Model
FRK6G

Sales code:
106G5553

Compressor Data

Refrigerant(s)	**R134a / R513A**
Refr. charge - tech. limit	**700g / 24.69oz**
Weight	**9.30 kg / 20.50lbs**
Displacement	**4.80 cm3 / 0.29cu.in**
Compressors on pallet	**100**

General – Configurations With FRK6G

–	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Motor configuration	CSIR	CSIR	CSIR	CSIR
Power supply (nominal)	220-240 V/50 Hz	208-230 V/60 Hz	220-240 V/50 Hz	208-230 V/60 Hz
Number of phases	1	1	1	1
Voltage range	187-254 V	198-253 V	187-254 V	198-253 V
Approvals	VDE, CB, UL	VDE, CB, UL	VDE, CB, UL	VDE, CB, UL
Starting torque	HST	HST	HST	HST
Refrigerant	R134a	R134a	R513A	R513A
Application	LBP+MBP+HBP	LBP+MBP	LBP+MBP+HBP	LBP+MBP
Hot gas defrost	OK	OK	OK	OK
Long interval pull down	OK	OK	OK	OK

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)
- Very good robustness against liquid intake.
- Ice-cube maker optimization - indirect suction intake.
- Special design for high refrigerant charge

Model
FRK6G

Sales code:
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Compressor Design

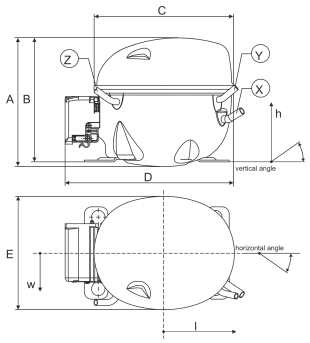
Oil type	**POE**	Winding resistance main	**13.1 Ohm**
Oil viscosity	**19,2cSt**	Winding resistance aux	**25.3 Ohm**
Oil quantity	**240 cm3 / 8.12fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**1,545 cm3 / 52.24fl.oz**	Max. discharge temp.	**130°C / 266°F**
Motor protection	**external**		

Compressor Dimensions

Housing

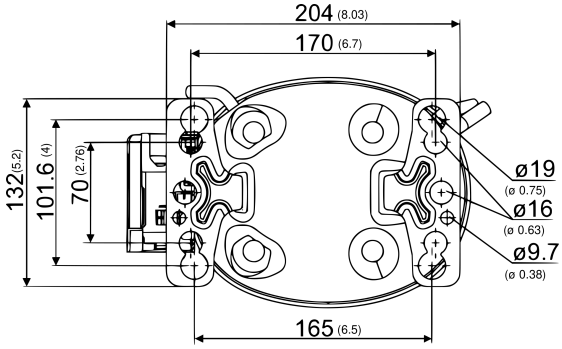
A Height	**182mm / 7.17in**
B Height	**175mm / 6.89in**
C Length shell	**198mm / 7.80in**
D Length w. cover	**238mm / 9.37in**
E Width	**160mm / 6.30in**

Find 3D Model here



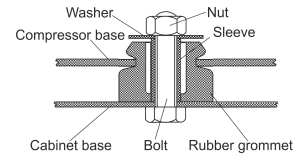
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	35°	13°	0°
Vertical angle ±2°	30°	40°	145°
Position l/h/w [mm]	119/73/59 / 4.69/2.87/2.32in	117/107/66 / 4.61/4.21/2.60in	-88/101/71 / -3.46/3.98/2.80in
Straight tube l. [mm]	13.5 / 0.53in	13.5 / 0.53in	13.5 / 0.53in

Mounting Accessories

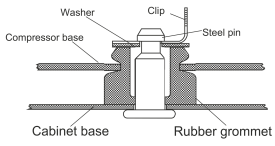


Dimensions in mm [in]

