

FR10G

Universal Compressor

R134a

220-240V 50Hz

Data Sheet (Replaces CD.43.O5.02)

General

Compressor	FR10G
Code number	103G6880
Code number compressor with oil cooler	103G6890

Application

Application		LBP/HBP
Evaporating temperature range	°C	-30 to 10
Voltage range	V/Hz	LBP: 187 - 254 /50
		LBP: 198 - 254 /60
		HBP: 198 - 254 /50
Motor type		RSIR/CSIR
Max. ambient temperature	°C	43
Comp. cooling at ambient temp.	32°C	LBP: S
		HBP: F ₂
	38°C	LBP: O/F ₁
		HBP: F ₂
43°C	LBP: O/F ₁	
	HBP: F ₂	

Design

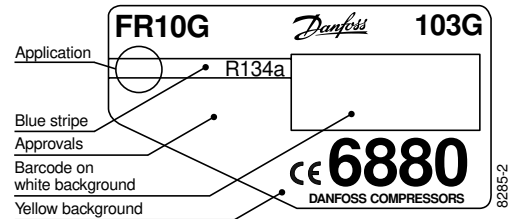
Displacement	cm ³	9.05
Oil quantity	cm ³	450
Maximum refrigerant charge	g	900
Free gas vol. in compressor	cm ³	1350
Weight without electrical equipment	kg	10.6

Motor

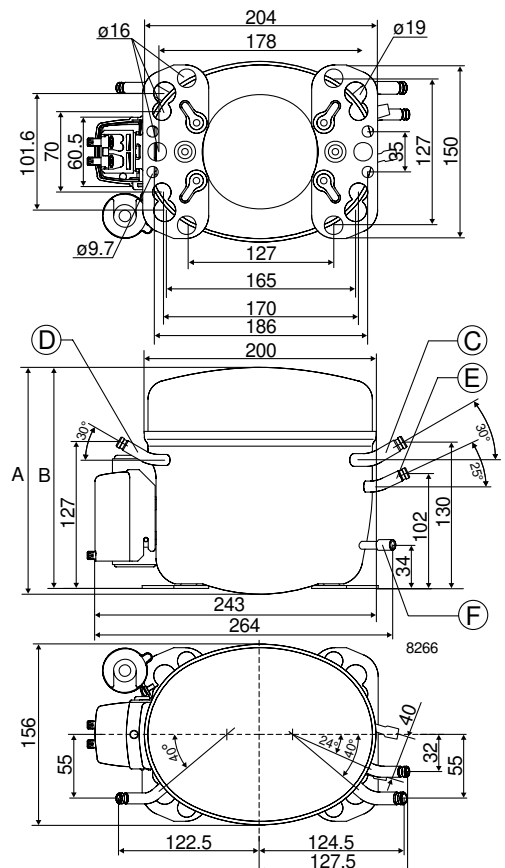
Motor size	watt	275
LRA (rated after 4 sec. UL984) LST/HST	A	10.3/10.0
Cut-in current LST/HST	A	15.0/10.0
Resistance, main and start winding (25°C)	Ω	7.3/12.0
Approvals		EN 60335-2-34, CCIB

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	6.2 ±0.09
Oil cooler	location/I.D. mm	F	6.2 ±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)

watt

Evap. temp in °C	-30	-25	-23.3	-20	-15	-10	-5	0	5	7.2	10
FR10G, 50Hz	91.9	136	152	188	250	324	412	516	638	697	779
FR10G, 60Hz	98.8	153	173	217	292	381					

Capacity (ASHRAE)

watt

Evap. temp in °C	-30	-25	-23.3	-20	-15	-10	-5	0	5	7.2	10
FR10G, 50Hz	113	167	188	232	308	400	510	639	791	866	968
FR10G, 60Hz	122	188	214	267	361	471					

Power consumption

watt

Evap. temp in °C	-30	-25	-23.3	-20	-15	-10	-5	0	5	7.2	10
FR10G, 50Hz	155	179	188	205	234	265	296	329	362	376	394
FR10G, 60Hz	163	194	206	230	270	314					

Current consumption

A

Evap. temp in °C	-30	-25	-23.3	-20	-15	-10	-5	0	5	7.2	10
FR10G, 50Hz	1.51	1.58	1.61	1.66	1.75	1.84	1.94	2.05	2.16	2.21	2.28
FR10G, 60Hz	1.32	1.44	1.48	1.57	1.73	1.90					

COP (EN 12900/CECOMAF)

W/W

Evap. temp in °C	-30	-25	-23.3	-20	-15	-10	-5	0	5	7.2	10
FR10G, 50Hz	0.59	0.76	0.81	0.91	1.07	1.22	1.39	1.57	1.76	1.85	1.98
FR10G, 60Hz	0.61	0.79	0.84	0.94	1.08	1.21					

COP (ASHRAE)

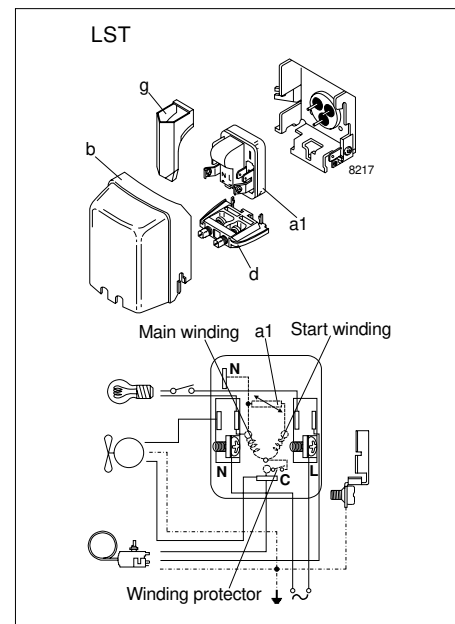
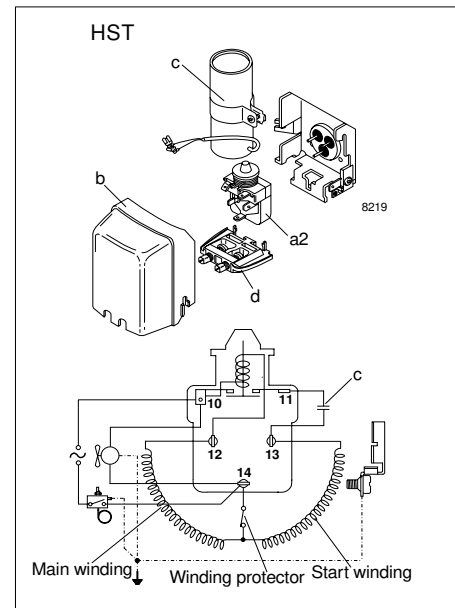
W/W

Evap. temp in °C	-30	-25	-23.3	-20	-15	-10	-5	0	5	7.2	10
FR10G, 50Hz	0.73	0.93	1.00	1.13	1.32	1.51	1.72	1.94	2.19	2.30	2.46
FR10G, 60Hz	0.75	0.97	1.04	1.16	1.34	1.50					

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: Fan cooling F_{21} , 220V		
60Hz: Fan cooling F_{21} , 220V		

Accessories

Devices	Fig.	FR10G
PTC starting device 6.3 mm spades 4.8 mm spades	a1	103N0011 103N0018
Starting relay	a2	117U6010
Cover	b	103N2010
Starting capacitor 80 µF	c	117U5015
Cord relief	d	103N1010
Protection screen for PTC	g	103N0476
Mounting accessories		
Bolt joint for one compressor		118-1917
Bolt joint in quantities		118-1918
Snap-on in quantities		118-1919



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