

Model

Designation	KLF7.7MFT	200-240V/50Hz 1~ 208-230V/60Hz 1~	Sales code:	106G2802
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R134a
Oil viscosity	9,7cST	Displacement	7,7cm ³ / 0,47cu.in
Oil quantity	170cm ³ / 5,7fl.oz	Compressors on pallet	100
Refr. charge - tech. limit	400g / 14,1oz		
Free gas volume comp.	1575cm ³ / 53,3fl.oz		
Weight	9,4kg / 20,7lbs		
Motor protection	external		
Winding resistance main	8,4Ω (at 25°C)		
Winding resistance aux	11,9Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



General - Configurations with KLF7.7MFT

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Motorconfiguration	CSIR	RSCR	CSIR	RSCR
Power supply (nominal)	200-240V/50Hz	200-240V/50Hz	208-230V/60Hz	208-230V/60Hz
Number of phases	1	1	1	1
Voltage range	170-254V	170-254V	198-253V	198-253V
Approvals	VDE, UL, CCC	VDE, UL, CCC	VDE, UL, CCC	VDE, UL, CCC
Starting torque	HST	LST	HST	LST
Note	Compressor can operate safely in LBP, no official third-party approval yet			

Applications with KLF7.7MFT

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Refrigerant	R134a	R134a	R134a	R134a
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 KLF7.7MFT

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Starting device type	relay	PTC	relay	PTC
Run capacitor	-/-	5μF	-/-	5μF
Start capacitor	80μF	-/-	80μF	-/-
LRA (locked rotor amps / 4s)	12,3A	11A	12,3A	11A
RLA (rated load amps / 1s)	2,1A	2,1A	2,1A	2,1A
Cut in current	12,3A	18,1A	12,3A	18,1A

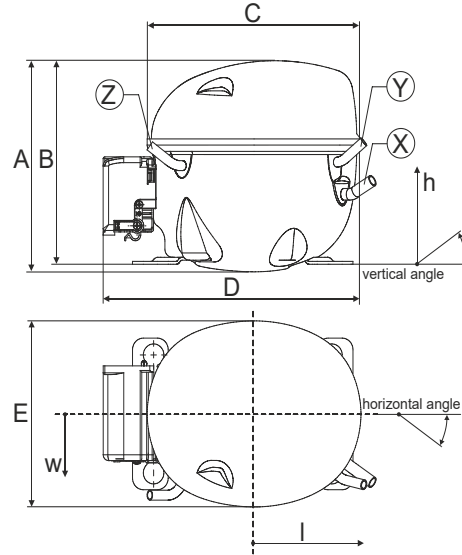
Model

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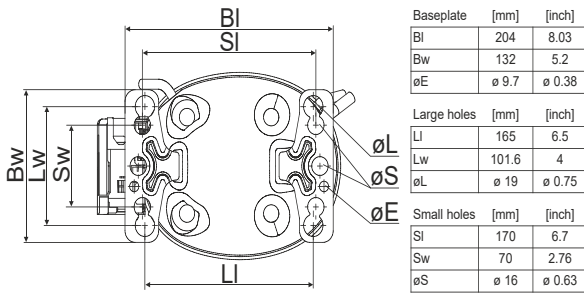
Compressor dimensions

Housing	A Height	182mm / 7,17in
	B Height	175mm / 6,89in
	C Length shell	198mm / 7,8in
	D Length w. cover	238mm / 9,37in
	E Width	160mm / 6,3in

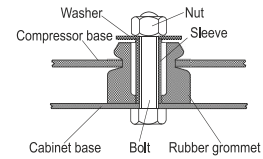
Connectors		Suction	Discharge	Process
		X	Y	Z
Diameter	[mm]	øi 8,11-8,29	øi 6,11-6,29	øi 6,11-6,29
	(i:inside, o:outside) [in]	øi 0,32-0,33	øi 0,24-0,25	øi 0,24-0,25
Material		copper	copper	copper
Horizontal angle	±2°	35°	13°	0°
Vertical angle	±2°	30°	40°	145°
Position l/h/w	[mm]	120/72/57	112/106/81	-97/94/72
	[in]	4,7/2,8/2,2	4,4/4,2/3,2	-3,8/3,7/2,8
Straight tube l.	[mm]	14	14	14
	[in]	0,5	0,5	0,5