Bolt joint



Snap-on



	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

Model
FRK6G Configuration 1

Sales code:
106G5553

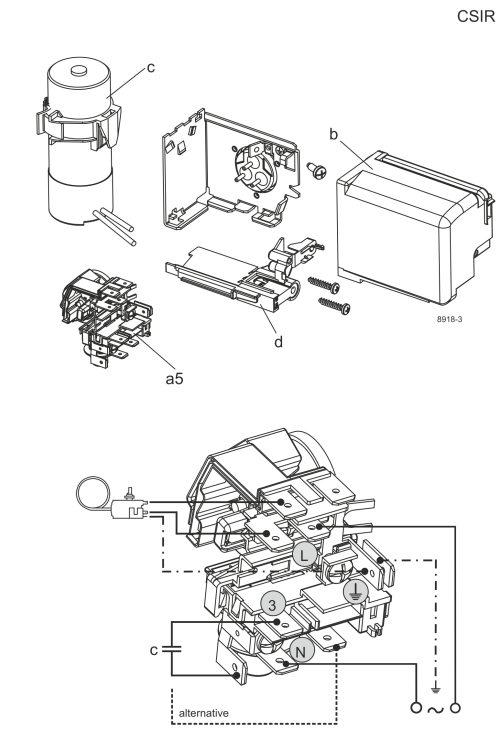
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R134a**
Application	**LBP+MBP+HBP**
Voltage range	**187-254 V**
Starting torque	**HST**
Approvals	**VDE, CB, UL**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**80 µF**
LRA (locked rotor amps / 4s/ U(N))	**10.5 A**
RLA (rated load amps / 1s/ U(N))	**1 A**
Cut in current (U(N))	**10.2 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram

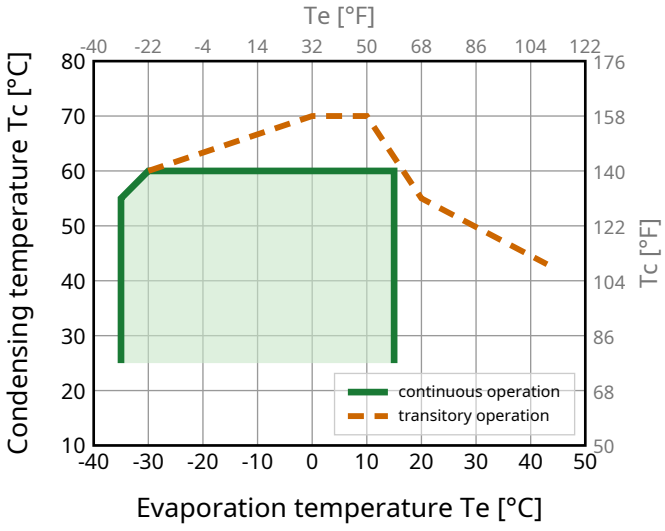


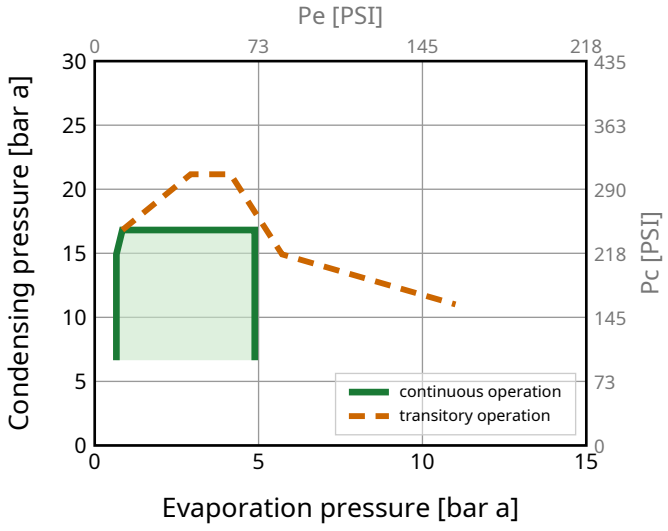
View full size

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

Operation Pressure Range





Model Sales code:

