

Single Pack KLF4.8CNT 200-240V 50Hz / 208-230V 60Hz CSIR

Single pack code number: **195B4687**

Position	Title	Code	Amount
1	Compressor KLF4.8CNT	106H2502	1
2	KL accessories	103N1060	1
3	Starting capacitor (80 μ F 260V, 6.3mm)	117U5003	1
4	Starting relay (QLZ-4.4A, overload protector T0089/L6)	117U7070	1
5	Bolt joint for one compressor M6 \varnothing 16mm	118-1917	1

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Model

Designation	KLF4.8CNT	200-240V/50Hz 1~	208-230V/60Hz 1~	Sales code:	106H2502
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R290
Oil viscosity	19,2cSt	Displacement	4,8cm ³ / 0,29cu.in
Oil quantity	162cm ³ / 5,5fl.oz	Compressors on pallet	100
Refr. charge - tech. limit	200g / 7,1oz		
Free gas volume comp.	1615cm ³ / 54,6fl.oz		
Weight	9,2kg / 20,3lbs		
Motor protection	external		
Winding resistance main	10,7Ω (at 25°C)		
Winding resistance aux	17Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



General - Configurations with KLF4.8CNT

	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, CCC, CB	UL, CCC, CB	UL, CCC, CB, KC	UL, CCC, CB, KC
Starting torque	HST	LST	HST	LST
Note	- / -			

Applications with KLF4.8CNT

	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	- / -	- / -

Electrical data - Configurations with KLF4.8CNT

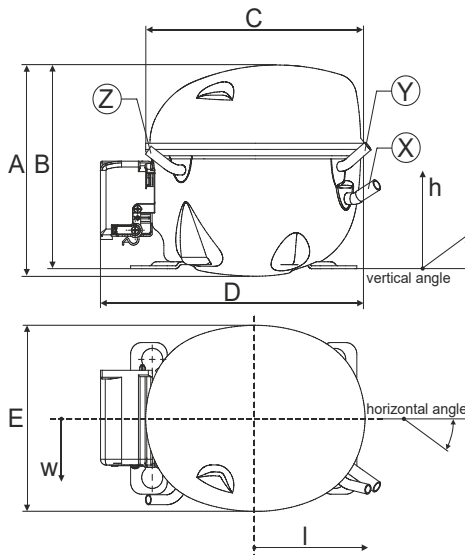
	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Starting device type	relay	PTC	relay	PTC
Run capacitor	- / -	5μF	- / -	5μF
Start capacitor	80μF	- / -	80μF	- / -
LRA (locked rotor amps / 4s/ U(N))	11,3A	11,3A	11,3A	11,3A
RLA (rated load amps / 1s/ U(N))	1,7A	1,7A	1,7A	1,7A
Cut in current (U(N))	10,7A	14,7A	10,7A	14,7A

Model

Designation	KLF4.8CNT	200-240V/50Hz 1~ 208-230V/60Hz 1~	Sales code:	106H2502
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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

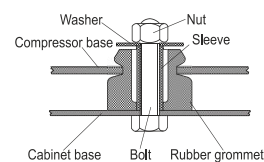


Connectors		Suction	Discharge	Process
		X	Y	Z
Diameter	[mm]	øi 8,11-8,29	øi 6,11-6,29	øi 6,11-6,29
(i:inside, o:outside)	[in]	øi 0,32-0,33	øi 0,24-0,25	øi 0,24-0,25
Material		copper	copper	copper
Horizontal angle	±2°	35°	13°	0°
Vertical angle	±2°	30°	40°	145°
Position l/h/w	[mm]	119/73/59	117/107/66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

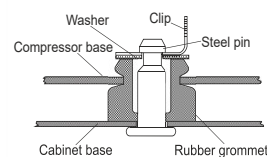
Compressor fixation



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	KLF4.8CNT	200-240V/50Hz	Conf. 1	Sales code:	106H2502
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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
	CCC
	CB

