

Single Pack KLF7.7CNT 200-240V 50Hz / 208-230V 60Hz CSIR

Single pack code number: **195B4780**

Position	Title	Code	Amount
1	Compressor KLF7.7CNT	106H2808	1
2	KL accessories	103N1060	1
3	Starting capacitor (80 μ F 260V, 6.3mm)	117U5003	1
4	Starting relay (QLZ-7.85A, overload protector T0916/L6)	117U7079	1
5	Bolt joint for one compressor M6 \varnothing 16mm	118-1917	1

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Model

Designation	KLF7.7CNT	200-240V/50Hz 1~	208-230V/60Hz 1~	Sales code:	106H2808
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R290
Oil viscosity	19,2cSt	Displacement	7,7cm ³ / 0,47cu.in
Oil quantity	170cm ³ / 5,7fl.oz	Compressors on pallet	100
Refr. charge - tech. limit	200g / 7,1oz		
Free gas volume comp.	1575cm ³ / 53,3fl.oz		
Weight	9,6kg / 21,2lbs		
Motor protection	external		
Winding resistance main	6,4Ω (at 25°C)		
Winding resistance aux	14,8Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



General - Configurations with KLF7.7CNT

	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	187-254V	187-254V	198-253V	198-253V
Approvals	UL	UL	UL	UL
Starting torque	HST	LST	HST	LST
Note	- / -			

Applications with KLF7.7CNT

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Refrigerant	R290	R290	R290	R290
Application	LBP+MBP	LBP+MBP	LBP+MBP	LBP+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 KLF7.7CNT

	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/ U(N))	15,8A	15,8A	15,3A	15,3A
RLA (rated load amps / 1s/ U(N))	1,9A	1,9A	2A	2A
Cut in current (U(N))				

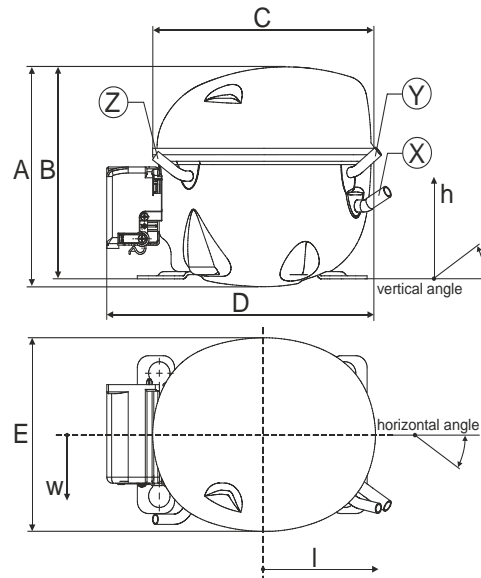
Model

Designation **KLF7.7CNT** 200-240V/50Hz 1~ 208-230V/60Hz 1~ Sales code: **106H2808**

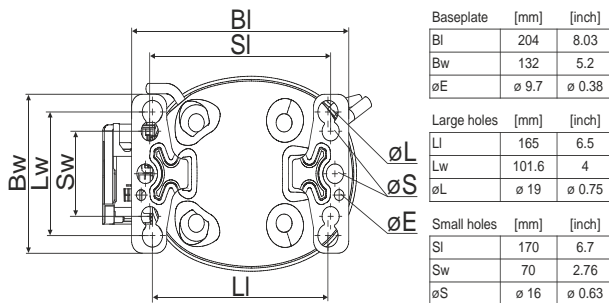
Compressor dimensions

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

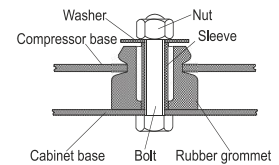
Connectors		Suction	Discharge	Process
		X	Y	Z
Diameter	[mm]	øi 8,11-8,29	øi 6,11-6,29	øi 6,11-6,29
(i:inside, o:outside)	[in]	øi 0,32-0,33	øi 0,24-0,25	øi 0,24-0,25
Material		copper	copper	copper
Horizontal angle	±2°	35°	13°	0°
Vertical angle	±2°	30°	40°	145°
Position l/h/w	[mm]	119/73/59	117/107/66	-88/101/71
	[in]	4,7/2,9/2,3	4,6/4,2/2,6	-3,5/4/2,8
Straight tube l.	[mm]	14	14	14
	[in]	0,5	0,5	0,5