FRK6G Configuration 1 **106G5553**

Standard Conditions

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

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**126**	429	108	**1.23**	4.18	103	0.94	2.44	**ASHRAE LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**271**	924	233	**1.82**	6.21	149	1.06	5.90	**ASHRAE MBP**
7.2 45	54.4 129.9	35 95	46.1 115	**486**	1660	418	**2.63**	8.97	185	1.18	10.77	**ASHRAE HBP**
-35 -31	40 104	20 68	40 104	**62**	213	54	**0.85**	2.92	73	0.88	1.37	**EN12900 LBP**
-10 14	45 113	20 68	45 113	**235**	801	202	**1.82**	6.20	129	1.00	5.48	**EN12900 MBP**
5 41	50 122	20 68	50 122	**416**	1420	358	**2.42**	8.26	172	1.13	10.44	**EN12900 HBP**

Performance Tables

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

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	**59**	200	50	**0.81**	2.76	72	0.88	1.26
-30	-22	**80**	273	69	**0.95**	3.26	84	0.90	1.72
-20	-4	**145**	494	124	**1.36**	4.63	107	0.95	3.14
-10	14	**243**	830	209	**1.88**	6.42	129	1.00	5.31
0	32	**381**	1299	327	**2.51**	8.55	152	1.07	8.40
10	50	**562**	1918	483	**3.23**	11.00	174	1.14	12.58
15	59	**671**	2289	577	**3.62**	12.34	186	1.18	15.16

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-35	-31	**47**	162	41	**0.70**	2.38	68	0.87	1.12
-30	-22	**67**	228	57	**0.80**	2.74	83	0.90	1.59
-20	-4	**124**	422	106	**1.10**	3.76	112	0.96	2.96
-10	14	**209**	714	180	**1.49**	5.09	140	1.03	5.05
0	32	**329**	1122	283	**1.97**	6.70	167	1.11	8.02
10	50	**488**	1664	419	**2.52**	8.62	193	1.21	12.08
15	59	**583**	1990	501	**2.84**	9.68	206	1.26	14.60

Model
FRK6G Configuration 2

Sales code:
106G5553

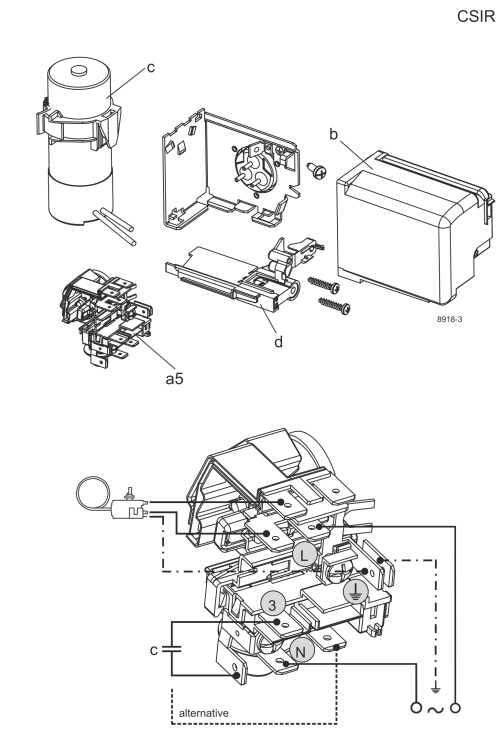
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**208-230 V/60 Hz 1~**
Refrigerant	**R134a**
Application	**LBP+MBP**
Voltage range	**198-253 V**
Starting torque	**HST**
Approvals	**VDE, CB, UL**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**80 µF**
RLA (rated load amps / 1s/ U(N))	**-/-A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram



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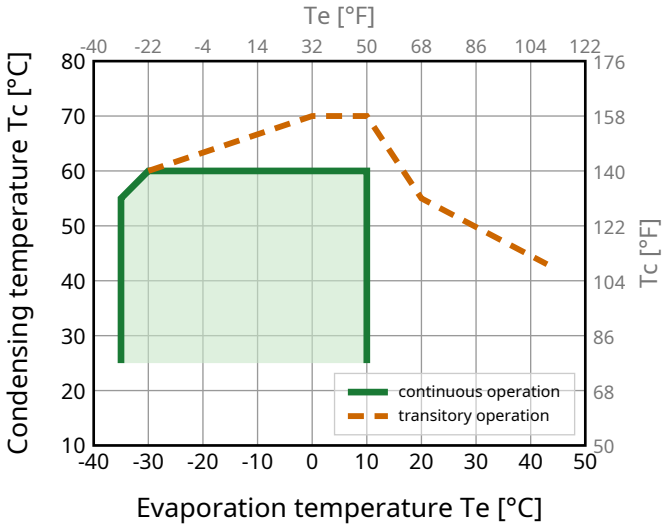
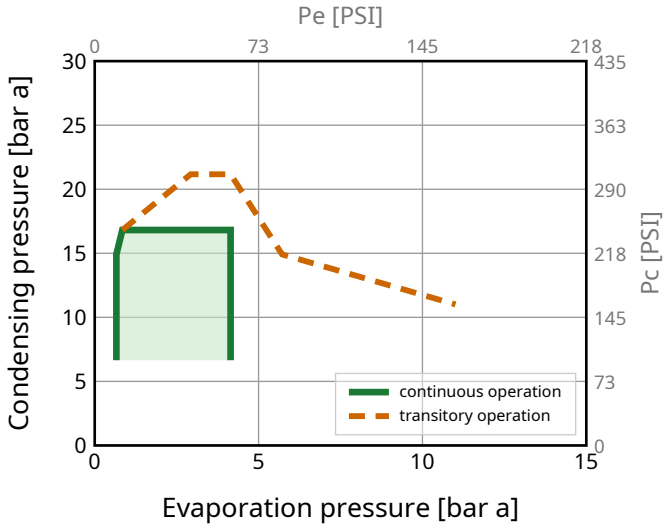
Components
a5 current relay (T1189/L6-S3) 117U7073
c start capacitor (80µF, 6.3mm) 117U5001
b, d cover + clamp + screws (5VA-compl.) 103N0600

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

Operation Pressure Range





Model Sales code:

FRK6G Configuration 2 **106G5553**

Standard Conditions

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

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**150**	511	129	**1.27**	4.32	118	1.13	2.91	**ASHRAE LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**320**	1091	275	**1.86**	6.34	172	1.26	6.96	**ASHRAE MBP**
7.2 45	54.4 129.9	35 95	46.1 115	**569**	1941	489	**2.62**	8.95	217	1.39	12.59	**ASHRAE HBP**
-35 -31	40 104	20 68	40 104	**79**	271	68	**0.90**	3.08	88	1.08	1.73	**EN12900 LBP**
-10 14	45 113	20 68	45 113	**274**	934	235	**1.82**	6.22	150	1.20	6.39	**EN12900 MBP**
5 41	50 122	20 68	50 122	**487**	1660	418	**2.38**	8.12	204	1.35	12.21	**EN12900 HBP**

Performance Tables

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

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	**74**	252	63	**0.86**	2.92	86	1.08	1.59
-30	-22	**96**	327	82	**1.00**	3.40	96	1.09	2.07
-20	-4	**169**	576	145	**1.39**	4.75	121	1.14	3.66
-10	14	**284**	968	244	**1.89**	6.44	150	1.20	6.19
0	32	**444**	1516	382	**2.45**	8.37	181	1.28	9.80
10	50	**655**	2235	563	**3.10**	10.59	211	1.37	14.66
15	59	**780**	2662	671	**3.47**	11.84	225	1.42	17.63

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-35	-31	**59**	202	51	**0.69**	2.34	86	1.08	1.41
-30	-22	**81**	275	69	**0.81**	2.77	99	1.10	1.92
-20	-4	**147**	502	126	**1.14**	3.89	129	1.15	3.52
-10	14	**248**	845	213	**1.53**	5.22	162	1.23	5.97
0	32	**387**	1320	333	**1.99**	6.77	195	1.32	9.44
10	50	**568**	1940	489	**2.52**	8.59	226	1.42	14.09
15	59	**676**	2308	582	**2.82**	9.64	240	1.48	16.93