Electrical accessories / wiring diagram

CSIR

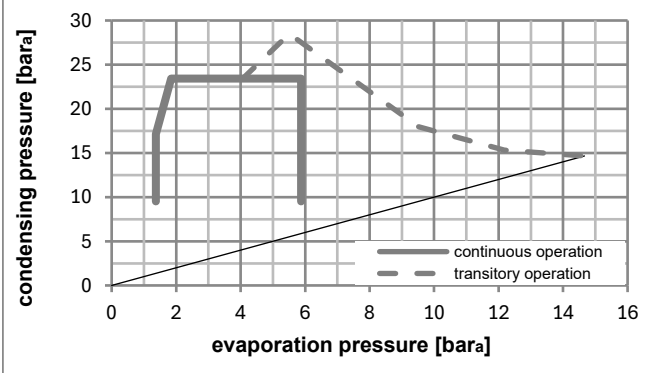
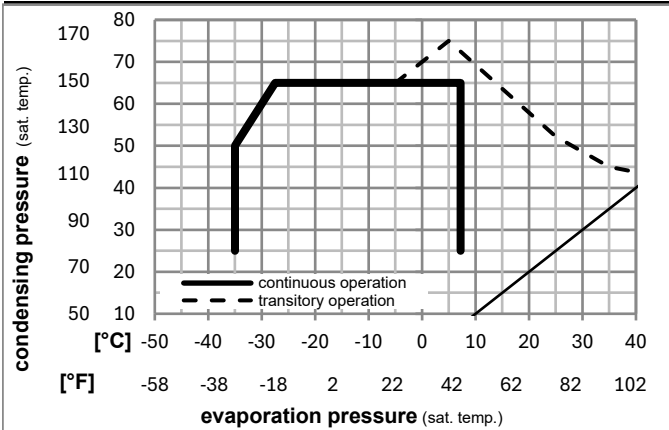


Ambient/ machine room temperatures minimum /maximum

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 (T0089/L6-S2)	117U7070
c	start capacitor (80µF, 6.3mm)	117U5003
b, d	cover + clamp + screws(5VA) in bag	103N1060

Alternative components

b, d	100x cover + clamp + screws(5VA)	103N2060
b, d	cover + clamp + screws(5VA-compl.)	103N0600

Model

Designation **KLF4.8CNT** **200-240V/50Hz** Conf. 1 Sales code: **106H2502**

Optimization + standard conditions

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

	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]	[°C]	[°C]	[°C]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]								
ASHRAE LBP	-23	54	32	32	228,7	781	196,8	1,48	5,05	1,27	154,6	1,38	2,32								
	[°F]	[°F]	[°F]	[°F]																	
cecomaf LBP	-25	55	32	55	170,2	581	146,5	1,13	3,87	0,97	150,3	1,37	2,12								
	[°F]	[°F]	[°F]	[°F]																	
EN12900 LBP	-35	40	20	40	131,9	450	113,5	1,08	3,69	0,93	122,1	1,33	1,51								
	[°F]	[°F]	[°F]	[°F]																	
ASHRAE MBP	-7	54	35	46	420,2	1435	361,7	2,07	7,07	1,78	202,9	1,49	4,79								
	[°F]	[°F]	[°F]	[°F]																	
cecomaf MBP	-10	55	32	55	332,3	1135	286,0	1,71	5,83	1,47	194,6	1,47	4,20								
	[°F]	[°F]	[°F]	[°F]																	
EN12900 MBP	-10	45	20	45	384,6	1314	331,0	2,14	7,29	1,84	180,1	1,43	4,72								
	[°F]	[°F]	[°F]	[°F]																	

Performance tables

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

	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	121,2	414	104,3	0,99	3,37	0,85	122,7	1,33	1,36
cond. pressure	-25	-13	211,4	722	181,9	1,45	4,95	1,25	145,9	1,36	2,38
pc= 45/113	-15	5	328,2	1121	282,5	1,94	6,63	1,67	169,0	1,41	3,73
return gas temp.	-10	14	400,4	1367	344,6	2,22	7,59	1,91	180,1	1,43	4,58
RGT= 32/90	-5	23	483,7	1652	416,3	2,54	8,67	2,19	190,5	1,45	5,57
liquid temp	0	32	579,7	1980	498,9	2,90	9,89	2,49	200,2	1,48	6,72
Tliq= 45/113	7,2	45	743,2	2538	639,6	3,50	11,96	3,01	212,3	1,51	8,73
[°C / °F]	-35	-31	90,2	308	77,6	0,74	2,53	0,64	121,6	1,32	1,12
cond. pressure	-25	-13	170,2	581	146,5	1,13	3,87	0,97	150,3	1,37	2,12
pc= 55/131	-15	5	270,6	924	232,9	1,50	5,14	1,29	179,9	1,43	3,40
return gas temp	-10	14	332,3	1135	286,0	1,71	5,83	1,47	194,6	1,47	4,20
RGT= 32/90	-5	23	403,5	1378	347,3	1,93	6,59	1,66	209,0	1,50	5,14
liquid temp	0	32	485,8	1659	418,1	2,18	7,45	1,88	222,8	1,54	6,24
Tliq= 55/131	7,2	45	626,9	2141	539,5	2,60	8,87	2,24	241,3	1,60	8,17

