

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

General

Code number	103G6692
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		-	-	O	-	-	O
38°C		-	-	O	-	-	O
43°C		-	-	O	-	-	O
Remarks on application:							

Motor

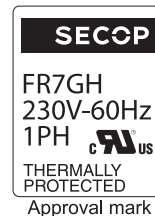
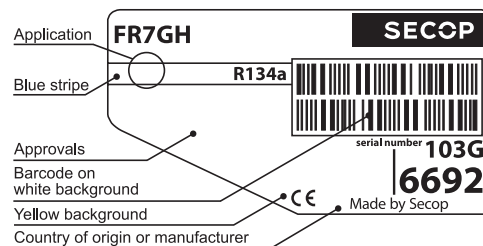
Motor type	CSIR		
LRA (rated after 4 sec. UL984), HST LST	A	9.1	-
Cut in Current, HST LST	A	9.1	-
Resistance, main start winding (25°C)	Ω	8.8	12.0

Design

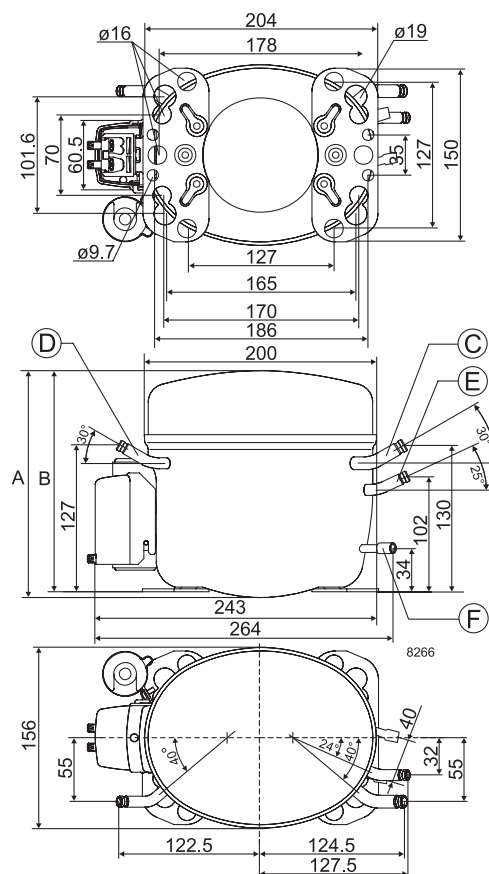
Displacement	cm ³	6.93
Oil quantity (type)	cm ³	450 (polyolester)
Maximum refrigerant charge	g	900
Free gas volume in compressor	cm ³	1350
Weight without electrical equipment	kg	10.6

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	6.2 25°
	material comment	Cu-plated steel Al cap	
Connector tolerance	I.D. mm	±0.09	
Remarks:			



- 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
- SG = Suction gas cooling normally sufficient
- = not applicable in this area



EN 12900 Household (CECOMAF) 220V, 50Hz, fan cooling F₂

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 F₂

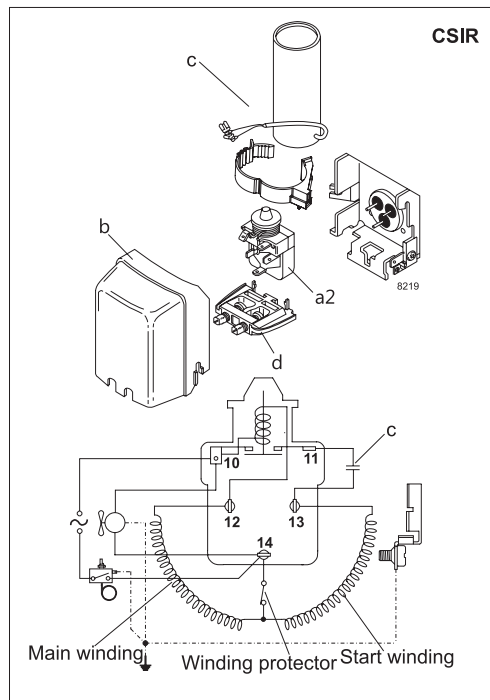
Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W								225	294	348	379	482	607	668	753	924	
Power cons. in W								184	217	239	251	284	317	331	350	383	
Current cons. in A								1.31	1.41	1.49	1.53	1.65	1.79	1.86	1.94	2.10	
COP in W/W								1.22	1.35	1.45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

ASHRAE 220V, 50Hz, fan cooling F₂

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 F₂

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

Nidec GA Compressors accepts no responsibility for possible errors in catalogs, brochures, and other printed material. Nidec GA Compressors reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary to specifications already agreed. All trademarks in this material are the property of the respective companies. Secop and the Secop logotype are trademarks of Nidec Global Appliance Germany GmbH. All rights reserved. www.secop.com