Singolo
Imballi

Single Pack FRK11G 220-240V 50Hz / 208-230V 60Hz CSIR

Codice Imballo Singolo: **195B4772**

Posizione	Titolo	Codice	Quantità
1	Compressor FRK11G	106G5953	1
2	Starting relay (QLZ-5.5A, overload protector T0377/L6)	117U7071	1
3	Starting capacitor (80µF 220V, 6.3mm)	117U5001	1
4	KL accessories	103N1060	1
5	Bolt joint for one compressor | M6 | ø16mm	118-1917	1

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Model
FRK11G

Sales code:
106G5953

Compressor Data

Refrigerant(s)	**R134a / R513A**
Refr. charge - tech. limit	**700g / 24.69oz**
Weight	**9.70 kg / 21.38lbs**
Displacement	**8.60 cm3 / 0.52cu.in**
Compressors on pallet	**100**

General – Configurations With FRK11G

–	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
FRK11G

Sales code:
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Compressor Design

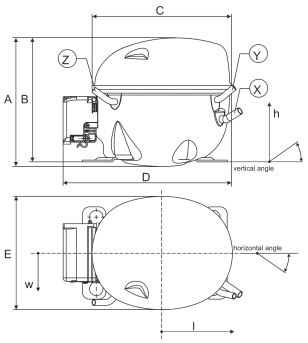
Oil type	**POE**	Winding resistance main	**8.4 Ohm**
Oil viscosity	**19,2cSt**	Winding resistance aux	**11.9 Ohm**
Oil quantity	**240 cm3 / 8.12fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**1,495 cm3 / 50.55fl.oz**	Max. discharge temp.	**130°C / 266°F**
Motor protection	**external**		

Compressor Dimensions

Housing

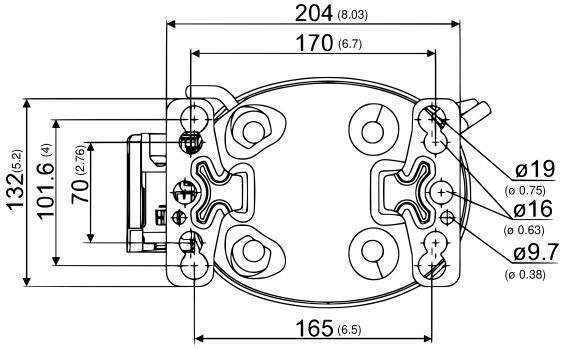
A Height	**182mm / 7.17in**
B Height	**175mm / 6.89in**
C Length shell	**198mm / 7.80in**
D Length w. cover	**238mm / 9.37in**
E Width	**160mm / 6.30in**

Find 3D Model here



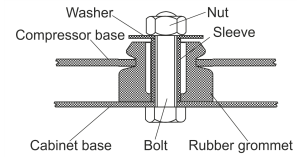
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	35°	13°	0°
Vertical angle ±2°	30°	40°	145°
Position l/h/w [mm]	119/73/59 / 4.69/2.87/2.32in	117/107/66 / 4.61/4.21/2.60in	-88/101/71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

Mounting Accessories

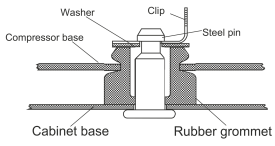


Dimensions in mm [in]

