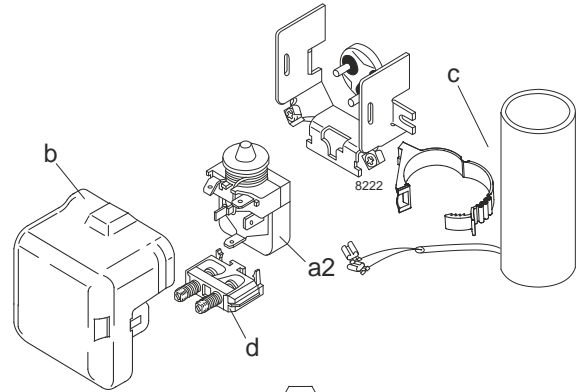
Designation	SC12MLX	208-230V/60Hz	Conf. 2	Sales code:	104L2606
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Configuration

Motorconfiguration	CSIR
Power supply (nominal)	208-230V/60Hz 1~
Refrigerant	R404A
Application	MBP
Voltage range	187-254V
Starting torque	HST
Approvals	VDE UL CCC EAC KC

Electrical accessories / wiring diagram

CSIR

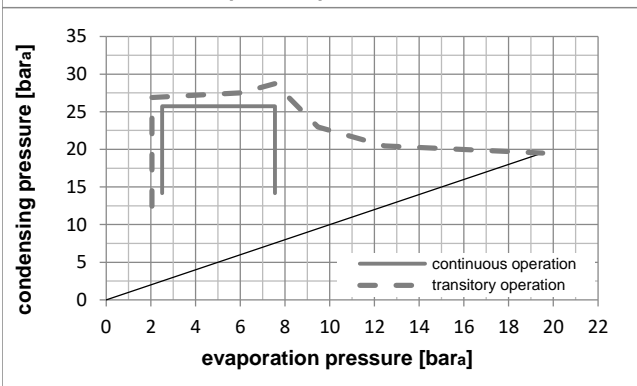
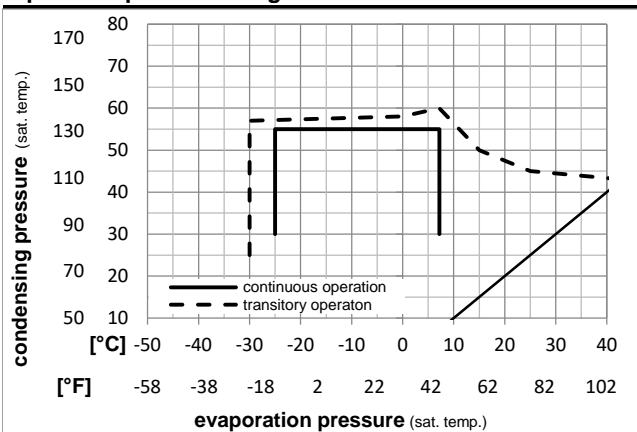


Ambient temperatures / system cooling

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

a2	relay	117U6011
c	start capacitor (80µF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2008

Model

Designation **SC12MLX 208-230V/60Hz** Conf. 2 Sales code: **104L2606**

Optimization + standard conditions

R404A, 220V/60Hz, CSIR, fan 3m/s, VDE, UL, CCC, EAC, KC

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption			
						Return gas temp.						Current consumption			
						Liquid temp.									
						Cooling capacity									
						COP						EER			
						P1						I			
						Ref. mass flow						m			
	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	1261,1	4307	1085,3	1,52	5,18	1,31	831,3	4,47	34,70	ASHRAE MBP	
[°F]	20	130	95	115											
[°C]	-10	55	32	55	934,4	3191	804,1	1,20	4,10	1,03	777,8	4,23	29,91	cecomaf MBP	
[°F]	14	131	89,6	131											
[°C]	-10	45	20	45	1130,1	3859	972,6	1,55	5,29	1,33	729,5	4,05	34,04	EN12900 MBP	
[°F]	14	113	68	113											
[°C]	-6,7	48,9	18,3	48,9	1165,3	3980	1002,8	1,46	4,98	1,26	798,8	4,34	38,08	ARI540 MBP	
[°F]	20	120	65	120											
[°C]	-10	45	32	45	1199,3	4096	1032,2	1,64	5,62	1,41	729,5	4,05	33,03	opt	
[°F]	14	113	89,6	113											
[°C]	-25	45	32	45	604,9	2066	520,6	1,12	3,83	0,97	539,3	3,31	16,32	opt	
[°F]	-13	113	89,6	113											

