

# FR7GH Heat Pump Compressor R134a 220-240V 50/60Hz

## General

Code number	103G6683
Approvals	EN 60335-2-34, UL984, CCC
Compressors on pallet	80

## Application

Application	HBP			
	Hz	50	60	
Frequency	Hz	50	60	
Evaporating temperature	°C	-15 to 15	-15 to 15	
Voltage range	V	198 - 254	198 - 254	
Max. condensing temperature continuous (short)	°C	60 (70)	60 (70)	
Max. winding temperature continuous (short)	°C	125 (135)	125 (135)	

## Cooling requirements

Frequency	Hz	50			60		
		LBP	MBP	HBP	LBP	MBP	HBP
32°C		-	-	F <sub>1</sub>	-	-	F <sub>1</sub>
38°C		-	-	F <sub>1</sub>	-	-	F <sub>1</sub>
43°C		-	-	F <sub>1</sub>	-	-	F <sub>1</sub>
Remarks on application:							

## Motor

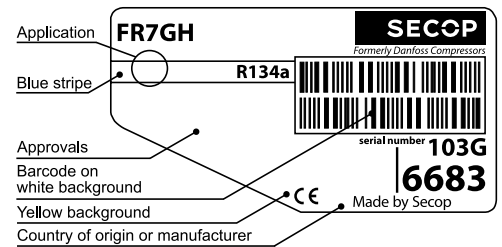
Motor type	CSIR		
LRA (rated after 4 sec. UL984), HST   LST	A	9.1	-
Cut in Current, HST   LST	A	9.1	-
Resistance, main   start winding (25°C)	Ω	8.8	12.0

## Design

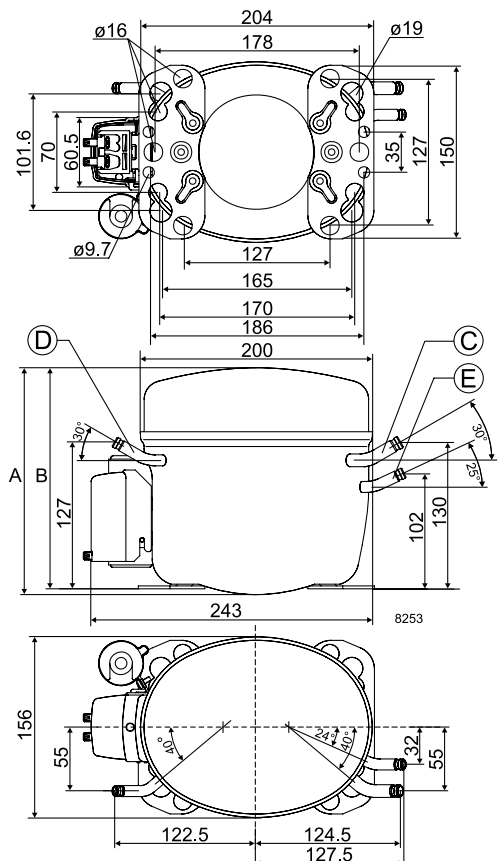
Displacement	cm <sup>3</sup>	6.93
Oil quantity (type)	cm <sup>3</sup>	450 (polyolester)
Maximum refrigerant charge	g	900
Free gas volume in compressor	cm <sup>3</sup>	1350
Weight without electrical equipment	kg	10.6

## Dimensions

Height	mm	A	196
		B	191
		B1	-
		B2	-
Suction connector	location/I.D. mm   angle	C	8.2   30°
	material   comment		Cu-plated steel   Al cap
Process connector	location/I.D. mm   angle	D	6.2   30°
	material   comment		Cu-plated steel   Al cap
Discharge connector	location/I.D. mm   angle	E	8.2   25°
	material   comment		Cu-plated steel   Al cap
Oil cooler connector	location/I.D. mm   angle	F	-
	material   comment		-
Connector tolerance	I.D. mm		±0.09
Remarks:			



