

Model

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

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	VDE, CB, UL
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

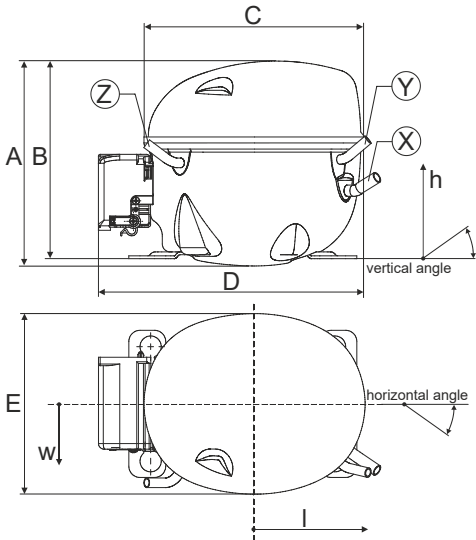
	Conf. 1	Conf. 2
Starting device type	relay	relay
Run capacitor	-/-	-/-
Start capacitor	80μF	80μF
LRA (locked rotor amps / 4s/ U(N))	13,4A	13,2A
RLA (rated load amps / 1s/ U(N))	1,8A	2A
Cut in current (U(N))	12,3A	12,3A

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

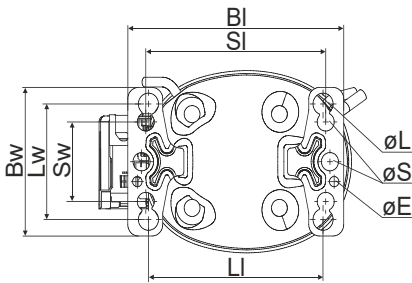
Compressor dimensions

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 X	Discharge Y	Process Z
Diameter	[mm]	øi 8,11-8,29	øi 6,11-6,29	øi 6,11-6,29
	[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

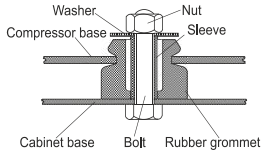


Compressor fixation

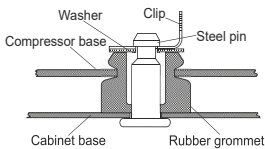


Baseplate	[mm]	[inch]
BI	204	8.03
Bw	132	5.2
øE	ø 9.7	ø 0.38
Large holes	[mm]	[inch]
LI	165	6.5
Lw	101.6	4
øL	ø 19	ø 0.75
Small holes	[mm]	[inch]
SI	170	6.7
Sw	70	2.76
øS	ø 16	ø 0.63

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

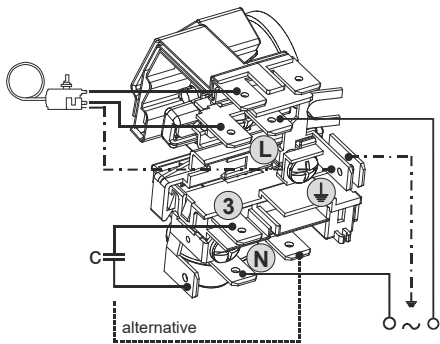
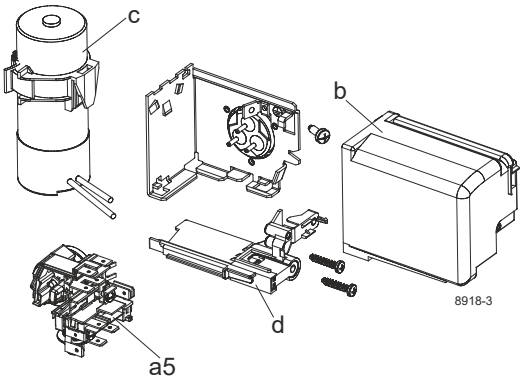
Provision for PE Grounding is located at the PE Stamp on the compressor