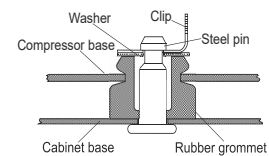
Compressor fixation



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

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

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

Model

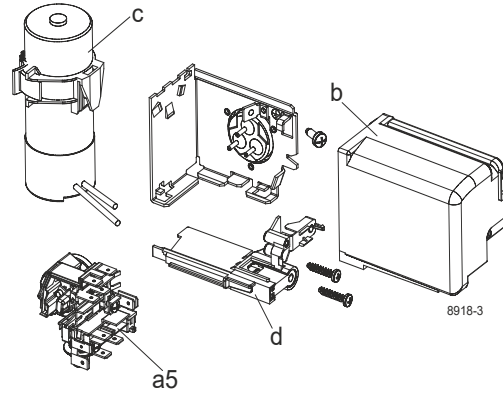
Designation	KLF7.7MFT	200-240V/50Hz	Conf. 1	Sales code:	106G2802
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Configuration

Motorconfiguration	CSIR
Power supply (nominal)	200-240V/50Hz 1~
Refrigerant	R134a
Application	MBP
Voltage range	170-254V
Starting torque	HST
Approvals	VDE
	UL
	CCC

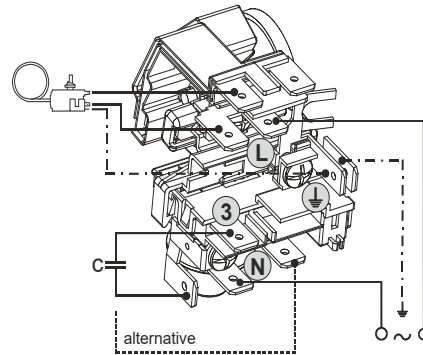
Electrical accessories / wiring diagram

CSIR

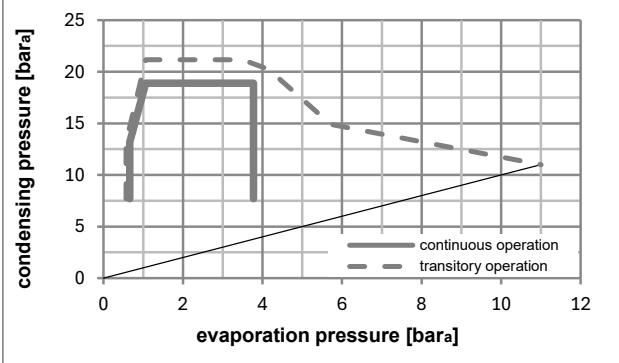
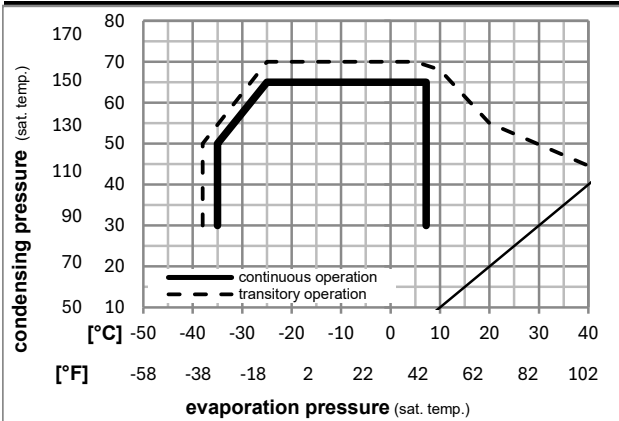


Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 3m/s



Operation pressure range



Components

a5	current relay (T0377/L6-S1)	117U7071
c	start capacitor (80µF, 6.3mm)	117U5001
b, d	cover + clamp + screws(5VA) in bag	103N1060