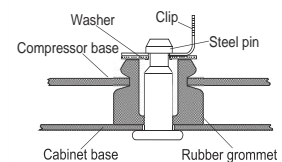
Compressor fixation



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

Model

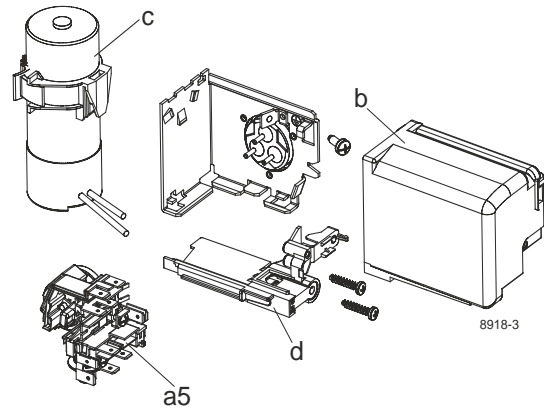
Designation	KLF7.7CNT	200-240V/50Hz	Conf. 1	Sales code:	106H2808
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Configuration

Motorconfiguration	CSIR
Power supply (nominal)	200-240V/50Hz 1~
Refrigerant	R290
Application	LBP+MBP
Voltage range	187-254V
Starting torque	HST
Approvals	UL

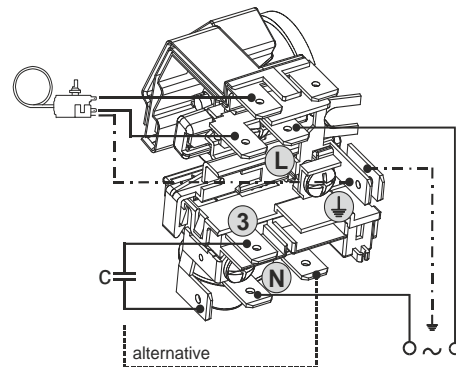
Electrical accessories / wiring diagram

CSIR

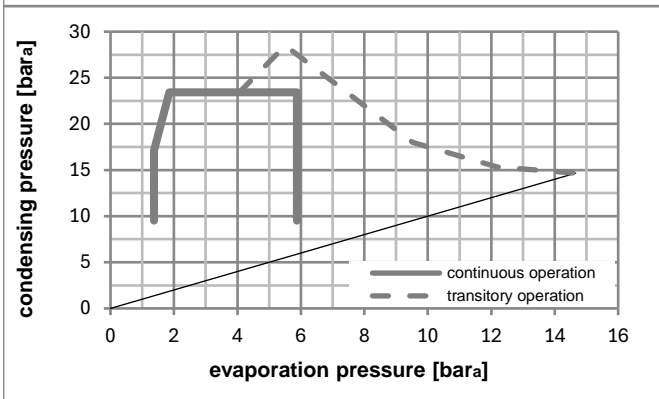
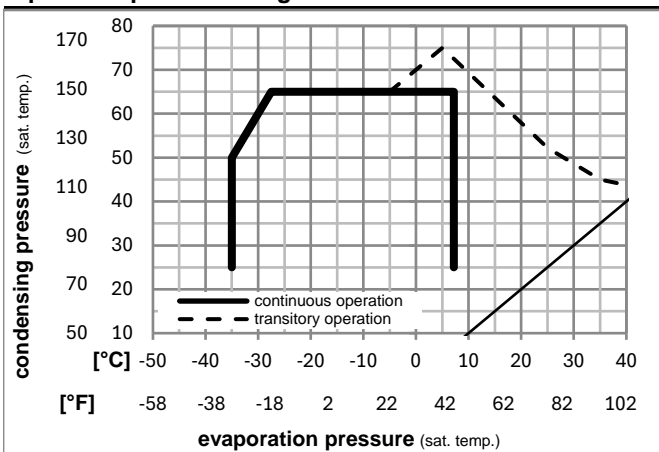


Ambient/ machine room temperatures minimum /maximum

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 (T0916/L6-S8)	117U7079
c	start capacitor (80µF, 6.3mm)	117U5003
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

Model

Designation **KLF7.7CNT** **200-240V/50Hz** Conf. 1 Sales code: **106H2808**

Optimization + standard conditions

R290, 220V/50Hz, CSIR, fan 3m/s, UL

Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.			Liquid temp.			Cooling capacity			COP	EER	Power consumption			Ref. mass flow m [kg/h]	
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I		[W]	[A]								
[°C]	[°C]	[°C]	[°C]																			
-23	54	32	32	395,4	1350	340,3	1,55	5,30	1,34	254,6	1,88	4,00	ASHRAE LBP									
-10	130	90	90																			
-25	55	32	55	295,9	1011	254,7	1,20	4,11	1,04	245,7	1,86	3,68	cecomaf LBP									
-13	131	90	131																			
-35	40	20	40	228,1	779	196,3	1,24	4,24	1,07	183,8	1,74	2,61	EN12900 LBP									
-31	104	68	104																			
-7	54	35	46	704,6	2406	606,3	2,02	6,89	1,73	349,5	2,18	8,04	ASHRAE MBP									
20	130	95	115																			
-10	55	32	55	560,2	1913	482,1	1,68	5,74	1,45	333,3	2,13	7,09	cecomaf MBP									
14	131	90	131																			
-10	45	20	45	614,9	2100	529,2	2,07	7,06	1,78	297,5	2,01	7,55	EN12900 MBP									
14	113	68	113																			

