

Model

Designation	SC18MLX.3	220-240V/50Hz 1~	Sales code:	104L2146
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R404A, R452A, R507
Oil viscosity	32cST	Displacement	17,68cm ³ / 1,08cu.in
Oil quantity	550cm ³ / 18,6fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	1300g / 45,9oz		
Free gas volume comp.	1460cm ³ / 49,4fl.oz		
Weight	14kg / 30,9lbs		
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 SC18MLX.3

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Motorconfiguration	CSCR	CSCR	CSCR	CSCR
Power supply (nominal)	220-240V/50Hz	220-240V/50Hz	220-240V/50Hz	220-240V/50Hz
Number of phases	1	1	1	1
Voltage range	198-254V	198-254V	198-254V	198-254V
Approvals	CCC, EAC, VDE	CCC, EAC, VDE		
Starting torque	HST	HST	HST	HST
Note	- / -			

Applications with SC18MLX.3

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Refrigerant	R404A	R452A	R448A	R449A
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 SC18MLX.3

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Starting device type	relay	relay	relay	relay
Run capacitor	10μF	10μF	10μF	10μF
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

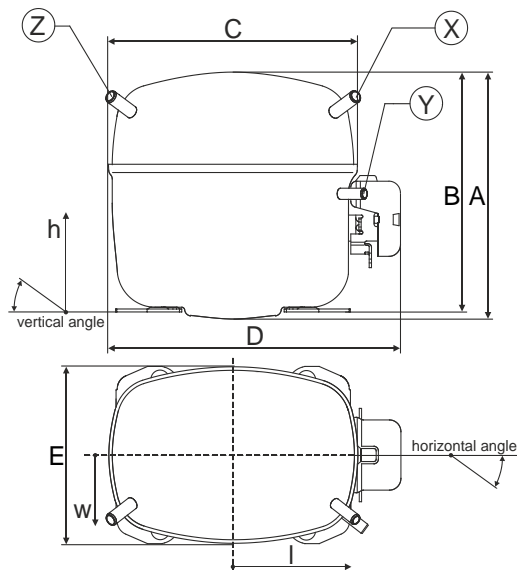
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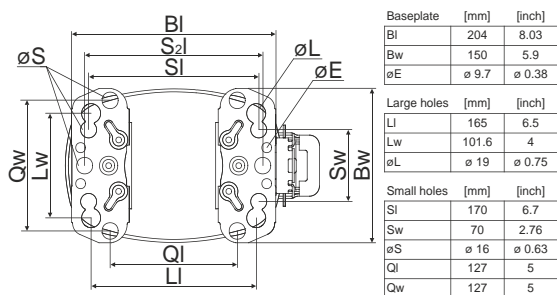
Compressor dimensions

Housing	A Height	219mm / 8,62in
	B Height	213mm / 8,39in
	C Length shell	239mm / 9,41in
	D Length w. cover	255mm / 10,04in
	E Width	151mm / 5,94in

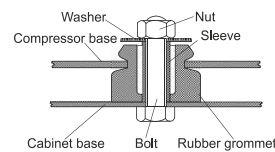
Connectors	Suction			Discharge			Process		
		X		Y		Z			
Diameter	[mm]	øi 10,11-10,29		øi 6,11-6,29		øi 6,11-6,29			
(i:inside, o:outside)	[in]	øi 0,4-0,41		øi 0,24-0,25		øi 0,24-0,25			
Material		copper		copper		copper			
Horizontal angle	±2°	37°		37°		143°			
Vertical angle	±2°	30°		0°		150°			
Position 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			



