

Model
SC18MLX.3

Sales code:
104L2146

Compressor Data

Refrigerant(s)	R404A / R452A / R507
Refr. charge - tech. limit	1300g / 45.86oz
Weight	14.00 kg / 30.86lbs
Displacement	17.68 cm³ / 1.08cu.in
Compressors on pallet	80



General – Configurations With SC18MLX.3

–	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Motor configuration	CSCR	CSCR	CSCR	CSCR
Power supply (nominal)	220-240 V/50 Hz	220-240 V/50 Hz	220-240 V/50 Hz	220-240 V/50 Hz
Number of phases	1	1	1	1
Voltage range	198-254 V	198-254 V	198-254 V	198-254 V
Approvals	CCC, EAC, VDE	CCC, EAC, VDE	–	–
Starting torque	HST	HST	HST	HST
Refrigerant	R404A	R452A	R448A	R449A
Application	MBP	MBP	MBP	MBP
Hot gas defrost	OK	OK	OK	OK
Long interval pull down	OK	OK	OK	OK

Application Notes

- Provision for PE Grounding is located at the PE Stamp on the compressor

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Compressor Design

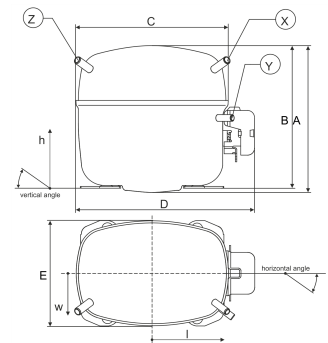
Oil type	POE	Winding resistance main	3.4 Ohm
Oil viscosity	32cSt	Winding resistance aux	14.4 Ohm
Oil quantity	550 / 18.60fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	1,460 cm³ / 49.37fl.oz	Max. discharge temp.	130°C / 266°F
Motor protection	internal		

Compressor Dimensions

Housing

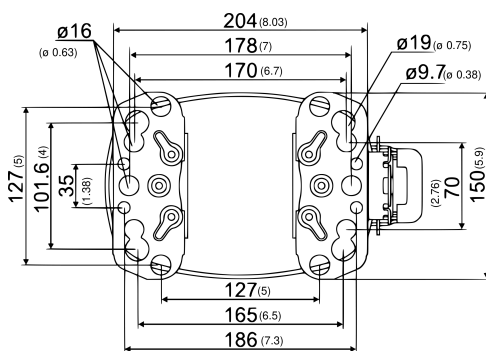
A Height	219mm / 8.62in
B Height	213mm / 8.39in
C Length shell	239mm / 9.41in
D Length w. cover	255mm / 10.04in
E Width	151mm / 5.94in

[Find 3D Model here](#)

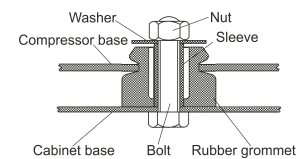


Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 10.11–10.29 / 0.40–0.41in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/193/55 / 4.21/7.60/2.17in	115/110/63 / 4.53/4.33/2.48in	-107/193/55 / -4.21/7.60/2.17in
Straight tube l. [mm]	12 / 0.47in	12 / 0.47in	12 / 0.47in

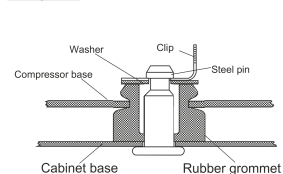
Mounting Accessories



Bolt joint



Snap-on



Dimensions in mm [in]

	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

SC18MLX.3

Configuration 1

Sales code:

104L2146

Configuration

Motor configuration	CSCR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R404A
Application	MBP
Voltage range	198-254 V
Starting torque	HST
Approvals	CCC, EAC, VDE
Starting device type	relay
Run capacitor	10 μF
Start capacitor	80 μF
LRA (locked rotor amps / 4s/ U(N))	23.4 A
RLA (rated load amps / 1s/ U(N))	4.3 A
Cut in current (U(N))	23.4 A

