

Proprietary Information of:  <b>POWER SOLUTIONS &amp; PROTECTION</b> a bel group	Title: <b>EMC Declaration of Conformity</b>	Document No. <b>URR.03474</b>	Rev. <b>AE</b>
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## *Declaration of Conformity*

We, Bel Fuse Inc., hereby declare under our sole responsibility that the products herein after referred to are in compliance with the European **EMC Directive 2014/30/EU**.

Manufacturer/Address: **Bel Fuse Inc.**  
**206 Van Vorst Street, Jersey City, New Jersey,**  
**USA 07302**

Product: **DC-DC Converter**

Type Designation: HP1001, HP1301, HP1501, HP1601 Series  
 HP2001, HP2020, HP2040, HP2320, HP2540, HP2660 Series  
 HP3020, HP3040, HP3060 Series  
 HP4320, HP4540, HP4560, HP4660 Series  
 HP8029-9RG  
 (Refer to detailed P/N on next page(s))

Directive: **DIR 2014/30/EU, EMC Directive**  
 EMC Standard(s): **EN 55011:2016/A1:2017**  
**EN 50121-3-2:2016**  
**EN 50121-4:2016**

Prepared by:

  
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 (Manufacturer) **Dubnica nad Váhom, Slovakia** (Place) **Oct 07, 2019** (Date)  
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Approved by:

  
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 (Manufacturer) **Uster, Switzerland** (Place) **Oct 07, 2019** (Date)  
 Rolf Baldauf, VP PMO & VAVE

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### List of Product P/N:

No.	P/N	No.	P/N
1	HP1001-9RTG	22	HP2660-9RB3G
2	HP1001-9RTVB0G	23	HP2660-9RG
3	HP1001-9RTVG	24	HP2660-9RGA101
4	HP1001-9RTB3G	25	HP2660-9RU14G
5	HP1301-9RTB1G	26	HP2660-9RVG
6	HP1301-9RTG	27	HP3020-9RG
7	HP1501-9RTB1G	28	HP3020-9RVG
8	HP1501-9RTG	29	HP3020-9TG
9	HP1601-9RTB0G	30	HP3040-9RB1G
10	HP1601-9RTG	31	HP3040-9RG
11	HP1601-9RTVG	31	HP3040-9RVG
12	HP2020-9RG	33	HP3060-9RG
13	HP2320-9RG	34	HP3060-9RU14G
14	HP2320-9RVG	35	HP3060-9RVG
15	HP2540-9RG	36	HP4320-9RG
16	HP2540-9RU21B1G	37	HP4540-9RG
17	HP2540-9RU21G	38	HP4560-9RG
18	HP2540-9RVG	39	HP4660-9RB0G
19	HP2540-9TB1G	40	HP4660-9RB1G
20	HP2660-9RB0G	41	HP4660-9RB3G
21	HP2660-9RB1G	42	HP4660-9RG

**Note:** model names may be followed by suffix indicating non-EMC critical options.

**List of Product P/N:**

No.	P/N	No.	P/N
43	HP4660-9RU14G	64	
44	HP4660-9RU21G	65	
45	HP4660-9RU42G	66	
46	HP4660-9RU70G	67	
47	HP4660-9RVG	68	
48	HP8029-9RG	69	
49		70	
50		71	
51		72	
52		73	
53		74	
54		75	
55		76	
56		77	
57		78	
58		79	
59		80	
60		81	
61		82	
62		83	
63		84	

**Part Number Description**

		H P 4 6 60 -9 R B1 G
Continuous operating input voltage $V_i$ :		
16.8 to 137.5 VDC .....	H	_____
Series .....	P	_____
Number of outputs:		
Single output (160 mm case) <sup>4</sup> .....	1	
Double output (160 mm case) <sup>4</sup> .....	2	
Triple output (160 mm case) <sup>4</sup> .....	3	
Quadruple output (160 mm case) <sup>4</sup> .....	4	_____
Nominal voltage output 1/output 4, $V_{o1/4 nom}$ :		
5.1 V .....	0	
12 V .....	3	
15 V .....	5	
24 V .....	6	_____
other voltages <sup>1</sup> .....	7, 8	
Other specifications and additional features <sup>1</sup> .....	01, ... 99	_____
Nominal voltage output 2/output 3, $V_{o2/3 nom}$ :		
5.1 V .....	01	
12 V .....	20	
15 V .....	40	
24 V .....	60	_____
other voltages and features <sup>1</sup> .....	80, ... 99	
Operational ambient temperature range $T_A$ :		
-40 to 71 °C .....	-9	_____
other <sup>1</sup> .....	0	
Output voltage adjust (auxiliary function) .....	R <sup>3</sup>	_____
Options:		
Current sharing .....	T <sup>2</sup>	
UVL (preadjusted $V_{lim}$ ) .....	Uxx <sup>5</sup>	
V (rotary switch to adjust $V_{lim}$ ) .....	V <sup>6</sup>	
Heatsink 10, 20, 30 mm .....	B0, B1, B3	_____
RoHS-compliant for all 6 substances .....	G	_____

<sup>1</sup> Customer-specific models.  
<sup>2</sup> Only available for single-output powertrains. Option T excludes option R, except for single-output models; refer to table 12.  
 T is standard for single-output models  
<sup>3</sup> The R-input influences the first power train only; refer to table 12.  
<sup>4</sup> Models with 220 mm case length. Just add 5000 to the standard model number, e.g. HP3020-9RG → HP8020-9RG.  
<sup>5</sup> For full compatibility with former P Series, the start voltage can be preadjusted depending on the nominal battery voltage. Excludes opt. V.  
<sup>6</sup> Excludes opt. U.

**Note:** The sequence of options must follow the order above.

**Example:** HP4660-9RB1G: DC-DC converter, input voltage 16.8 to 137.5 V, 4 outputs providing 24V each, heatsink B1, ambient temperature of -40 to 71 °C, RoHS-compliant.

**Note:** All models exhibit the following auxiliary functions, which are not reflected in the type designation: input and output filters, primary referenced PUL (programmable undervoltage shutdown with inhibit function), sense lines (single-, double-, triple-output models only), and LED indicators.