

Model
FRK7.5G

Sales code:
106G5653

Compressor Data

Refrigerant(s)	R134a / R513A
Refr. charge - tech. limit	700g / 24.69oz
Weight	9.50 kg / 20.94lbs
Displacement	5.60 cm ³ / 0.34cu.in
Compressors on pallet	100



General – Configurations With FRK7.5G

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

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Compressor Design

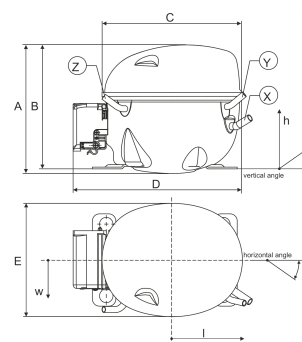
Oil type	POE	Winding resistance main	10.700 Ohm
Oil viscosity	19,2cSt	Winding resistance aux	17.00 Ohm
Oil quantity	240 / 8.12fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	1,535 cm ³ / 51.90fl.oz	Max. discharge temp.	130°C / 266°F
Motor protection	external		

Compressor Dimensions

Housing

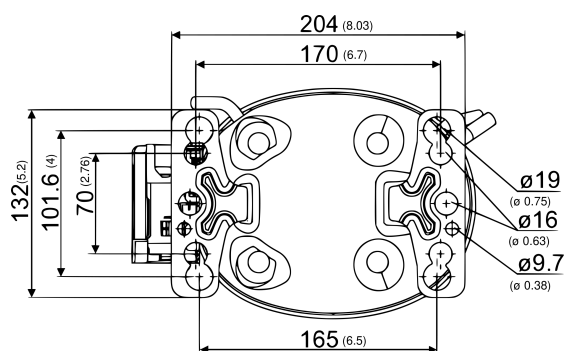
A Height	182mm / 7.17in
B Height	175mm / 6.89in
C Length shell	198mm / 7.80in
D Length w. cover	238mm / 9.37in
E Width	160mm / 6.30in

[Find 3D Model here](#)

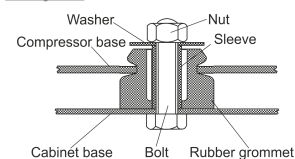


Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	35°	13°	0°
Vertical angle ±2°	30°	40°	145°
Position l/h/w [mm]	119/73/59 / 4.69/2.87/2.32in	117/107/66 / 4.61/4.21/2.60in	-88/101/71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

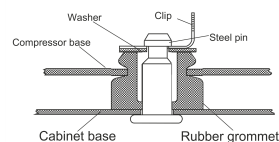
Mounting Accessories



Bolt joint



Snap-on



Dimensions in mm [in]

	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

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Configuration 1

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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))	11.4 A
RLA (rated load amps / 1s/ U(N))	1.6 A
Cut in current (U(N))	10.7 A

Ambient/ machine room temperatures minimum /maximum

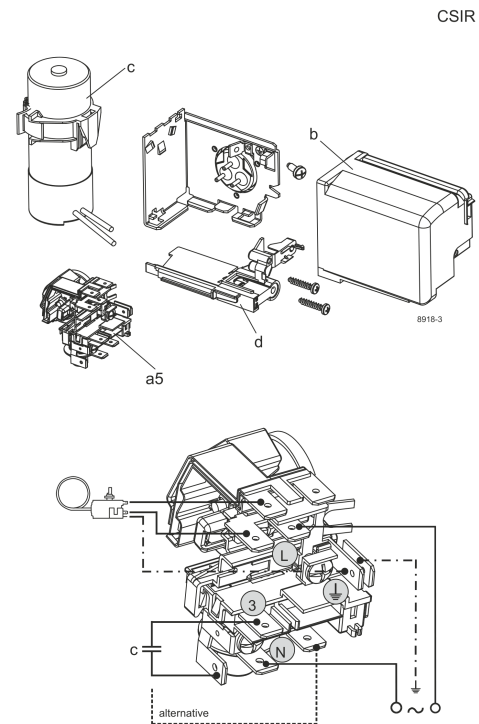
Ambient temperature range: 10 - 43°C / 50 - 109°F