Ambient/ machine room temperatures minimum /maximum

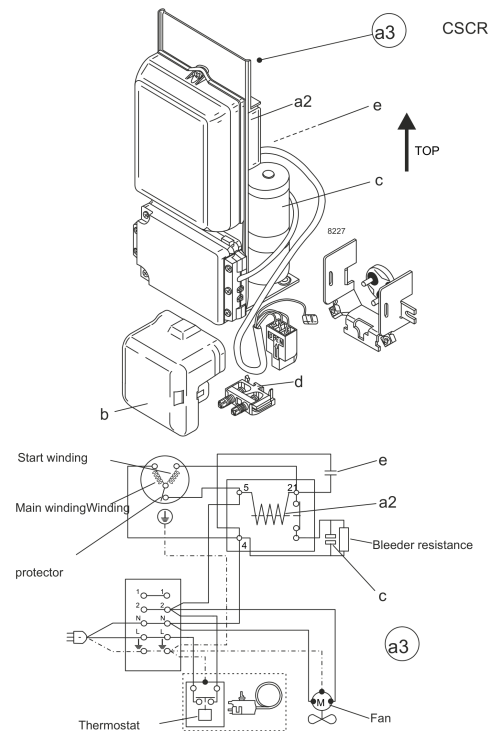
Ambient temperature range: 10 - 38°C / 50 - 100°F

Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram


[View full size](#)

Components

a3 SC starter kit (550mm) 117-7027

b plastic cover 103N2009

d cord relief 103N1004

Alternative components

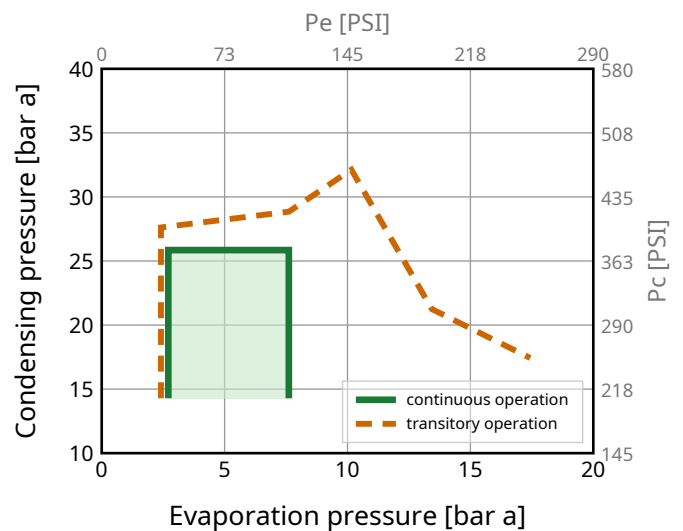
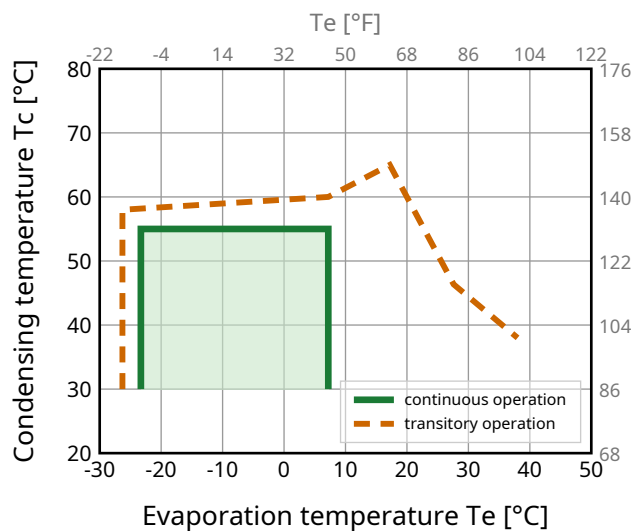
a3 SC starter kit (1000mm) 117-7040

a3 SC starter kit (650mm) 117-7046

c start capacitor (80 μ F) 117U5373

e run capacitor (10 μ F, 6.3mm) 117-7112

Operation Pressure Range



Model
SC18MLX.3

Configuration 1

Sales code:
104L2146

Standard Conditions

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

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	m	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-6.7 20	54.4 129.9	35 95	46.1 115	1682	5740	1447	1.67	5.70	1007	4.61	46.21	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	1260	4299	1084	1.32	4.51	954	4.42	40.28	CECOMAF MBP
-10 14	45 113	20 68	45 113	1468	5009	1263	1.67	5.70	878	4.40	44.14	EN12900 MBP
-6.7 20	48.8 119.8	18.3 64.9	48.8 119.8	1531	5223	1317	1.60	5.46	958	4.60	49.89	ARI540 MBP
-10 14	45 113	32 89.6	45 113	1558	5314	1339	1.77	6.05	878	4.40	42.82	opt MBP 1
-25 -13	45 113	32 89.6	45 113	811	2766	697	1.24	4.24	652	3.78	21.82	opt MBP 2