- S = Static cooling normally sufficient
- O = Oil cooling
- F<sub>1</sub> = Fan cooling 1.5 m/s (compressor compartment temperature equal to ambient temperature)
- F<sub>2</sub> = Fan cooling 3.0 m/s necessary
- SG = Suction gas cooling normally sufficient
- = not applicable in this area



**EN 12900 Household (CECOMAF)** 220V, 50Hz, fan cooling F<sub>2</sub>

Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W								199	255	301	327	417	525	580	655	807	
Power cons. in W								165	192	209	217	239	258	266	274	28	
Current cons. in A								1.38	1.47	1.53	1.55	1.63	1.70	1.72	1.76	1.81	
COP in W/W								1.21	1.33	1.44	1.51	1.74	2.04	2.18	2.39	2.80	

**EN 12900 Household (CECOMAF)** 220V, 60Hz, fan cooling F<sub>2</sub>

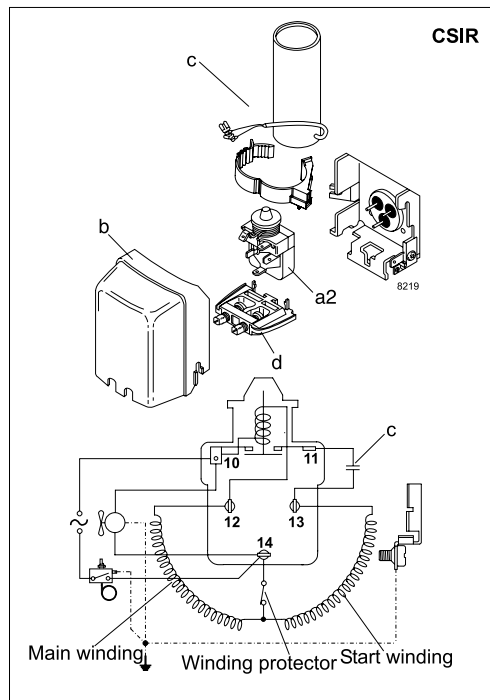
Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W								225	294	348	379	482	607	668	753	924	
Power cons. in W								184	217	239	251	284	317	331	350	383	
Current cons. in A								1.31	1.41	1.49	1.53	1.65	1.79	1.86	1.94	2.10	
COP in W/W								1.22	1.35	1.45	1.51	1.70	1.91	2.02	2.15	2.42	

**ASHRAE** 220V, 50Hz, fan cooling F<sub>2</sub>

Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W								246	316	372	405	516	652	720	814	1005	
Power cons. in W								165	192	209	217	239	258	266	274	288	
Current cons. in A								1.38	1.47	1.53	1.55	1.63	1.70	1.72	1.76	1.81	
COP in W/W								1.49	1.64	1.78	1.86	2.16	2.52	2.71	2.97	3.49	

**ASHRAE** 220V, 60Hz, fan cooling F<sub>2</sub>

Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W								278	363	430	469	598	753	830	936	1151	
Power cons. in W								184	217	239	251	284	317	331	350	383	
Current cons. in A								1.31	1.41	1.49	1.53	1.65	1.79	1.86	1.94	2.10	
COP in W/W								1.51	1.67	1.80	1.87	2.11	2.37	2.50	2.68	3.01	



Accessories for	FR7GH	Figure	Code number
PTC starting device	6.3 mm spade connectors	a1	-
	4.8 mm spade connectors		-
Starting relay	6.3 mm spade connectors	a2	117U6016
Start. capacitor 80 µF	6.3 mm spade connectors	c	117U5015
Cover		b	103N2011
Cord relief		d	103N1010
Protection screen for PTC		g	-

Test conditions	EN 12900/CECOMAF	ASHRAE
Condensing temperature	55°C	55°C
Ambient temperature	32°C	32°C
Suction gas temperature	32°C	32°C
Liquid temperature	55°C	32°C

Mounting accessories		Code number
Bolt joint for one comp.	Ø: 16 mm	118-1917
Bolt joint in quantities	Ø: 16 mm	118-1918
Snap-on in quantities	Ø: 16 mm	118-1919

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