Performance tables

R290, 220V/50Hz, CSIR, fan 3m/s, UL

	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	345,3	1179	297,2	1,49	5,08	1,28	232,3	1,83	3,89
cond. pressure	-25	-13	345,3	1179	297,2	1,49	5,08	1,28	232,3	1,83	3,89
pc= 45/113	-15	5	526,6	1799	453,2	1,90	6,50	1,64	276,7	1,94	5,99
return gas temp.	-10	14	640,2	2186	550,9	2,15	7,35	1,85	297,5	2,01	7,32
RGT= 32/90	-5	23	769,9	2629	662,6	2,43	8,31	2,09	316,4	2,07	8,86
liquid temp	0	32	916,6	3130	788,9	2,76	9,41	2,37	332,6	2,12	10,63
Tliq= 45/113	7,2	45	1159,1	3958	997,5	3,31	11,32	2,85	349,7	2,18	13,62
[°C / °F]	-25	-13	295,9	1011	254,7	1,20	4,11	1,04	245,7	1,86	3,68
cond. pressure	-25	-13	295,9	1011	254,7	1,20	4,11	1,04	245,7	1,86	3,68
pc= 55/131	-15	5	459,1	1568	395,1	1,51	5,15	1,30	304,3	2,03	5,77
return gas temp	-10	14	560,2	1913	482,1	1,68	5,74	1,45	333,3	2,13	7,09
RGT= 32/90	-5	23	675,4	2306	581,2	1,87	6,39	1,61	361,1	2,22	8,60
liquid temp	0	32	805,2	2750	693,0	2,08	7,11	1,79	387,0	2,32	10,34
Tliq= 55/131	7,2	45	1019,5	3482	877,4	2,43	8,30	2,09	419,4	2,44	13,28

Model

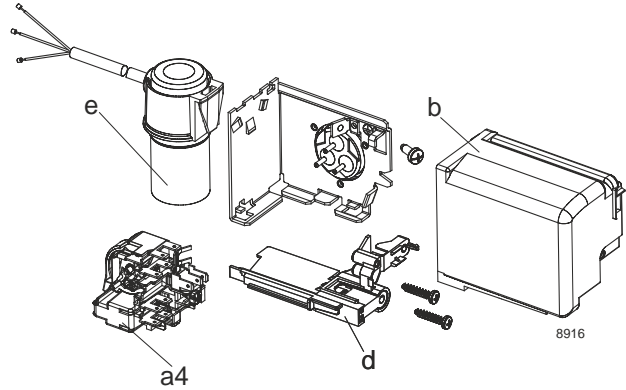
Designation	KLF7.7CNT	200-240V/50Hz	Conf. 2	Sales code:	106H2808
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Configuration

Motorconfiguration	RSCR
Power supply (nominal)	200-240V/50Hz 1~
Refrigerant	R290
Application	LBP+MBP
Voltage range	187-254V
Starting torque	LST
Approvals	UL