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 (T0089/L6-S2) 117U7070

c start capacitor (80µF, 6.3mm) 117U5001

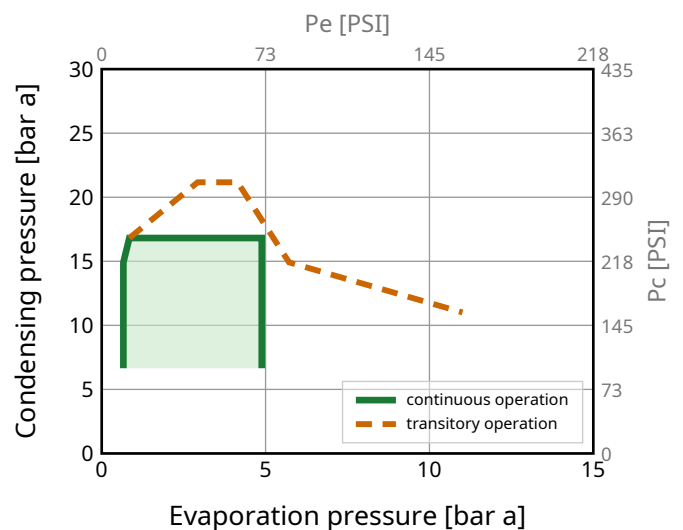
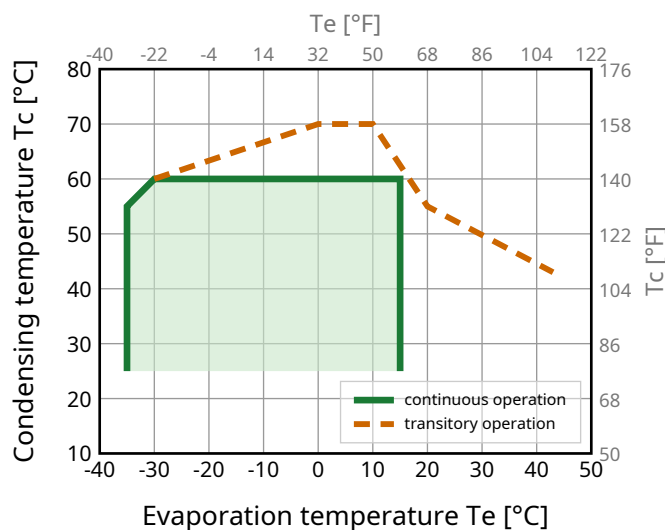
b, d cover + clamp + screws (5VA-compl.) 103N0600

Alternative components

b, d 100x cover + clamp + screws (5VA) 103N2060

b, d cover + clamp + screws (5VA) in bag 103N1060

Operation Pressure Range



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Configuration 1

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Standard Conditions

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

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	m	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-25 -13	55 131	32 89.6	55 131	111	379	96	0.99	3.37	113	1.05	2.65	CECOMAF LBP
-35 -31	40 104	20 68	40 104	79	270	68	0.96	3.29	82	0.99	1.73	EN12900 LBP
-10 14	55 131	32 89.6	55 131	251	856	216	1.53	5.22	164	1.18	6.05	CECOMAF MBP
-10 14	45 113	20 68	45 113	282	960	242	1.87	6.38	151	1.14	6.57	EN12900 MBP
5 41	55 131	32 89.6	55 131	483	1647	415	2.26	7.70	214	1.34	11.86	CECOMAF HBP
5 41	50 122	20 68	50 122	499	1701	429	2.46	8.38	203	1.30	12.51	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	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	74	254	64	0.91	3.10	82	0.99	1.60
-30	-22	98	334	84	1.02	3.50	96	1.02	2.12
-20	-4	174	593	149	1.41	4.81	123	1.07	3.77
-10	14	292	995	251	1.94	6.61	151	1.14	6.37
0	32	456	1557	393	2.56	8.74	178	1.22	10.07
10	50	673	2297	579	3.27	11.14	206	1.31	15.07
15	59	803	2739	690	3.64	12.42	220	1.36	18.14

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

-35	-31	61	208	52	0.80	2.72	77	0.98	1.45
-30	-22	82	280	71	0.87	2.96	95	1.01	1.96
-20	-4	149	507	128	1.14	3.90	130	1.09	3.55
-10	14	251	856	216	1.53	5.22	164	1.18	6.05
0	32	394	1345	339	2.00	6.81	197	1.28	9.61
10	50	583	1991	502	2.53	8.64	230	1.40	14.45
15	59	697	2377	599	2.83	9.64	247	1.46	17.44

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Configuration 2

Sales code:
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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

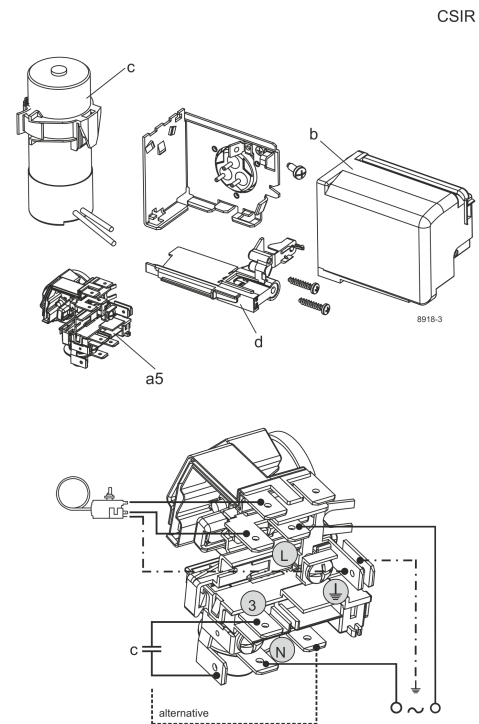
Ambient temperature range: 10 - 43°C / 50 - 109°F

Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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c start capacitor (80µF, 6.3mm) 117U5001

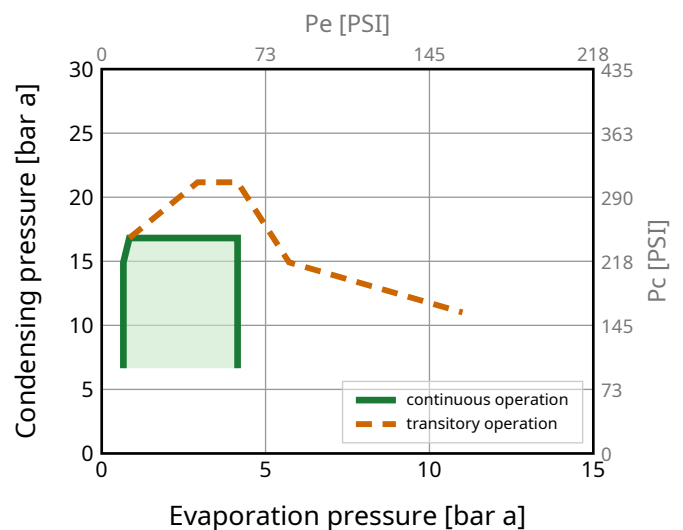
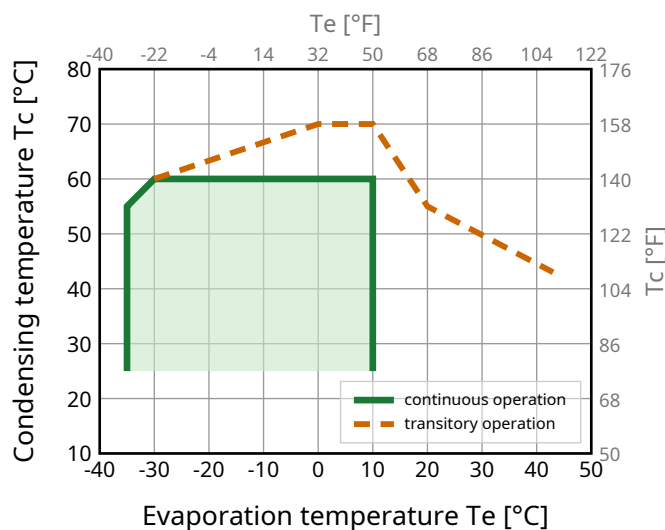
b, d cover + clamp + screws (5VA-compl.) 103N0600

Alternative components

b, d 100x cover + clamp + screws (5VA) 103N2060

b, d cover + clamp + screws (5VA) in bag 103N1060

Operation Pressure Range



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Configuration 2

Sales code:
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Standard Conditions

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

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	m	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-25 -13	55 131	32 89.6	55 131	137	469	118	1.02	3.50	134	1.16	3.27	CECOMAF LBP
-35 -31	40 104	20 68	40 104	96	328	83	1.05	3.58	92	1.08	2.10	EN12900 LBP
-10 14	55 131	32 89.6	55 131	299	1020	257	1.56	5.32	192	1.31	7.21	CECOMAF MBP
-10 14	45 113	20 68	45 113	331	1130	285	1.86	6.35	178	1.27	7.72	EN12900 MBP
5 41	55 131	32 89.6	55 131	564	1926	485	2.26	7.72	250	1.50	13.87	CECOMAF HBP
5 41	50 122	20 68	50 122	581	1984	500	2.41	8.21	242	1.47	14.58	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	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	90	305	77	0.99	3.37	90	1.08	1.93
-30	-22	121	412	104	1.11	3.78	109	1.11	2.60
-20	-4	210	716	180	1.46	4.96	144	1.19	4.55
-10	14	343	1170	295	1.93	6.57	178	1.27	7.49
0	32	531	1812	457	2.49	8.51	213	1.38	11.72
10	50	785	2677	675	3.13	10.68	251	1.50	17.56
15	59	939	3205	808	3.46	11.81	271	1.57	21.22

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

-35	-31	70	239	60	0.76	2.60	92	1.08	1.66
-30	-22	100	343	86	0.89	3.02	114	1.12	2.39
-20	-4	182	620	156	1.18	4.04	154	1.21	4.35
-10	14	299	1020	257	1.56	5.32	192	1.31	7.21
0	32	462	1577	397	2.01	6.86	230	1.43	11.27
10	50	682	2328	587	2.53	8.62	270	1.57	16.91
15	59	817	2788	703	2.80	9.57	291	1.65	20.45