

# SC12GH

## Heat Pump Compressor

### R134a

### 220-240V 50/60Hz

#### General

Code number	104G8261
Approvals	EN 60335-2-34, UL984
Compressors on pallet	80

#### Application

Application	HBP						
Frequency	Hz	50			60		
Evaporating temperature	°C	-10 to 20			-15 to 15		
Voltage range	V	198 - 254			198 - 254		
Max. condensing temperature continuous (short)	°C	70 (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		-	-	F <sub>2</sub>	-	-	F <sub>2</sub>
38°C		-	-	F <sub>2</sub>	-	-	F <sub>2</sub>
43°C		-	-	F <sub>2</sub>	-	-	F <sub>2</sub>
Remarks on application:							

#### Motor

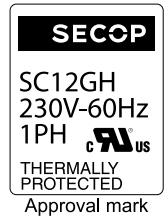
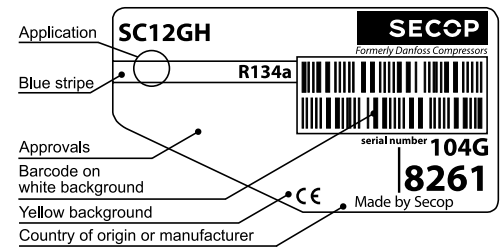
Motor type	CSIR		
LRA (rated after 4 sec. UL984), HST   LST	A	19.7	-
Cut in Current, HST   LST	A	19.7	-
Resistance, main   start winding (25°C)	Ω	4.3	15.3

#### Design

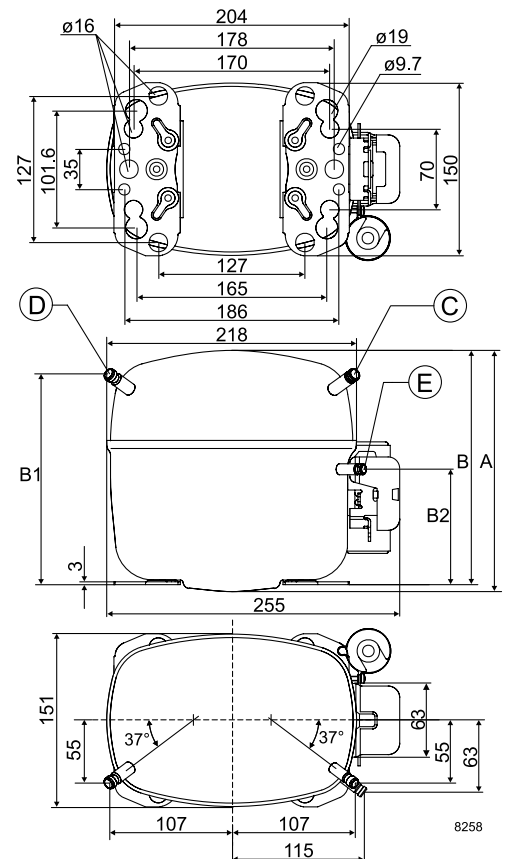
Displacement	cm <sup>3</sup>	12.87
Oil quantity (type)	cm <sup>3</sup>	500 (polyolester)
Maximum refrigerant charge	g	1300
Free gas volume in compressor	cm <sup>3</sup>	1510
Weight without electrical equipment	kg	12.95

#### Dimensions

Height	mm	A	209
		B	203
		B1	183
		B2	100
Suction connector	location/I.D. mm   angle	C	10.2   37°
	material   comment		Cu-plated steel   Al cap
Process connector	location/I.D. mm   angle	D	6.2   37°
	material   comment		Cu-plated steel   Al cap
Discharge connector	location/I.D. mm   angle	E	8.2   37°
	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									429	524	577	752	957	1058	1196	1471	1787
Power cons. in W									356	386	401	445	487	505	526	561	590
Current cons. in A									3.08	3.16	3.21	3.34	3.47	3.53	3.60	3.73	3.86
COP in W/W									1.20	1.36	1.44	1.69	1.97	2.10	2.27	2.62	3.03

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

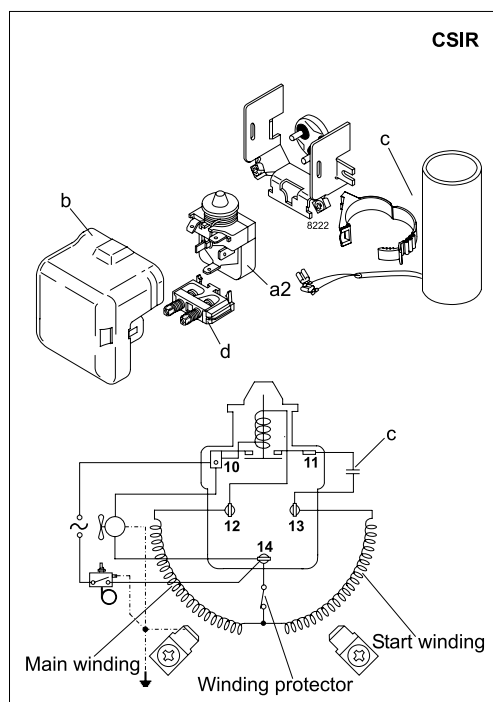
Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W								371	511	619	680	880	1116	1233	1393	1714	
Power cons. in W								332	389	426	445	501	556	579	608	658	
Current cons. in A								2.37	2.61	2.76	2.84	3.06	3.28	3.37	3.49	3.68	
COP in W/W								1.12	1.31	1.45	1.53	1.76	2.01	2.13	2.29	2.60	

**ASHRAE HBP 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									474	579	637	830	1055	1166	1318	1622	1972
Power cons. in W									356	385	400	443	484	502	522	556	584
Current cons. in A									3.08	3.16	3.20	3.33	3.46	3.52	3.59	3.72	3.84
COP in W/W									1.33	1.50	1.59	1.87	2.18	2.33	2.52	2.92	3.38

**ASHRAE HBP 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								409	564	682	749	970	1230	1359	1536	1890	
Power cons. in W								332	388	425	444	499	552	575	604	653	
Current cons. in A								2.37	2.61	2.76	2.83	3.05	3.26	3.35	3.47	3.66	
COP in W/W								1.23	1.45	1.61	1.69	1.94	2.23	2.36	2.54	2.90	



Accessories for	SC12GH	Figure	Code number	Test conditions	EN 12900/CECOMAF	ASHRAE HBP
PTC starting device	6.3 mm spade connectors	a1	-	Condensing temperature	55°C	55°C
	4.8 mm spade connectors		-	Ambient temperature	32°C	35°C
Starting relay	6.3 mm spade connectors	a2	117U6011	Suction gas temperature	32°C	35°C
Cover		b	103N2008	Liquid temperature	55°C	46.1°C
Start. capacitor 80 µF	6.3 mm spade connectors	c	117U5017			
Cord relief		d	103N1004			
Protection screen for PTC		g	-			
				<b>Mounting accessories</b>		<b>Code number</b>
				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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