Performance Tables

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

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-23.3	-10	877	2993	754	1.29	4.42	678	3.85	23.66
-20	-4	1018	3475	876	1.40	4.78	727	3.98	27.57
-15	5	1266	4319	1089	1.58	5.38	803	4.18	34.51
-10	14	1558	5314	1339	1.77	6.05	878	4.40	42.82
-5	23	1898	6476	1632	1.99	6.80	952	4.63	52.69
0	32	2292	7820	1971	2.23	7.63	1025	4.87	64.36
5	41	2743	9360	2359	2.50	8.54	1096	5.12	78.08
7.2	45	2962	10105	2547	2.63	8.97	1127	5.24	84.86

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-23.3	-10	711	2425	611	0.99	3.37	720	3.75	22.21
-20	-4	823	2808	708	1.06	3.62	777	3.91	25.85
-15	5	1022	3488	879	1.18	4.03	865	4.16	32.36
-10	14	1260	4299	1084	1.32	4.51	954	4.42	40.28
-5	23	1541	5258	1325	1.48	5.04	1044	4.70	49.82
0	32	1870	6379	1608	1.65	5.63	1134	4.99	61.25
5	41	2250	7678	1935	1.84	6.28	1223	5.28	74.89
7.2	45	2435	8310	2094	1.93	6.59	1262	5.42	81.69

Model

SC18MLX.3

Configuration 2

Sales code:

104L2146

Configuration

Motor configuration	CSCR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R452A
Application	MBP
Voltage range	198-254 V
Starting torque	HST
Approvals	CCC, EAC, VDE
Starting device type	relay
Run capacitor	10 μF
Start capacitor	80 μF
LRA (locked rotor amps / 4s/ U(N))	23.4 A
RLA (rated load amps / 1s/ U(N))	4.3 A
Cut in current (U(N))	23.4 A

Ambient/ machine room temperatures minimum /maximum

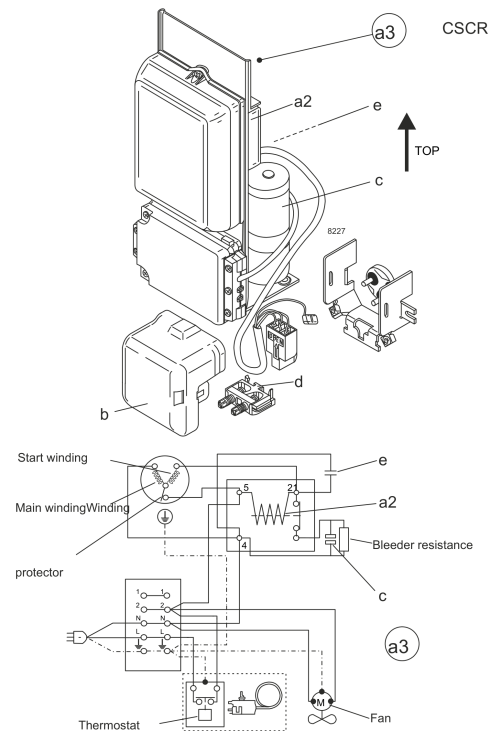
Ambient temperature range: 10 - 38°C / 50 - 100°F

Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



[View full size](#)