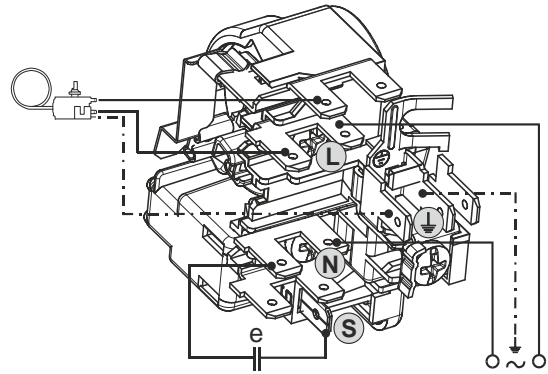
Electrical accessories / wiring diagram

RSCR

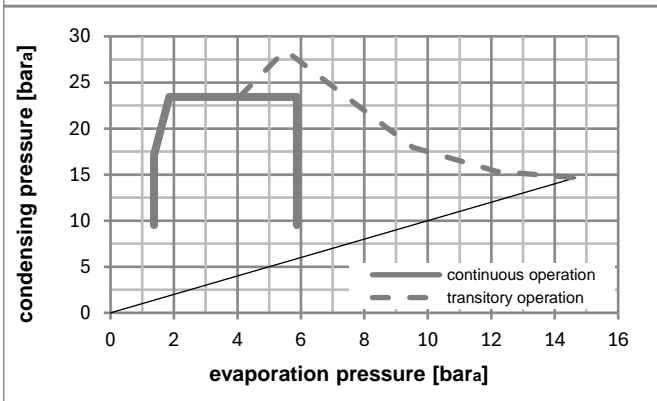
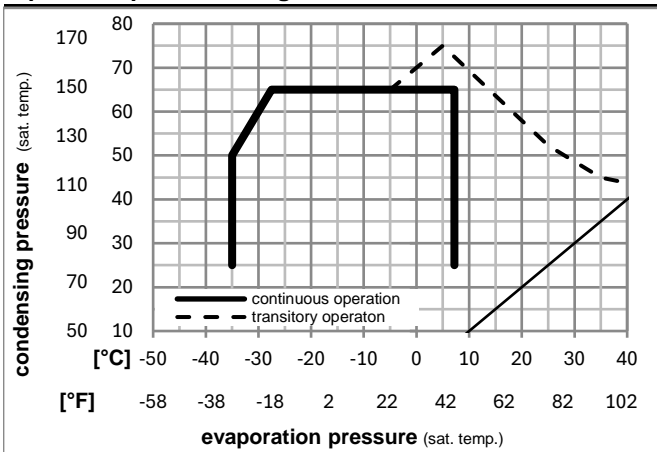


Ambient/ machine room temperatures minimum /maximum

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-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

Model

Designation **KLF7.7CNT** **200-240V/50Hz** Conf. 2 Sales code: **106H2808**

Optimization + standard conditions

R290, 220V/50Hz, RSCR, fan 3m/s, UL

		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]	P1	I	m	[W]	[A]	[kg/h]					
[°C]	[°F]																				ASHRAE LBP	
-23	54	32	32	399,7	1365	344,0	1,62	5,52	1,39	247,4	1,50	4,05				ASHRAE LBP						
-10	130	90	90																			
-25	55	32	55	299,8	1024	258,0	1,25	4,27	1,08	239,7	1,48	3,73				cecomaf LBP						
-13	131	90	131																			
-35	40	20	40	227,6	777	195,8	1,33	4,55	1,15	170,9	1,29	2,60				EN12900 LBP						
-31	104	68	104																			
-7	54	35	46	708,0	2418	609,3	2,14	7,31	1,84	331,0	1,81	8,08				ASHRAE MBP						
20	130	95	115																			
-10	55	32	55	563,5	1925	485,0	1,78	6,07	1,53	317,1	1,76	7,13				cecomaf MBP						
14	131	90	131																			
-10	45	20	45	620,0	2117	533,5	2,17	7,41	1,87	285,9	1,64	7,61				EN12900 MBP						
14	113	68	113																			

Performance tables

R290, 220V/50Hz, RSCR, fan 3m/s, UL

	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]	-35	-31	219,9	751	189,3	1,23	4,19	1,06	179,3	1,31	2,46
cond. pressure	-25	-13	348,7	1191	300,1	1,54	5,27	1,33	225,9	1,44	3,93
pc= 45/113	-15	5	531,4	1815	457,3	1,99	6,78	1,71	267,5	1,57	6,05
return gas temp.	-10	14	645,4	2204	555,5	2,26	7,71	1,94	285,9	1,64	7,38
RGT= 32/90	-5	23	775,9	2650	667,7	2,57	8,76	2,21	302,4	1,70	8,93
liquid temp	0	32	923,8	3155	795,0	2,92	9,96	2,51	316,7	1,76	10,71
Tliq= 45/113	7,2	45	1169,3	3993	1006,3	3,51	11,99	3,02	333,1	1,82	13,74
[°C / °F]	-35	-31	182,2	622	156,8	0,97	3,33	0,84	186,9	1,32	2,25
cond. pressure	-25	-13	299,8	1024	258,0	1,25	4,27	1,08	239,7	1,48	3,73
pc= 55/131	-15	5	462,6	1580	398,1	1,59	5,41	1,36	291,8	1,66	5,82
return gas temp	-10	14	563,5	1925	485,0	1,78	6,07	1,53	317,1	1,76	7,13
RGT= 32/90	-5	23	678,7	2318	584,1	1,99	6,79	1,71	341,6	1,85	8,65
liquid temp	0	32	809,1	2763	696,3	2,22	7,57	1,91	365,0	1,94	10,39
Tliq= 55/131	7,2	45	1025,7	3503	882,8	2,59	8,84	2,23	396,4	2,07	13,36