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
FRK11G Configuration 1

Sales code:
106G5953

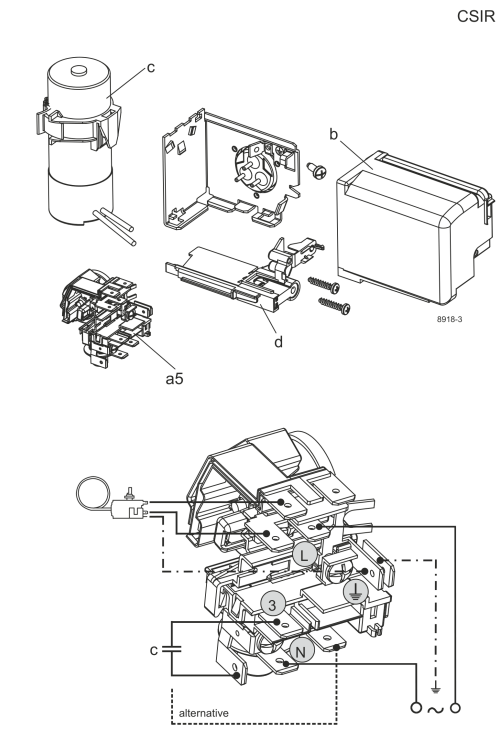
Configuration

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))	**13.4 A**
RLA (rated load amps / 1s/ U(N))	**1.8 A**
Cut in current (U(N))	**12.3 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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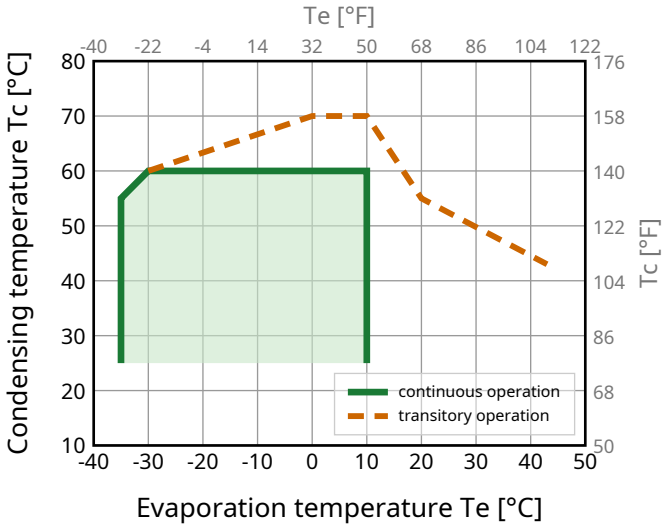
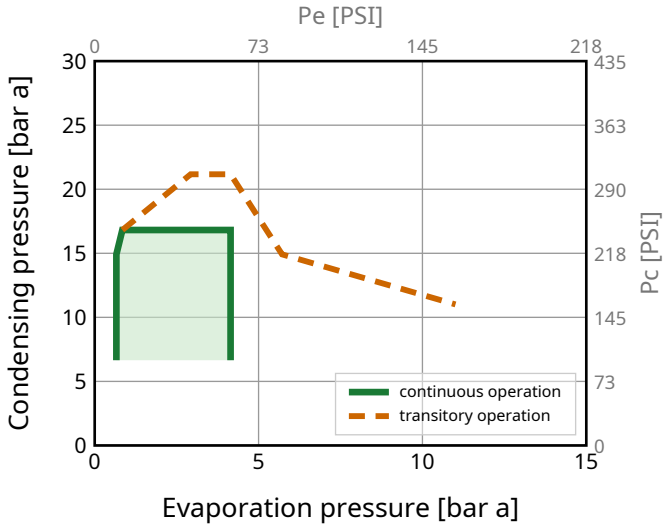
Components
a5 current relay (T0377/L6-S1) 117U7071
c start capacitor (80µF, 6.3mm) 117U5001
b, d cover + clamp + screws (5VA-compl.) 103N0600

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:

FRK11G Configuration 1 **106G5953**

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	**240**	818	206	**1.32**	4.52	181	1.39	4.65	**ASHRAE LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**494**	1687	425	**1.79**	6.12	276	1.76	10.76	**ASHRAE MBP**
7.2 45	54.4 129.9	35 95	46.1 115	**865**	2952	744	**2.43**	8.28	357	2.11	19.15	**ASHRAE HBP**
-35 -31	40 104	20 68	40 104	**124**	422	106	**0.91**	3.09	136	1.27	2.71	**EN12900 LBP**
-10 14	45 113	20 68	45 113	**432**	1473	371	**1.79**	6.10	241	1.61	10.06	**EN12900 MBP**
5 41	50 122	20 68	50 122	**743**	2536	639	**2.25**	7.68	330	1.99	18.64	**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	**118**	401	101	**0.87**	2.96	135	1.26	2.53
-30	-22	**156**	532	134	**1.03**	3.51	152	1.30	3.37
-20	-4	**272**	929	234	**1.41**	4.81	193	1.43	5.91
-10	14	**447**	1525	384	**1.85**	6.32	241	1.61	9.76
0	32	**687**	2343	591	**2.37**	8.07	290	1.82	15.15
10	50	**998**	3406	858	**2.99**	10.20	334	2.01	22.34

