

Model

Designation	FRK11G	220-240V/50Hz 1~	208-230V/60Hz 1~	Sales code:	106G5963
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R134a, R513A
Oil viscosity	19,2cSt	Displacement	8,6cm ³ / 0,52cu.in
Oil quantity	240cm ³ / 8,1fl.oz	Compressors on pallet	100
Refr. charge - tech. limit	700g / 24,7oz		
Free gas volume comp.	1495cm ³ / 50,6fl.oz		
Weight	9,7kg / 21,4lbs		
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		
Additional note	Very good robustness against liquid intake. Ice-cube maker optimization - indirect suction intake. Special design for high refrigerant charge		



General - Configurations with FRK11G

	Conf. 1	Conf. 2
Motor configuration	CSIR	CSIR
Power supply (nominal)	220-240V/50Hz	208-230V/60Hz
Number of phases	1	1
Voltage range	187-254V	198-253V
Approvals	VDE, CB, UL in progress	VDE, CB, UL in progress
Starting torque	HST	HST
Note	Electrical equipment is included and pre-assembled to compressor.	

Applications with FRK11G

	Conf. 1	Conf. 2
Refrigerant	R134a	R134a
Application	LBP+MBP+HBP	LBP+MBP
System cooling	fan 3m/s	fan 3m/s
Hot gas defrost	OK	OK
Long interval pull down	OK	OK

Electrical data - Configurations with FRK11G

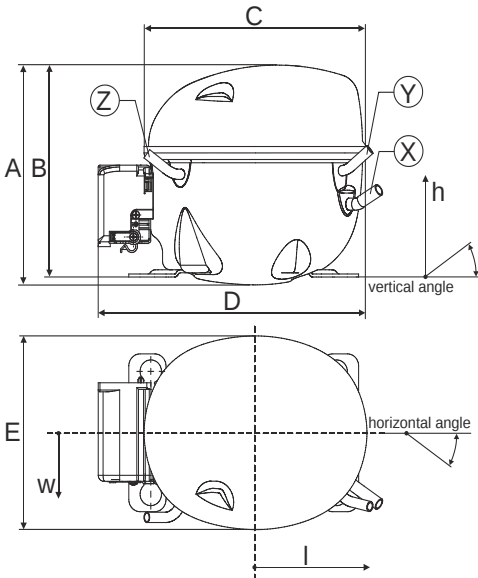
	Conf. 1	Conf. 2
Starting device type	relay	relay
Run capacitor	-/-	-/-
Start capacitor	80μF	80μF
LRA (locked rotor amps / 4s/ U(N))	13,5A	13,5A
RLA (rated load amps / 1s/ U(N))	2,1A	2,1A
Cut in current (U(N))	12,3A	12,3A

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Compressor dimensions

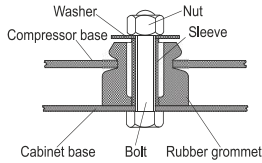
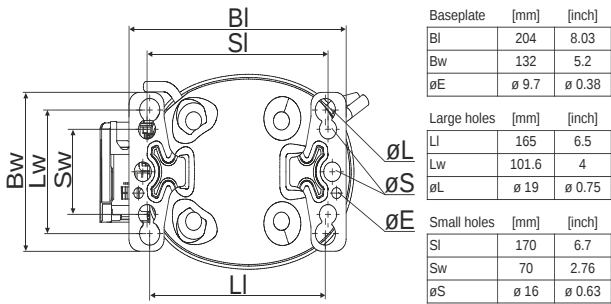
Housing	A Height	182mm / 7,17in		
	B Height	175mm / 6,89in		
	C Length shell	198mm / 7,8in		
	D Length w. cover	238mm / 9,37in		
	E Width	160mm / 6,3in		