Model

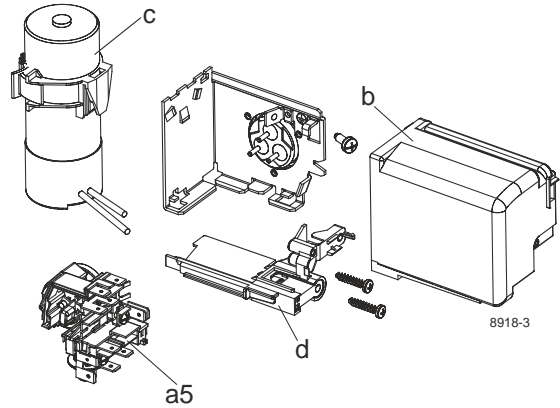
Designation	KLF7.7CNT	208-230V/60Hz	Conf. 3	Sales code:	106H2808
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Configuration

Motorconfiguration	CSIR
Power supply (nominal)	208-230V/60Hz 1~
Refrigerant	R290
Application	LBP+MBP
Voltage range	198-253V
Starting torque	HST
Approvals	UL

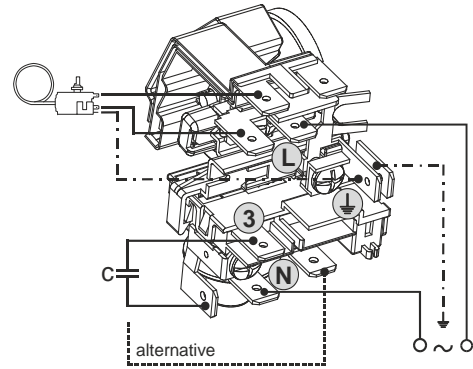
Electrical accessories / wiring diagram

CSIR

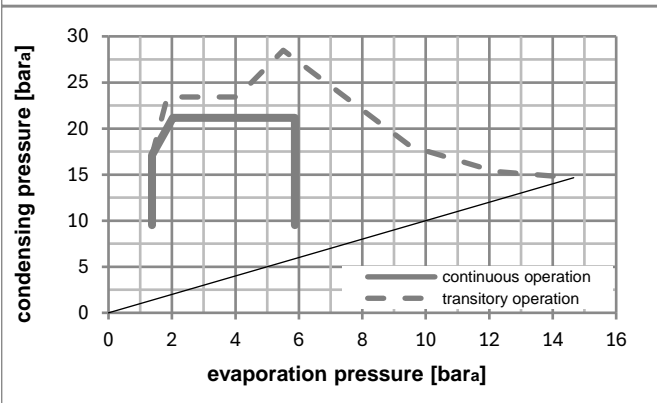
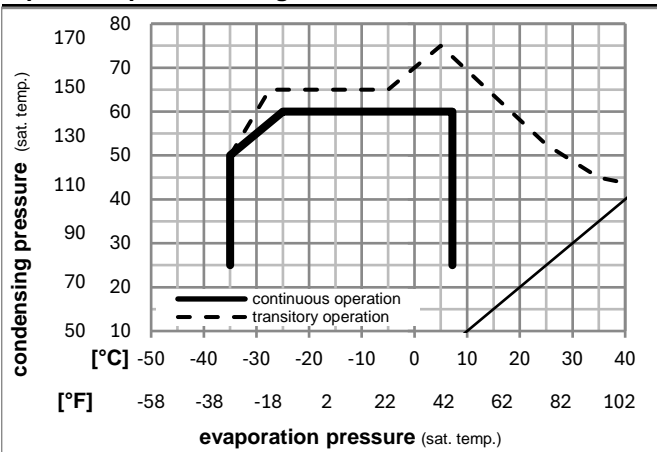


Ambient/ machine room temperatures minimum /maximum

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 (T0916/L6-S8)	117U7079
c	start capacitor (80µF, 6.3mm)	117U5003
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