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

-35	-31	**95**	325	82	**0.73**	2.50	130	1.25	2.26
-30	-22	**130**	445	112	**0.87**	2.98	150	1.29	3.10
-20	-4	**233**	795	200	**1.17**	4.00	199	1.46	5.57
-10	14	**385**	1313	331	**1.50**	5.11	257	1.68	9.28
0	32	**593**	2022	510	**1.87**	6.37	317	1.94	14.45
10	50	**863**	2945	742	**2.31**	7.87	374	2.19	21.38

Model
FRK11G Configuration 2

Sales code:
106G5953

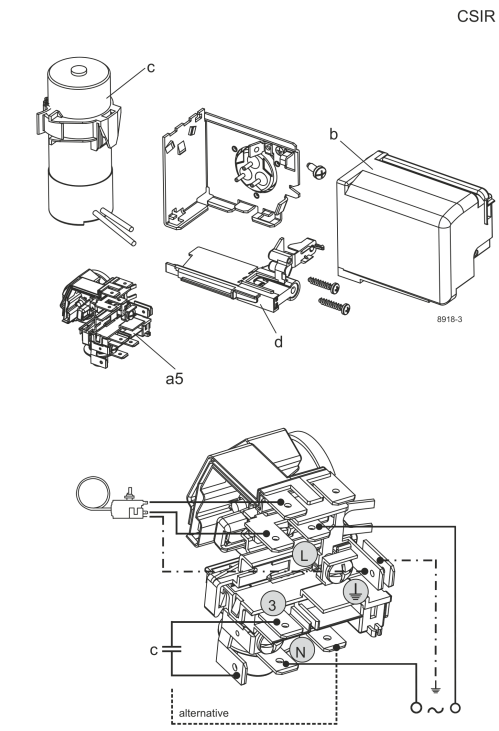
Configuration

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**
LRA (locked rotor amps / 4s/ U(N))	**13.4 A**
RLA (rated load amps / 1s/ U(N))	**1.8 A**
Cut in current (U(N))	**12.3 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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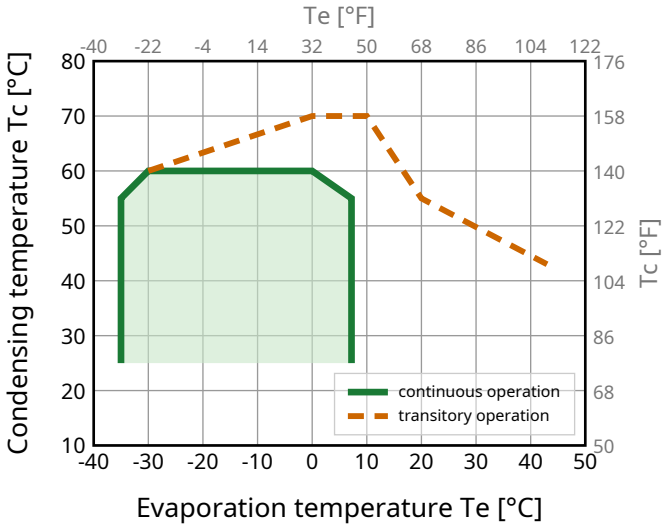
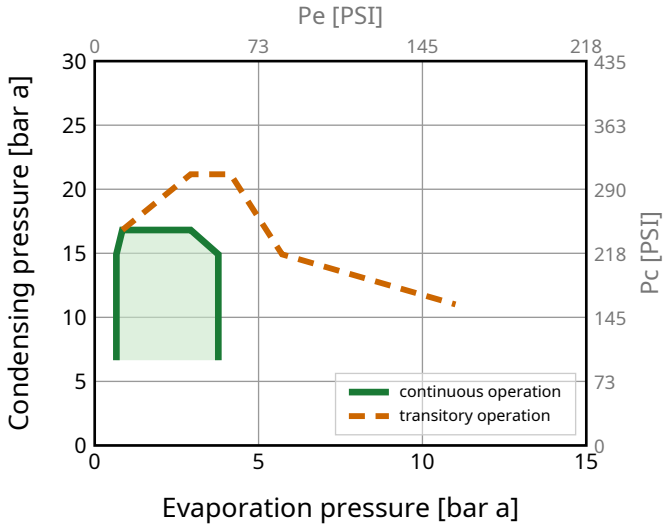
Components
a5 current relay (T0377/L6-S1) 117U7071
c start capacitor (80µF, 6.3mm) 117U5001
b, d cover + clamp + screws (5VA-compl.) 103N0600