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

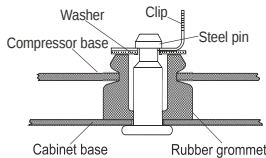


Compressor fixation

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

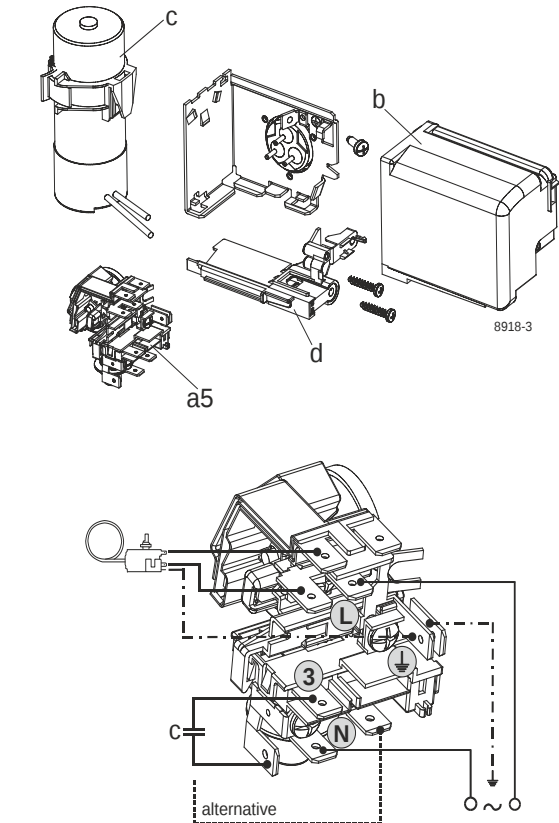
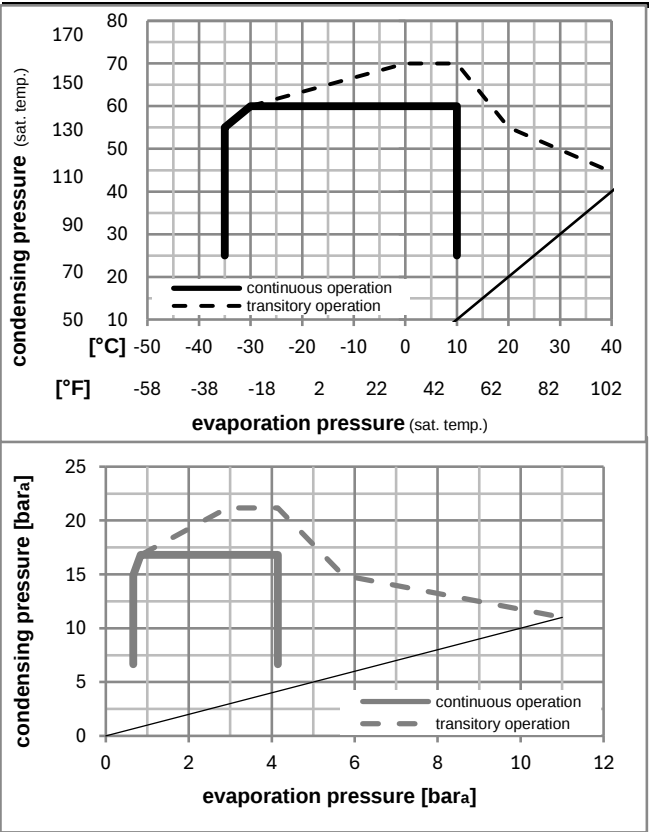
Suctiongas connector and Process connector can be switched (minor loss of cooling capacity)

Model				
Designation	FRK11G	220-240V/50Hz	Conf. 1	Sales code: 106G5963
Configuration		Electrical accessories / wiring diagram		
Motor configuration	CSIR	CSIR		
Power supply (nominal)	220-240V/50Hz 1~			
Refrigerant	R134a			
Application	LBP+MBP+HBP			
Voltage range	187-254V			
Starting torque	HST			
Approvals	VDE			
	CB			
	UL in progress			

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 (incl. and pre. assembl.)

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

Alternative comp.

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

Model					
Designation	FRK11G	220-240V/50Hz	Conf. 1	Sales code:	106G5963
Optimization + standard conditions			R134a, 220V/50Hz, CSIR, fan 3m/s, VDE, CB, UL in progress		

Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)						Power consumption			
					Return gas temp.						Current consumption			
					Liquid temp.						Ref. mass flow			
					Cooling capacity			COP	EER		P1	I	m	
pe	pc	RGT	Tliq		[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C]	-23	54	32	32	239,6	818	206,2	1,32	4,52	1,14	180,9	1,39	4,65	ASHRAE LBP
[°F]	-10	130	90	90										
[°C]	-7	54	35	46	495,5	1692	426,5	1,80	6,13	1,55	276,0	1,76	10,81	ASHRAE MBP
[°F]	20	130	95	115										
[°C]	7,2	54	35	46	866,5	2959	745,7	2,43	8,29	2,09	357,0	2,12	19,22	ASHRAE HBP
[°F]	45	130	95	115										
[°C]	-35	40	20	40	123,5	422	106,3	0,91	3,09	0,78	136,3	1,27	2,71	EN12900 LBP
[°F]	-31	104	68	104										
[°C]	-10	45	20	45	430,9	1472	370,8	1,79	6,10	1,54	241,4	1,62	10,09	EN12900 MBP
[°F]	14	113	68	113										
[°C]	5	50	20	50	741,9	2534	638,5	2,25	7,68	1,93	330,0	1,99	18,69	EN12900 HBP
[°F]	41	122	68	122										

