Model
KLF7.7MFT

Sales code:
106G2802

Compressor Data

Refrigerant(s)	**R134a**
Refr. charge - tech. limit	**400g / 14.11oz**
Weight	**9.40 kg / 20.72lbs**
Displacement	**7.70 cm3 / 0.47cu.in**
Compressors on pallet	**100**

General – Configurations With KLF7.7MFT

–	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Motor configuration	CSIR	RSCR	CSIR	RSCR
Power supply (nominal)	200-240 V/50 Hz	200-240 V/50 Hz	208-230 V/60 Hz	208-230 V/60 Hz
Number of phases	1	1	1	1
Voltage range	170-254 V	170-254 V	198-253 V	198-253 V
Approvals	VDE, UL, CCC	VDE, UL, CCC	VDE, UL, CCC	VDE, UL, CCC
Starting torque	HST	LST	HST	LST
Refrigerant	R134a	R134a	R134a	R134a
Application	MBP	MBP	MBP	MBP
Hot gas defrost	OK	OK	OK	OK
Long interval pull down	OK	OK	OK	OK

Application Notes

- Compressor can operate safely in LBP, no official third-party approval yet
- Provision for PE Grounding is located at the PE Stamp on the compressor

Model
KLF7.7MFT

Sales code:
106G2802

Compressor Design

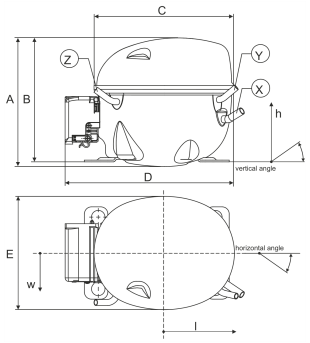
Oil type	**POE**	Winding resistance main	**8.4 Ohm**
Oil viscosity	**9,7cSt**	Winding resistance aux	**11.9 Ohm**
Oil quantity	**165 / 5.58fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**1,575 cm3 / 53.26fl.oz**	Max. discharge temp.	**130°C / 266°F**
Motor protection	**external**		

Compressor Dimensions

Housing

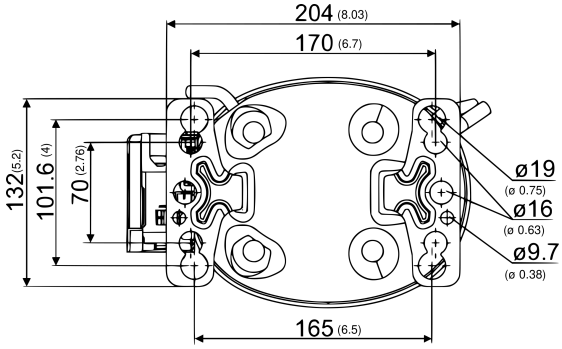
A Height	**182mm / 7.17in**
B Height	**175mm / 6.89in**
C Length shell	**198mm / 7.80in**
D Length w. cover	**238mm / 9.37in**
E Width	**160mm / 6.30in**

Find 3D Model here



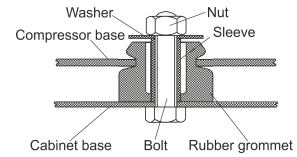
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	35°	13°	0°
Vertical angle ±2°	30°	40°	145°
Position l/h/w [mm]	119/73/59 / 4.69/2.87/2.32in	117/107/66 / 4.61/4.21/2.60in	-88/101/71 / -3.46/3.98/2.80in
Straight tube l. [mm]	13.5 / 0.53in	13.5 / 0.53in	13.5 / 0.53in

Mounting Accessories

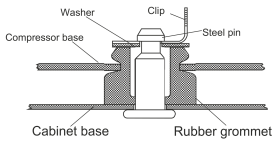


Dimensions in mm [in]