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:

FRK11G Configuration 2 **106G5953**

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	**286**	976	246	**1.34**	4.59	213	1.38	5.55	**ASHRAE LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**589**	2011	507	**1.78**	6.08	331	1.80	12.83	**ASHRAE MBP**
7.2 45	54.4 129.9	35 95	46.1 115	**1030**	3515	886	**2.34**	7.97	441	2.24	22.80	**ASHRAE HBP**
-35 -31	40 104	20 68	40 104	**150**	510	129	**1.12**	3.81	134	1.16	3.27	**EN12900 LBP**
-10 14	45 113	20 68	45 113	**515**	1757	443	**1.81**	6.17	285	1.62	12.01	**EN12900 MBP**
5 41	50 122	20 68	50 122	**886**	3022	762	**2.21**	7.53	401	2.08	22.21	**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	**141**	481	121	**1.05**	3.58	135	1.16	3.04
-30	-22	**187**	638	161	**1.13**	3.86	166	1.24	4.03
-20	-4	**326**	1111	280	**1.44**	4.92	226	1.42	7.06
-10	14	**533**	1820	459	**1.87**	6.39	285	1.62	11.65
0	32	**819**	2793	704	**2.38**	8.11	344	1.85	18.06
7.2	45	**1077**	3675	926	**2.77**	9.46	388	2.03	24.00

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

-35	-31	**113**	384	97	**0.83**	2.82	136	1.16	2.67
-30	-22	**155**	529	133	**0.92**	3.14	169	1.25	3.69
-20	-4	**278**	949	239	**1.18**	4.02	236	1.45	6.66
-10	14	**459**	1566	395	**1.49**	5.09	307	1.71	11.07
0	32	**706**	2409	607	**1.84**	6.26	384	2.01	17.21
7.2	45	**929**	3171	799	**2.09**	7.14	444	2.26	22.91

