



**Capacity (EN 12900 Household/CECOMAF)** 12V DC, static cooling **watt**

rpm \ °C	-30	-25	-23.3	-20	-15	-10	-5	0	5	7.2	10	15
2,500	35.3	49.5	55.0	66.6	87.1	112	140					
3,100	41.8	59.0	65.6	79.6	104	133	168					
3,800	49.6	70.5	78.5	95.3	125	159	200					
4,400	54.8	78.0	86.7	105	138	176	221					

**Capacity (ASHRAE LBP)** 12V DC, static cooling **watt**

rpm \ °C	-30	-25	-23.3	-20	-15	-10	-5	0	5	7.2	10	15
2,500	43.5	61.1	67.8	82.2	108	138	174					
3,100	51.5	72.8	80.9	98.2	129	165	207					
3,800	61.1	87.0	96.8	118	154	197	248					
4,400	67.6	96.1	107	130	170	218	274					

**Power consumption** 12V DC, static cooling **watt**

rpm \ °C	-30	-25	-23.3	-20	-15	-10	-5	0	5	7.2	10	15
2,500	40.0	50.0	53.4	60.3	71.3	83.1	96					
3,100	48.7	61.2	65.4	73.8	87.0	101	118					
3,800	59.5	75.0	80.2	90.3	106	124	145					
4,400	69.0	87.0	93.0	105	123	144	168					

**Current consumption (for 24V applications the following must be halved)** **A**

rpm \ °C	-30	-25	-23.3	-20	-15	-10	-5	0	5	7.2	10	15
2,500	3.3	4.2	4.5	5.0	5.9	6.9	8.0					
3,100	4.1	5.1	5.5	6.1	7.2	8.5	9.8					
3,800	5.0	6.3	6.7	7.5	8.9	10.3	12.1					
4,400	5.8	7.2	7.7	8.7	10.3	12.0	14.0					

**COP (EN 12900 Household/CECOMAF)** **W/W**

rpm \ °C	-30	-25	-23.3	-20	-15	-10	-5	0	5	7.2	10	15
2,500	0.88	0.99	1.03	1.10	1.22	1.34	1.46					
3,100	0.86	0.96	1.00	1.08	1.20	1.31	1.42					
3,800	0.83	0.94	0.98	1.06	1.17	1.28	1.39					
4,400	0.79	0.90	0.93	1.01	1.12	1.22	1.32					

**COP (ASHRAE LBP)** 12V DC, static cooling **W/W**

rpm \ °C	-30	-25	-23.3	-20	-15	-10	-5	0	5	7.2	10	15
2,500	1.09	1.22	1.27	1.36	1.51	1.66	1.81					
3,100	1.06	1.19	1.24	1.33	1.48	1.62	1.76					
3,800	1.03	1.16	1.21	1.30	1.45	1.59	1.71					
4,400	0.98	1.11	1.15	1.24	1.38	1.51	1.63					

Test conditions	EN 12900/CECOMAF	ASHRAE LBP
Condensing temperature	55°C	54.4°C
Ambient temperature	32°C	32°C
Suction gas temperature	32°C	32°C
Liquid temperature	no subcooling	32°C

**Operational errors errors shown by LED (optional)**

Error code	Error type
5	<b>Thermal cut-out of electronic unit</b> (If the refrigeration system has been too heavily loaded, or if the ambient temperature is high, the electronic unit will run too hot).
4	<b>Minimum motor speed error</b> (If the refrigeration system is too heavily loaded, the motor cannot maintain minimum speed at approximately 2,450 rpm).
3	<b>Motor start error</b> (The rotor is blocked or the differential pressure in the refrigeration system is too high (>5 bar)).
2	<b>Fan over-current cut-out</b> (The fan loads the electronic unit with more than 1A <sub>peak</sub> ).
1	<b>Battery protection cut-out</b> (The voltage is outside the cut-out setting).