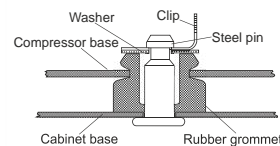
Compressor fixation



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

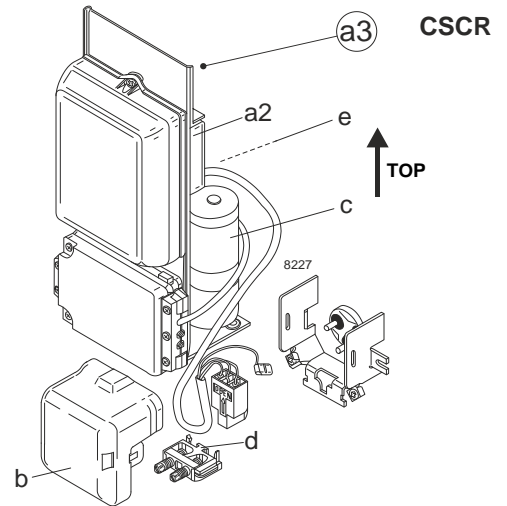
Model

Designation	SC18MLX.3	220-240V/50Hz	Conf. 1	Sales code:	104L2146
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Configuration

Motorconfiguration	CSCR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R404A
Application	MBP
Voltage range	198-254V
Starting torque	HST
Approvals	CCC EAC VDE

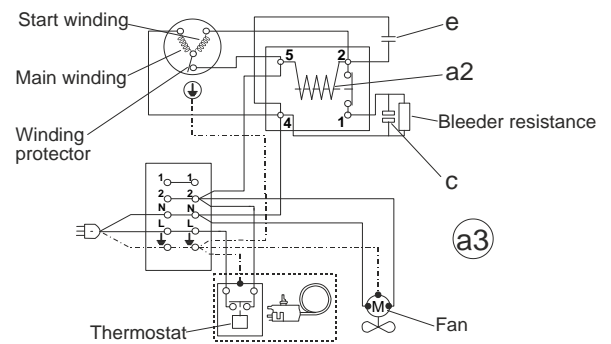
Electrical accessories / wiring diagram



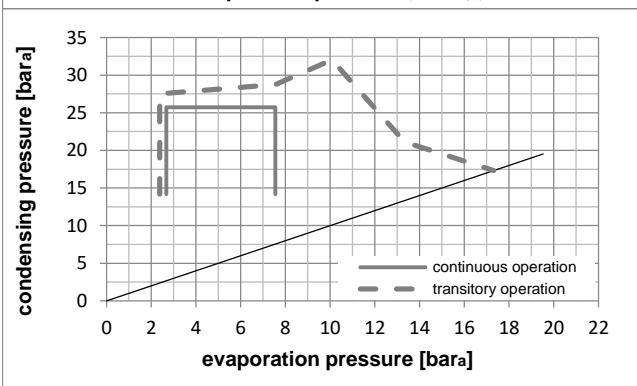
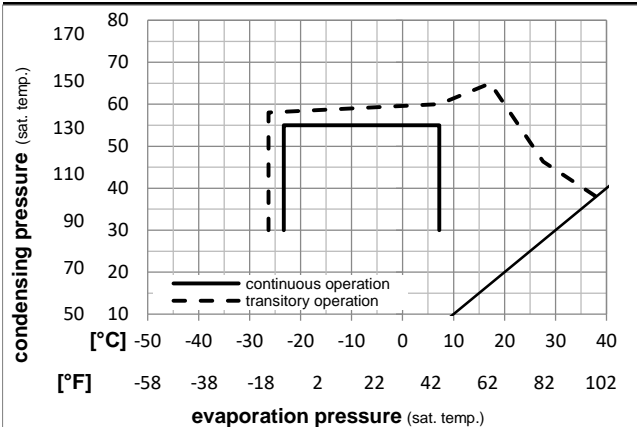
Ambient temperatures / system cooling

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	38°C / 101°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	n/a	n/a



Operation pressure range



Components

a3	SC starter kit (550mm)	117-7027
b	plastic cover	103N2009
d	cord relief	103N1004

