

FR7GH

Heat Pump Compressor

R134a

220-240V 50/60Hz

Data Sheet (Replaces CD.43.L4.02)

General

Compressor	FR7GH
Code number	103G6683
Code number compressor with oil cooler	103G6692

Application

Application	HBP
Evaporating temperature range	°C -15 to 15
Voltage range	V/Hz 198 - 254 /50 198 - 254 /60
Motor type	CSIR
Max. ambient temperature	°C 43
Comp. cooling at ambient temp.	32°C O/F ₁ 38°C O/F ₁ 43°C O/F ₁

Design

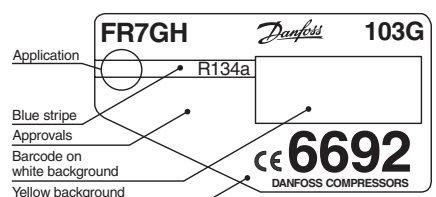
Displacement	cm ³	6.93
Oil quantity	cm ³	450
Maximum refrigerant charge	g	900
Free gas vol. in compressor	cm ³	1350
Weight without electrical equipment	kg	10.6

Motor

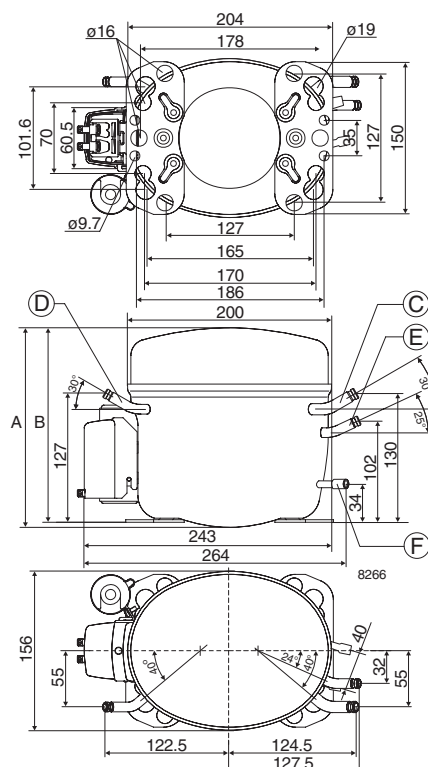
Motor size	watt	235
LRA (rated after 4 sec. UL984) HST	A	9.1
Cut-in current HST	A	9.1
Resistance, main and start winding (25°C)	Ω	8.80/12.0
Approvals	EN 60335-2-34, UL984/CSA-C22.2	

Dimensions

Height	mm	A	196
		B	191
Suction connector	location/I.D. mm	C	8.2 ±0.09
Process connector	location/I.D. mm	D	6.2 ±0.09
Discharge connector	location/I.D. mm	E	8.2 ±0.09
Oil cooler	location/I.D. mm	F	8.2 ±0.09
Compressors on a pallet	pcs.		80



- S = Static cooling normally sufficient
- O = Oil cooling
- F₁ = Fan cooling 1.5 m/s
(compressor compartment temperature equal to ambient temperature)
- F₂ = Fan cooling 3.0 m/s necessary



Capacity (EN 12900/CECOMAF)

Evap. temp in °C	-15	-10	-5	0	5	7.2	10	15
FR7GH, 50Hz	199	255	327	417	525	580	655	807
FR7GH, 60Hz	225	294	379	482	607	668	753	924

watt
Capacity (ASHRAE)

Evap. temp in °C	-15	-10	-5	0	5	7.2	10	15
FR7GH, 50Hz	246	316	405	516	652	720	814	1005
FR7GH, 60Hz	278	363	469	598	753	830	936	1151

watt
Power consumption

Evap. temp in °C	-15	-10	-5	0	5	7.2	10	15
FR7GH, 50Hz	165	192	217	239	258	266	274	288
FR7GH, 60Hz	184	217	251	284	317	331	350	383

watt
Current consumption

Evap. temp in °C	-15	-10	-5	0	5	7.2	10	15
FR7GH, 50Hz	1.38	1.47	1.55	1.63	1.70	1.72	1.76	1.81
FR7GH, 60Hz	1.31	1.41	1.53	1.65	1.79	1.86	1.94	2.10

A
COP (EN 12900/CECOMAF)

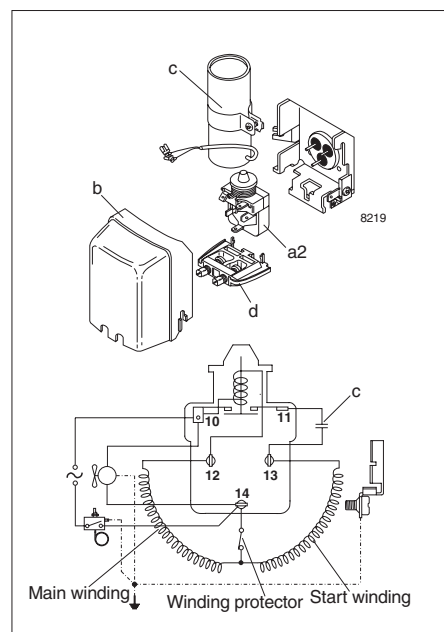
Evap. temp in °C	-15	-10	-5	0	5	7.2	10	15
FR7GH, 50Hz	1.21	1.33	1.51	1.74	2.04	2.18	2.39	2.80
FR7GH, 60Hz	1.22	1.35	1.51	1.70	1.91	2.02	2.15	2.42

W/W
COP (ASHRAE)

Evap. temp in °C	-15	-10	-5	0	5	7.2	10	15
FR7GH, 50Hz	1.49	1.64	1.86	2.16	2.52	2.71	2.97	3.49
FR7GH, 60Hz	1.51	1.67	1.87	2.11	2.37	2.50	2.68	3.01

W/W

Test conditions	EN 12900/CECOMAF	ASHRAE
Condensing temperature	55°C	55°C
Ambient and suction gas temp.	32°C	32°C
Liquid temperature	55°C	32°C
50Hz: Oil or Fan cooling, 220V		
60Hz: Oil or Fan cooling, 220V		


Accessories

Devices	Fig.	FR7GH
Starting relay	a2	117U6016
Cover	b	103N2011
Starting capacitor 80 µF	c	117U5015
Cord relief	d	103N1010
Mounting accessories		
Bolt joint for one compressor		118-1917
Bolt joint in quantities		118-1918
Snap-on in quantities		118-1919