

Model

Designation	FRK10G	220-240V/50Hz 1~ 208-230V/60Hz 1~	Sales code:	106G5863
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R134a, R513A
Oil viscosity	19,2cSt	Displacement	7,7cm ³ / 0,47cu.in
Oil quantity	240cm ³ / 8,1fl.oz	Compressors on pallet	100
Refr. charge - tech. limit	700g / 24,7oz		
Free gas volume comp.	1505cm ³ / 50,9fl.oz		
Weight	9,6kg / 21,2lbs		
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 FRK10G

	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 FRK10G

	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 FRK10G

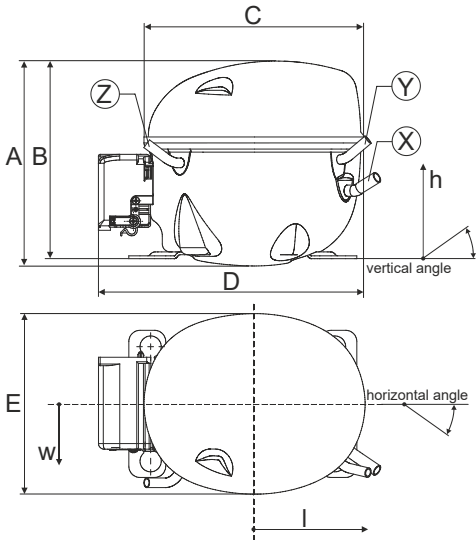
	Conf. 1	Conf. 2
Starting device type	relay	relay
Run capacitor	-/-	-/-
Start capacitor	80μF	80μF
LRA (locked rotor amps / 4s/ U(N))	13,4A	13,2A
RLA (rated load amps / 1s/ U(N))	1,8A	2A
Cut in current (U(N))	12,3A	12,3A

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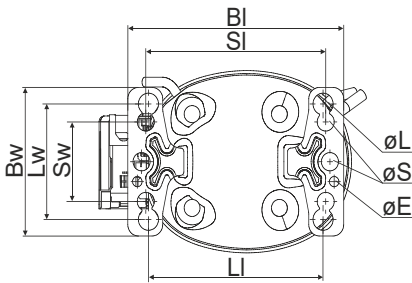
Compressor dimensions

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 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

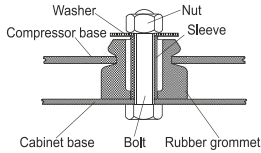


Compressor fixation

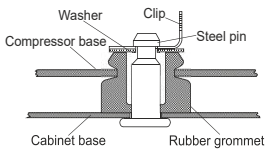


Baseplate	[mm]	[inch]
BI	204	8.03
BW	132	5.2
øE	ø 9.7	ø 0.38
Large holes		
LI	165	6.5
LW	101.6	4
øL	ø 19	ø 0.75
Small holes		
SI	170	6.7
SW	70	2.76
øS	ø 16	ø 0.63

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

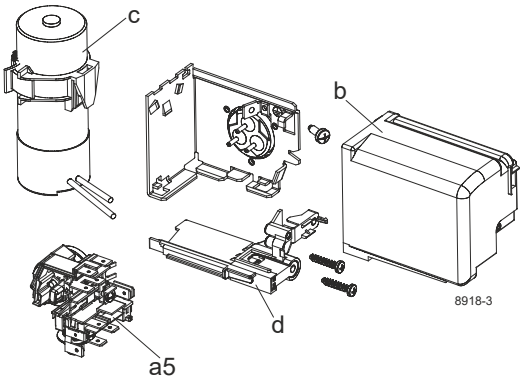
Application notes

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)

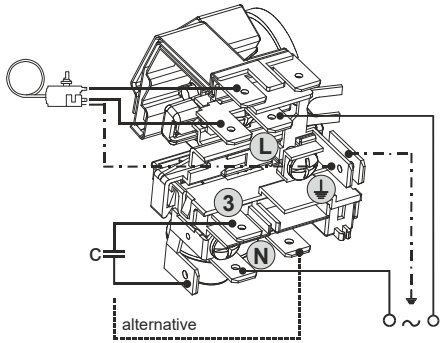
Model					
Designation	FRK10G	220-240V/50Hz	Conf. 1	Sales code:	106G5863