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

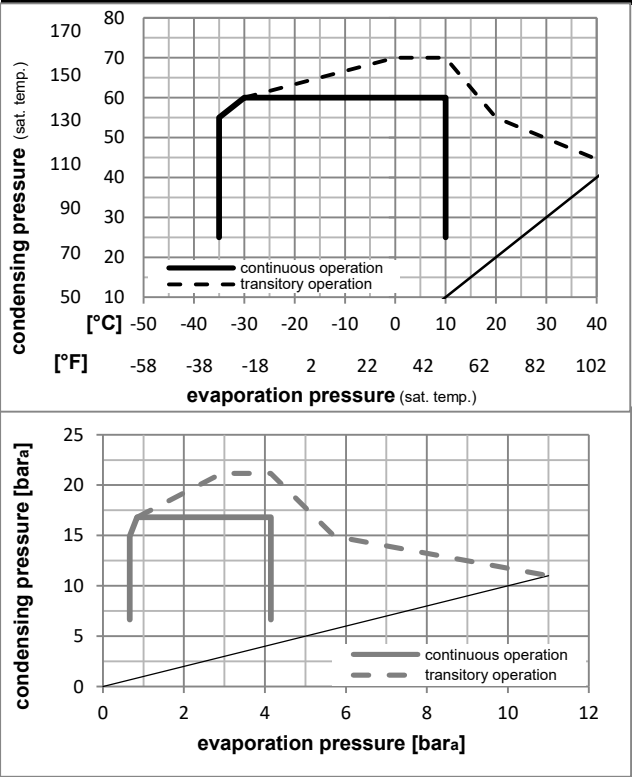
Model				
Designation	FRK11G	220-240V/50Hz	Conf. 1	Sales code: 106G5963
Configuration		Electrical accessories / wiring diagram		
Motor configuration	CSIR	CSIR		
Power supply (nominal)	220-240V/50Hz 1~			
Refrigerant	R134a			
Application	LBP+MBP+HBP			
Voltage range	187-254V			
Starting torque	HST			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

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

Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)						Power consumption																																																																								
Return gas temp.					Current consumption						Ref. mass flow																																																																								
Liquid temp.					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

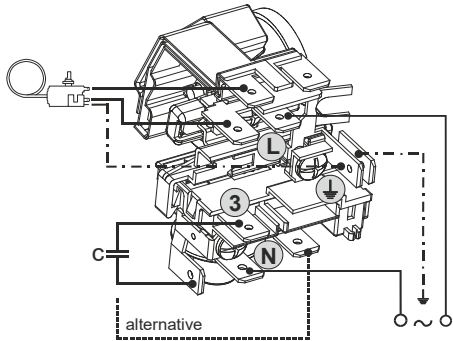
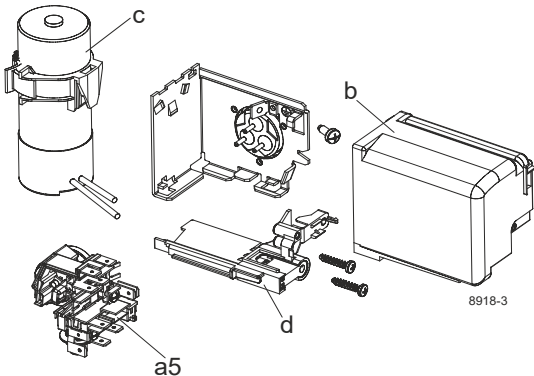
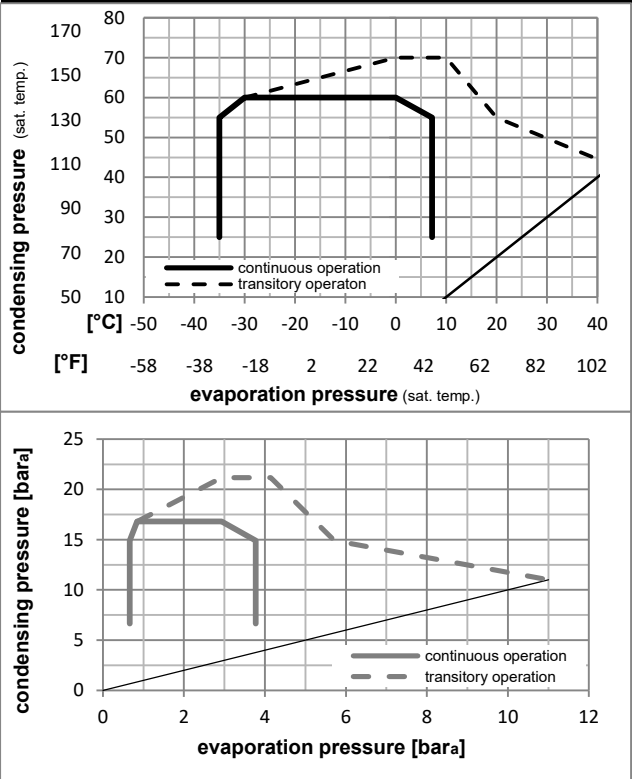
	pe		Cooling capacity			COP	EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-35	-31	117,5	401	101,1	0,87	2,97	0,75	135,3	1,26	2,54
cond. pressure	-25	-13	207,3	708	178,4	1,21	4,14	1,04	171,2	1,36	4,49
pc= 45/113	-15	5	352,0	1202	303,0	1,62	5,55	1,40	216,8	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			

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

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

Performance tables

R134a, 230V/60Hz, CSIR, fan 3m/s, VDE, CB, 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	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