Components

a3 SC starter kit (550mm) 117-7027

b plastic cover 103N2009

d cord relief 103N1004

Alternative components

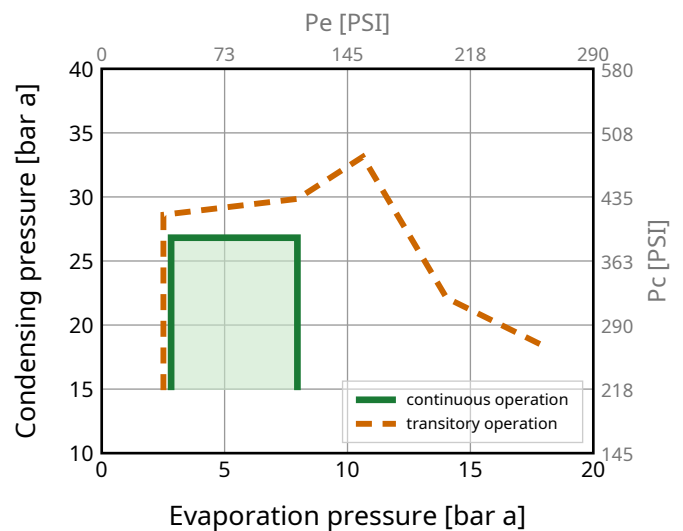
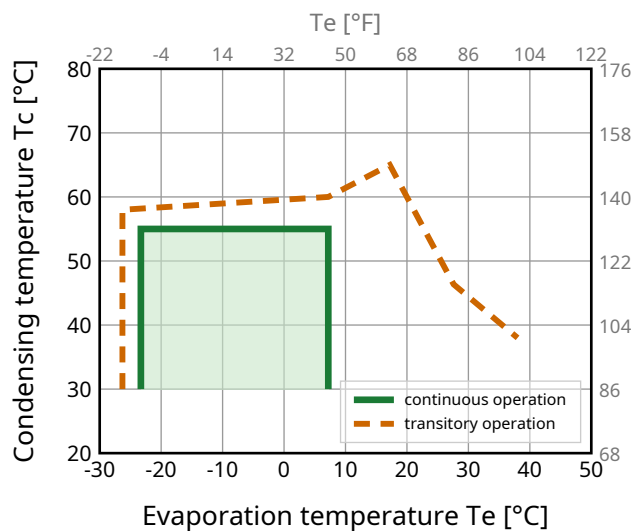
a3 SC starter kit (1000mm) 117-7040

a3 SC starter kit (650mm) 117-7046

c start capacitor (80 μ F) 117U5373

e run capacitor (10 μ F, 6.3mm) 117-7112

Operation Pressure Range



Model
SC18MLX.3

Configuration 2

Sales code:
104L2146

Standard Conditions

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

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	m	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-6.7 20	54.4 129.9	35 95	46.1 115	1594	5440	1371	1.66	5.67	960	4.49	45.48	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	1193	4072	1026	1.32	4.50	905	4.25	39.44	CECOMAF MBP
-10 14	45 113	20 68	45 113	1385	4726	1191	1.66	5.66	834	4.01	43.20	EN12900 MBP
-6.7 20	48.8 119.8	18.3 64.9	48.8 119.8	1453	4959	1250	1.59	5.43	913	4.31	49.05	ARI540 MBP
-10 14	45 113	32 89.6	45 113	1468	5008	1262	1.76	6.00	834	4.01	41.91	opt MBP 1
-25 -13	45 113	32 89.6	45 113	746	2545	642	1.23	4.18	608	3.08	20.86	opt MBP 2

Performance Tables

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

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-23.3	-10	810	2763	696	1.28	4.36	634	3.18	22.68
-20	-4	946	3226	813	1.38	4.72	683	3.38	26.59
-15	5	1185	4042	1019	1.56	5.33	758	3.69	33.55
-10	14	1468	5008	1262	1.76	6.00	834	4.01	41.91
-5	23	1800	6140	1548	1.98	6.75	910	4.33	51.88
0	32	2185	7454	1879	2.22	7.57	985	4.66	63.70
5	41	2628	8965	2260	2.48	8.47	1059	4.99	77.65
7.2	45	2842	9697	2444	2.60	8.89	1091	5.13	84.55

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-23.3	-10	656	2238	564	0.98	3.34	669	3.25	21.20
-20	-4	765	2611	658	1.05	3.60	726	3.48	24.85
-15	5	960	3275	826	1.18	4.02	814	3.85	31.43
-10	14	1193	4072	1026	1.32	4.50	905	4.25	39.44
-5	23	1470	5016	1264	1.48	5.04	996	4.66	49.14
0	32	1795	6125	1544	1.65	5.63	1089	5.09	60.80
5	41	2173	7414	1869	1.84	6.27	1182	5.54	74.75
7.2	45	2357	8041	2027	1.93	6.58	1223	5.73	81.71

Model

SC18MLX.3

Configuration 3

Sales code:

104L2146

Configuration

Motor configuration	CSCR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R448A
Application	MBP
Voltage range	198-254 V
Starting torque	HST
Starting device type	relay
Run capacitor	10 μF
Start capacitor	80 μF
LRA (locked rotor amps / 4s/ U(N))	23.4 A
RLA (rated load amps / 1s/ U(N))	4.3 A
Cut in current (U(N))	23.4 A

Ambient/ machine room temperatures minimum /maximum

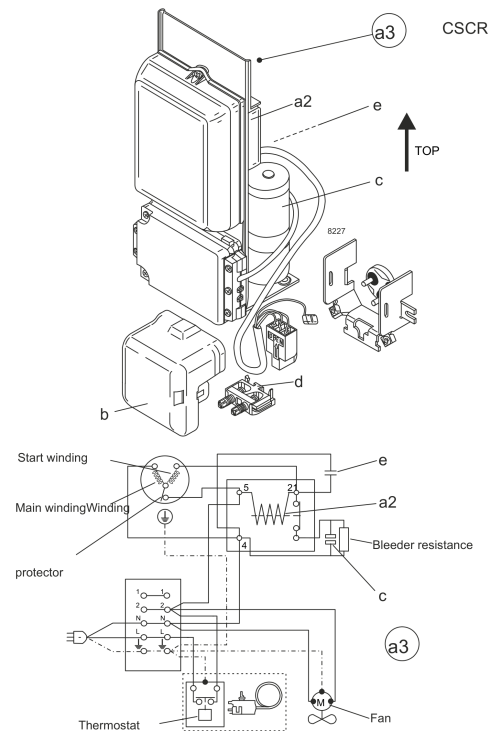
Ambient temperature range: 10 - 38°C / 50 - 100°F

Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



[View full size](#)

Components

a3 SC starter kit (550mm) 117-7027

b plastic cover 103N2009

d cord relief 103N1004

Alternative components

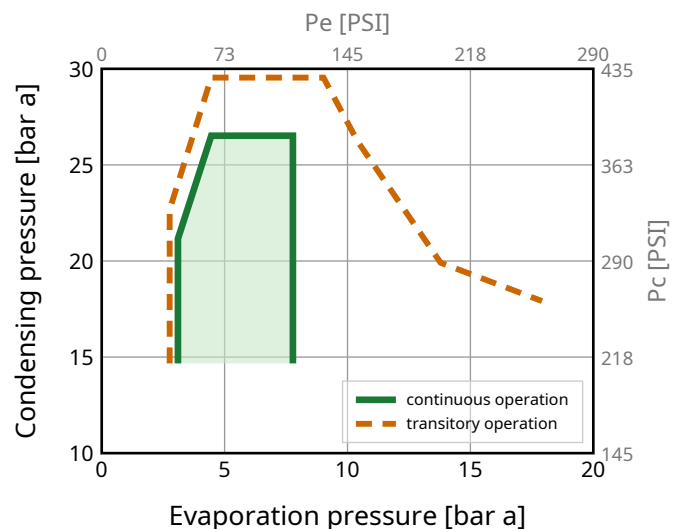
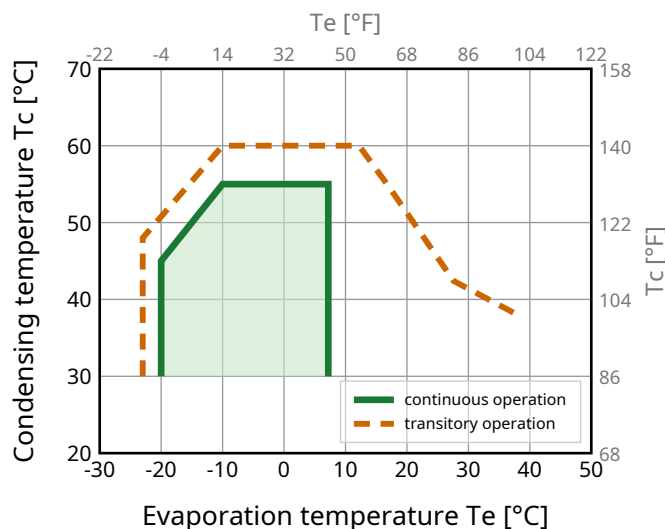
a3 SC starter kit (1000mm) 117-7040