Performance tables

R404A, 220V/60Hz, CSIR, fan 3m/s, VDE, UL, CCC, EAC, KC

	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	604,9	2066	520,6	1,12	3,83	0,97	539,3	3,31	16,32			
cond. pressure	-20	-4	773,0	2640	665,3	1,29	4,39	1,11	601,5	3,52	20,97			
pc= 45/113	-15	5	970,0	3313	834,8	1,46	4,99	1,26	663,9	3,76	26,50			
return gas temp.	-10	14	1199,3	4096	1032,2	1,64	5,62	1,41	729,5	4,05	33,03			
RGT= 32/90	-5	23	1464,7	5002	1260,6	1,83	6,24	1,57	801,2	4,37	40,72			
liquid temp	0	32	1769,7	6044	1523,1	2,01	6,85	1,73	882,1	4,73	49,75			
Tliq= 45/113	7,2	45	2285,8	7807	1967,2	2,24	7,65	1,93	1020,6	5,32	65,55			
[°C / °F]	-25	-13	429,8	1468	369,9	0,83	2,83	0,71	518,9	3,31	13,43			
cond. pressure	-20	-4	575,6	1966	495,4	0,95	3,23	0,81	608,5	3,58	18,11			
pc= 55/131	-15	5	742,6	2536	639,1	1,07	3,66	0,92	693,8	3,88	23,55			
return gas temp	-10	14	934,4	3191	804,1	1,20	4,10	1,03	777,8	4,23	29,91			
RGT= 32/90	-5	23	1154,5	3943	993,6	1,34	4,57	1,15	863,3	4,61	37,37			
liquid temp	0	32	1406,6	4804	1210,6	1,48	5,04	1,27	953,5	5,03	46,13			
Tliq= 55/131	7,2	45	1833,2	6261	1577,6	1,67	5,70	1,44	1097,4	5,71	61,52			

Model

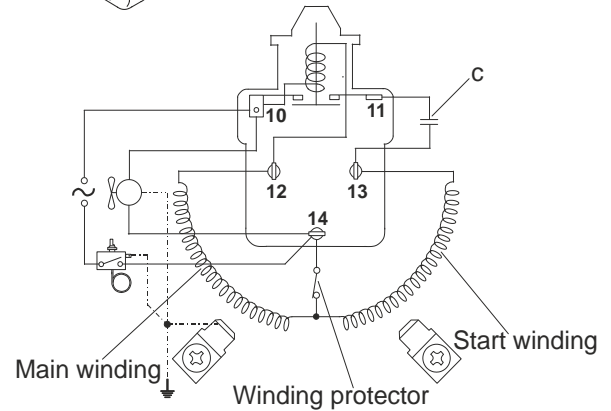
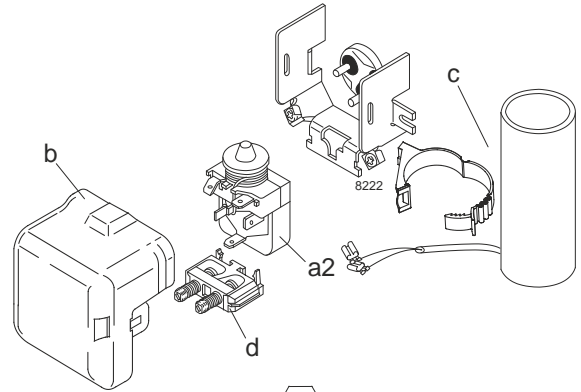
Designation	SC12MLX	220-240V/50Hz	Conf. 3	Sales code:	104L2606
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Configuration

Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R452A
Application	MBP
Voltage range	187-254V
Starting torque	HST
Approvals	VDE UL CCC

Electrical accessories / wiring diagram

CSIR

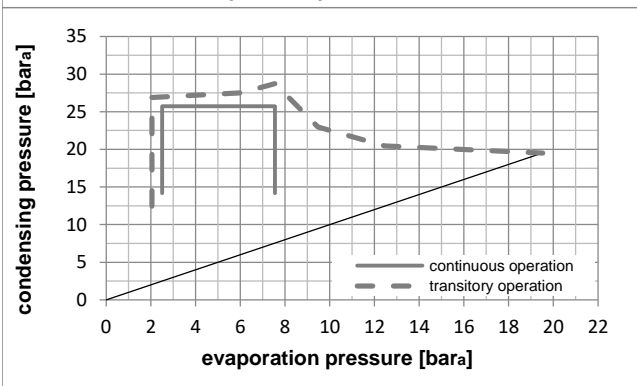
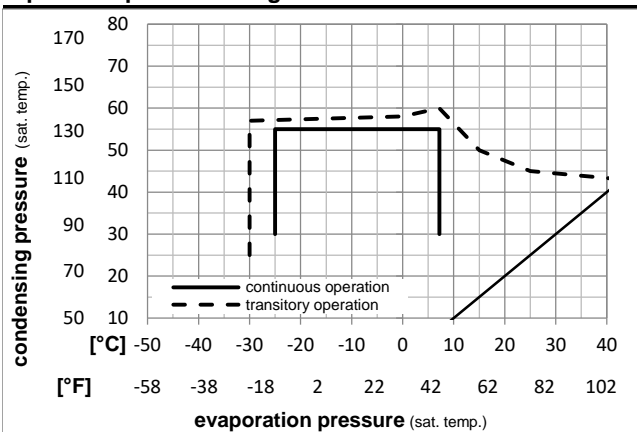


Ambient temperatures / system cooling

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

a2	relay	117U6011
c	start capacitor (80µF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2008

Model

Designation **SC12MLX 220-240V/50Hz** Conf. 3 Sales code: **104L2606**

Optimization + standard conditions

R452A, 220V/50Hz, CSIR, fan 3m/s, VDE, UL, CCC

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	1036,0	3538	891,6	1,53	5,23	1,32	676,2	4,30	29,14	ASHRAE MBP
[°F]	20	130	95	115										
[°C]	-10	55	32	55	770,7	2632	663,3	1,21	4,12	1,04	639,5	4,19	25,05	cecomaf MBP
[°F]	14	131	89,6	131										
[°C]	-10	45	20	45	921,8	3148	793,3	1,56	5,32	1,34	591,9	4,04	28,33	EN12900 MBP
[°F]	14	113	68	113										
[°C]	-6,66	48,9	18,3	48,9	961,6	3284	827,6	1,49	5,09	1,28	645,5	4,20	31,90	ARI540 MBP
[°F]	20	120	65	120										
[°C]	-10	45	32	45	976,8	3336	840,7	1,65	5,64	1,42	591,9	4,04	27,52	opt
[°F]	14	113	89,6	113										
[°C]	-25	45	32	45	484,7	1655	417,1	1,08	3,71	0,93	446,7	3,59	13,41	opt
[°F]	-13	113	89,6	113										