Alternative components

b, d	cover + clamp + screws(5VA-compl.)	103N0600
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Model

Designation **KLF7.7MFT** **200-240V/50Hz** Conf. 1 Sales code: **106G2802**

Optimization + standard conditions

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

Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.			Liquid temp.			Cooling capacity			COP	EER	Power consumption				
pe				pc			RGT			Tliq			[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	Ref. mass flow	
[°C]	[°F]	[°C]	[°F]	[°C]	[°F]	[°C]	[°F]	[°C]	[°F]	[°C]	[°F]	[°C]	[°F]	[W]	[A]	[kg/h]						
-23	-10	54	130	32	90	32	90	220,7	754	190,0	1,37	4,70	1,18	160,6	1,33	4,29						ASHRAE LBP
-25	-13	55	131	32	90	55	131	161,7	552	139,2	1,05	3,60	0,91	153,4	1,31	3,87						cecomaf LBP
-35	-31	40	104	20	68	40	104	116,2	397	100,0	1,04	3,57	0,90	111,2	1,20	2,55						EN12900 LBP
-7	20	54	130	35	95	46	115	462,0	1578	397,6	1,89	6,46	1,63	244,1	1,63	10,08						ASHRAE MBP
-10	14	55	131	32	90	55	131	358,4	1224	308,4	1,58	5,39	1,36	227,2	1,56	8,67						cecomaf MBP
-10	14	45	113	20	68	45	113	402,0	1373	346,0	1,90	6,50	1,64	211,4	1,50	9,41						EN12900 MBP

Performance tables

R134a, 200V/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]	-30	-22	145,0	495	124,8	1,12	3,82	0,96	129,5	1,24	3,13	
cond. pressure	-25	-13	192,7	658	165,9	1,29	4,42	1,11	149,0	1,29	4,18	
pc= 45/113	-15	5	328,1	1120	282,3	1,73	5,89	1,49	190,1	1,42	7,15	
return gas temp.	-10	14	417,1	1424	358,9	1,97	6,74	1,70	211,4	1,50	9,13	
RGT= 32/90	-5	23	521,3	1780	448,6	2,24	7,65	1,93	232,9	1,58	11,46	
liquid temp	0	32	641,5	2191	552,0	2,52	8,61	2,17	254,4	1,67	14,19	
Tliq= 45/113	7,2	45	843,9	2882	726,3	2,96	10,11	2,55	285,1	1,80	18,85	
[°C / °F]	-30	-22	118,7	406	102,2	0,90	3,08	0,78	131,8	1,25	2,83	
cond. pressure	-25	-13	161,7	552	139,2	1,05	3,60	0,91	153,4	1,31	3,87	
pc= 55/131	-15	5	280,8	959	241,6	1,39	4,76	1,20	201,3	1,46	6,76	
return gas temp.	-10	14	358,4	1224	308,4	1,58	5,39	1,36	227,2	1,56	8,67	
RGT= 32/90	-5	23	448,9	1533	386,4	1,77	6,03	1,52	254,2	1,67	10,91	
liquid temp	0	32	553,2	1889	476,1	1,96	6,70	1,69	282,0	1,78	13,53	
Tliq= 55/131	7,2	45	728,9	2489	627,3	2,25	7,70	1,94	323,3	1,96	18,03	

Model

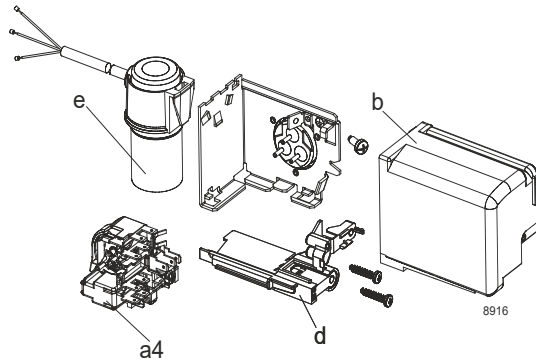
Designation	KLF7.7MFT	200-240V/50Hz	Conf. 2	Sales code:	106G2802
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Configuration