Bolt joint



Snap-on



	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
KLF7.7MFT Configuration 1

Sales code:
106G2802

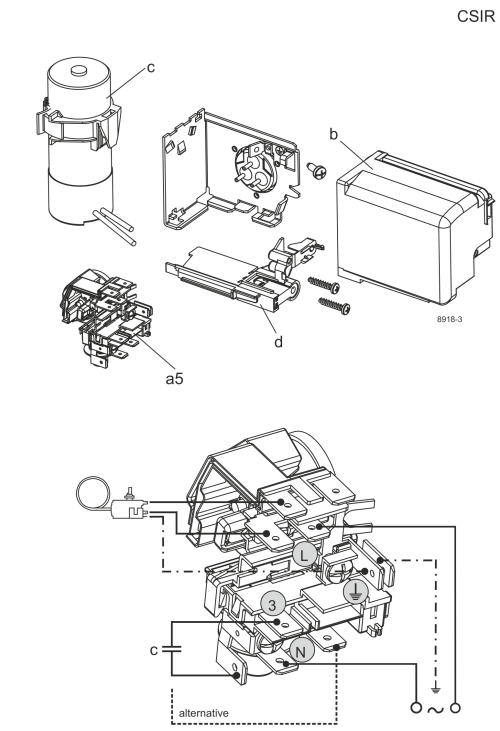
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**200-240 V/50 Hz 1~**
Refrigerant	**R134a**
Application	**MBP**
Voltage range	**170-254 V**
Starting torque	**HST**
Approvals	**VDE, UL, CCC**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**80 µF**
LRA (locked rotor amps / 4s/ U(N))	**13.4 A**
RLA (rated load amps / 1s/ U(N))	**1.8 A**
Cut in current (U(N))	**12.3 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram



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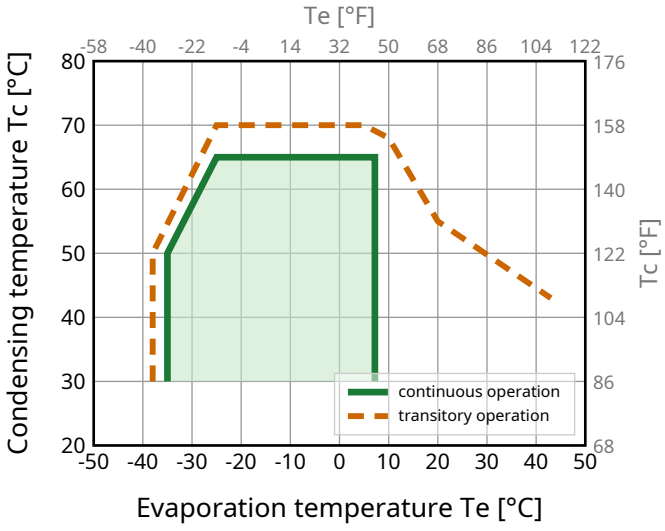
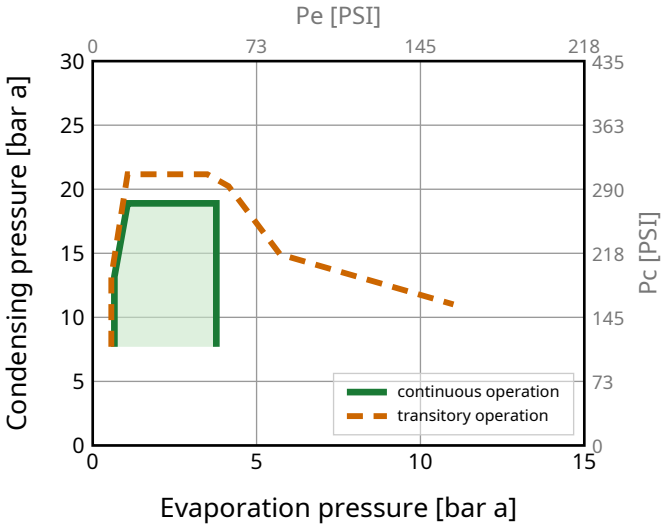
Components
a5 current relay (T0377/L6-S1) 117U7071
c start capacitor (80µF, 6.3mm) 117U5001
b, d cover + clamp + screws (5VA-compl.) 103N0600

Alternative components
b, d 100x cover + clamp + screws (5VA) 103N2060
b, d cover + clamp + screws (5VA) in bag 103N1060

Operation Pressure Range





Model Sales code:

KLF7.7MFT Configuration 1 **106G2802**

Standard Conditions

R134a, 200 V/50 Hz, CSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**221**	753	190	**1.37**	4.69	161	1.33	4.29	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**162**	552	139	**1.05**	3.60	153	1.31	3.86	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**116**	397	100	**1.05**	3.57	111	1.21	2.54	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**461**	1572	396	**1.89**	6.45	244	1.62	10.03	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**358**	1223	308	**1.58**	5.38	227	1.56	8.64	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**403**	1374	346	**1.91**	6.50	211	1.50	9.39	**EN12900 MBP**

Performance Tables

R134a, 200 V/50 Hz, CSIR, fan 3m/s

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

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-30	-22	**145**	495	125	**1.12**	3.82	130	1.24	3.13
-20	-4	**254**	865	218	**1.50**	5.11	169	1.35	5.50
-10	14	**417**	1423	359	**1.97**	6.73	211	1.50	9.11
0	32	**642**	2189	552	**2.52**	8.61	254	1.67	14.15
7.2	45	**844**	2879	726	**2.96**	10.10	285	1.80	18.80

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

-30	-22	**119**	405	102	**0.90**	3.07	132	1.25	2.83
-20	-4	**216**	735	185	**1.22**	4.16	177	1.38	5.15
-10	14	**358**	1223	308	**1.58**	5.38	227	1.56	8.64
0	32	**553**	1888	476	**1.96**	6.69	282	1.78	13.49
7.2	45	**729**	2487	627	**2.25**	7.69	323	1.96	17.97

Model
KLF7.7MFT Configuration 2

Sales code:
106G2802

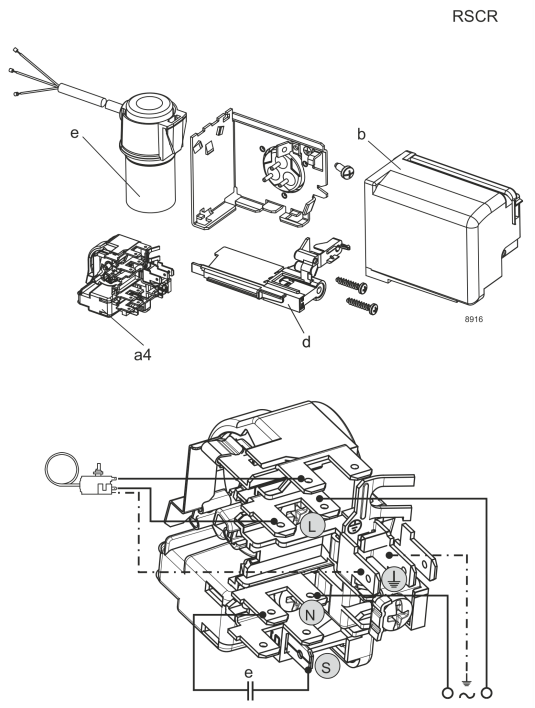
Configuration

Motor configuration	**RSCR**
Power supply (nominal)	**200-240 V/50 Hz 1~**
Refrigerant	**R134a**
Application	**MBP**
Voltage range	**170-254 V**
Starting torque	**LST**
Approvals	**VDE, UL, CCC**
Starting device type	**PTC**
Run capacitor	**5 µF**
Start capacitor	**-/-**
LRA (locked rotor amps / 4s/ U(N))	**13.4 A**
RLA (rated load amps / 1s/ U(N))	**1.8 A**
Cut in current (U(N))	**12.3 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram



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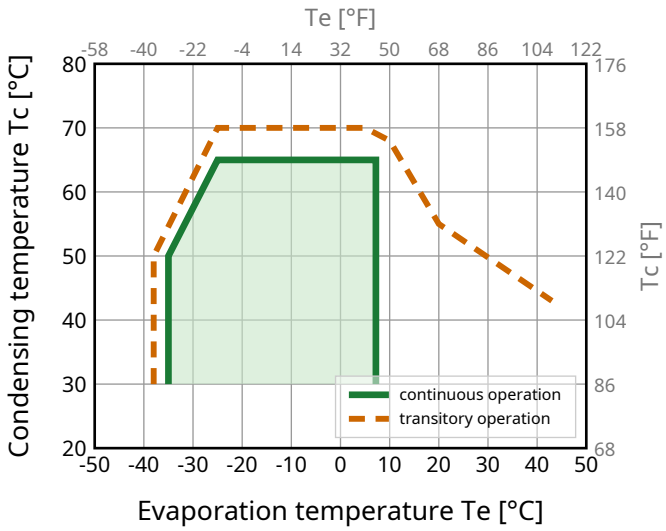
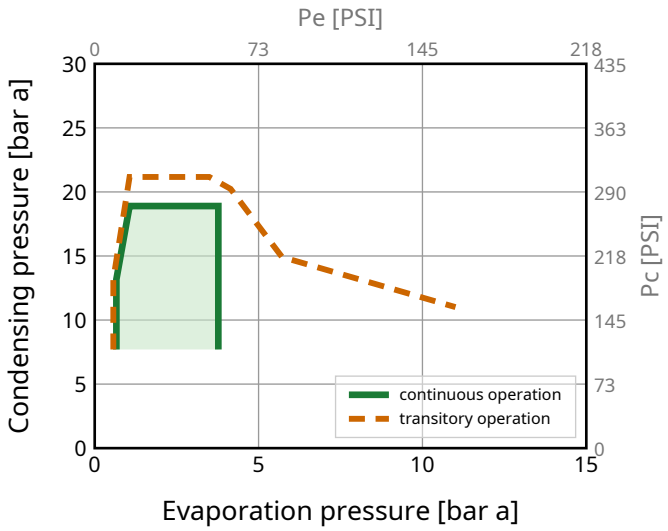
Components
a4 DAS1 (PTC,6.3mm, T0377/L6 - S1) 103N0250
e run capacitor (5µF, 6.3mm) 117-7191
b, d cover + clamp + screws (5VA-compl.) 103N0600

Alternative components
a4 ZAS1 (PTC,4.8mm, T0377/L6 - S1) 103N0252
e run capacitor (5µF, 4.8mm) 117-7190
b, d 100x cover + clamp + screws (5VA) 103N2060
b, d cover + clamp + screws (5VA) in bag 103N1060

Operation Pressure Range





Model

KLF7.7MFT Configuration 2

Sales code:

106G2802

Standard Conditions

R134a, 200 V/50 Hz, RSCR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**221**	755	190	**1.45**	4.93	153	1.00	4.29	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**162**	552	139	**1.11**	3.78	146	0.98	3.86	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**116**	397	100	**1.11**	3.78	105	0.84	2.55	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**462**	1577	397	**2.00**	6.81	232	1.34	10.06	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**359**	1226	309	**1.66**	5.68	216	1.27	8.66	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**404**	1377	347	**2.01**	6.85	201	1.20	9.41	**EN12900 MBP**

Performance Tables

R134a, 200 V/50 Hz, RSCR, fan 3m/s

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

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-30	-22	**145**	495	125	**1.18**	4.03	123	0.90	3.13
-20	-4	**254**	867	218	**1.58**	5.38	161	1.03	5.51
-10	14	**418**	1427	360	**2.08**	7.09	201	1.20	9.13
0	32	**643**	2195	553	**2.67**	9.09	242	1.38	14.20
7.2	45	**847**	2890	728	**3.14**	10.70	270	1.52	18.87

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

-30	-22	**119**	406	102	**0.95**	3.24	125	0.90	2.83
-20	-4	**216**	736	186	**1.28**	4.38	168	1.06	5.16
-10	14	**359**	1226	309	**1.66**	5.68	216	1.27	8.66
0	32	**555**	1894	477	**2.08**	7.09	267	1.50	13.54
7.2	45	**732**	2498	630	**2.40**	8.18	305	1.69	18.05