Model
FRK11G Configuration 3

Sales code:
106G5953

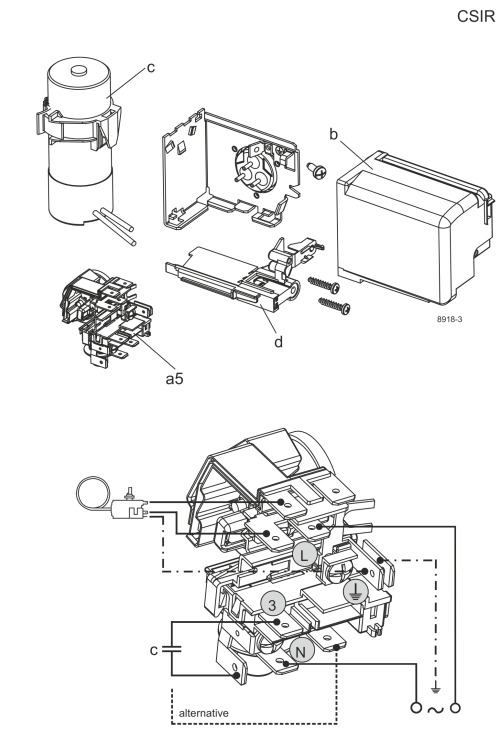
Configuration

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))	**13.4 A**
RLA (rated load amps / 1s/ U(N))	**1.8 A**
Cut in current (U(N))	**12.3 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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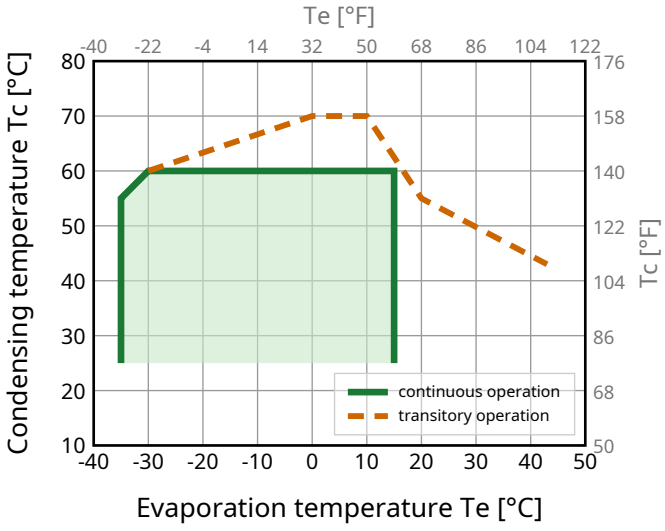
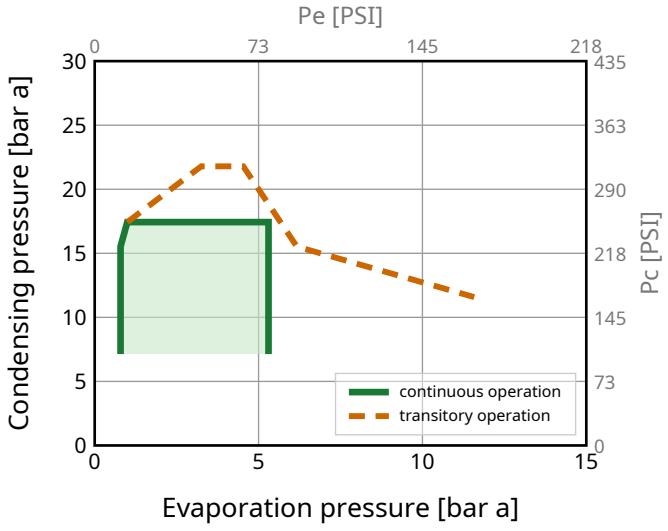
Components
a5 current relay (T0377/L6-S1) 117U7071
c start capacitor (80µF, 6.3mm) 117U5001
b, d cover + clamp + screws (5VA-compl.) 103N0600

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:

FRK11G Configuration 3 **106G5953**

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	**264**	899	227	**1.33**	4.53	199	1.45	5.77	**ASHRAE LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**518**	1766	445	**1.77**	6.03	293	1.83	12.90	**ASHRAE MBP**
7.2 45	54.4 129.9	35 95	46.1 115	**888**	3031	764	**2.37**	8.10	374	2.19	22.57	**ASHRAE HBP**
-35 -31	40 104	20 68	40 104	**137**	468	118	**0.95**	3.25	144	1.29	3.45	**EN12900 LBP**
-10 14	45 113	20 68	45 113	**448**	1529	385	**1.74**	5.92	258	1.68	12.13	**EN12900 MBP**
5 41	50 122	20 68	50 122	**747**	2550	643	**2.16**	7.37	346	2.06	22.04	**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	**132**	450	113	**0.91**	3.10	145	1.28	3.24
-30	-22	**172**	587	148	**1.04**	3.55	165	1.34	4.24
-20	-4	**292**	997	251	**1.39**	4.74	210	1.50	7.25
-10	14	**470**	1604	404	**1.82**	6.22	258	1.68	11.77
0	32	**711**	2427	612	**2.33**	7.94	306	1.89	18.02
10	50	**1021**	3483	878	**2.93**	9.98	349	2.08	26.29
15	59	**1203**	4105	1035	**3.27**	11.16	368	2.17	31.32

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

-35	-31	**107**	365	92	**0.75**	2.56	143	1.27	2.95
-30	-22	**143**	487	123	**0.86**	2.94	165	1.34	3.94
-20	-4	**247**	842	212	**1.14**	3.88	217	1.52	6.86
-10	14	**398**	1360	343	**1.45**	4.95	275	1.75	11.18
0	32	**604**	2059	519	**1.80**	6.16	334	2.01	17.16
10	50	**867**	2959	746	**2.21**	7.53	393	2.28	25.13
15	59	**1023**	3490	880	**2.43**	8.30	420	2.41	29.99