Performance tables

R452A, 220V/50Hz, CSIR, fan 3m/s, VDE, UL, 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]	-25	-13	484,7	1655	417,1	1,08	3,71	0,93	446,7	3,59	13,41
cond. pressure	-20	-4	620,3	2119	533,9	1,25	4,28	1,08	495,5	3,74	17,25
pc= 45/113	-15	5	783,4	2675	674,2	1,44	4,92	1,24	543,8	3,89	21,91
return gas temp.	-10	14	976,8	3336	840,7	1,65	5,64	1,42	591,9	4,04	27,52
RGT= 32/90	-5	23	1203,8	4111	1036,0	1,88	6,42	1,62	640,2	4,19	34,21
liquid temp	0	32	1467,4	5012	1262,9	2,13	7,27	1,83	689,1	4,34	42,12
Tliq= 45/113	7,2	45	1917,5	6549	1650,2	2,52	8,60	2,17	761,1	4,56	56,02
[°C / °F]	-25	-13	359,7	1228	309,6	0,79	2,71	0,68	454,1	3,61	11,45
cond. pressure	-20	-4	475,7	1625	409,4	0,92	3,14	0,79	517,5	3,81	15,23
pc= 55/131	-15	5	611,7	2089	526,5	1,06	3,61	0,91	579,2	4,00	19,72
return gas temp	-10	14	770,7	2632	663,3	1,21	4,12	1,04	639,5	4,19	25,05
RGT= 32/90	-5	23	955,7	3264	822,5	1,37	4,67	1,18	698,8	4,37	31,37
liquid temp	0	32	1169,9	3995	1006,8	1,54	5,28	1,33	757,4	4,55	38,84
Tliq= 55/131	7,2	45	1535,6	5244	1321,6	1,83	6,23	1,57	841,2	4,81	52,05

Model

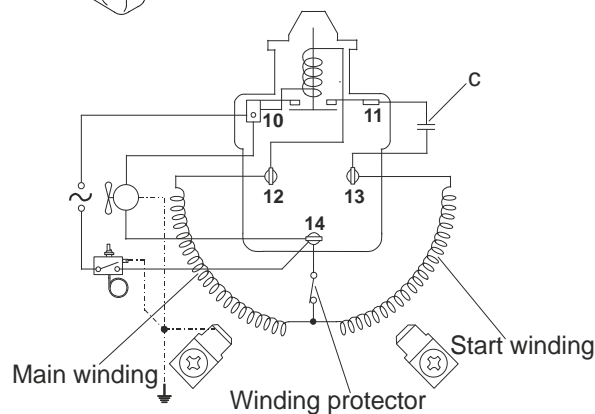
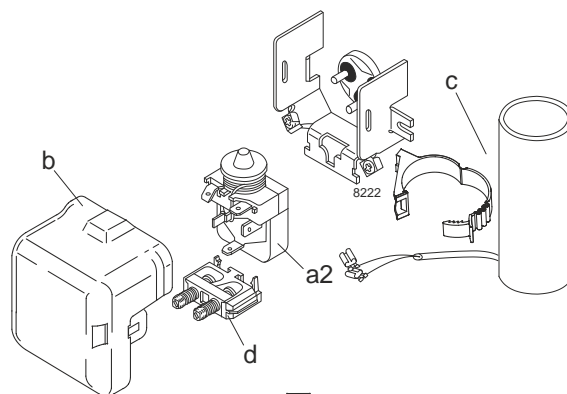
Designation	SC12MLX	208-230V/60Hz	Conf. 4	Sales code:	104L2606
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Configuration

Motorconfiguration	CSIR
Power supply (nominal)	208-230V/60Hz 1~
Refrigerant	R452A
Application	MBP
Voltage range	187-254V
Starting torque	HST
Approvals	VDE UL CCC

Electrical accessories / wiring diagram

CSIR



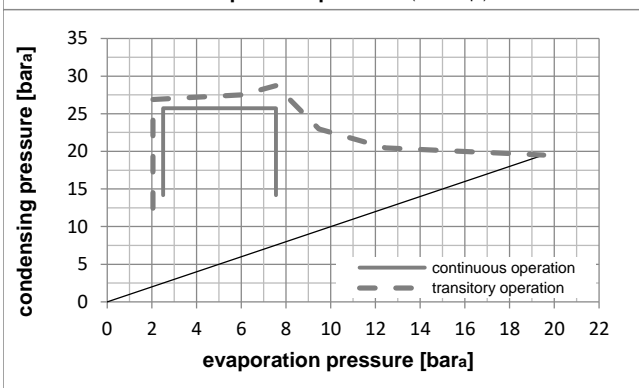
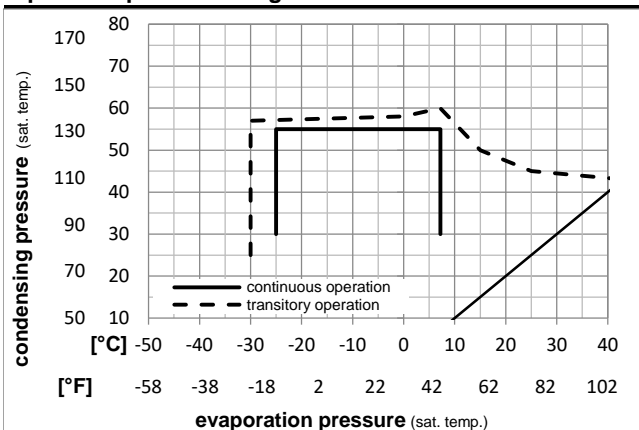
Ambient temperatures / system cooling