Motorconfiguration	RSCR
Power supply (nominal)	200-240V/50Hz 1~
Refrigerant	R134a
Application	MBP
Voltage range	170-254V
Starting torque	LST
Approvals	VDE
	UL
	CCC

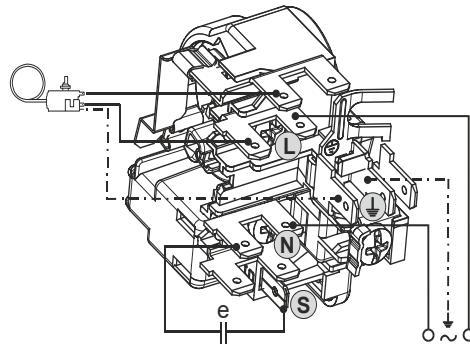
Electrical accessories / wiring diagram

RSCR

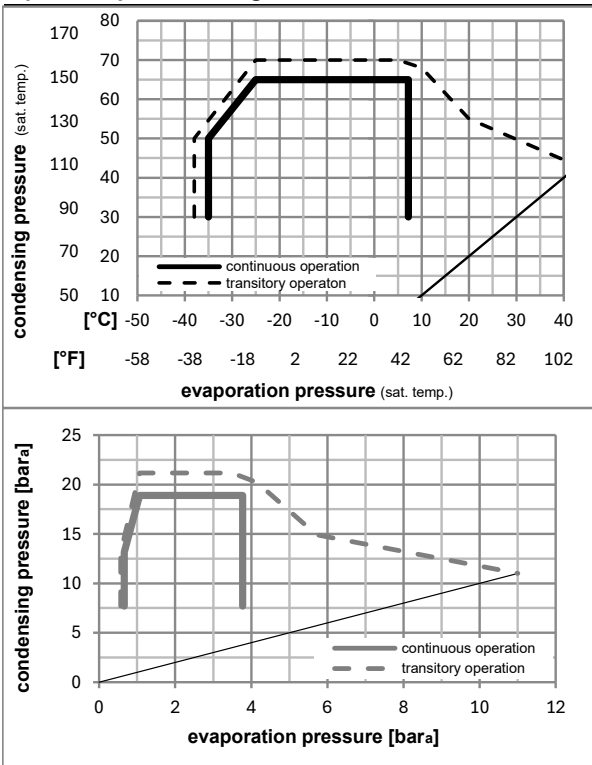


Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 3m/s



Operation pressure range



Components

a4	DAS1 (PTC,6.3mm, T0377/L6 - S1)	103N0250
e	run capacitor (5μF, 6.3mm)	117-7191
b, d	cover + clamp + screws(5VA) in bag	103N1060

Alternative components

a4	ZAS1 (PTC,4.8mm, T0377/L6 - S1)	103N0252
e	run capacitor (5μF, 4.8mm)	117-7190

b, d	cover + clamp + screws(5VA-compl.)	103N0600
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Model

Designation	KLF7.7MFT	200-240V/50Hz	Conf. 2	Sales code:	106G2802
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Optimization + standard conditions

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

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.		Liquid temp.		Cooling capacity			COP	EER	Power consumption		Ref. mass flow	
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	I	m			[W]	[A]	[kg/h]		
[°C]	[°F]	[°C]	[°F]	[°C]	[°C]																
-23	-10	54	130	32	32	221,1	755	190,3	1,45	4,94	1,24	152,9	1,00	4,29						ASHRAE LBP	
-25	-13	55	131	32	55	161,9	553	139,4	1,11	3,79	0,95	146,0	0,98	3,87						cecomaf LBP	
-35	-31	40	104	20	40	116,3	397	100,0	1,11	3,78	0,95	105,2	0,84	2,55						EN12900 LBP	
-7	20	54	130	35	46	463,3	1582	398,7	2,00	6,83	1,72	231,8	1,34	10,11						ASHRAE MBP	
-10	14	55	131	32	55	359,3	1227	309,2	1,66	5,68	1,43	216,0	1,27	8,69						cecomaf MBP	
-10	14	45	113	20	45	403,0	1376	346,8	2,00	6,84	1,72	201,1	1,20	9,43						EN12900 MBP	