Model
FRK6G Configuration 3

Sales code:
106G5553

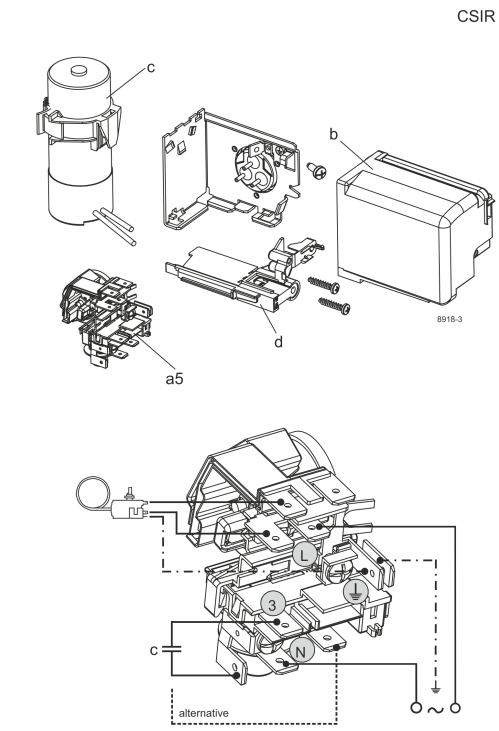
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R513A**
Application	**LBP+MBP+HBP**
Voltage range	**187-254 V**
Starting torque	**HST**
Approvals	**VDE, CB, UL**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**80 µF**
LRA (locked rotor amps / 4s/ U(N))	**10.5 A**
RLA (rated load amps / 1s/ U(N))	**1 A**
Cut in current (U(N))	**10.2 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram



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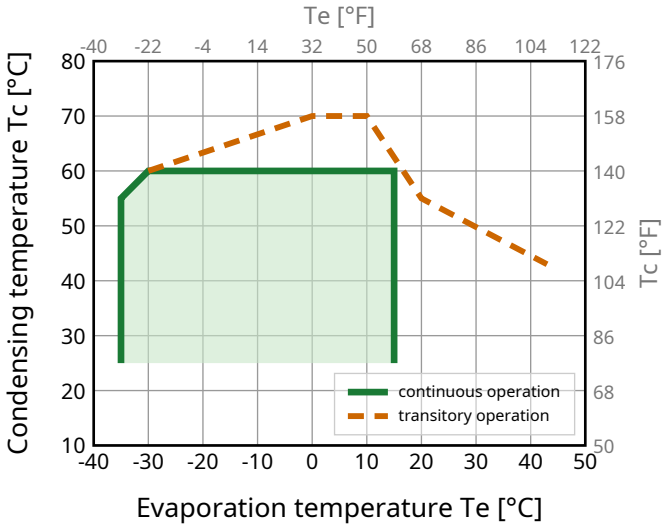
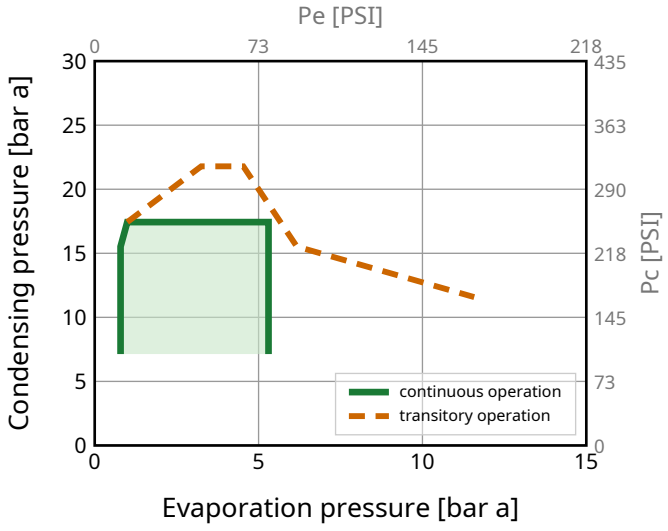
Components
a5 current relay (T1189/L6-S3) 117U7073
c start capacitor (80µF, 6.3mm) 117U5001
b, d cover + clamp + screws (5VA-compl.) 103N0600

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

Operation Pressure Range





Model Sales code:

FRK6G Configuration 3 **106G5553**

Standard Conditions

R513A, 220 V/50 Hz, CSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**139**	473	119	**1.26**	4.29	110	0.96	3.03	**ASHRAE LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**284**	969	244	**1.81**	6.16	157	1.08	7.08	**ASHRAE MBP**
7.2 45	54.4 129.9	35 95	46.1 115	**500**	1707	430	**2.60**	8.87	193	1.20	12.71	**ASHRAE HBP**
-35 -31	40 104	20 68	40 104	**69**	237	60	**0.89**	3.03	78	0.90	1.75	**EN12900 LBP**
-10 14	45 113	20 68	45 113	**244**	833	210	**1.79**	6.09	137	1.02	6.61	**EN12900 MBP**
5 41	50 122	20 68	50 122	**419**	1430	360	**2.34**	7.97	179	1.16	12.36	**EN12900 HBP**

Performance Tables

R513A, 220 V/50 Hz, CSIR, fan 3m/s

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	**66**	224	57	**0.85**	2.89	78	0.89	1.62
-30	-22	**88**	301	76	**0.98**	3.35	90	0.92	2.18
-20	-4	**156**	531	134	**1.37**	4.67	114	0.97	3.86
-10	14	**256**	874	220	**1.87**	6.39	137	1.02	6.41
0	32	**395**	1347	340	**2.48**	8.47	159	1.09	10.00
10	50	**576**	1965	495	**3.18**	10.86	181	1.16	14.83
15	59	**684**	2333	588	**3.57**	12.17	192	1.20	17.80

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-35	-31	**53**	182	46	**0.72**	2.47	74	0.88	1.47
-30	-22	**73**	249	63	**0.82**	2.78	90	0.92	2.02
-20	-4	**131**	447	113	**1.09**	3.72	120	0.98	3.64
-10	14	**217**	741	187	**1.46**	4.97	149	1.06	6.09
0	32	**336**	1145	289	**1.91**	6.52	176	1.14	9.54
10	50	**491**	1676	422	**2.45**	8.36	200	1.24	14.23
15	59	**584**	1993	502	**2.75**	9.39	212	1.28	17.12

Model
FRK6G Configuration 4

Sales code:
106G5553

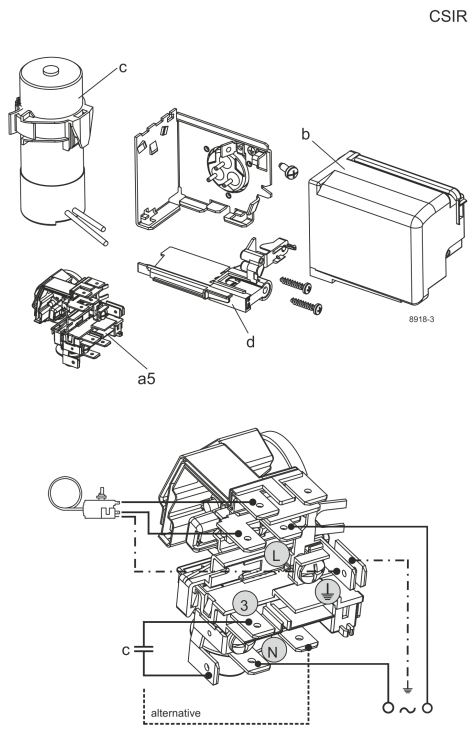
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**208-230 V/60 Hz 1~**
Refrigerant	**R513A**
Application	**LBP+MBP**
Voltage range	**198-253 V**
Starting torque	**HST**
Approvals	**VDE, CB, UL**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**80 µF**
RLA (rated load amps / 1s/ U(N))	**-/-A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram



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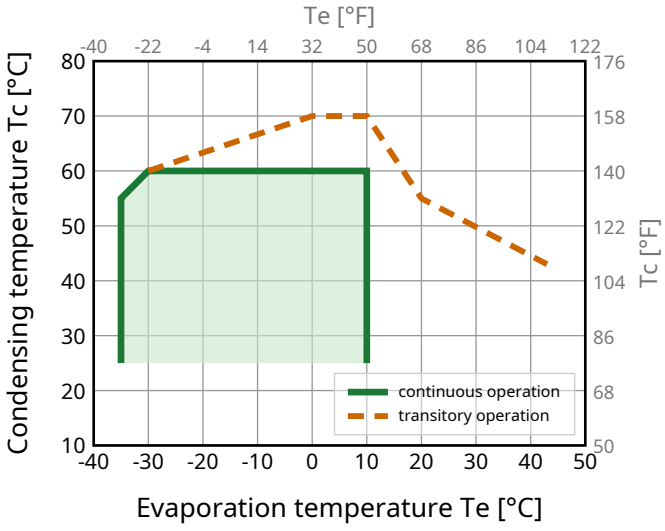
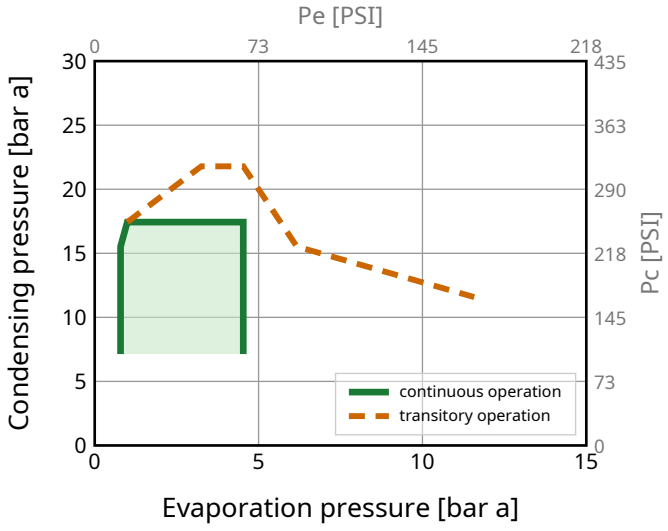
Components
a5 current relay (T1189/L6-S3) 117U7073
c start capacitor (80µF, 6.3mm) 117U5001
b, d cover + clamp + screws (5VA-compl.) 103N0600

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

Operation Pressure Range





Model Sales code:

FRK6G Configuration 4 **106G5553**

Standard Conditions

R513A, 230 V/60 Hz, CSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**165**	563	142	**1.30**	4.45	127	1.15	3.61	**ASHRAE LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**335**	1144	288	**1.84**	6.30	182	1.28	8.36	**ASHRAE MBP**
7.2 45	54.4 129.9	35 95	46.1 115	**585**	1997	503	**2.60**	8.86	225	1.42	14.87	**ASHRAE HBP**
-35 -31	40 104	20 68	40 104	**88**	300	76	**0.92**	3.13	96	1.09	2.21	**EN12900 LBP**
-10 14	45 113	20 68	45 113	**285**	972	245	**1.80**	6.13	159	1.22	7.71	**EN12900 MBP**
5 41	50 122	20 68	50 122	**490**	1673	422	**2.30**	7.84	213	1.38	14.46	**EN12900 HBP**

Performance Tables

R513A, 230 V/60 Hz, CSIR, fan 3m/s

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	**83**	282	71	**0.88**	2.99	94	1.09	2.04
-30	-22	**106**	361	91	**1.02**	3.48	104	1.10	2.61
-20	-4	**181**	619	156	**1.41**	4.81	129	1.15	4.50
-10	14	**299**	1020	257	**1.88**	6.43	159	1.22	7.48
0	32	**461**	1573	397	**2.43**	8.28	190	1.31	11.68
10	50	**671**	2290	577	**3.06**	10.45	219	1.40	17.29
15	59	**795**	2713	684	**3.43**	11.71	232	1.44	20.70

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-35	-31	**66**	227	57	**0.70**	2.40	95	1.09	1.83
-30	-22	**88**	302	76	**0.82**	2.81	108	1.11	2.44
-20	-4	**156**	532	134	**1.13**	3.86	138	1.17	4.33
-10	14	**257**	877	221	**1.50**	5.11	171	1.25	7.21
0	32	**395**	1347	340	**1.93**	6.59	204	1.35	11.23
10	50	**573**	1954	493	**2.45**	8.37	234	1.45	16.59
15	59	**678**	2312	583	**2.76**	9.42	245	1.50	19.86