Model

Designation	KLF4.8CNT	200-240V/50Hz	Conf. 2	Sales code:	106H2502
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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
	CCC
	CB

Electrical accessories / wiring diagram

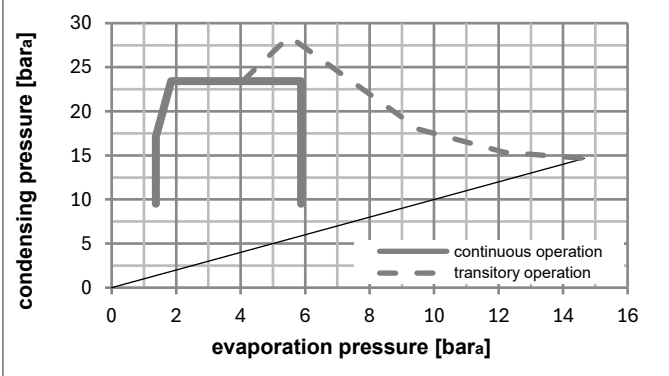
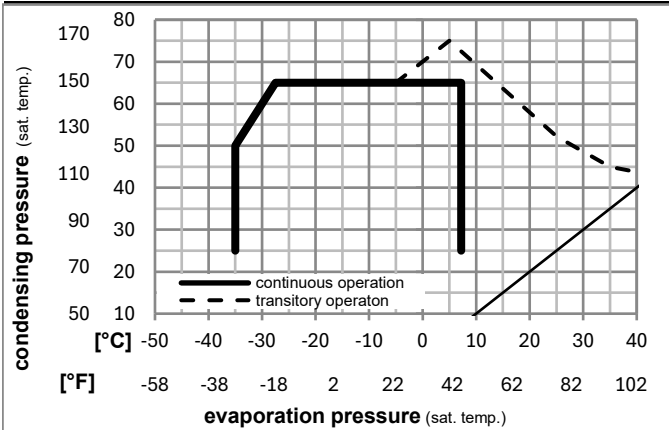


Ambient/ machine room temperatures minimum /maximum

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	DAS2 (PTC,6.3mm, T0089/L6 - S2)	103N0251
e	run capacitor (5μF, 6,3mm)	117-7155
b, d	cover + clamp + screws(5VA) in bag	103N1060

Alternative components

b, d	100x cover + clamp + screws(5VA)	103N2060
b, d	cover + clamp + screws(5VA-compl.)	103N0600

Model

Designation **KLF4.8CNT** **200-240V/50Hz** Conf. 2 Sales code: **106H2502**

Optimization + standard conditions

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

	Evaporating pressure (saturation temperature)				Cooling capacity			COP	EER	P1	Power consumption		ASHRAE LBP	
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]				I	m		
	[°C]	[°F]	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
	-23	54	32	32	232,8	795	200,4	1,54	5,26	1,32	151,2	1,11	2,36	ASHRAE LBP
	-10	130	90	90										
	-25	55	32	55	173,6	593	149,4	1,18	4,03	1,01	147,3	1,09	2,16	cecomaf LBP
	-13	131	90	131										
	-35	40	20	40	131,0	447	112,7	1,10	3,77	0,95	118,6	1,02	1,50	EN12900 LBP
	-31	104	68	104										
	-7	54	35	46	420,7	1437	362,1	2,17	7,42	1,87	193,7	1,22	4,80	ASHRAE MBP
	20	130	95	115										
	-10	55	32	55	334,0	1141	287,4	1,79	6,11	1,54	186,8	1,20	4,22	cecomaf MBP
	14	131	90	131										
	-10	45	20	45	381,6	1303	328,4	2,23	7,61	1,92	171,3	1,16	4,69	EN12900 MBP
	14	113	68	113										