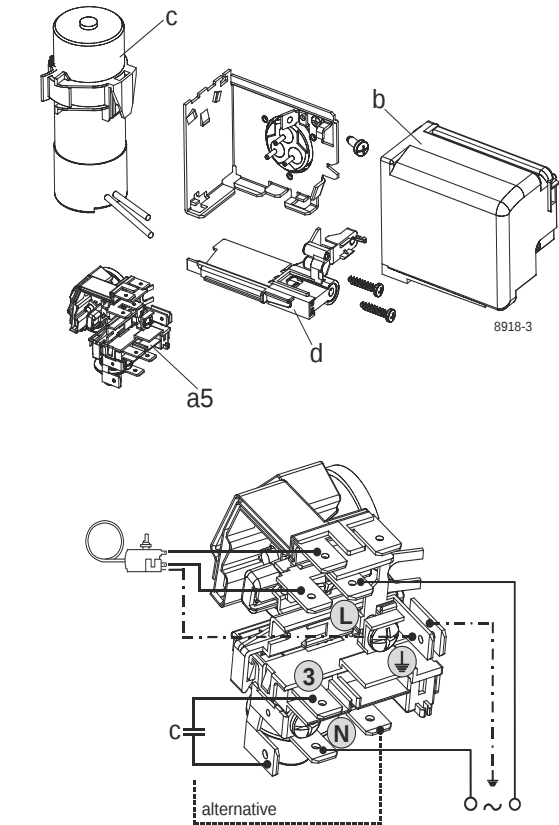
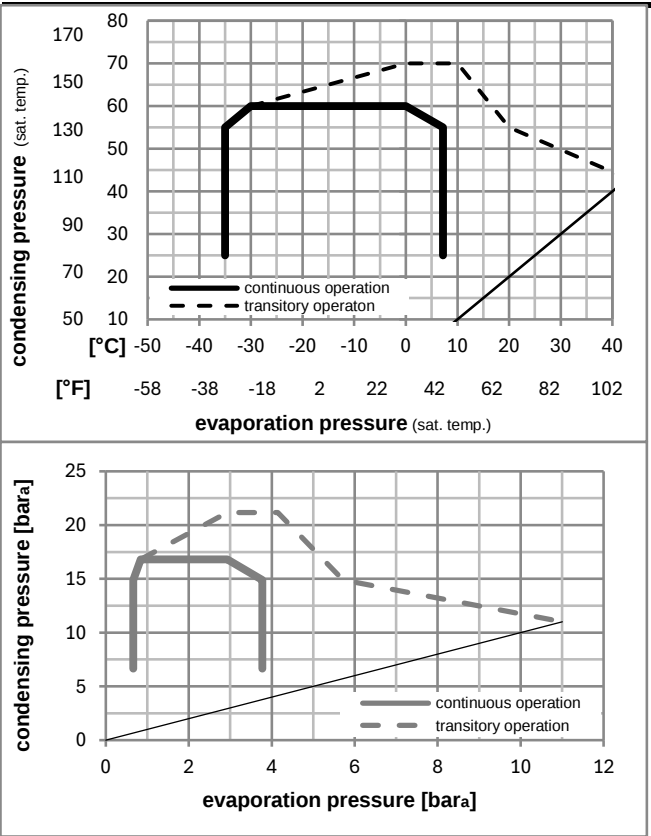
Performance tables						R134a, 220V/50Hz, CSIR, fan 3m/s, VDE, CB, UL in progress					
	pe		Cooling capacity			COP	EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-35	-31	117,5	401	101,1	0,87	2,97	0,75	135,3	1,26	2,54
cond. pressure	-25	-13	207,3	708	178,4	1,21	4,14	1,04	171,2	1,36	4,49
pc= 45/113	-15	5	352,0	1202	303,0	1,62	5,55	1,40	216,8	1,52	7,67
return gas temp.	-10	14	447,0	1527	384,7	1,85	6,32	1,59	241,4	1,62	9,78
RGT= 32/90	0	32	686,7	2345	591,0	2,37	8,08	2,04	290,3	1,82	15,19
liquid temp	5	41	833,0	2845	716,9	2,66	9,09	2,29	313,1	1,92	18,54
Tliq= 45/113	10	50	998,1	3409	858,9	2,99	10,21	2,57	333,8	2,01	22,40
[°C / °F]	-35	-31	95,3	326	82,0	0,73	2,51	0,63	129,8	1,25	2,27
cond. pressure	-25	-13	176,0	601	151,4	1,02	3,48	0,88	172,8	1,37	4,21
pc= 55/131	-15	5	302,4	1033	260,2	1,33	4,54	1,14	227,3	1,56	7,28
return gas temp	-10	14	384,8	1314	331,2	1,50	5,11	1,29	257,0	1,68	9,31
RGT= 32/90	0	32	592,6	2024	510,0	1,87	6,38	1,61	317,4	1,94	14,49
liquid temp	5	41	719,5	2457	619,2	2,08	7,09	1,79	346,6	2,07	17,73
Tliq= 55/131	10	50	863,0	2947	742,7	2,31	7,88	1,99	374,1	2,19	21,45

