

Proprietary Information of:  <b>POWER SOLUTIONS &amp; PROTECTION</b> a bel group	Title: <b>EN 50155 Declaration of Conformity</b>	Document No. <b>URR.20094</b>	Rev. <b>B</b>
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## **Declaration of Conformity**

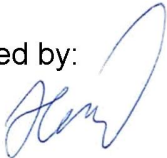
We, Bel Fuse Inc., hereby declare under our sole responsibility that the products herein after referred to are in compliance with the **EN 50155:2021**.

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

Product: **AC-DC Converter**


Type Designation: **LR Series**  
 (Refer to Annex 1 listing part number Description)

Standard(s): **EN 50155:2021**  
**EN 50124-1:2017**  
**EN 50125-1:2014**  
**EN 50121-3-2:2016**  
**EN 60529:1991**  
**EN 61373:2010**  
**EN 45545-2:2020**  
 (Refer to Annex 2 listing achieved compliance)

Prepared by: 

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**Dubnica nad Váhom, Slovakia** **April 20<sup>th</sup>, 2022**  
*Marian Barciak,* *Place* *Date*  
*Engineering Manager*

Approved by: 

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**Uster, Switzerland** **April 20<sup>th</sup>, 2022**  
*Silvan Mueller,* *Place* *Date*  
*Business Development*  
*Manager*

## Annex 1: Product part number description

### Part Number Description

Operating input voltage $V_{i\ cont}$ (continuously):					
90 – 264 VAC, 125 – 300 VDC .....	LR, LRP	_____			
Number of outputs .....	2	_____			
Nominal voltage of main output $V_{o1\ nom}$					
12 V .....	3	_____			
15 V .....	5	_____			
Other voltages <sup>1</sup> .....	1 - 9	_____			
Nominal voltage of tracking output $V_{o2}$ <sup>2</sup>					
12 V .....	20	_____			
15 V .....	40	_____			
Other specifications or additional features <sup>1</sup> .....	11 – 99	_____			
Operational temperature range: $T_A$ :					
$T_A = -40$ to $71$ °C, $T_C \leq 95$ °C .....	-9	_____			
Other <sup>1</sup> .....	-0, -5, -6	_____			
Auxiliary functions and options:					
Fuse options .....	F0, F2	_____			
Cooling plate standard case .....	B, B1	_____			

LR 2 3 20 -9 B1

<sup>1</sup> Customer-specific models. No safety-relevant changes compared to the respective basic model, e.g. different mechanical details, special markings, mounted front plates, reduced output voltage, etc.

<sup>2</sup> The nominal voltages of both outputs are always equal.

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

**Example:** LR2320-9B1: AC-DC converter, operating input voltage range 90 to 264 VAC, 2 isolated outputs, each providing 12 V, 10 A, cooling plate B1, RoHS-compliant for all six substances.

## Annex 2: Compliance status

Subclause	Title	Default requirement	Product compliance
4.4.1	Altitude	Class A1 (1400 meters) Table 1 of EN 50125-1	Fulfilled (AX - 2000 meters)
4.4.2	Operating temperature	Table1: Class OT3 (-25 to +71 degC)	Fulfilled (OT4)
4.4.3	Switch-on extended op. temp.	Table2: Class ST1 (Test cycle B)	Fulfilled (ST1)
4.4.4	Rapid temperature variation	Table3: Class H1 (No requirements)	Fulfilled (H1)
4.4.5	Shock and Vibration	Category 1; Class B of EN 61373:2010	Fulfilled
4.4.6	Electromagnetic compatibility	In compliance with EN 50121-3-2:2016	Fulfilled
4.4.7	Relative humidity	In compliance with EN 50125-1:2014	Fulfilled
4.5.2	Atmospheric pollutants	No requirements applies by default	Fulfilled (Salt Mist per EN 50155:2017, clause 13.4.13)
5.2.2	The nominal voltage of equipment (Un)	Either of following values: 24 V, 28 V, 36 V, 48 V, 72 V, 96 V, 110,120 V	Not applicable (Un=230VAC)
5.2.2	Continuous DC power supply range	Table4: 0.7 x Un – 1.25 x Un	Fulfilled
5.2.3	Temporary DC power supply fluctuation	0.6 x Un – 1.4 x Un (for 100msec)	Fulfilled
5.2.4	Interruption of voltage supply	Table5: Class S2 (10 msec)	Fulfilled (S2)
5.2.5	Supply Change-Over	Table6: Class C1	Fulfilled (C1)
5.2.7	DC ripple factor	Ripple factor of +/- 5%	Fulfilled (+/-5%)
6.2	Useful life	Class L4	Fulfilled (L4)
6.3.2	Preventive maintenance	No periodic maintenance applies	Fulfilled (No maintenance required)
7.2.1	Insulation Coordination	Pollution degree PD2 of EN 50124-1	Fulfilled (PD2)
		Table 13 (13.4.7): Insulation & withstand tets voltages shall be applied	Fulfilled
10.2.1	Electronic assembly acceptability	Class 2 according to IPC-A-610	Fulfilled (Class 2)
10.2.5	IC Sockets and Edge connectors	Class K2 (not allowed)	Fulfilled (K2)
10.7	Protective coatings for PCB's	Class PC2	Fulfilled (PC2)
10.9	Mounting	Enclosure shall provide the necessary protection (IP code acc to EN60529:1991)	Fulfilled (IP40)
10.10	Cooling and ventilation	Forced ventilation for cooling is not allowed	Fulfilled (No forced cooling)
11.4	Fire behavior requirements	Fire behavior testing shall be according to EN 45545-2:2020.	Fulfilled (Hazard level 3)
12.7.8.3	Programmable component	Table10: Class M0	Not Applicable (No user programmable components)