

Model

Designation	FRK6G	220-240V/50Hz 1~ 208-230V/60Hz 1~	Sales code:	106G5553
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R134a, R513A
Oil viscosity	19,2cSt	Displacement	4,8cm ³ / 0,29cu.in
Oil quantity	240cm ³ / 8,1fl.oz	Compressors on pallet	100
Refr. charge - tech. limit	700g / 24,7oz		
Free gas volume comp.	1545cm ³ / 52,2fl.oz		
Weight	9,3kg / 20,5lbs		
Motor protection	external		
Winding resistance main	13,1Ω (at 25°C)		
Winding resistance aux	25,3Ω (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 FRK6G

	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	- / -	

Applications with FRK6G

	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 FRK6G

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

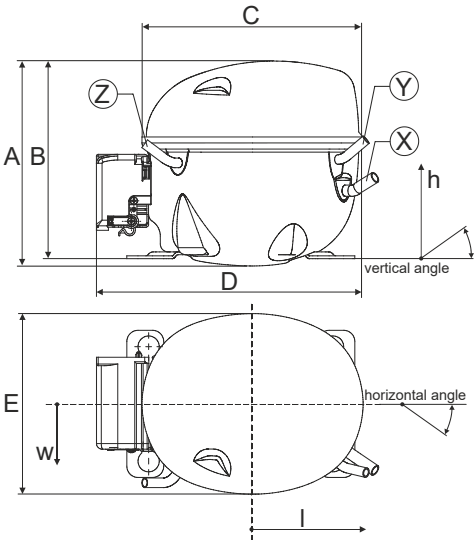
Model

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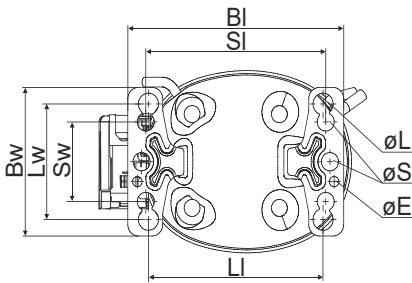
Compressor dimensions

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
(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

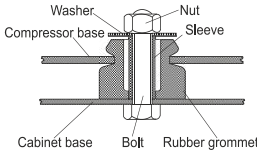


Compressor fixation

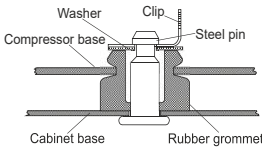


Baseplate	[mm]	[inch]
BI	204	8.03
BW	132	5.2
øE	ø 9.7	ø 0.38
Large holes		
LI	165	6.5
LW	101.6	4
øL	ø 19	ø 0.75
Small holes		
SI	170	6.7
SW	70	2.76
øS	ø 16	ø 0.63

Bolt joint



Snap-on



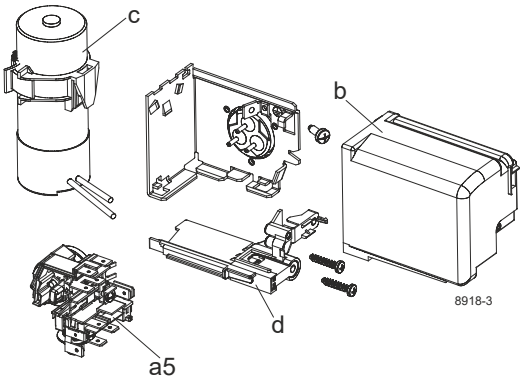
Mounting accessories	one comp.	multi pack
Bolt joint M6 ø16mm	118-1917	118-1918
Bolt joint ø1/4" ø16mm	118-1946	
Bolt joint ø1/4" ø19mm	118-1949	
Snap-on ø7,3 ø16mm	118-1947	118-1919

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)

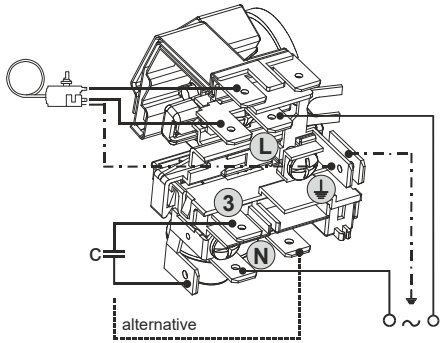
Model				
Designation	FRK6G	220-240V/50Hz	Conf. 1	Sales code: 106G5553