Model				
Designation	FRK11G	208-230V/60Hz	Conf. 2	Sales code: 106G5963
Configuration		Electrical accessories / wiring diagram		
Motor configuration	CSIR	CSIR		
Power supply (nominal)	208-230V/60Hz 1~			
Refrigerant	R134a			
Application	LBP+MBP			
Voltage range	198-253V			
Starting torque	HST			
Approvals	VDE			
	CB			
	UL in progress			

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 (incl. and pre. assembl.)

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

Alternative comp.

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

Model					
Designation	FRK11G	208-230V/60Hz	Conf. 2	Sales code:	106G5963
Optimization + standard conditions			R134a, 230V/60Hz, CSIR, fan 3m/s, VDE, CB, UL in progress		

	Evaporating pressure (saturation temperature)										Condensing pressure (saturation temperature)				Power consumption		
														Current consumption			
	Return gas temp.																
	Liquid temp.													Ref. mass flow			
	Cooling capacity										COP	EER		P1	I	m	
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]				
[°C]	-23	54	32	32	286,0	977	246,1	1,34	4,59	1,16	212,7	1,38	5,55	ASHRAE LBP			
[°F]	-10	130	90	90													
[°C]	-7	54	35	46	590,8	2018	508,5	1,79	6,10	1,54	331,0	1,80	12,89	ASHRAE MBP			
[°F]	20	130	95	115													
[°C]	7,2	54	35	46	1031,9	3524	888,0	2,34	7,98	2,01	441,4	2,25	22,89	ASHRAE HBP			
[°F]	45	130	95	115													
[°C]	-35	40	20	40	149,2	510	128,4	1,11	3,81	0,96	133,9	1,16	3,27	EN12900 LBP			
[°F]	-31	104	68	104													
[°C]	-10	45	20	45	514,0	1756	442,4	1,81	6,17	1,55	284,7	1,62	12,03	EN12900 MBP			
[°F]	14	113	68	113													
[°C]	5	50	20	50	884,1	3019	760,8	2,20	7,52	1,90	401,3	2,08	22,28	EN12900 HBP			
[°F]	41	122	68	122													

Performance tables						R134a, 230V/60Hz, CSIR, fan 3m/s, VDE, CB, UL in progress					
	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	141,0	482	121,3	1,05	3,58	0,90	134,6	1,16	3,04
cond. pressure	-25	-13	248,1	847	213,5	1,27	4,33	1,09	195,7	1,33	5,37
pc= 45/113	-15	5	420,2	1435	361,7	1,65	5,62	1,42	255,2	1,52	9,16
return gas temp.	-10	14	533,3	1821	459,0	1,87	6,40	1,61	284,7	1,62	11,67
RGT= 32/90	-5	23	665,8	2274	573,0	2,12	7,23	1,82	314,4	1,73	14,64
liquid temp	0	32	818,7	2796	704,6	2,38	8,12	2,05	344,4	1,85	18,11
Tliq= 45/113	7,2	45	1077,0	3678	926,9	2,77	9,47	2,39	388,5	2,03	24,06
[°C / °F]	-35	-31	112,6	385	96,9	0,83	2,82	0,71	136,2	1,16	2,68
cond. pressure	-25	-13	210,0	717	180,7	1,04	3,55	0,90	201,9	1,35	5,02
pc= 55/131	-15	5	360,9	1233	310,6	1,33	4,55	1,15	271,1	1,58	8,69
return gas temp	-10	14	459,1	1568	395,1	1,49	5,10	1,29	307,4	1,71	11,10
RGT= 32/90	-5	23	573,7	1959	493,8	1,66	5,68	1,43	345,1	1,85	13,95
liquid temp	0	32	706,0	2411	607,6	1,84	6,27	1,58	384,4	2,01	17,27
Tliq= 55/131	7,2	45	929,4	3174	799,9	2,09	7,15	1,80	444,2	2,26	22,99