

FR10G Universal Compressor R134a 220-240V 50/60Hz

General

Code number	103G6890
Approvals	EN 60335-2-34, CCC
Compressors on pallet	80

Application

Application	LBP/HBP	LBP
Frequency	Hz 50	60
Evaporating temperature	°C -30 to 10	-30 to -10
Voltage range	V 187 - 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		
Application		LBP	MBP	HBP	LBP	MBP	HBP
32°C		S	F ₂	F ₂	S	-	-
38°C		S	F ₂	F ₂	S	-	-
43°C		O	F ₂	F ₂	O	-	-

Remarks on application: HBP at 198 - 254V 50Hz only.

Motor

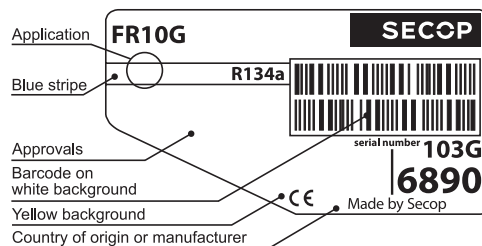
Motor type		RSIR/CSIR	
LRA (rated after 4 sec. UL984), HST LST	A	10.0	10.3
Cut in Current, HST LST	A	10.0	15.0
Resistance, main start winding (25°C)	Ω	7.3	12.0

Design

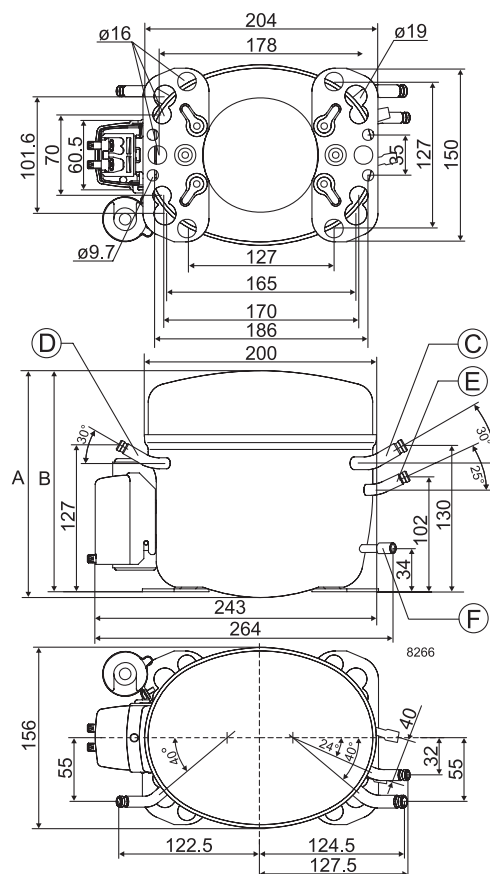
Displacement	cm ³	9.05
Oil quantity (type)	cm ³	450 (polyolester)
Maximum refrigerant charge	g	900
Free gas volume in compressor	cm ³	1350
Weight without electrical equipment	kg	10.6

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	6.2 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				91.9	136	152	188	250	324	380	412	516	638	697	779		
Power cons. in W				155	179	188	205	234	265	286	296	329	362	376	394		
Current cons. in A				1.51	1.58	1.61	1.66	1.75	1.84	1.91	1.94	2.05	2.16	2.21	2.28		
COP in W/W				0.59	0.76	0.81	0.91	1.07	1.22	1.33	1.39	1.57	1.76	1.85	1.98		

EN 12900 Household (CECOMAF) 220V, 60Hz, fan cooling F₂

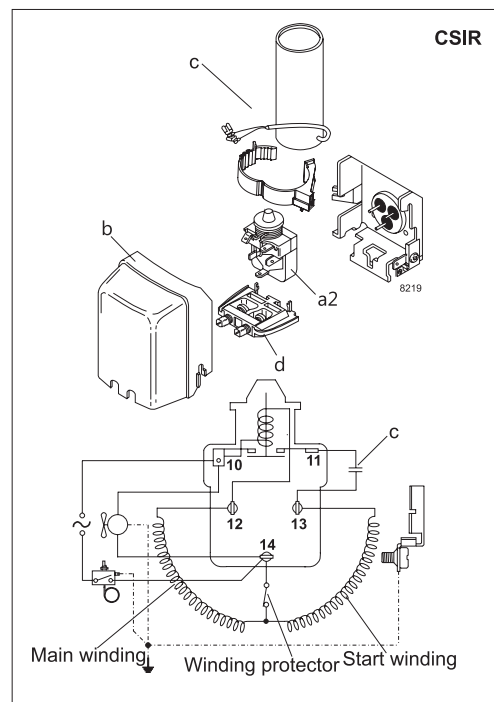
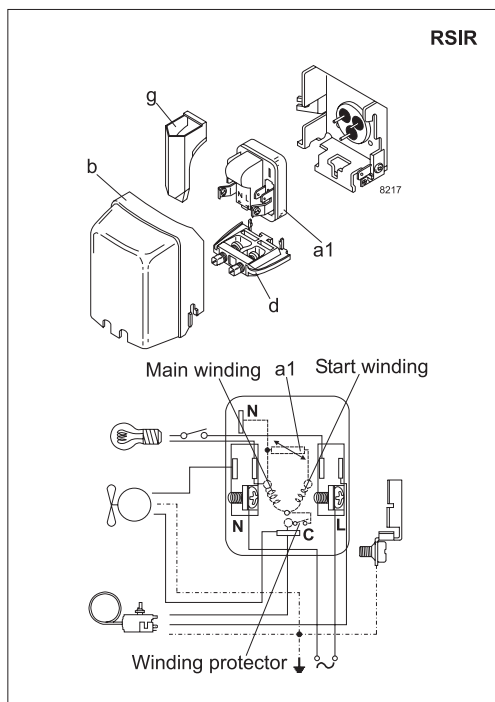
Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W				98.8	153	173	217	292	381								
Power cons. in W				163	194	206	230	270	314								
Current cons. in A				1.32	1.44	1.48	1.57	1.73	1.90								
COP in W/W				0.61	0.79	0.84	0.94	1.08	1.21								

ASHRAE LBP 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				113	167	188	232	308	400	470	510	639	791	866	968		
Power cons. in W				155	179	188	205	234	265	286	296	329	362	376	394		
Current cons. in A				1.51	1.58	1.61	1.66	1.75	1.84	1.91	1.94	2.05	2.16	2.21	2.28		
COP in W/W				0.73	0.93	1.00	1.13	1.32	1.51	1.65	1.72	1.94	2.19	2.30	2.46		

ASHRAE LBP 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				122	188	214	267	361	471								
Power cons. in W				163	194	206	230	270	314								
Current cons. in A				1.32	1.44	1.48	1.57	1.73	1.90								
COP in W/W				0.75	0.97	1.04	1.16	1.34	1.50								



Accessories for	FR10G	Figure	Code number
PTC starting device	6.3 mm spade connectors	a1	103N0011
	4.8 mm spade connectors		103N0018
Starting relay	6.3 mm spade connectors	a2	117U6010
Start. capacitor 80 µF	6.3 mm spade connectors	c	117U5015
Cover		b	103N2010
Cord relief		d	103N1010
Protection screen for PTC		g	103N0476

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