Model
KLF7.7MFT Configuration 3

Sales code:
106G2802

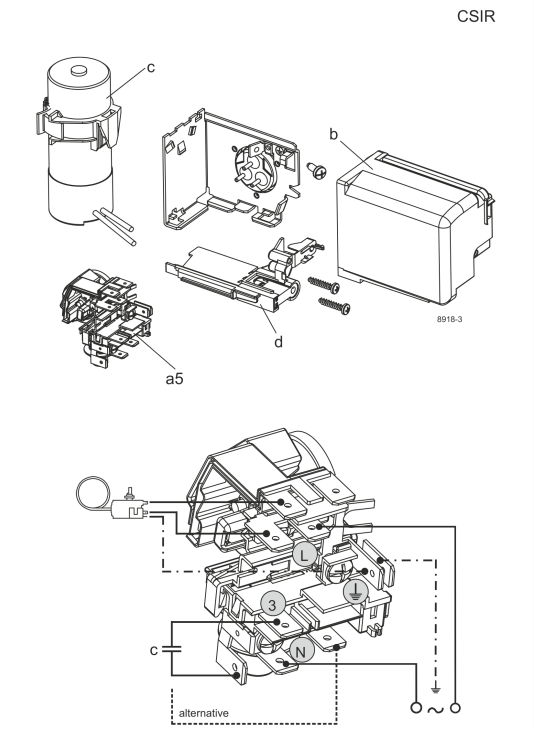
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**208-230 V/60 Hz 1~**
Refrigerant	**R134a**
Application	**MBP**
Voltage range	**198-253 V**
Starting torque	**HST**
Approvals	**VDE, UL, CCC**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**80 µF**
LRA (locked rotor amps / 4s/ U(N))	**13.4 A**
RLA (rated load amps / 1s/ U(N))	**1.8 A**
Cut in current (U(N))	**12.3 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram



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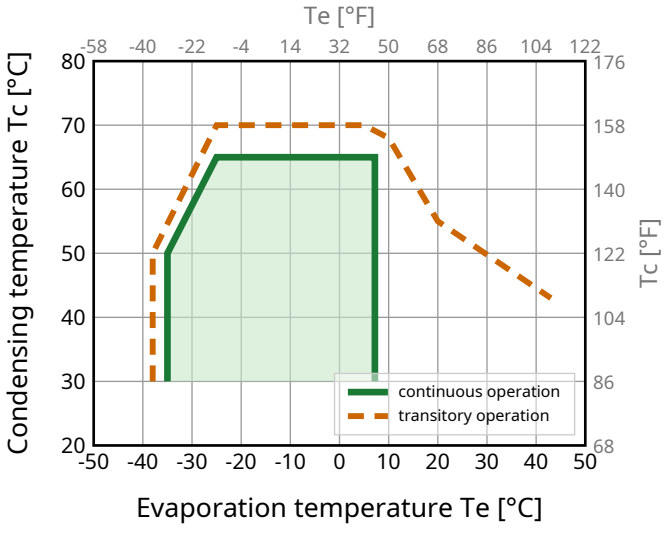
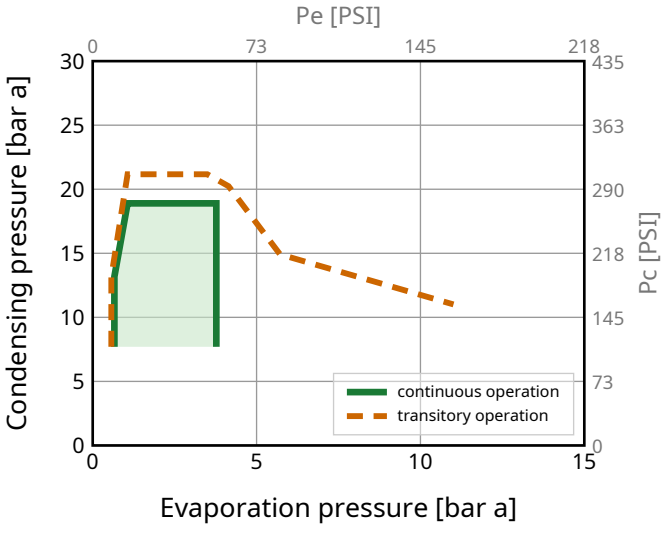
Components
a5 current relay (T0377/L6-S1) 117U7071
c start capacitor (80µF, 6.3mm) 117U5001
b, d cover + clamp + screws (5VA-compl.) 103N0600