Performance tables

R134a, 200V/50Hz, RSCR, 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]	-30	-22	145,1	496	124,9	1,18	4,03	1,02	123,0	0,89	3,14
cond. pressure	-25	-13	193,0	659	166,1	1,36	4,65	1,17	141,8	0,96	4,18
pc= 45/113	-15	5	328,7	1123	282,9	1,82	6,20	1,56	181,0	1,11	7,17
return gas temp.	-10	14	418,1	1428	359,8	2,08	7,10	1,79	201,1	1,20	9,15
RGT= 32/90	-5	23	522,7	1785	449,8	2,36	8,07	2,03	221,3	1,29	11,49
liquid temp	0	32	643,4	2197	553,7	2,66	9,10	2,29	241,5	1,38	14,23
Tliq= 45/113	7,2	45	846,9	2892	728,8	3,14	10,71	2,70	270,1	1,52	18,92
[°C / °F]	-30	-22	118,9	406	102,4	0,95	3,25	0,82	125,1	0,90	2,84
cond. pressure	-25	-13	161,9	553	139,4	1,11	3,79	0,95	146,0	0,98	3,87
pc= 55/131	-15	5	281,4	961	242,1	1,47	5,02	1,26	191,6	1,16	6,77
return gas temp	-10	14	359,3	1227	309,2	1,66	5,68	1,43	216,0	1,27	8,69
RGT= 32/90	-5	23	450,3	1538	387,5	1,87	6,38	1,61	241,2	1,38	10,95
liquid temp	0	32	555,2	1896	477,8	2,08	7,10	1,79	267,1	1,50	13,58
Tliq= 55/131	7,2	45	732,1	2500	630,1	2,40	8,19	2,06	305,4	1,69	18,11

Model

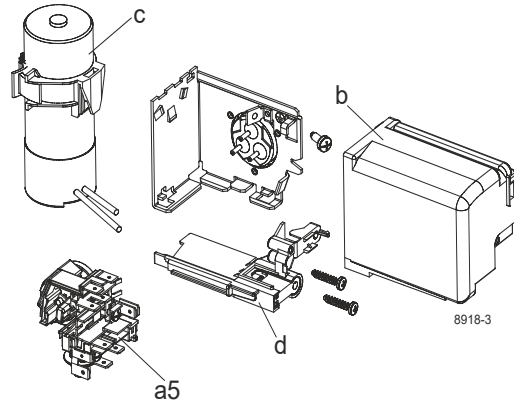
Designation	KLF7.7MFT	208-230V/60Hz	Conf. 3	Sales code:	106G2802
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Configuration

Motorconfiguration	CSIR
Power supply (nominal)	208-230V/60Hz 1~
Refrigerant	R134a
Application	MBP
Voltage range	198-253V
Starting torque	HST
Approvals	VDE UL CCC