Model
FRK11G Configuration 4

Sales code:
106G5953

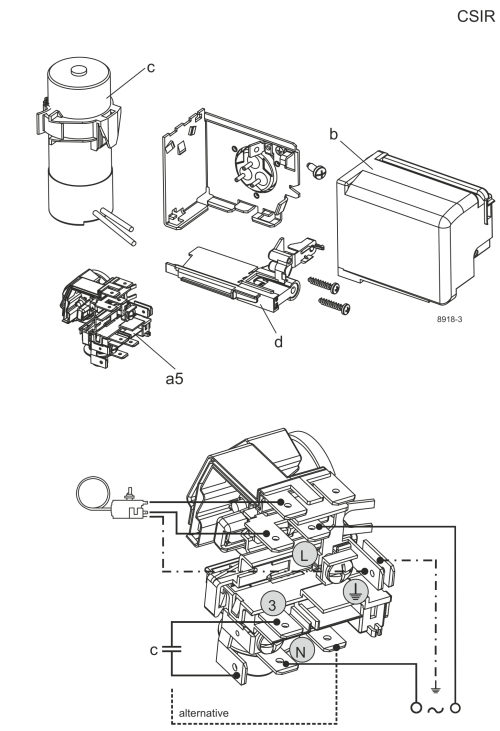
Configuration

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**
LRA (locked rotor amps / 4s/ U(N))	**13.4 A**
RLA (rated load amps / 1s/ U(N))	**1.8 A**
Cut in current (U(N))	**12.3 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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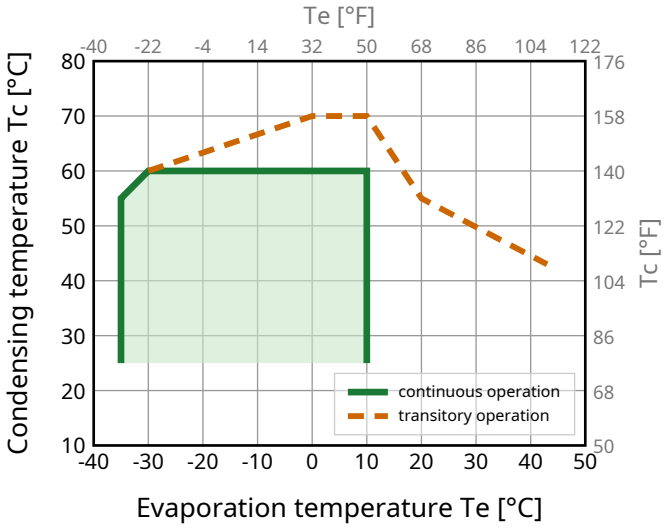
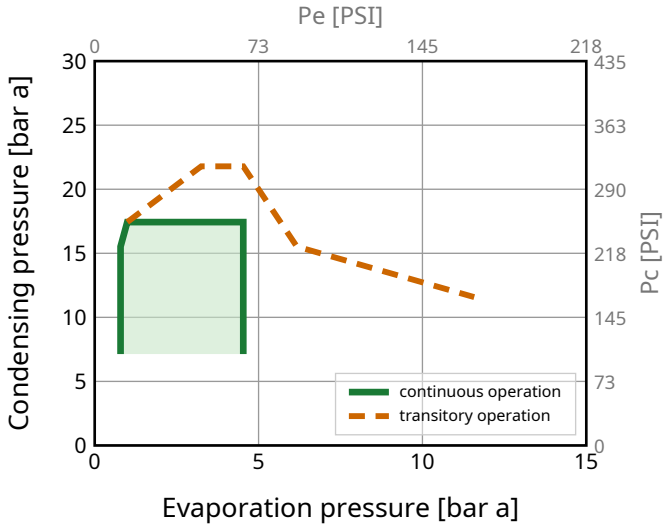
Components
a5 current relay (T0377/L6-S1) 117U7071
c start capacitor (80µF, 6.3mm) 117U5001
b, d cover + clamp + screws (5VA-compl.) 103N0600

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:

FRK11G Configuration 4 **106G5953**

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	**315**	1074	271	**1.35**	4.61	233	1.44	6.89	**ASHRAE LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**617**	2106	531	**1.75**	5.98	352	1.88	15.39	**ASHRAE MBP**
7.2 45	54.4 129.9	35 95	46.1 115	**1058**	3609	910	**2.28**	7.79	463	2.34	26.88	**ASHRAE HBP**
-35 -31	40 104	20 68	40 104	**166**	566	143	**1.11**	3.80	149	1.19	4.17	**EN12900 LBP**
-10 14	45 113	20 68	45 113	**535**	1825	460	**1.76**	6.01	304	1.70	14.48	**EN12900 MBP**
5 41	50 122	20 68	50 122	**891**	3039	766	**2.11**	7.20	422	2.16	26.26	**EN12900 HBP**