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			

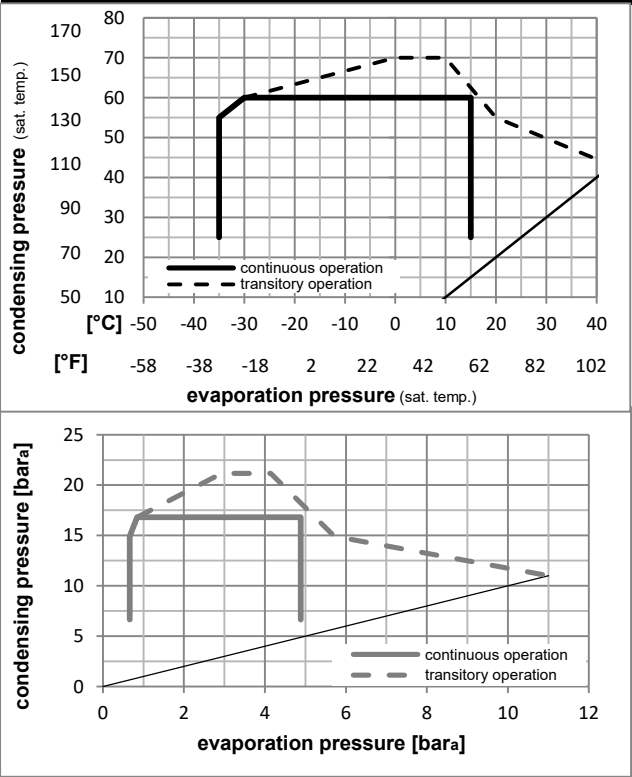


Ambient/ machine room temperatures minimum /maximum

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		
a5	current relay (T1189/L6-S3)	117U7073
c	start capacitor (80μF, 6.3mm)	117U5001
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 **FRK6G** **220-240V/50Hz** Conf. 1 Sales code: **106G5553**

Optimization + standard conditions

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

Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)						Power consumption																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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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	58,6	200	50,4	0,81	2,76	0,70	72,4	0,88	1,26
cond. pressure	-25	-13	108,4	370	93,3	1,14	3,89	0,98	95,2	0,93	2,35
pc= 45/113	-15	5	189,4	647	163,0	1,61	5,49	1,38	117,9	0,98	4,13
return gas temp.	-10	14	243,2	831	209,3	1,88	6,43	1,62	129,2	1,00	5,32
RGT= 32/90	0	32	380,6	1300	327,6	2,51	8,56	2,16	151,8	1,07	8,42
liquid temp	5	41	465,5	1590	400,7	2,85	9,75	2,46	163,1	1,10	10,36
Tliq= 45/113	15	59	671,0	2292	577,5	3,62	12,35	3,11	185,5	1,18	15,20
[°C / °F]	-35	-31	47,4	162	40,8	0,70	2,38	0,60	67,8	0,87	1,13
cond. pressure	-25	-13	91,9	314	79,1	0,94	3,21	0,81	97,7	0,93	2,20
pc= 55/131	-15	5	162,6	555	139,9	1,29	4,39	1,11	126,5	1,00	3,91
return gas temp	-10	14	209,3	715	180,2	1,49	5,09	1,28	140,4	1,03	5,06
RGT= 32/90	0	32	328,9	1123	283,1	1,97	6,71	1,69	167,4	1,11	8,05
liquid temp	5	41	403,0	1376	346,9	2,23	7,63	1,92	180,4	1,16	9,93
Tliq= 55/131	15	59	583,1	1991	501,8	2,84	9,69	2,44	205,5	1,26	14,65

Model

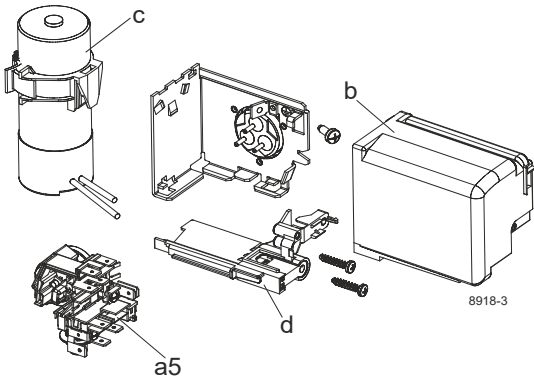
Designation	FRK6G	208-230V/60Hz	Conf. 2	Sales code:	106G5553
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Configuration

Motor configuration	CSIR
Power supply (nominal)	208-230V/60Hz 1~
Refrigerant	R134a
Application	LBP+MBP
Voltage range	198-253V
Starting torque	HST
Approvals	VDE
	CB
	UL