Alternative components

a3	SC starter kit (1000mm)	117-7040
a3	SC starter kit (650mm)	117-7046

Model

Designation **SC18MLX.3 220-240V/50Hz** Conf. 1 Sales code: **104L2146**

Optimization + standard conditions

R404A, 220V/50Hz, CSCR, fan 3m/s, CCC, EAC, VDE

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	1684,7	5753	1449,8	1,67	5,70	1,44	1008,5	4,61	46,35	ASHRAE MBP	
-10	14	55	131	32	89,6	55	131	1260,1	4304	1084,5	1,32	4,51	1,14	954,0	4,42	40,34	cecomaf MBP	
-10	14	45	113	20	68	45	113	1467,5	5012	1263,0	1,67	5,71	1,44	878,1	4,40	44,20	EN12900 MBP	
-6,66	20	48,9	120	18,3	65	48,9	120	1530,1	5225	1316,8	1,60	5,45	1,37	958,8	4,61	50,00	ARI540 MBP	
-10	14	45	113	32	89,6	45	113	1557,5	5319	1340,4	1,77	6,06	1,53	878,1	4,40	42,89	opt	
-25	-13	45	113	32	89,6	45	113	810,8	2769	697,8	1,24	4,25	1,07	652,2	3,78	21,87	opt	

Performance tables

R404A, 220V/50Hz, CSCR, fan 3m/s, CCC, EAC, VDE

[°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]
-23,3	-10	877,2	2996	754,9	1,29	4,42	1,11	677,8	3,85	23,71	
cond. pressure	-20	-4	1018,4	3478	876,4	1,40	4,78	1,20	727,4	3,98	27,63
pc= 45/113	-15	5	1265,8	4323	1089,3	1,58	5,38	1,36	802,9	4,18	34,58
return gas temp.	-10	14	1557,5	5319	1340,4	1,77	6,06	1,53	878,1	4,40	42,89
RGT= 32/90	-5	23	1898,0	6482	1633,4	1,99	6,81	1,72	952,4	4,63	52,76
liquid temp	0	32	2291,8	7827	1972,3	2,24	7,63	1,92	1025,3	4,87	64,43
Tliq= 45/113	7,2	45	2961,6	10114	2548,8	2,63	8,98	2,26	1126,9	5,24	84,93
-23,3	-10	710,7	2427	611,6	0,99	3,37	0,85	719,5	3,75	22,26	
cond. pressure	-20	-4	823,1	2811	708,4	1,06	3,62	0,91	776,7	3,91	25,90
pc= 55/131	-15	5	1022,3	3491	879,8	1,18	4,04	1,02	864,8	4,16	32,42
return gas temp	-10	14	1260,1	4304	1084,5	1,32	4,51	1,14	954,0	4,42	40,34
RGT= 32/90	-5	23	1541,1	5263	1326,2	1,48	5,04	1,27	1043,8	4,70	49,88
liquid temp	0	32	1869,6	6385	1609,0	1,65	5,63	1,42	1133,6	4,98	61,31
Tliq= 55/131	7,2	45	2435,4	8317	2095,9	1,93	6,59	1,66	1262,1	5,42	81,73

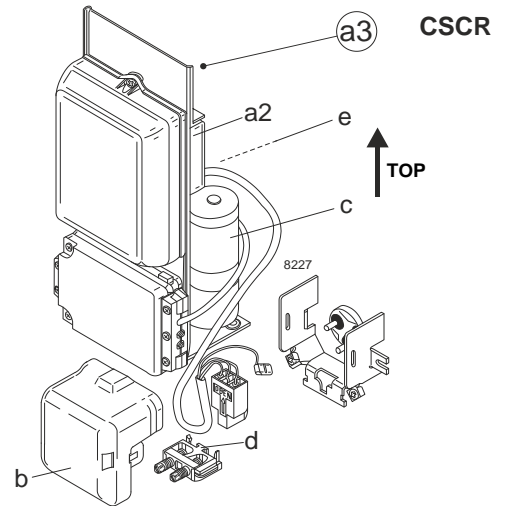
Model

Designation **SC18MLX.3** 220-240V/50Hz Conf. 2 Sales code: **104L2146**

Configuration

Motorconfiguration **CSCR**
 Power supply (nominal) **220-240V/50Hz 1~**
 Refrigerant **R452A**
 Application **MBP**
 Voltage range **198-254V**
 Starting torque **HST**
 Approvals **CCC**
 EAC
 VDE