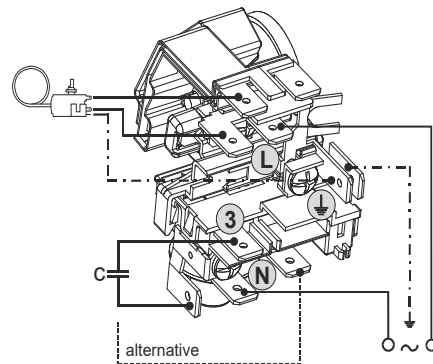
Electrical accessories / wiring diagram

CSIR

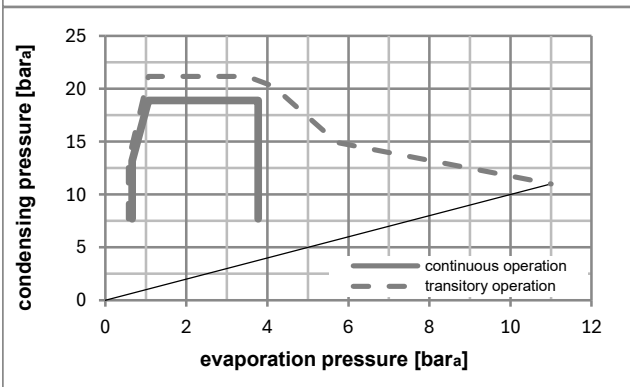
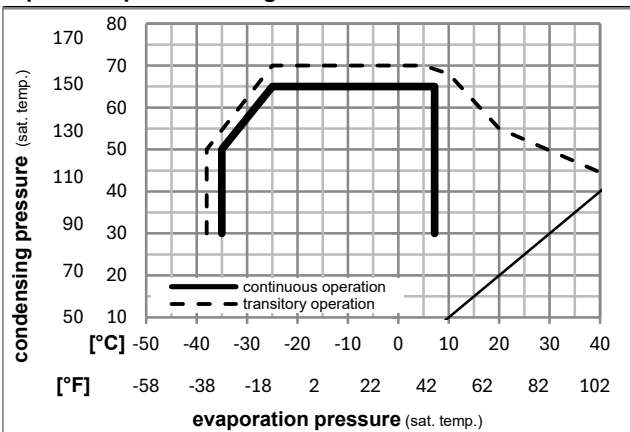


Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 3m/s



Operation pressure range



Components

a5	current relay (T0377/L6-S1)	117U7071
c	start capacitor (80µF, 6.3mm)	117U5001
b, d	cover + clamp + screws(5VA) in bag	103N1060

Alternative components

b, d	cover + clamp + screws(5VA-compl.)	103N0600
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Model

Designation	KLF7.7MFT	208-230V/60Hz	Conf. 3	Sales code:	106G2802
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Optimization + standard conditions

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

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.		Liquid temp.		Cooling capacity			COP	EER	Power consumption			ASHRAE LBP
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	Ref. mass flow	[W]	[A]	ṁ	[kg/h]			
[°C]	-23	54	32	32	259,9	888	223,7	1,37	4,68	1,18	189,6	1,31	5,05							
[°F]	-10	130	90	90																
[°C]	-25	55	32	55	190,4	650	163,9	1,05	3,60	0,91	180,7	1,28	4,55							cecomaf LBP
[°F]	-13	131	90	131																
[°C]	-35	40	20	40	134,7	460	116,0	1,07	3,65	0,92	126,1	1,15	2,96							EN12900 LBP
[°F]	-31	104	68	104																
[°C]	-7	54	35	46	545,0	1861	469,0	1,87	6,40	1,61	290,9	1,65	11,89							ASHRAE MBP
[°F]	20	130	95	115																
[°C]	-10	55	32	55	422,7	1444	363,8	1,56	5,33	1,34	270,6	1,57	10,22							cecomaf MBP
[°F]	14	131	90	131																
[°C]	-10	45	20	45	473,7	1618	407,7	1,89	6,44	1,62	251,1	1,51	11,09							EN12900 MBP
[°F]	14	113	68	113																