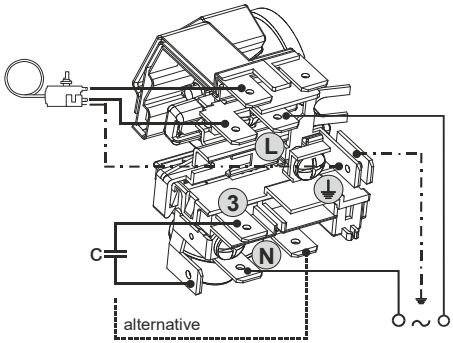
Electrical accessories / wiring diagram

CSIR

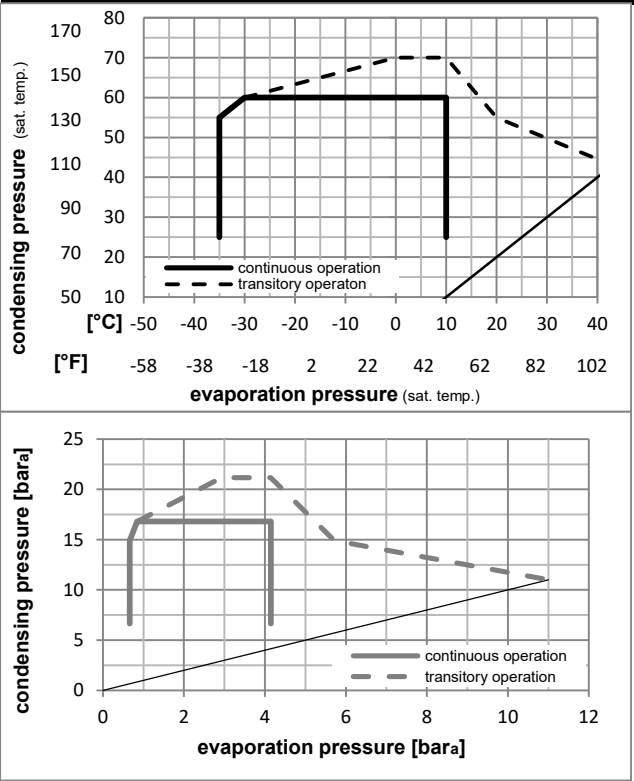


Ambient/ machine room temperatures minimum /maximum

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 (T1189/L6-S3)	117U7073
c	start capacitor (80µF, 6.3mm)	117U5001
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 **FRK6G** **208-230V/60Hz** Conf. 2 Sales code: **106G5553**

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	[W]	[A]	[kg/h]																								
[°C]	[°F]	-23	54	32	32	149,8	511	128,9	1,27	4,33	1,09	118,2	1,13	2,91	ASHRAE LBP																										
[°C]	[°F]	-10	130	90	90																																				
																		ASHRAE MBP																							
[°C]	[°F]	-7	54	35	46	320,6	1095	275,9	1,86	6,35	1,60	172,3	1,26	6,99	ASHRAE MBP																										
[°C]	[°F]	20	130	95	115																																				
																		ASHRAE HBP																							
[°C]	[°F]	7,2	54	35	46	569,7	1946	490,3	2,63	8,97	2,26	216,9	1,39	12,64	ASHRAE HBP																										
[°C]	[°F]	45	130	95	115																																				
																		EN12900 LBP																							
[°C]	[°F]	-35	40	20	40	79,1	270	68,1	0,90	3,08	0,78	87,8	1,08	1,74	EN12900 LBP																										
[°C]	[°F]	-31	104	68	104																																				
																		EN12900 MBP																							
[°C]	[°F]	-10	45	20	45	273,4	934	235,3	1,82	6,21	1,57	150,3	1,20	6,40	EN12900 MBP																										
[°C]	[°F]	14	113	68	113																																				
																		EN12900 HBP																							
[°C]	[°F]	5	50	20	50	485,8	1659	418,1	2,37	8,11	2,04	204,5	1,35	12,24	EN12900 HBP																										
[°C]	[°F]	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]	[W]	[A]	[kg/h]	[W]	[A]	[kg/h]	[W]	[A]	[kg/h]
[°C / °F]	-35	-31	73,8	252	63,5	0,86	2,92	0,74	86,1	1,08	1,59									
cond. pressure	-25	-13	127,3	435	109,5	1,18	4,03	1,01	107,9	1,11	2,76									
pc= 45/113	-15	5	220,7	754	189,9	1,63	5,57	1,40	135,3	1,17	4,81									
return gas temp.	-10	14	283,6	969	244,1	1,89	6,44	1,62	150,3	1,20	6,21									
RGT= 32/90	0	32	444,4	1518	382,4	2,45	8,38	2,11	181,2	1,28	9,83									
liquid temp	5	41	543,2	1855	467,5	2,77	9,44	2,38	196,4	1,33	12,09									
Tliq= 45/113	15	59	780,2	2664	671,4	3,47	11,85	2,99	224,9	1,42	17,67									
[°C / °F]	-35	-31	59,2	202	50,9	0,69	2,34	0,59	86,3	1,08	1,41									
cond. pressure	-25	-13	109,8	375	94,5	0,97	3,30	0,83	113,6	1,12	2,62									
pc= 55/131	-15	5	192,8	658	165,9	1,33	4,53	1,14	145,2	1,19	4,64									
return gas temp	-10	14	247,7	846	213,2	1,53	5,23	1,32	161,8	1,23	5,99									
RGT= 32/90	0	32	386,9	1321	333,0	1,98	6,78	1,71	194,9	1,32	9,46									
liquid temp	5	41	472,2	1613	406,4	2,24	7,65	1,93	210,8	1,37	11,64									
Tliq= 55/131	15	59	676,5	2310	582,2	2,82	9,65	2,43	239,5	1,48	16,99									