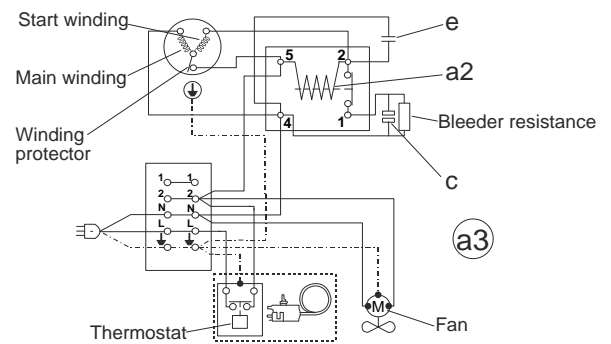
Electrical accessories / wiring diagram



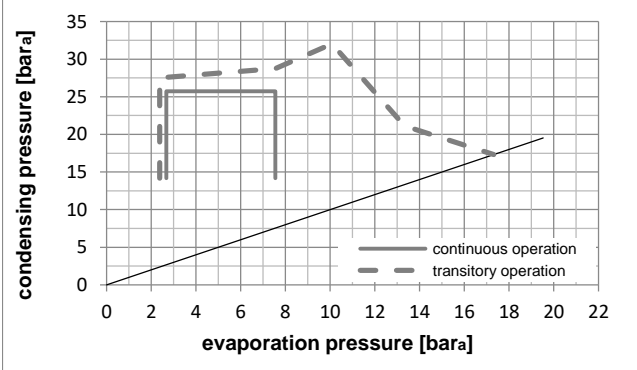
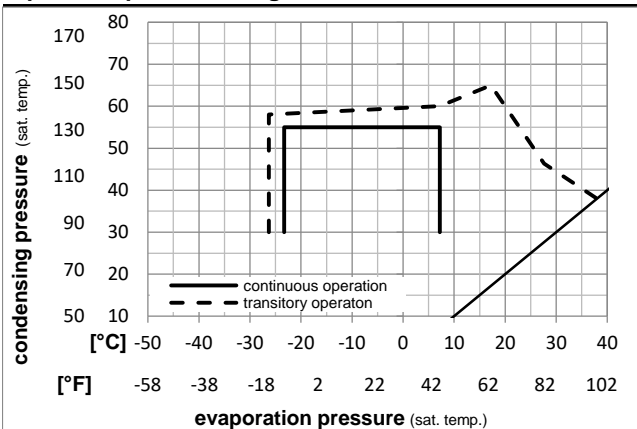
Ambient temperatures / system cooling

Ambient temperature min.: **10°C / 50°F**
 Ambient temperature max.: **38°C / 101°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	n/a	n/a



Operation pressure range



Components

- a3 SC starter kit (550mm) 117-7027
- b plastic cover 103N2009
- d cord relief 103N1004

Alternative components

- a3 SC starter kit (1000mm) 117-7040
- a3 SC starter kit (650mm) 117-7046

Model

Designation **SC18MLX.3 220-240V/50Hz** Conf. 2 Sales code: **104L2146**

Optimization + standard conditions

R452A, 220V/50Hz, CSCR, fan 3m/s, CCC, EAC, VDE

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	1592,9	5440	1370,9	1,66	5,66	1,43	960,7	4,50	44,81		
[°F]	20	130	95	115											
[°C]	-10	55	32	55	1193,3	4075	1027,0	1,32	4,50	1,14	904,7	4,25	38,79	cecomaf MBP	
[°F]	14	131	89,6	131											
[°C]	-10	45	20	45	1385,1	4731	1192,1	1,66	5,67	1,43	834,3	4,01	42,56	EN12900 MBP	
[°F]	14	113	68	113											
[°C]	-6,7	48,9	18,3	48,9	1453,7	4965	1251,1	1,59	5,43	1,37	914,0	4,31	48,23	ARI540 MBP	
[°F]	20	120	65	120											
[°C]	-10	45	32	45	1467,8	5013	1263,2	1,76	6,01	1,51	834,3	4,01	41,36	opt	
[°F]	14	113	89,6	113											
[°C]	-25	45	32	45	746,0	2548	642,0	1,23	4,19	1,06	608,3	3,08	20,64	opt	
[°F]	-13	113	89,6	113											