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				

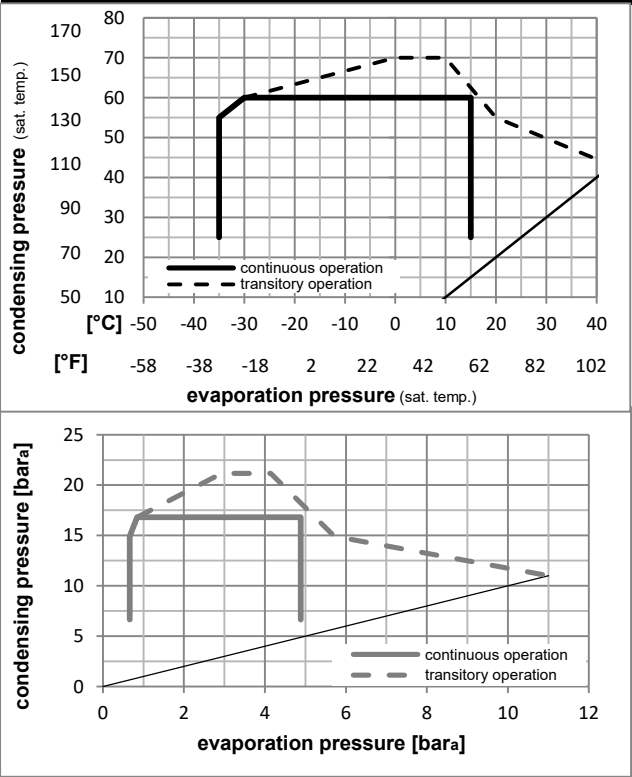


Ambient/ machine room temperatures minimum /maximum

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 **FRK10G** **220-240V/50Hz** Conf. 1 Sales code: **106G5863**

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.					Liquid temp.						Current consumption			
Cooling capacity					COP		EER		P1		I		Ref. mass flow	
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]		
[°C]	-23	54	32	32	213,7	730	183,9	1,30	4,43	1,12	164,6	1,34	4,15	ASHRAE LBP
[°F]	-10	130	90	90										
[°C]	-7	54	35	46	437,6	1494	376,6	1,82	6,22	1,57	240,2	1,61	9,55	ASHRAE MBP
[°F]	20	130	95	115										
[°C]	7,2	54	35	46	765,7	2615	659,0	2,42	8,27	2,08	316,2	1,93	16,99	ASHRAE HBP
[°F]	45	130	95	115										
[°C]	-35	40	20	40	110,9	379	95,4	0,96	3,27	0,82	115,8	1,21	2,43	EN12900 LBP
[°F]	-31	104	68	104										
[°C]	-10	45	20	45	381,4	1303	328,3	1,82	6,22	1,57	209,5	1,49	8,93	EN12900 MBP
[°F]	14	113	68	113										
[°C]	5	50	20	50	655,1	2237	563,8	2,27	7,76	1,96	288,3	1,81	16,51	EN12900 HBP
[°F]	41	122	68	122										

Performance tables

R134a, 220V/50Hz, CSIR, fan 3m/s, VDE, CB, UL

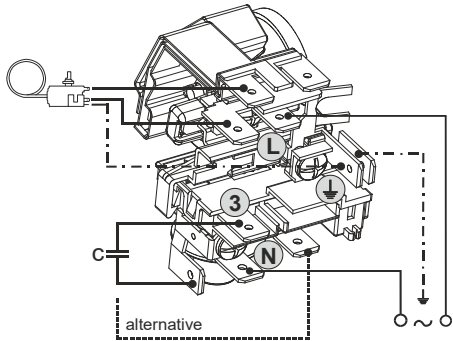
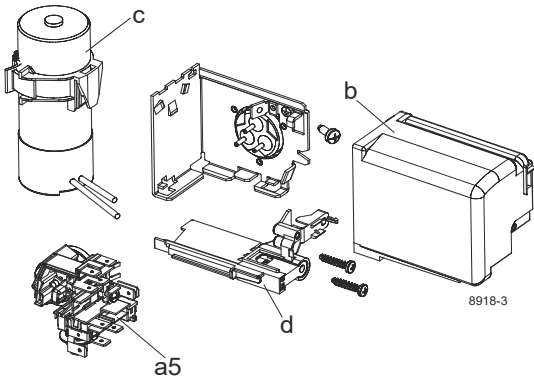
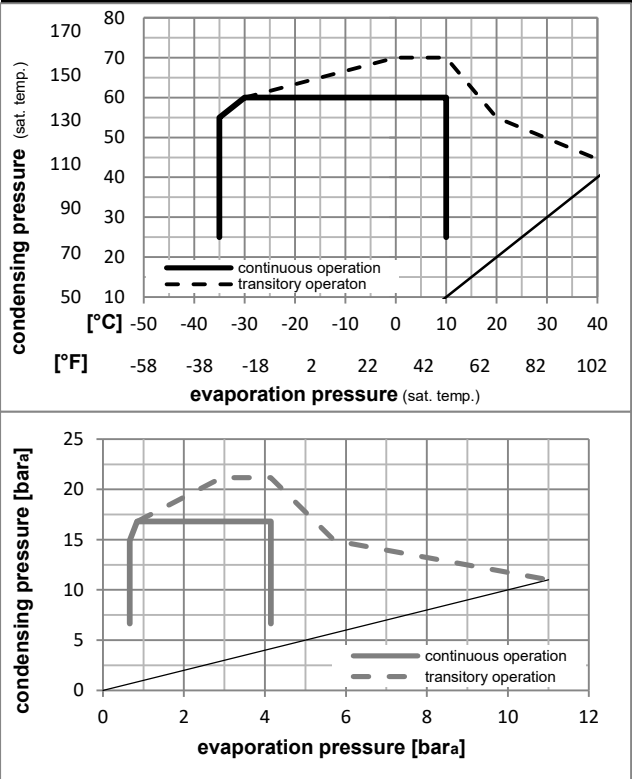
	pe		Cooling capacity			COP	EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-35	-31	105,4	360	90,7	0,89	3,05	0,77	117,9	1,22	2,27
cond. pressure	-25	-13	186,0	635	160,1	1,21	4,15	1,05	153,2	1,31	4,03
pc= 45/113	-15	5	312,7	1068	269,1	1,64	5,61	1,41	190,3	1,42	6,82
return gas temp.	-10	14	395,7	1351	340,6	1,89	6,45	1,63	209,5	1,49	8,66
RGT= 32/90	0	32	606,2	2070	521,7	2,43	8,29	2,09	249,6	1,65	13,41
liquid temp	5	41	735,6	2512	633,1	2,72	9,29	2,34	270,4	1,74	16,38
Tliq= 45/113	15	59	1047,8	3578	901,7	3,34	11,40	2,87	313,8	1,92	23,73
[°C / °F]	-35	-31	83,8	286	72,1	0,69	2,35	0,59	121,9	1,23	1,99
cond. pressure	-25	-13	157,0	536	135,1	0,99	3,39	0,85	158,3	1,32	3,75
pc= 55/131	-15	5	268,0	915	230,7	1,33	4,56	1,15	200,9	1,46	6,45
return gas temp	-10	14	340,2	1162	292,8	1,52	5,18	1,30	224,5	1,55	8,23
RGT= 32/90	0	32	522,9	1786	450,0	1,89	6,46	1,63	276,6	1,76	12,79
liquid temp	5	41	635,4	2170	546,9	2,08	7,11	1,79	305,0	1,88	15,66
Tliq= 55/131	15	59	907,7	3100	781,2	2,47	8,45	2,13	366,9	2,16	22,80