Model

Designation **KLF7.7CNT** **208-230V/60Hz** Conf. 3 Sales code: **106H2808**

Optimization + standard conditions

R290, 230V/60Hz, CSIR, fan 3m/s, UL

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			COP	EER	Power consumption			ASHRAE LBP	
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]			P1	I	Ref. mass flow		
	[°C]	[°F]	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
	-23	54	32	32	484,2	1654	416,7	1,62	5,54	1,40	298,3	1,78	4,90	ASHRAE LBP
	-10	130	90	90										
	-25	55	32	55	364,6	1245	313,8	1,27	4,32	1,09	287,9	1,74	4,54	cecomaf LBP
	-13	131	90	131										
	-35	40	20	40	269,9	922	232,2	1,26	4,30	1,08	214,5	1,51	3,08	EN12900 LBP
	-31	104	68	104										
	-7	54	35	46	835,2	2852	718,7	2,07	7,07	1,78	403,6	2,17	9,53	ASHRAE MBP
	20	130	95	115										
	-10	55	32	55	666,9	2277	573,9	1,73	5,90	1,49	385,8	2,10	8,44	cecomaf MBP
	14	131	90	131										
	-10	45	20	45	732,8	2503	630,7	2,09	7,15	1,80	350,1	1,96	9,00	EN12900 MBP
	14	113	68	113										

Performance tables

R290, 230V/60Hz, CSIR, fan 3m/s, UL

	pe		Cooling capacity			COP	EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]		[Btu/Wh]	[kcal/Wh]			
[°C / °F]	-35	-31	260,8	891	224,5	1,19	4,07	1,03	218,8	1,52	2,92
cond. pressure	-25	-13	420,6	1436	361,9	1,53	5,22	1,32	275,2	1,70	4,74
pc= 45/113	-15	5	632,3	2159	544,2	1,93	6,61	1,67	326,8	1,88	7,19
return gas temp.	-10	14	762,9	2605	656,6	2,18	7,44	1,88	350,1	1,96	8,73
RGT= 32/90	-5	23	912,8	3117	785,6	2,46	8,40	2,12	371,3	2,05	10,51
liquid temp	0	32	1084,1	3702	933,0	2,78	9,49	2,39	390,1	2,12	12,57
Tliq= 45/113	7,2	45	1372,5	4687	1181,2	3,33	11,36	2,86	412,6	2,21	16,13
[°C / °F]	-35	-31	222,4	759	191,4	1,01	3,46	0,87	219,4	1,52	2,75
cond. pressure	-25	-13	364,6	1245	313,8	1,27	4,32	1,09	287,9	1,74	4,54
pc= 55/131	-15	5	551,4	1883	474,6	1,56	5,32	1,34	354,2	1,98	6,93
return gas temp	-10	14	666,9	2277	573,9	1,73	5,90	1,49	385,8	2,10	8,44
RGT= 32/90	-5	23	799,7	2731	688,2	1,92	6,57	1,65	416,0	2,22	10,19
liquid temp	0	32	952,1	3252	819,4	2,14	7,32	1,84	444,5	2,34	12,23
Tliq= 55/131	7,2	45	1210,1	4133	1041,5	2,51	8,57	2,16	482,1	2,49	15,77

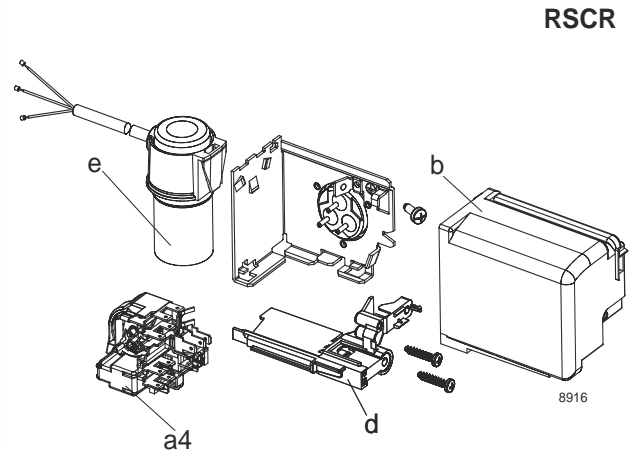
Model

Designation	KLF7.7CNT	208-230V/60Hz	Conf. 4	Sales code:	106H2808
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Configuration

Motorconfiguration	RSCR
Power supply (nominal)	208-230V/60Hz 1~
Refrigerant	R290
Application	LBP+MBP
Voltage range	198-253V
Starting torque	LST
Approvals	UL