Performance tables

R452A, 220V/50Hz, CSCR, fan 3m/s, CCC, EAC, 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]	-23	-10	809,7	2765	696,8	1,28	4,36	1,10	633,6	3,18	22,44
cond. pressure	-20	-4	945,6	3229	813,8	1,38	4,73	1,19	683,1	3,38	26,29
pc= 45/113	-15	5	1184,7	4046	1019,5	1,56	5,33	1,34	758,5	3,69	33,14
return gas temp.	-10	14	1467,8	5013	1263,2	1,76	6,01	1,51	834,3	4,01	41,36
RGT= 32/90	-5	23	1799,6	6146	1548,7	1,98	6,75	1,70	909,9	4,33	51,14
liquid temp	0	32	2184,6	7461	1880,1	2,22	7,58	1,91	984,9	4,66	62,70
Tliq= 45/113	7,2	45	2841,9	9706	2445,8	2,61	8,90	2,24	1090,8	5,13	83,02
[°C / °F]	-23	-10	655,8	2240	564,4	0,98	3,35	0,84	668,9	3,25	20,91
cond. pressure	-20	-4	765,2	2613	658,6	1,05	3,60	0,91	726,1	3,48	24,49
pc= 55/131	-15	5	959,9	3278	826,1	1,18	4,02	1,01	814,5	3,85	30,94
return gas temp	-10	14	1193,3	4075	1027,0	1,32	4,50	1,14	904,7	4,25	38,79
RGT= 32/90	-5	23	1470,2	5021	1265,3	1,48	5,04	1,27	996,2	4,66	48,26
liquid temp	0	32	1795,2	6131	1545,0	1,65	5,63	1,42	1088,7	5,09	59,61
Tliq= 55/131	7,2	45	2356,8	8049	2028,3	1,93	6,58	1,66	1222,6	5,73	79,88

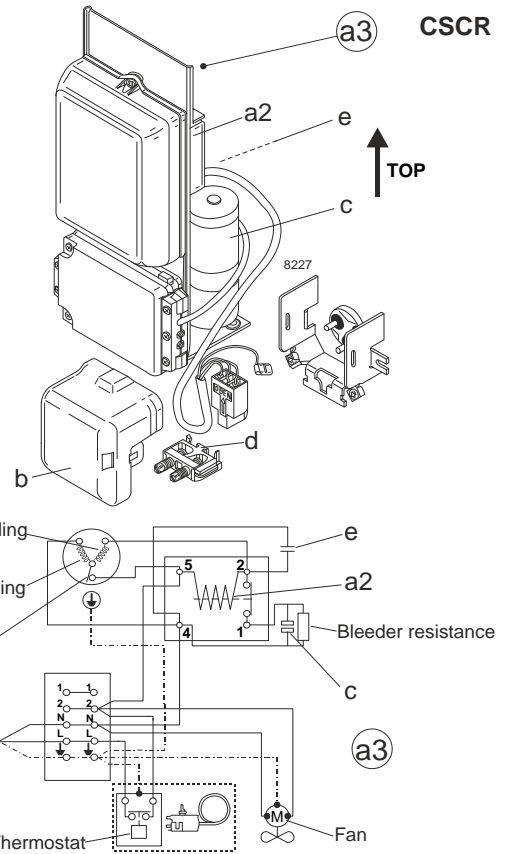
Model

Designation **SC18MLX.3** 220-240V/50Hz Conf. 3 Sales code: **104L2146**

Configuration

Motorconfiguration **CSCR**
 Power supply (nominal) **220-240V/50Hz 1~**
 Refrigerant **R448A**
 Application **MBP**
 Voltage range **198-254V**
 Starting torque **HST**
 Approvals