Performance tables

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

	pe		Cooling capacity			COP	EER	P1	I	m	
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]						
[°C / °F]	-35	-31	121,0	413	104,1	1,01	3,46	0,87	119,5	1,02	1,36
cond. pressure	-25	-13	210,7	719	181,3	1,49	5,10	1,28	141,2	1,08	2,38
pc= 45/113	-15	5	326,0	1113	280,6	2,02	6,89	1,74	161,7	1,14	3,71
return gas temp.	-10	14	397,2	1357	341,9	2,32	7,92	2,00	171,3	1,16	4,54
RGT= 32/90	-5	23	479,6	1638	412,7	2,66	9,08	2,29	180,3	1,18	5,52
liquid temp	0	32	574,5	1962	494,4	3,05	10,40	2,62	188,6	1,20	6,66
Tliq= 45/113	7,2	45	736,6	2516	634,0	3,70	12,63	3,18	199,1	1,23	8,65
[°C / °F]	-35	-31	91,4	312	78,7	0,76	2,61	0,66	119,6	1,01	1,13
cond. pressure	-25	-13	173,6	593	149,4	1,18	4,03	1,01	147,3	1,09	2,16
pc= 55/131	-15	5	273,5	934	235,4	1,57	5,37	1,35	174,0	1,17	3,44
return gas temp	-10	14	334,0	1141	287,4	1,79	6,11	1,54	186,8	1,20	4,22
RGT= 32/90	-5	23	403,6	1378	347,3	2,03	6,93	1,75	199,0	1,23	5,14
liquid temp	0	32	483,8	1652	416,4	2,30	7,85	1,98	210,5	1,27	6,21
Tliq= 55/131	7,2	45	621,2	2122	534,6	2,75	9,40	2,37	225,8	1,32	8,09

Model

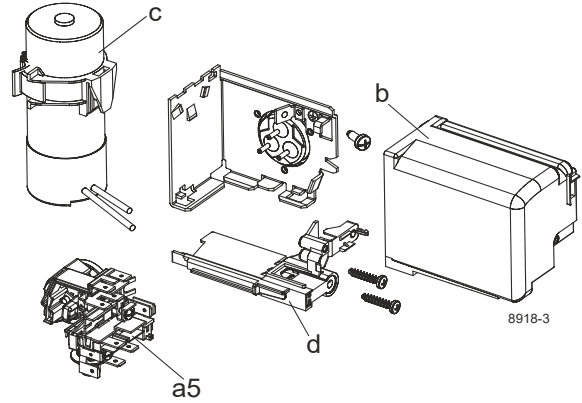
Designation	KLF4.8CNT	208-230V/60Hz	Conf. 3	Sales code:	106H2502
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Configuration

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

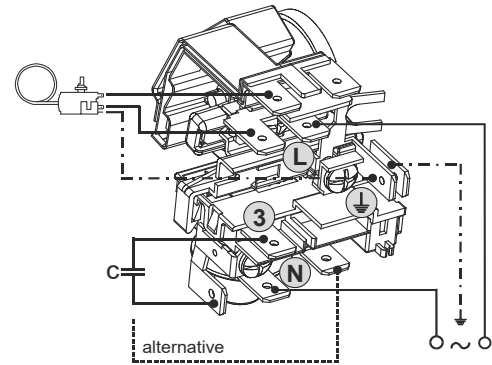
Electrical accessories / wiring diagram

CSIR

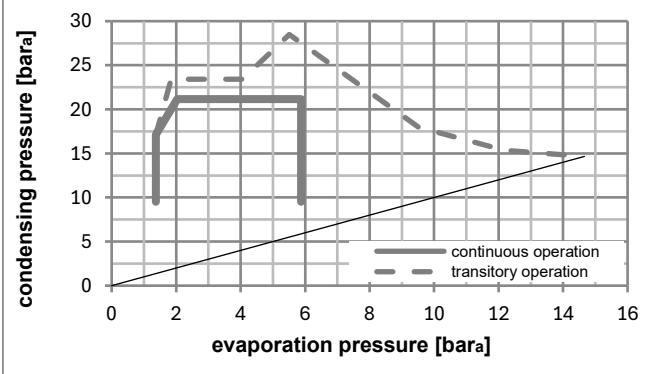
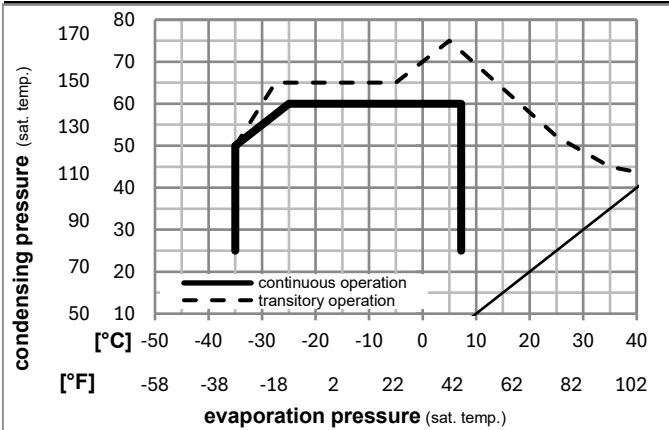