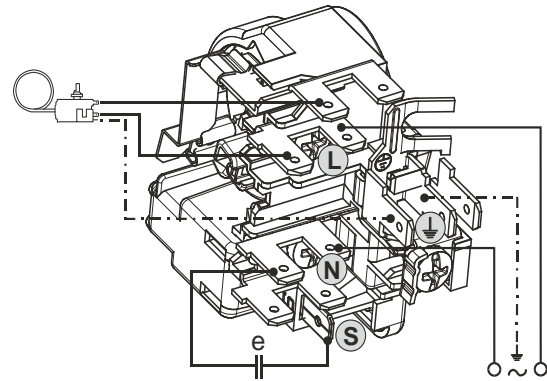
Electrical accessories / wiring diagram



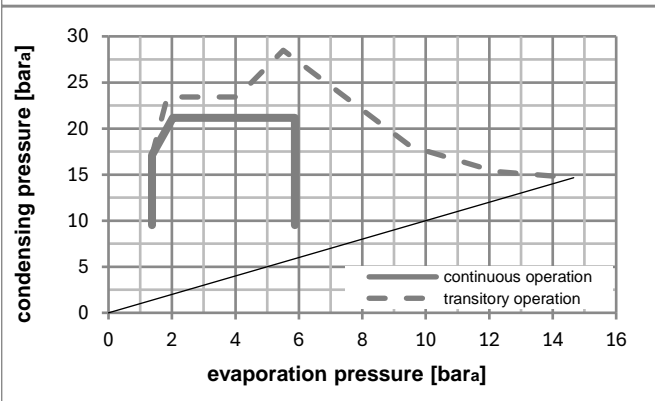
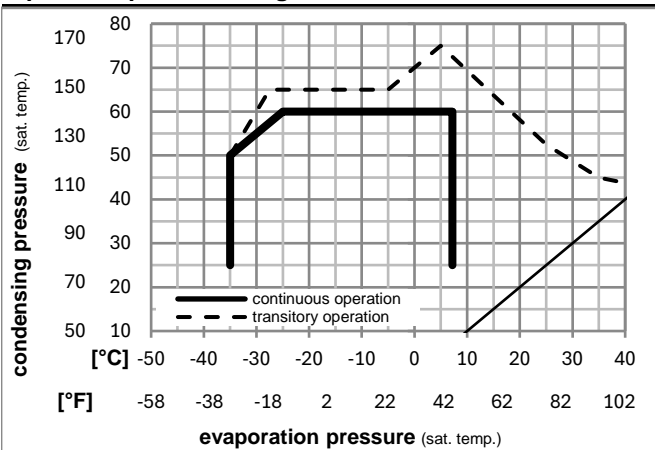
RSCR

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-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

Model

Designation **KLF7.7CNT** **208-230V/60Hz** Conf. 4 Sales code: **106H2808**

Optimization + standard conditions

R290, 230V/60Hz, RSCR, fan 3m/s, UL

		Evaporating pressure (saturation temperature)			Condensing pressure (saturation temperature)			Return gas temp.			Liquid temp.			Cooling capacity			COP	EER	Power consumption			Ref. mass flow m [kg/h]	ASHRAE LBP
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	Current consumption									
[°C]	[°F]											[W]	[A]	[W]	[A]								
-23	-10	54	130	32	90	489,7	1672	421,4	1,72	5,87	1,48	284,7	1,73	4,96									
-25	-13	55	131	32	90	368,7	1259	317,3	1,34	4,58	1,15	274,9	1,70	4,59							cecomaf LBP		
-35	-31	40	104	20	68	272,8	932	234,8	1,33	4,53	1,14	205,7	1,48	3,12							EN12900 LBP		
-7	20	54	130	35	95	845,4	2887	727,5	2,20	7,53	1,90	383,6	2,09	9,64							ASHRAE MBP		
-10	14	55	131	32	90	674,9	2305	580,8	1,84	6,28	1,58	366,9	2,03	8,54							cecomaf MBP		
-10	14	45	113	20	68	741,5	2532	638,1	2,22	7,59	1,91	333,4	1,90	9,10							EN12900 MBP		