Electrical accessories / wiring diagram

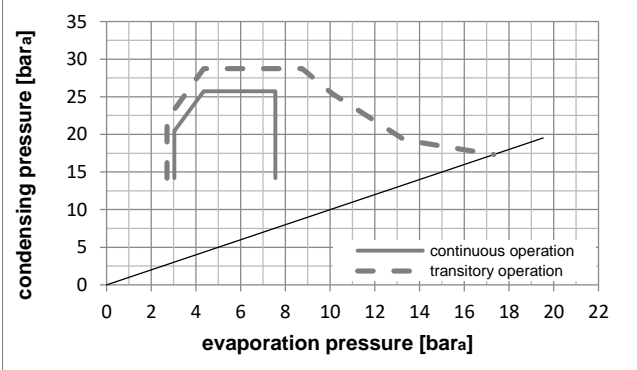
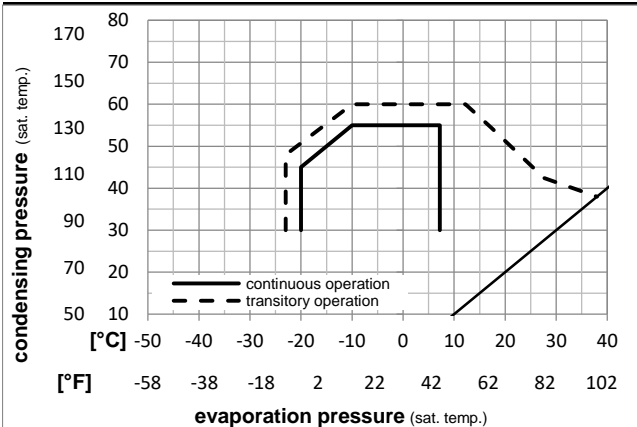


Ambient temperatures / system cooling

Ambient temperature min.: **10°C / 50°F**
 Ambient temperature max.: **38°C / 101°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	n/a	n/a

Operation pressure range



Components

- a3 SC starter kit (550mm) 117-7027
- b plastic cover 103N2009
- d cord relief 103N1004

Alternative components

- a3 SC starter kit (1000mm) 117-7040
- a3 SC starter kit (650mm) 117-7046

Model

Designation **SC18MLX.3 220-240V/50Hz** Conf. 3 Sales code: **104L2146**

Optimization + standard conditions

R448A, 220V/50Hz, CSCR, fan 3m/s,

Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)					Power consumption				
					Return gas temp.					Current consumption				
					Liquid temp.					Ref. mass flow				
					Cooling capacity					COP EER				
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m	
[°C]	-6,66	54,4	35	46,1	1537,7	5252	1323,4	1,68	5,73	1,44	916,1	4,44	33,59	ASHRAE MBP
[°F]	20	130	95	115										
[°C]	-10	55	32	55	1182,0	4037	1017,2	1,37	4,69	1,18	861,1	4,28	28,95	cecomaf MBP
[°F]	14	131	89,6	131										
[°C]	-10	45	20	45	1355,9	4631	1166,9	1,71	5,84	1,47	792,8	4,09	31,72	EN12900 MBP
[°F]	14	113	68	113										
[°C]	-6,66	48,9	18,3	48,9	1451,6	4958	1249,3	1,67	5,69	1,43	871,0	4,31	36,10	ARI540 MBP
[°F]	20	120	65	120										
[°C]	-10	45	32	45	1411,0	4819	1214,3	1,78	6,08	1,53	792,8	4,09	30,83	opt
[°F]	14	113	89,6	113										
[°C]	-25	45	32	45	700,8	2393	603,1	1,23	4,19	1,06	571,1	3,47	15,07	opt
[°F]	-13	113	89,6	113										