Ambient/ machine room temperatures minimum /maximum

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 (T0089/L6-S2)	117U7070
c	start capacitor (80μF, 6.3mm)	117U5003
b, d	cover + clamp + screws(5VA) in bag	103N1060

Alternative components

b, d	100x cover + clamp + screws(5VA)	103N2060
b, d	cover + clamp + screws(5VA-compl.)	103N0600

Model

Designation **KLF4.8CNT** **208-230V/60Hz** Conf. **3** Sales code: **106H2502**

Optimization + standard conditions

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

	Evaporating pressure (saturation temperature)				Cooling capacity	COP	EER	Power consumption			ASHRAE LBP			
	pe	pc	RGT	Tliq				P1	I	m				
	[°C]	[°F]	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
	-23	54	32	32	284,7	972	245,1	1,57	5,38	1,35	180,9	1,26	2,88	ASHRAE LBP
	-10	130	90	90										
	-25	55	32	55	213,0	727	183,3	1,23	4,19	1,05	173,8	1,24	2,65	cecomaf LBP
	-13	131	90	131										
	-35	40	20	40	160,5	548	138,2	1,19	4,07	1,03	134,7	1,14	1,83	EN12900 LBP
	-31	104	68	104										
	-7	54	35	46	520,0	1776	447,5	2,09	7,13	1,80	249,1	1,47	5,93	ASHRAE MBP
	20	130	95	115										
	-10	55	32	55	411,0	1404	353,7	1,73	5,92	1,49	237,1	1,43	5,20	cecomaf MBP
	14	131	90	131										
	-10	45	20	45	462,7	1580	398,2	2,09	7,12	1,79	221,9	1,38	5,68	EN12900 MBP
	14	113	68	113										

Performance tables

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

	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	152,8	522	131,5	1,13	3,85	0,97	135,7	1,15	1,71
cond. pressure	-25	-13	253,2	865	217,9	1,48	5,05	1,27	171,1	1,23	2,86
pc= 45/113	-15	5	394,3	1347	339,3	1,91	6,53	1,65	206,1	1,33	4,49
return gas temp.	-10	14	481,7	1645	414,6	2,17	7,41	1,87	221,9	1,38	5,51
RGT= 32/90	-5	23	581,2	1985	500,2	2,46	8,42	2,12	235,9	1,42	6,69
liquid temp	0	32	693,5	2369	596,9	2,80	9,57	2,41	247,4	1,46	8,04
Tliq= 45/113	7,2	45	879,0	3002	756,5	3,40	11,61	2,92	258,6	1,50	10,33
[°C / °F]	-35	-31	130,2	445	112,0	0,98	3,36	0,85	132,4	1,14	1,61
cond. pressure	-25	-13	213,0	727	183,3	1,23	4,19	1,05	173,8	1,24	2,65
pc= 55/131	-15	5	334,3	1142	287,7	1,54	5,27	1,33	216,6	1,36	4,20
return gas temp	-10	14	411,0	1404	353,7	1,73	5,92	1,49	237,1	1,43	5,20
RGT= 32/90	-5	23	499,3	1705	429,7	1,95	6,66	1,68	256,2	1,49	6,36
liquid temp	0	32	599,8	2048	516,2	2,19	7,49	1,89	273,3	1,55	7,70
Tliq= 55/131	7,2	45	767,2	2620	660,2	2,61	8,93	2,25	293,4	1,62	9,99

Model

Designation	KLF4.8CNT	208-230V/60Hz	Conf. 4	Sales code:	106H2502
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Configuration