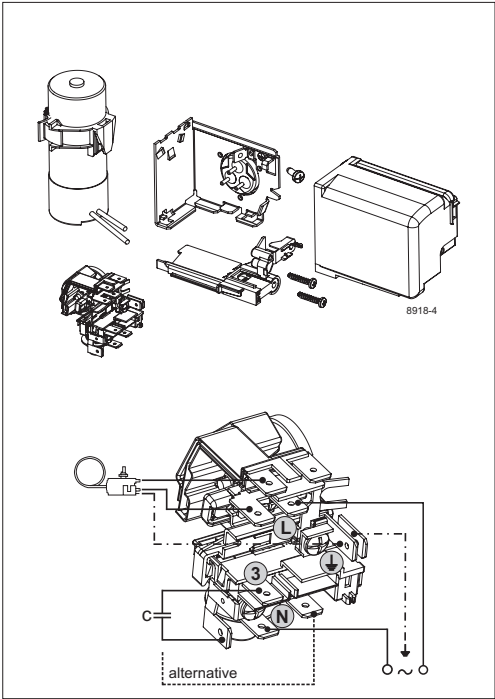
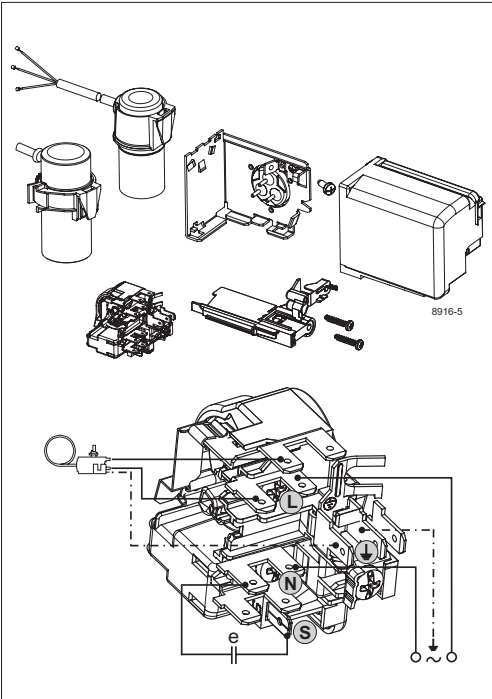
Performance tables

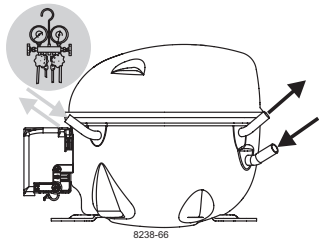
R290, 230V/60Hz, RSCR, fan 3m/s, UL

	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]	-35	-31	263,7	901	226,9	1,26	4,29	1,08	209,7	1,50	2,95
cond. pressure	-25	-13	425,2	1452	366,0	1,62	5,52	1,39	263,1	1,66	4,80
pc= 45/113	-15	5	639,6	2184	550,5	2,05	7,01	1,77	311,6	1,82	7,28
return gas temp.	-10	14	771,9	2636	664,3	2,32	7,91	1,99	333,4	1,90	8,83
RGT= 32/90	-5	23	923,7	3155	795,0	2,61	8,93	2,25	353,3	1,98	10,64
liquid temp	0	32	1097,2	3747	944,3	2,96	10,10	2,55	370,9	2,04	12,73
Tliq= 45/113	7,2	45	1389,4	4745	1195,7	3,54	12,10	3,05	392,0	2,13	16,32
[°C / °F]	-35	-31	224,9	768	193,5	1,07	3,65	0,92	210,2	1,49	2,78
cond. pressure	-25	-13	368,7	1259	317,3	1,34	4,58	1,15	274,9	1,70	4,59
pc= 55/131	-15	5	558,0	1906	480,2	1,65	5,65	1,42	337,2	1,92	7,02
return gas temp	-10	14	674,9	2305	580,8	1,84	6,28	1,58	366,9	2,03	8,54
RGT= 32/90	-5	23	809,6	2765	696,7	2,05	7,00	1,76	395,2	2,14	10,31
liquid temp	0	32	964,0	3292	829,6	2,28	7,80	1,97	422,0	2,25	12,38
Tliq= 55/131	7,2	45	1225,5	4185	1054,7	2,68	9,15	2,31	457,3	2,39	15,97



KL Compressors

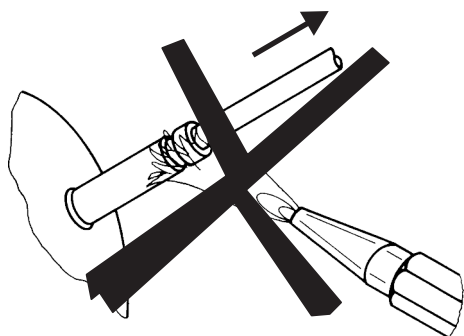




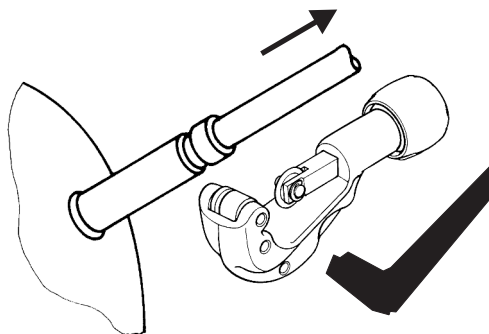
KL Compressors



Service/Repair – R290



8545



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