Performance tables

R448A, 220V/50Hz, CSCR, fan 3m/s,

	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]	-20	-4	895,6	3059	770,8	1,39	4,75	1,20	644,3	3,68	19,34
cond. pressure	-15	5	1130,6	3861	973,0	1,57	5,38	1,35	718,3	3,88	24,55
pc= 45/113	-10	14	1411,0	4819	1214,3	1,78	6,08	1,53	792,8	4,09	30,83
return gas temp.	-6,7	20	1623,5	5545	1397,2	1,93	6,59	1,66	842,0	4,23	35,64
RGT= 32/90	-5	23	1742,2	5950	1499,3	2,01	6,86	1,73	867,3	4,30	38,35
liquid temp	0	32	2129,4	7272	1832,6	2,26	7,72	1,95	941,5	4,51	47,29
Tliq= 45/113	7,2	45	2796,1	9549	2406,4	2,67	9,12	2,30	1046,8	4,80	63,07
[°C / °F]	-20	-4	746,1	2548	642,1	1,09	3,71	0,94	686,5	3,80	18,04
cond. pressure	-15	5	943,3	3222	811,9	1,22	4,17	1,05	772,8	4,04	22,94
pc= 55/131	-10	14	1182,0	4037	1017,2	1,37	4,69	1,18	861,1	4,28	28,95
return gas temp	-6,7	20	1364,7	4661	1174,5	1,48	5,06	1,28	920,2	4,45	33,60
RGT= 32/90	-5	23	1467,3	5011	1262,8	1,54	5,27	1,33	950,9	4,54	36,24
liquid temp	0	32	1804,8	6164	1553,2	1,73	5,92	1,49	1041,9	4,79	45,01
Tliq= 55/131	7,2	45	2392,7	8172	2059,2	2,04	6,96	1,75	1174,1	5,16	60,73

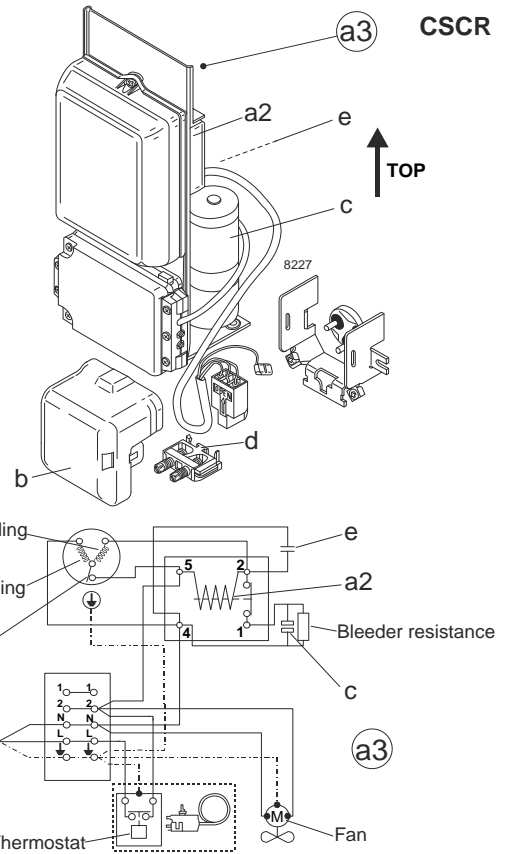
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Designation	SC18MLX.3	220-240V/50Hz	Conf. 4	Sales code:	104L2146
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Configuration

Motorconfiguration	CSCR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R449A
Application	MBP
Voltage range	198-254V
Starting torque	HST
Approvals	

Electrical accessories / wiring diagram

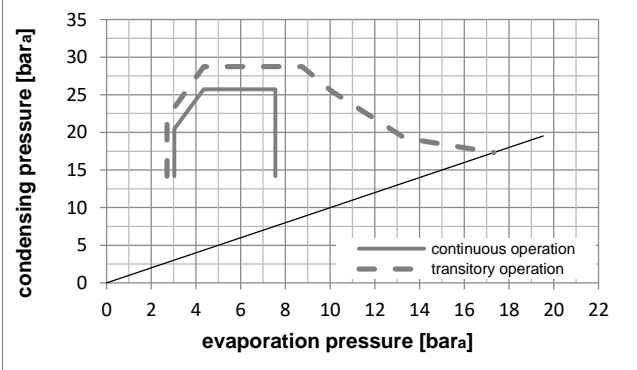
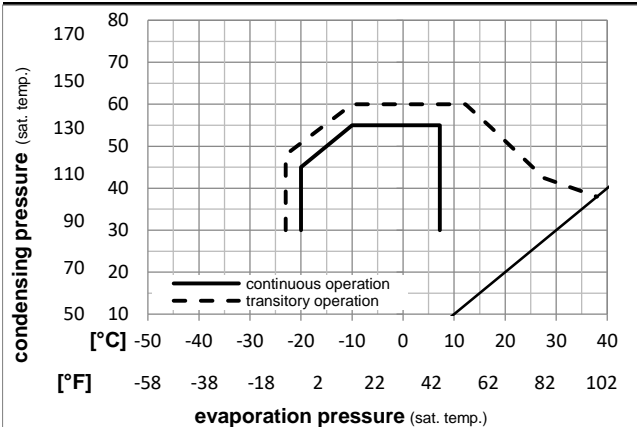