Model				
Designation	FRK10G	208-230V/60Hz	Conf. 2	Sales code: 106G5863
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 **FRK10G** **208-230V/60Hz** Conf. 2 Sales code: **106G5863**

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]										[W]	[A]	[kg/h]		
[°F]														
-23	54	32	32	253,7	867	218,4	1,38	4,71	1,19	183,8	1,29	4,93	ASHRAE LBP	
-10	130	90	90											
-7	54	35	46	517,7	1768	445,5	1,86	6,34	1,60	278,7	1,60	11,29	ASHRAE MBP	
20	130	95	115											
7,2	54	35	46	905,6	3093	779,4	2,48	8,46	2,13	365,7	1,93	20,09	ASHRAE HBP	
45	130	95	115											
-35	40	20	40	129,2	441	111,2	1,10	3,75	0,94	117,8	1,12	2,84	EN12900 LBP	
-31	104	68	104											
-10	45	20	45	450,3	1538	387,6	1,87	6,37	1,61	241,4	1,47	10,54	EN12900 MBP	
14	113	68	113											
5	50	20	50	774,2	2644	666,3	2,32	7,92	2,00	333,8	1,81	19,51	EN12900 HBP	
41	122	68	122											

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	122,6	419	105,5	1,06	3,62	0,91	115,8	1,12	2,65
cond. pressure	-25	-13	219,9	751	189,2	1,29	4,42	1,11	169,8	1,25	4,76
pc= 45/113	-15	5	369,4	1262	317,9	1,69	5,78	1,46	218,2	1,40	8,05
return gas temp.	-10	14	467,2	1596	402,1	1,94	6,61	1,67	241,4	1,47	10,23
RGT= 32/90	0	32	715,4	2443	615,7	2,48	8,48	2,14	288,1	1,64	15,82
liquid temp	5	41	868,5	2966	747,4	2,78	9,49	2,39	312,5	1,73	19,34
Tliq= 45/113	15	59	1239,4	4233	1066,7	3,39	11,58	2,92	365,5	1,93	28,07
[°C / °F]	-35	-31	97,9	334	84,2	0,85	2,89	0,73	115,6	1,12	2,33
cond. pressure	-25	-13	186,5	637	160,5	1,07	3,64	0,92	174,7	1,27	4,46
pc= 55/131	-15	5	317,7	1085	273,5	1,37	4,69	1,18	231,6	1,44	7,65
return gas temp	-10	14	402,8	1376	346,6	1,55	5,28	1,33	260,3	1,54	9,74
RGT= 32/90	0	32	618,2	2111	532,1	1,93	6,59	1,66	320,5	1,76	15,12
liquid temp	5	41	751,4	2566	646,6	2,13	7,27	1,83	352,9	1,88	18,52
Tliq= 55/131	15	59	1075,2	3672	925,3	2,53	8,65	2,18	424,4	2,17	27,01