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

a2	relay	117U6011
c	start capacitor (80μF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2008

Model

Designation **SC12MLX 208-230V/60Hz** Conf. 4 Sales code: **104L2606**

Optimization + standard conditions

R452A, 220V/60Hz, CSIR, fan 3m/s, VDE, UL, CCC

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption			ASHRAE MBP				
	pe	pc	RGT	Tliq	Return gas temp.	Liquid temp.	Cooling capacity	COP	EER	P1	I	Ref. mass flow						
	[°C]	[°F]	[°C]	[°F]	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]			
	-6,66	20	54,4	130	35	95	46,1	115	1191,0	4067	1024,9	1,50	5,12	1,29	794,6	4,36	33,50	ASHRAE MBP
	-10	14	55	131	32	89,6	55	131	884,0	3019	760,8	1,19	4,08	1,03	740,4	4,17	28,73	cecomaf MBP
	-10	14	45	113	20	68	45	113	1065,7	3640	917,2	1,53	5,24	1,32	695,1	4,01	32,75	EN12900 MBP
	-6,66	20	48,9	120	18,3	65	48,9	120	1106,2	3778	952,0	1,45	4,95	1,25	763,8	4,25	36,70	ARI540 MBP
	-10	14	45	113	32	89,6	45	113	1129,3	3857	971,9	1,62	5,55	1,40	695,1	4,01	31,82	opt
	-25	-13	45	113	32	89,6	45	113	556,4	1900	478,9	1,10	3,76	0,95	504,8	3,35	15,39	opt

Performance tables

R452A, 220V/60Hz, CSIR, fan 3m/s, VDE, UL, 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]	-25	-13	556,4	1900	478,9	1,10	3,76	0,95	504,8	3,35	15,39
cond. pressure	-20	-4	717,4	2450	617,4	1,27	4,33	1,09	566,5	3,56	19,95
pc= 45/113	-15	5	907,2	3098	780,7	1,44	4,93	1,24	629,0	3,78	25,38
return gas temp.	-10	14	1129,3	3857	971,9	1,62	5,55	1,40	695,1	4,01	31,82
RGT= 32/90	-5	23	1387,5	4738	1194,1	1,81	6,17	1,56	767,5	4,27	39,43
liquid temp	0	32	1685,4	5756	1450,5	1,99	6,78	1,71	849,0	4,55	48,37
Tliq= 45/113	7,2	45	2191,6	7485	1886,1	2,22	7,58	1,91	987,8	5,04	64,03
[°C / °F]	-25	-13	395,7	1351	340,6	0,82	2,79	0,70	484,8	3,28	12,59
cond. pressure	-20	-4	535,6	1829	460,9	0,94	3,20	0,81	572,2	3,58	17,14
pc= 55/131	-15	5	697,1	2381	599,9	1,06	3,63	0,91	656,5	3,88	22,47
return gas temp	-10	14	884,0	3019	760,8	1,19	4,08	1,03	740,4	4,17	28,73
RGT= 32/90	-5	23	1099,9	3756	946,6	1,33	4,54	1,14	826,7	4,47	36,10
liquid temp	0	32	1348,4	4605	1160,5	1,47	5,02	1,26	918,2	4,79	44,77
Tliq= 55/131	7,2	45	1771,2	6049	1524,3	1,66	5,68	1,43	1064,4	5,31	60,03