Ambient temperatures / system cooling

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	38°C / 101°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	n/a	n/a

Operation pressure range



Components

a3	SC starter kit (550mm)	117-7027
b	plastic cover	103N2009
d	cord relief	103N1004

Alternative components

a3	SC starter kit (1000mm)	117-7040
a3	SC starter kit (650mm)	117-7046

Model

Designation **SC18MLX.3 220-240V/50Hz** Conf. 4 Sales code: **104L2146**

Optimization + standard conditions

R449A, 220V/50Hz, CSCR, fan 3m/s,

		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	1529,4	5223	1316,2	1,68	5,73	1,44	911,1	4,42	34,07	ASHRAE					
[°F]	20	130	95	115										MBP					
[°C]	-10	55	32	55	1174,1	4010	1010,4	1,37	4,68	1,18	856,8	4,27	29,36	cecomaf					
[°F]	14	131	89,6	131										MBP					
[°C]	-10	45	20	45	1347,0	4600	1159,2	1,71	5,83	1,47	789,4	4,08	32,17	EN12900					
[°F]	14	113	68	113										MBP					
[°C]	-6,66	48,9	18,3	48,9	1440,7	4920	1239,9	1,66	5,68	1,43	866,7	4,30	36,62	ARI540					
[°F]	20	120	65	120										MBP					
[°C]	-10	45	32	45	1403,1	4792	1207,6	1,78	6,07	1,53	789,4	4,08	31,27	opt					
[°F]	14	113	89,6	113															
[°C]	-25	45	32	45	697,8	2383	600,6	1,23	4,18	1,05	569,5	3,47	15,30	opt					
[°F]	-13	113	89,6	113															

Performance tables

R449A, 220V/50Hz, CSCR, fan 3m/s,

	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]	-20	-4	891,3	3044	767,1	1,39	4,74	1,19	642,1	3,67	19,63			
cond. pressure	-15	5	1124,7	3841	967,9	1,57	5,37	1,35	715,6	3,88	24,90			
pc= 45/113	-10	14	1403,1	4792	1207,6	1,78	6,07	1,53	789,4	4,08	31,27			
return gas temp.	-6,7	20	1614,2	5513	1389,2	1,93	6,58	1,66	838,1	4,22	36,14			
RGT= 32/90	-5	23	1731,9	5915	1490,5	2,01	6,85	1,73	863,2	4,29	38,89			
liquid temp	0	32	2116,3	7228	1821,4	2,26	7,72	1,94	936,6	4,50	47,94			
Tliq= 45/113	7,2	45	2778,2	9488	2391,0	2,67	9,12	2,30	1040,5	4,79	63,93			
[°C / °F]	-20	-4	741,8	2533	638,4	1,08	3,70	0,93	684,0	3,79	18,31			
cond. pressure	-15	5	937,4	3201	806,7	1,22	4,16	1,05	769,4	4,03	23,28			
pc= 55/131	-10	14	1174,1	4010	1010,4	1,37	4,68	1,18	856,8	4,27	29,36			
return gas temp	-6,7	20	1355,3	4629	1166,4	1,48	5,06	1,27	915,2	4,44	34,08			
RGT= 32/90	-5	23	1457,1	4976	1254,0	1,54	5,26	1,33	945,5	4,52	36,75			
liquid temp	0	32	1791,7	6119	1542,0	1,73	5,91	1,49	1035,2	4,77	45,65			
Tliq= 55/131	7,2	45	2374,8	8110	2043,8	2,04	6,96	1,75	1165,4	5,14	61,58			