a3 SC starter kit (650mm) 117-7046

c start capacitor (80 μ F) 117U5373

e run capacitor (10 μ F, 6.3mm) 117-7112

Operation Pressure Range



Model
SC18MLX.3

Configuration 3

Sales code:
104L2146

Standard Conditions

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

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	m	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-6.7 20	54.4 129.9	35 95	46.1 115	1536	5241	1321	1.68	5.73	915	4.43	34.00	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	1182	4033	1017	1.37	4.68	861	4.28	29.36	CECOMAF MBP
-10 14	45 113	20 68	45 113	1356	4628	1166	1.71	5.84	793	4.09	32.19	EN12900 MBP
-6.7 20	48.8 119.8	18.3 64.9	48.8 119.8	1452	4953	1248	1.67	5.69	870	4.31	36.69	ARI540 MBP
-10 14	45 113	32 89.6	45 113	1411	4814	1213	1.78	6.07	793	4.09	31.23	opt MBP 1
-25 -13	45 113	32 89.6	45 113	701	2391	603	1.23	4.19	571	3.47	15.21	opt MBP 2

Performance Tables

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

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-20	-4	896	3056	770	1.39	4.74	644	3.68	19.55
-15	5	1131	3858	972	1.57	5.37	718	3.88	24.84
-10	14	1411	4814	1213	1.78	6.07	793	4.09	31.23
-5	23	1742	5944	1498	2.01	6.85	867	4.30	38.89
0	32	2129	7266	1831	2.26	7.72	942	4.51	48.03
5	41	2578	8796	2217	2.54	8.67	1015	4.71	58.86
7.2	45	2796	9540	2405	2.67	9.11	1047	4.80	64.23

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-20	-4	746	2546	642	1.09	3.71	686	3.79	18.25
-15	5	943	3219	811	1.22	4.17	773	4.04	23.24
-10	14	1182	4033	1017	1.37	4.68	861	4.28	29.36
-5	23	1467	5006	1262	1.54	5.26	951	4.54	36.81
0	32	1805	6158	1552	1.73	5.91	1042	4.79	45.81
5	41	2200	7505	1892	1.94	6.62	1134	5.05	56.60
7.2	45	2393	8164	2058	2.04	6.95	1174	5.16	61.99

Model

SC18MLX.3

Configuration 4

Sales code:

104L2146

Configuration

Motor configuration	CSCR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R449A
Application	MBP
Voltage range	198-254 V
Starting torque	HST
Starting device type	relay
Run capacitor	10 μF
Start capacitor	80 μF
LRA (locked rotor amps / 4s/ U(N))	23.4 A
RLA (rated load amps / 1s/ U(N))	4.3 A
Cut in current (U(N))	23.4 A

Ambient/ machine room temperatures minimum /maximum

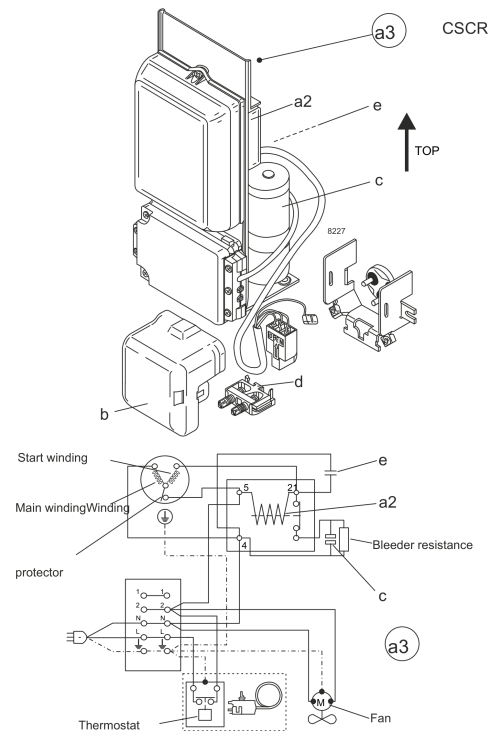
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System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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a3 SC starter kit (550mm) 117-7027

