

Proprietary Information of:  <b>bel</b> POWER SOLUTIONS & PROTECTION <small>a bel group</small>	Title: <b>EN 50155 Declaration of Conformity</b>	Document No. <b>URR.20153</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**.

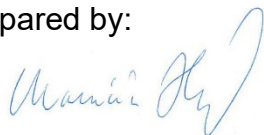
Manufacturer/Address: **Bel Fuse Inc.**  
**300 Executive Drive, Suite 300**  
**West Orange, NJ 07052**  
**USA**

Product: **DC-DC Converter**

Type Designation: **RCM300-2424 Series**  
 (Refer to Table 1 listing affected part numbers)

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 Table 2 listing achieved compliance)

Prepared by:



**Dubnica nad Váhom, Slovakia**

**Oct 8<sup>th</sup>, 2023**

*Marian Hostačný,  
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*Place*

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Approved by:



**Uster, Switzerland**

**Oct 8<sup>th</sup>, 2023**

*Silvan Mueller,  
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Manager*

*Place*

*Date*

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**Table 1: List of affected product part numbers**

No.	P/N	No.	P/N
1	24RCM300-2424DM	7	110RCM300-2424DM
2	24RCM300-2424DMK	8	110RCM300-2424DMK
3	24RCM300-2424DMQ	9	110RCM300-2424DMQ
4	24RCM300-2424DMQK	10	110RCM300-2424DMQK
5	24RCM300-2424DMQF	11	110RCM300-2424DMQF
6	24RCM300-2424DMQFK	12	110RCM300-2424DMQFK

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

**Part Number Description**

		110 RCM 300 -2424 DM Q F K
Operating input voltage $V_{I,cont}$ (continuously):		
16.8 – 45 VDC .....	24	
50.4 – 137.5 VDC .....	110	
Series .....	RCM	
Output power:		
300 W .....	300	
Nominal output voltage:		
+24 / -24 V .....	2424	
Auxiliary functions and options:		
Out OK, interruption time, shutdown.....	DM	
Option: ORing FET .....	Q	
Option: Fuse built-in .....	F	
Option: Pluggable Connectors .....	K	

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

**Note:** All models are RoHS-compliant for all six substances.

Available combinations of options:  
 24/110RCM300-2424DM (K)  
 24/110RCM300-2424DMQ (K)  
 24/110RCM300-2424DMQF (K)

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**Table 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 - 3000 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 apply by default	Fulfilled (Salt Mist per EN 50155:2021, 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 V	Fulfilled (24V, 36V, 48V, 72V, 96, 110V)
5.2.2	Continuous DC power supply range	Table4: 0.7 x Un – 1.25 x Un	Fulfilled (16.8V – 45V for 24RCM) (50.4V – 137.5V for 110RCM)
5.2.3	Temporary DC power supply fluctuation	Table4: 0.6 x Un – 1.4 x Un (for 100msec)	Fulfilled (14.4V – 52.5V for 24RCM) (43.2V – 154V for 110RCM)
5.2.4	Interruption of voltage supply	Class S2 (10 msec)	Fulfilled (S2 – 10msec)
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 test 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	Fulfilled (IP30)
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