Performance Tables

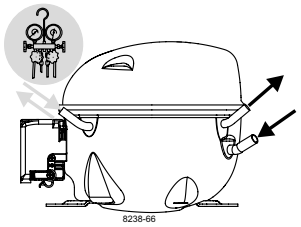
R513A, 230 V/60 Hz, CSIR, fan 3m/s

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	**158**	539	136	**1.05**	3.59	150	1.19	3.89
-30	-22	**206**	704	177	**1.13**	3.86	182	1.28	5.09
-20	-4	**349**	1192	300	**1.43**	4.89	244	1.48	8.67
-10	14	**561**	1915	483	**1.85**	6.30	304	1.70	14.05
0	32	**848**	2894	730	**2.33**	7.96	364	1.93	21.49
10	50	**1218**	4154	1047	**2.87**	9.78	425	2.18	31.36
15	59	**1435**	4897	1234	**3.14**	10.73	456	2.31	37.36

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

-35	-31	**126**	431	109	**0.82**	2.80	154	1.20	3.48
-30	-22	**170**	580	146	**0.91**	3.09	188	1.30	4.69
-20	-4	**295**	1005	253	**1.15**	3.92	256	1.52	8.19
-10	14	**475**	1622	409	**1.45**	4.93	329	1.79	13.34
0	32	**719**	2454	619	**1.77**	6.04	407	2.10	20.45
10	50	**1033**	3524	888	**2.10**	7.18	491	2.46	29.92
15	59	**1218**	4155	1047	**2.27**	7.75	536	2.65	35.71



FRK Compressors

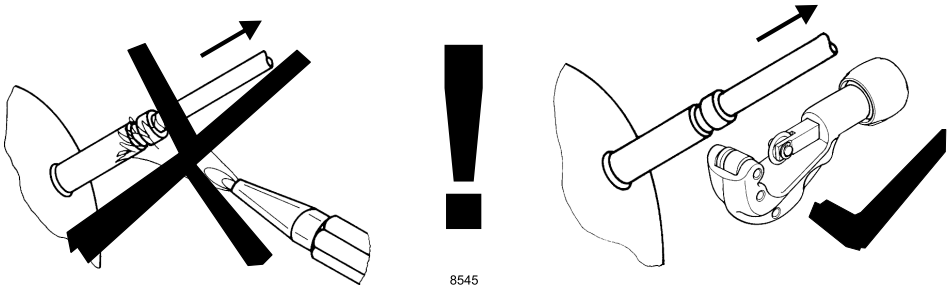
SECOP

Keep electrical equipment clear from oil, chemicals, and water

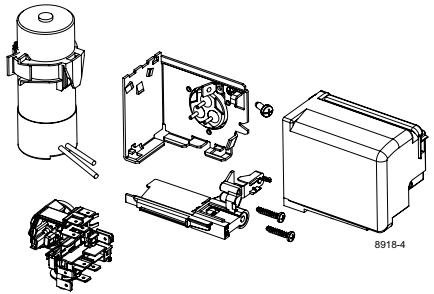
When operated with a flammable refrigerant, only spark-proof starting equipment is allowed.

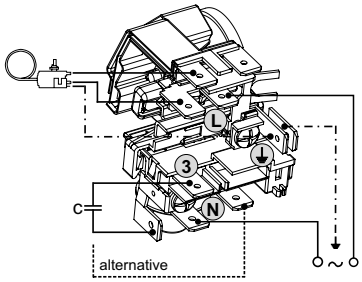
Service/Repair – R1234yf

(applies to all flammable refrigerants)



CSIR





Dismantling, recycling, disposal: At the end of a compressor's lifecycle, proceed by separating and storing components according to their environmental impact. Parts that may cause pollution must be clearly identified and handled separately, ensuring appropriate disposal. Refrigerant gas must not be released into the environment and should be recovered by qualified operators. Compressor oil must also be collected separately. The compressor should be disposed of at specialized disposal centers in accordance with the applicable regulations. **Subject to modifications/alterations. www.secop.com**