**Compressor speed**

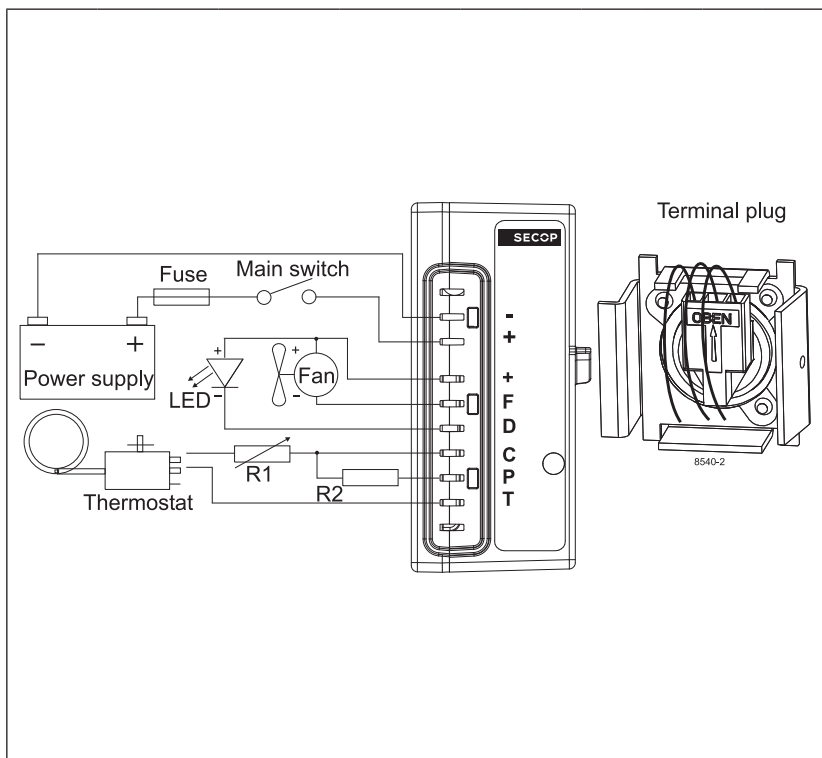
Electronit unit	Resistor (R1) [Ω]	Motor speed	Control circuit current [mA]
Code number	calculated values	[rpm]	
<b>101N0290 with AEO</b>	0	AEO	6
	203	2,500	5
	451	3,100	4
	867	3,800	3
	1700	4,400	2

In AEO (Adaptive Energy Optimizing) speed mode the BD compressor will always adapt its speed to the actual cooling demand.

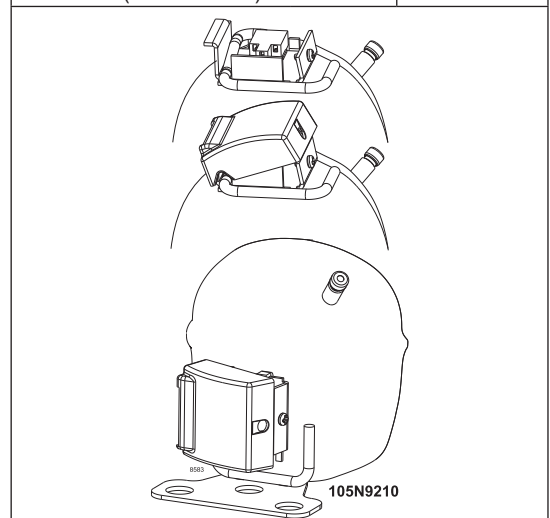
**Wire Dimensions DC**

Cross section [mm²]	Size AWG [Gauge]	Max. length* 12V operation		Max. length* 24V operation	
		[m]	[ft.]	[m]	[ft.]
6	10	2.5	8	5	16

\*Length between battery and electronic unit



Accessories for BD80F	Code number
Bolt joint for one compressor Ø:16 mm	118-1917
Bolt joint in quantities Ø:16 mm	118-1918
Snap-on in quantities Ø:16 mm	118-1919
Remote kit (without cable)	105N9210



Standard automobile fuse	12V: 30A	Not deliverable from Secop
DIN 7258	24V: 15A	
Main switch	min. 30A	

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