

# FR10G

## Universal Compressor

### R134a

### 220-240V 50Hz

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

**General**

Compressor	<b>FR10G</b>
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 <sub>2</sub>	
		38°C	LBP: O/F <sub>1</sub>
		43°C	LBP: O/F <sub>1</sub>
		HBP: F <sub>2</sub>	

**Design**

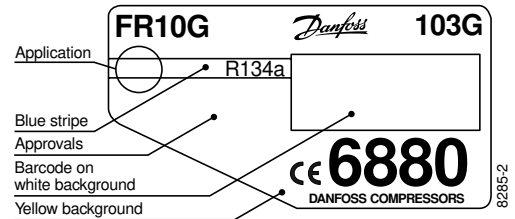
Displacement	cm <sup>3</sup>	9.05
Oil quantity	cm <sup>3</sup>	450
Maximum refrigerant charge	g	900
Free gas vol. in compressor	cm <sup>3</sup>	1350
Weight without electrical equipment	kg	10.6

**Motor**

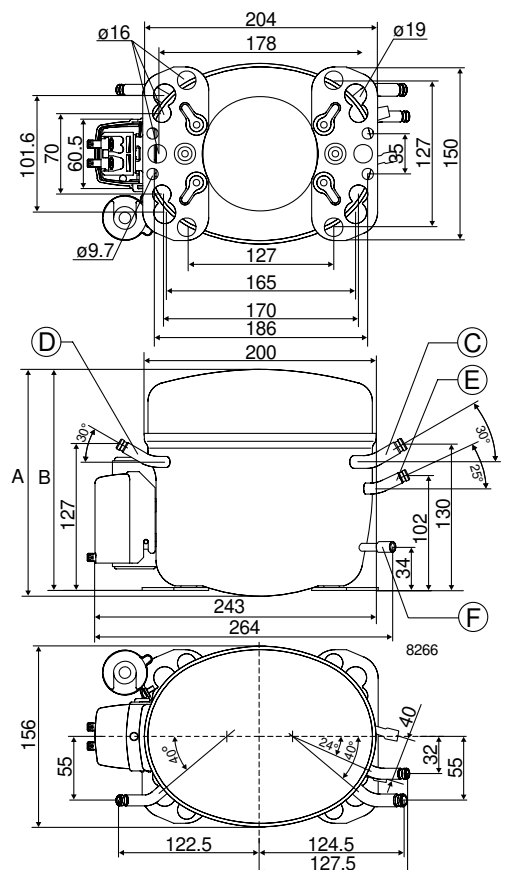
Motor size	watt	275
LRA (rated after 4 sec. UL984) LST/HST	A	10.3/10.0
Cut-in current LST/HST	A	15.0/10.0
Resistance, main and start winding (25°C)	Ω	7.3/12.0
Approvals		EN 60335-2-34, CCIB

**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
- 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



### 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)

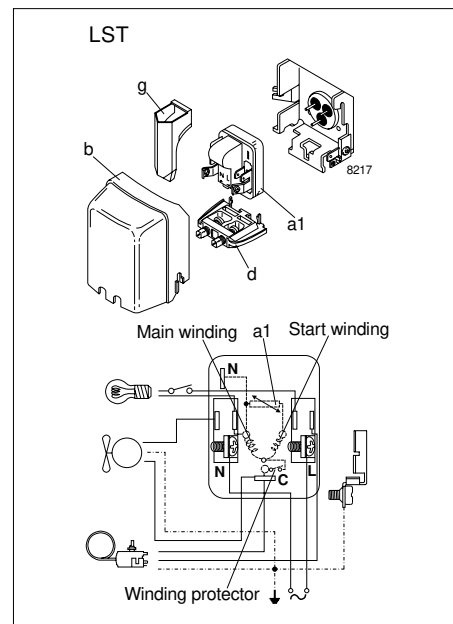
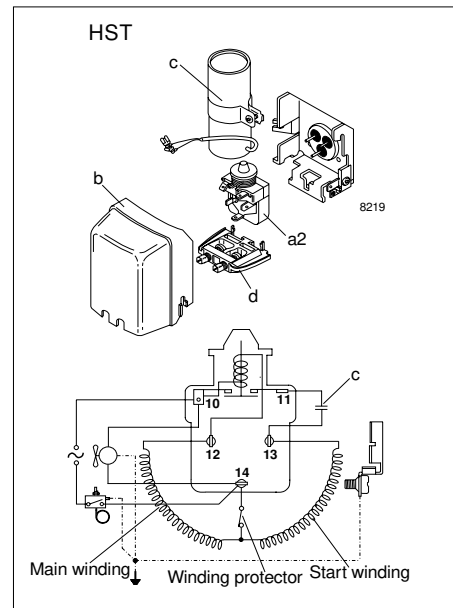
W/W

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 $F_{22}$ , 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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