Performance tables

R134a, 208V/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]	-30	-22	169,1	578	145,6	1,13	3,85	0,97	149,9	1,20	3,66
cond. pressure	-25	-13	226,0	772	194,5	1,29	4,42	1,11	174,6	1,27	4,90
pc= 45/113	-15	5	386,2	1319	332,4	1,71	5,85	1,48	225,3	1,42	8,42
return gas temp.	-10	14	491,5	1678	422,9	1,96	6,68	1,68	251,1	1,51	10,76
RGT= 32/90	-5	23	614,6	2099	529,0	2,22	7,57	1,91	277,1	1,60	13,52
liquid temp	0	32	756,7	2584	651,2	2,50	8,52	2,15	303,2	1,69	16,73
Tliq= 45/113	7,2	45	996,2	3402	857,3	2,93	9,99	2,52	340,5	1,83	22,25
[°C / °F]	-30	-22	139,5	476	120,1	0,91	3,10	0,78	153,6	1,21	3,33
cond. pressure	-25	-13	190,4	650	163,9	1,05	3,60	0,91	180,7	1,28	4,55
pc= 55/131	-15	5	331,1	1131	284,9	1,38	4,72	1,19	239,3	1,46	7,97
return gas temp	-10	14	422,7	1444	363,8	1,56	5,33	1,34	270,6	1,57	10,22
RGT= 32/90	-5	23	529,7	1809	455,8	1,75	5,97	1,50	303,1	1,69	12,88
liquid temp	0	32	653,0	2230	562,0	1,94	6,62	1,67	336,7	1,82	15,97
Tliq= 55/131	7,2	45	861,0	2941	741,0	2,23	7,60	1,92	386,7	2,02	21,29

Model

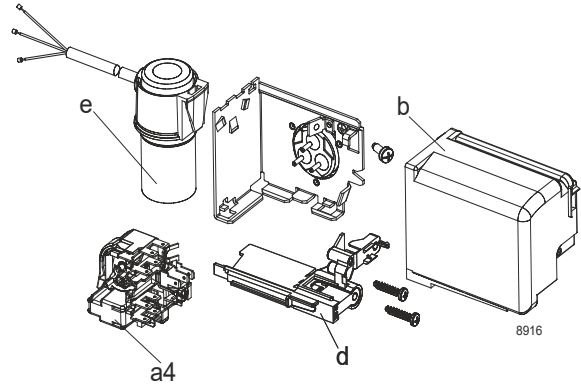
Designation	KLF7.7MFT	208-230V/60Hz	Conf. 4	Sales code:	106G2802
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Configuration

Motorconfiguration	RSCR
Power supply (nominal)	208-230V/60Hz 1~
Refrigerant	R134a
Application	MBP
Voltage range	198-253V
Starting torque	LST
Approvals	VDE UL CCC

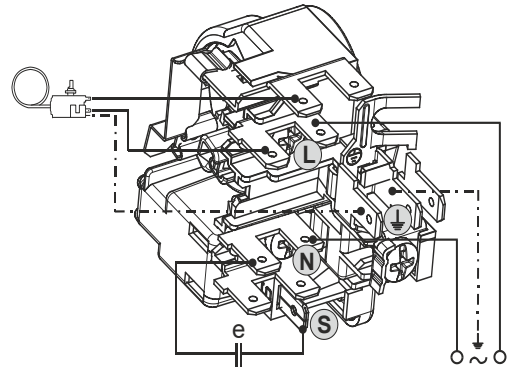
Electrical accessories / wiring diagram

RSCR

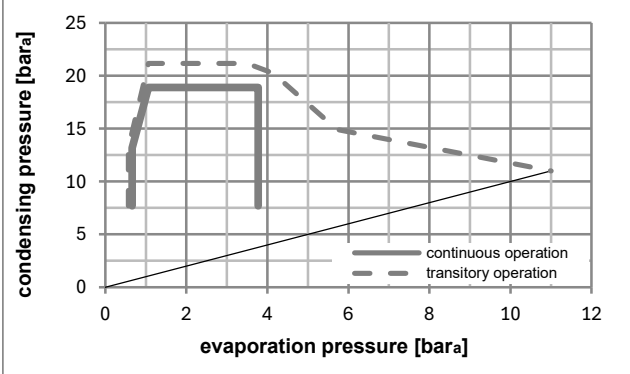
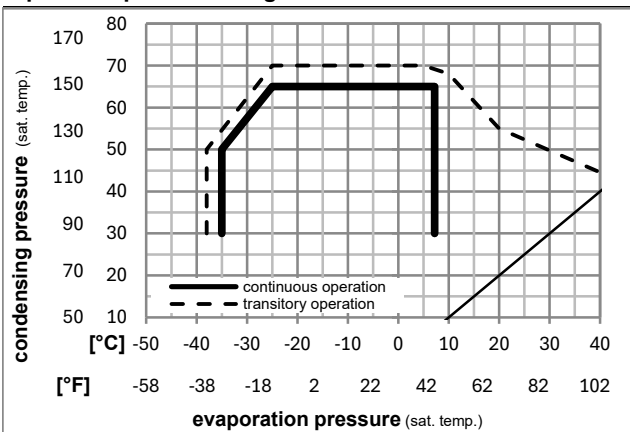


Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 3m/s



Operation pressure range



Components

a4	DAS1 (PTC,6.3mm, T0377/L6 - S1)	103N0250
e	run capacitor (5μF, 6.3mm)	117-7191
b, d	cover + clamp + screws(5VA) in bag	103N1060

Alternative components

a4	ZAS1 (PTC,4.8mm, T0377/L6 - S1)	103N0252
e	run capacitor (5μF, 4.8mm)	117-7190

b, d	cover + clamp + screws(5VA-compl.)	103N0600
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Model

Designation	KLF7.7MFT	208-230V/60Hz	Conf. 4	Sales code:	106G2802
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Optimization + standard conditions

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

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.		Liquid temp.		Cooling capacity			COP	EER	Power consumption			ASHRAE LBP
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	ṁ	[A]	[kg/h]	ASHRAE LBP				
[°C]	[°F]	[°C]	[°F]	[°C]	[°C]							[W]	[A]	[kg/h]							
-23	-10	54	130	32	90	260,4	889	224,1	1,44	4,92	1,24	180,8	0,90	5,06							
-25	-13	55	131	32	90	190,7	651	164,1	1,11	3,78	0,95	172,4	0,87	4,56				cecomaf LBP			
-35	-31	40	104	20	68	134,8	460	116,0	1,12	3,81	0,96	120,8	0,67	2,96				EN12900 LBP			
-7	20	54	130	35	95	546,5	1867	470,4	1,98	6,78	1,71	275,4	1,29	11,92				ASHRAE MBP			
-10	14	55	131	32	90	423,7	1447	364,7	1,65	5,64	1,42	256,6	1,21	10,25				cecomaf MBP			
-10	14	45	113	20	68	474,8	1621	408,6	1,99	6,80	1,71	238,6	1,13	11,11				EN12900 MBP			

Performance tables

R134a, 208V/60Hz, RSCR, 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]	-30	-22	169,3	578	145,7	1,18	4,03	1,02	143,4	0,76	3,66
cond. pressure	-25	-13	226,3	773	194,7	1,36	4,64	1,17	166,7	0,85	4,90
pc= 45/113	-15	5	387,0	1322	333,0	1,80	6,16	1,55	214,4	1,04	8,44
return gas temp.	-10	14	492,6	1682	423,9	2,06	7,05	1,78	238,6	1,13	10,78
RGT= 32/90	-5	23	616,2	2105	530,3	2,35	8,01	2,02	262,7	1,24	13,55
liquid temp	0	32	758,9	2592	653,1	2,65	9,04	2,28	286,8	1,34	16,78
Tliq= 45/113	7,2	45	999,6	3414	860,2	3,11	10,63	2,68	321,1	1,48	22,33
[°C / °F]	-30	-22	139,7	477	120,2	0,95	3,25	0,82	146,8	0,77	3,33
cond. pressure	-25	-13	190,7	651	164,1	1,11	3,78	0,95	172,4	0,87	4,56
pc= 55/131	-15	5	331,8	1133	285,5	1,46	4,98	1,26	227,4	1,09	7,99
return gas temp	-10	14	423,7	1447	364,7	1,65	5,64	1,42	256,6	1,21	10,25
RGT= 32/90	-5	23	531,3	1814	457,2	1,85	6,33	1,59	286,7	1,34	12,91
liquid temp	0	32	655,2	2238	563,9	2,06	7,05	1,78	317,6	1,47	16,03
Tliq= 55/131	7,2	45	864,6	2953	744,0	2,38	8,12	2,05	363,4	1,67	21,38