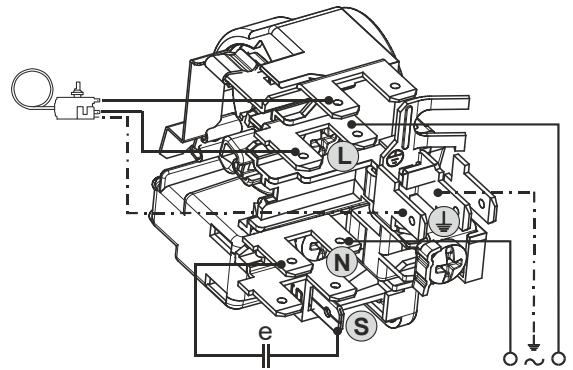
Motorconfiguration	RSCR
Power supply (nominal)	208-230V/60Hz 1~
Refrigerant	R290
Application	LBP+MBP
Voltage range	198-253V
Starting torque	LST
Approvals	UL
	CCC
	CB
	KC

Electrical accessories / wiring diagram

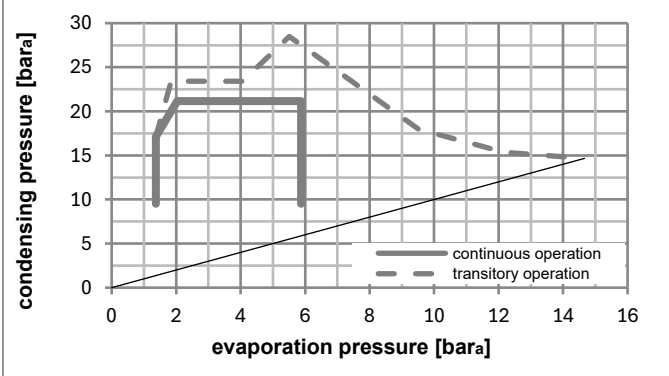
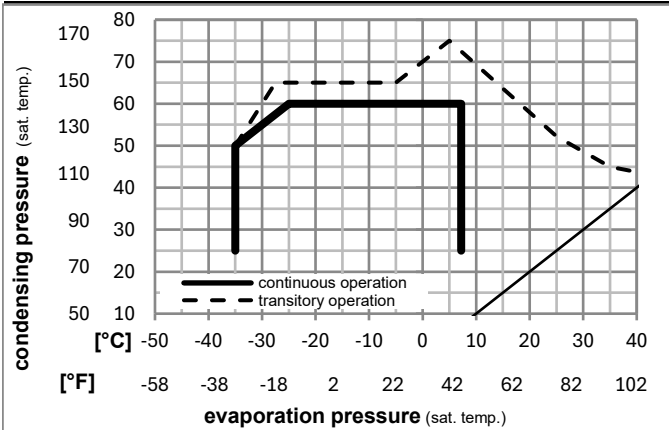


Ambient/ machine room temperatures minimum /maximum

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	DAS2 (PTC,6.3mm, T0089/L6 - S2)	103N0251
e	run capacitor (5µF, 6,3mm)	117-7155
b, d	cover + clamp + screws(5VA) in bag	103N1060

Alternative components

b, d	100x cover + clamp + screws(5VA)	103N2060
b, d	cover + clamp + screws(5VA-compl.)	103N0600

Model

Designation **KLF4.8CNT** **208-230V/60Hz** Conf. 4 Sales code: **106H2502**

Optimization + standard conditions

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

	Evaporating pressure (saturation temperature)				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	m	
[°C]	-23	54	32	32	279,2	954	240,3	1,64	5,61	1,41	169,9	0,91	2,83		
[°F]	-10	130	90	90											
															cecomaf LBP
[°C]	-25	55	32	55	209,7	716	180,4	1,28	4,36	1,10	164,1	0,88	2,61		
[°F]	-13	131	90	131											
															EN12900 LBP
[°C]	-35	40	20	40	167,5	572	144,1	1,24	4,23	1,07	135,3	0,78	1,91		
[°F]	-31	104	68	104											
															ASHRAE MBP
[°C]	-7	54	35	46	510,5	1743	439,3	2,21	7,54	1,90	231,1	1,16	5,82		
[°F]	20	130	95	115											
															cecomaf MBP
[°C]	-10	55	32	55	402,5	1375	346,4	1,83	6,25	1,57	220,0	1,12	5,09		
[°F]	14	131	90	131											
															EN12900 MBP