b plastic cover 103N2009

d cord relief 103N1004

Alternative components

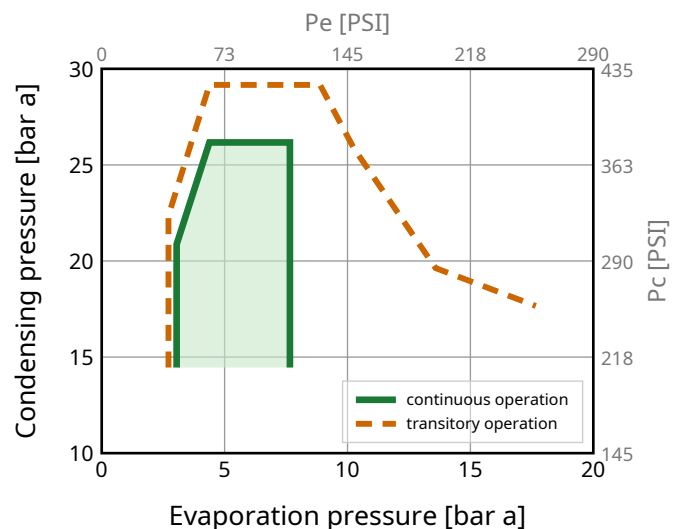
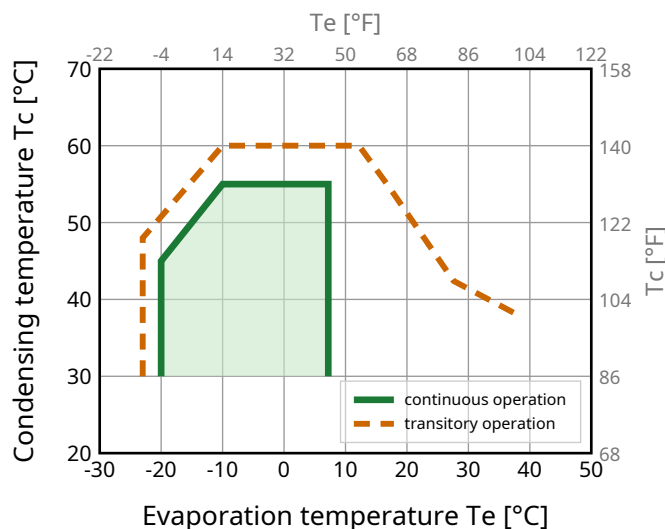
a3 SC starter kit (1000mm) 117-7040

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c start capacitor (80 μ F) 117U5373

e run capacitor (10 μ F, 6.3mm) 117-7112

Operation Pressure Range



Model

SC18MLX.3

Configuration 4

Sales code:

104L2146

Standard Conditions

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

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	m	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-6.7 20	54.4 129.9	35 95	46.1 115	1527	5210	1313	1.68	5.73	910	4.42	34.15	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	1174	4006	1010	1.37	4.67	857	4.27	29.50	CECOMAF MBP
-10 14	45 113	20 68	45 113	1348	4599	1159	1.71	5.82	789	4.08	32.34	EN12900 MBP
-6.7 20	48.8 119.8	18.3 64.9	48.8 119.8	1441	4918	1240	1.67	5.68	866	4.30	36.85	ARI540 MBP
-10 14	45 113	32 89.6	45 113	1403	4787	1207	1.78	6.06	789	4.08	31.38	opt MBP 1
-25 -13	45 113	32 89.6	45 113	698	2381	600	1.23	4.18	570	3.47	15.31	opt MBP 2

Performance Tables

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

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-20	-4	891	3041	767	1.39	4.74	642	3.67	19.66
-15	5	1125	3837	967	1.57	5.36	716	3.88	24.96
-10	14	1403	4787	1207	1.78	6.06	789	4.08	31.38
-5	23	1732	5909	1489	2.01	6.84	863	4.29	39.07
0	32	2116	7221	1820	2.26	7.71	937	4.50	48.23
5	41	2562	8741	2203	2.54	8.66	1009	4.70	59.09
7.2	45	2778	9479	2389	2.67	9.11	1040	4.79	64.48

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-20	-4	742	2531	638	1.08	3.70	684	3.79	18.35
-15	5	937	3198	806	1.22	4.16	769	4.03	23.36
-10	14	1174	4006	1010	1.37	4.67	857	4.27	29.50
-5	23	1457	4972	1253	1.54	5.26	946	4.52	36.97
0	32	1792	6113	1541	1.73	5.91	1035	4.77	45.99
5	41	2183	7449	1878	1.94	6.62	1126	5.03	56.81
7.2	45	2375	8103	2042	2.04	6.95	1165	5.14	62.22