Alternative components
b, d 100x cover + clamp + screws (5VA) 103N2060
b, d cover + clamp + screws (5VA) in bag 103N1060

Operation Pressure Range





Model Sales code:

KLF7.7MFT Configuration 3 **106G2802**

Standard Conditions

R134a, 208 V/60 Hz, CSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**260**	887	224	**1.37**	4.68	190	1.31	5.04	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**190**	650	164	**1.05**	3.60	181	1.28	4.54	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**135**	460	116	**1.07**	3.65	126	1.15	2.95	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**544**	1855	467	**1.87**	6.38	291	1.65	11.84	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**423**	1442	364	**1.56**	5.33	271	1.57	10.19	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**474**	1619	408	**1.89**	6.45	251	1.50	11.06	**EN12900 MBP**

Performance Tables

R134a, 208 V/60 Hz, CSIR, fan 3m/s

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

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-30	-22	**169**	577	145	**1.13**	3.85	150	1.20	3.65
-20	-4	**298**	1017	256	**1.49**	5.09	200	1.34	6.46
-10	14	**492**	1677	423	**1.96**	6.68	251	1.50	10.73
0	32	**757**	2582	651	**2.50**	8.52	303	1.69	16.70
7.2	45	**996**	3399	857	**2.92**	9.98	340	1.83	22.20

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

-30	-22	**140**	476	120	**0.91**	3.10	154	1.21	3.32
-20	-4	**254**	866	218	**1.21**	4.14	209	1.37	6.07
-10	14	**423**	1442	364	**1.56**	5.33	271	1.57	10.19
0	32	**653**	2228	562	**1.94**	6.62	337	1.82	15.92
7.2	45	**861**	2938	740	**2.23**	7.60	387	2.02	21.23

Model
KLF7.7MFT Configuration 4

Sales code:
106G2802

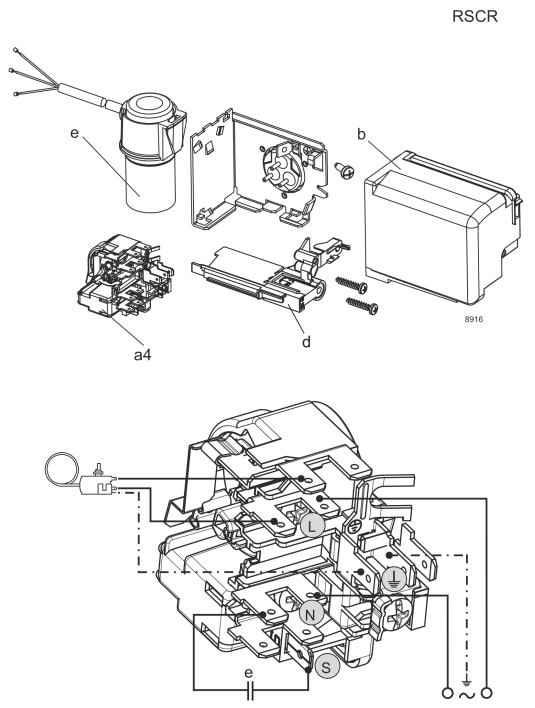
Configuration

Motor configuration	**RSCR**
Power supply (nominal)	**208-230 V/60 Hz 1~**
Refrigerant	**R134a**
Application	**MBP**
Voltage range	**198-253 V**
Starting torque	**LST**
Approvals	**VDE, UL, CCC**
Starting device type	**PTC**
Run capacitor	**5 µF**
Start capacitor	**-/-**
LRA (locked rotor amps / 4s/ U(N))	**13.4 A**
RLA (rated load amps / 1s/ U(N))	**1.8 A**
Cut in current (U(N))	**12.3 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram

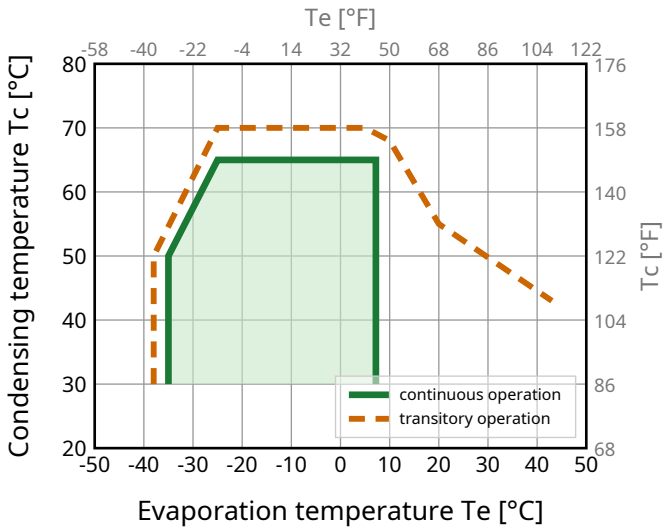


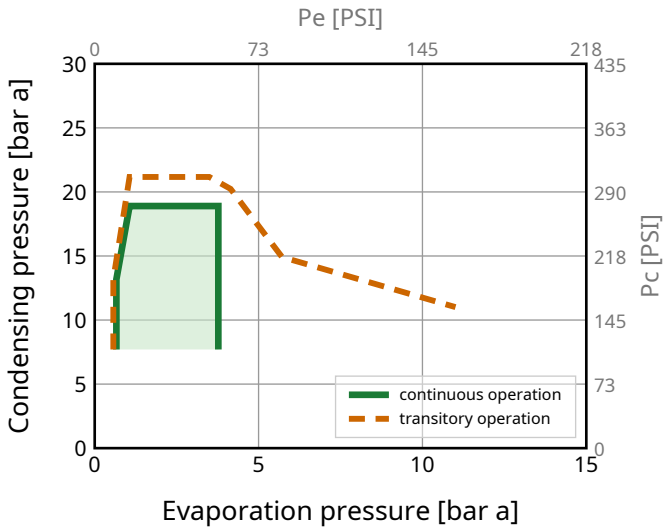
View full size

Components
a4 DAS1 (PTC,6.3mm, T0377/L6 - S1) 103N0250
e run capacitor (5µF, 6.3mm) 117-7191
b, d cover + clamp + screws (5VA-compl.) 103N0600

Alternative components
a4 ZAS1 (PTC,4.8mm, T0377/L6 - S1) 103N0252
e run capacitor (5µF, 4.8mm) 117-7190
b, d 100x cover + clamp + screws (5VA) 103N2060
b, d cover + clamp + screws (5VA) in bag 103N1060

Operation Pressure Range





Model

KLF7.7MFT Configuration 4

Sales code:

106G2802

Standard Conditions

R134a, 208 V/60 Hz, RSCR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**260**	889	224	**1.44**	4.91	181	0.90	5.05	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**191**	651	164	**1.11**	3.77	172	0.87	4.55	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**135**	461	116	**1.12**	3.81	121	0.67	2.95	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**545**	1860	469	**1.98**	6.76	275	1.29	11.87	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**424**	1446	364	**1.65**	5.64	257	1.21	10.22	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**476**	1623	409	**1.99**	6.80	239	1.14	11.09	**EN12900 MBP**

Performance Tables

R134a, 208 V/60 Hz, RSCR, fan 3m/s

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

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-30	-22	**169**	578	146	**1.18**	4.03	143	0.76	3.65
-20	-4	**298**	1018	257	**1.57**	5.35	190	0.94	6.47
-10	14	**493**	1681	424	**2.06**	7.05	239	1.14	10.76
0	32	**759**	2589	653	**2.65**	9.03	287	1.34	16.74
7.2	45	**1000**	3411	860	**3.11**	10.62	321	1.48	22.27

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

-30	-22	**140**	477	120	**0.95**	3.25	147	0.77	3.32
-20	-4	**254**	868	219	**1.28**	4.35	199	0.98	6.08
-10	14	**424**	1446	364	**1.65**	5.64	257	1.21	10.22
0	32	**655**	2236	563	**2.06**	7.04	318	1.47	15.98
7.2	45	**865**	2950	744	**2.38**	8.12	363	1.67	21.31