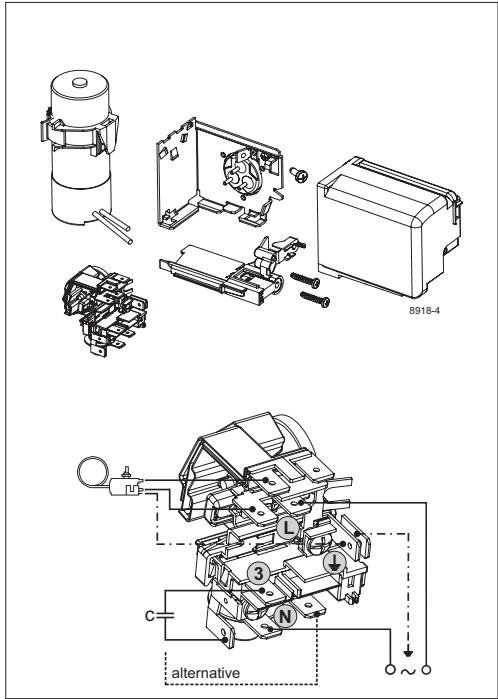
Performance tables

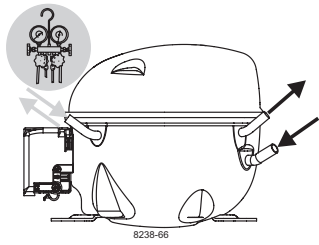
R290, 230V/60Hz, RSCR, fan 3m/s, UL, CCC, CB, KC

	pe		Cooling capacity			COP	EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]		[W/W]	[Btu/Wh]			
[°C / °F]	-35	-31	156,8	536	135,0	1,17	4,00	1,01	133,7	0,77	1,76
cond. pressure	-25	-13	257,1	878	221,3	1,54	5,25	1,32	167,4	0,90	2,90
pc= 45/113	-15	5	396,4	1354	341,1	1,99	6,81	1,72	198,7	1,03	4,51
return gas temp.	-10	14	483,4	1651	416,0	2,27	7,75	1,95	213,0	1,09	5,53
RGT= 32/90	-5	23	583,3	1992	502,0	2,58	8,81	2,22	226,0	1,14	6,72
liquid temp	0	32	697,2	2381	600,0	2,93	10,02	2,53	237,6	1,19	8,09
Tliq= 45/113	7,2	45	888,1	3033	764,3	3,53	12,07	3,04	251,4	1,25	10,43
[°C / °F]	-35	-31	131,3	448	113,0	1,03	3,51	0,88	127,8	0,75	1,62
cond. pressure	-25	-13	209,7	716	180,4	1,28	4,36	1,10	164,1	0,88	2,61
pc= 55/131	-15	5	326,8	1116	281,2	1,62	5,54	1,40	201,5	1,04	4,11
return gas temp	-10	14	402,5	1375	346,4	1,83	6,25	1,57	220,0	1,12	5,09
RGT= 32/90	-5	23	491,1	1677	422,6	2,06	7,04	1,77	238,2	1,19	6,26
liquid temp	0	32	593,6	2027	510,9	2,32	7,93	2,00	255,7	1,27	7,62
Tliq= 55/131	7,2	45	768,0	2623	660,9	2,75	9,38	2,36	279,6	1,37	10,00



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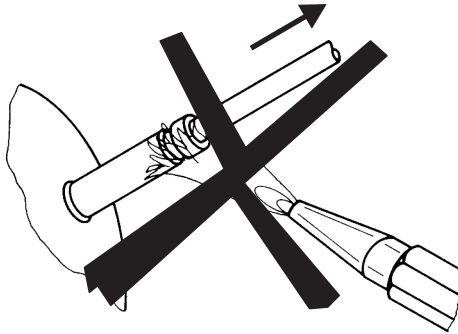




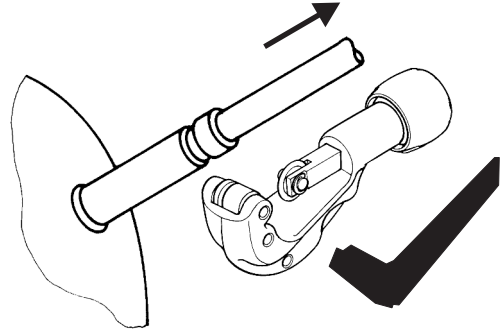
KL Compressors



Service/Repair – R290



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