

Certificate of Compliance

Certificate: 80174469 Master Contract: 170351

Project: 80174469 **Date Issued:** 2023-07-06

Issued To: Bel Fuse Inc.

206 Van Vorst St

Jersey City, New Jersey, 07302

United States

Attention: Editha S. Vergara

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.

Issued by: Gwangyeol Park
Gwangyeol Park



PRODUCTS

CLASS - C531167 - POWER SUPPLIES Component Type (CSA 62368-1) CLASS - C531197 - POWER SUPPLIES - Component Type (UL 62368-1) - Component Type (UL 62368-1)

- Certified to US Stds

Component type power supplies intended for use with Information Technology and Business Equipment, where the suitability of the combination is to be determined by CSA Group.

DC-DC Switching Power Supply, RCM1000 Series; see below for details.



 Certificate: 80174469
 Master Contract: 170351

 Project: 80174469
 Date Issued: 2023-07-06

Electrical Rating:

Model	Input (DC)		Output (DC)	
	V	A	V	A
72RCM1000-24 models	50.4 - 90Vdc	24	24	42
110RCM1000-24 models	77 - 137.5Vdc	20	24	42

Maximum operating ambient: 70°C, Maximum Case temperature 90°C for 72RCM1000 Series and 80°C for 110RCM1000, at full rated output load.

Model Name Nomenclature:

Typical Model Designation: 110 RCM 1000 - 24 DMQFK I II III IV V

I – Input Voltage, Vdc: 72: 50.4 - 90 VDC, 72 Vdc nominal (Input voltage range is adjustable)

110 – 77 to 137.5 Vdc, 110 Vdc nominal (Input voltage range is adjustable)

II – Model Series: RCM

III – Output Power 1000 - 1000W

IV – Nominal Output Voltage, Vdc: 24 - 24 V

V – Auxiliary functions and options: D - Out OK, output voltage adjust, shutdown

M - Interruption time

Q - Oring FET

F - Fuse built-in

K - Pluggable Connectors

<u>Note</u>: The sequence of options must follow the order above. Any model name can be formulated based on output voltage and different options. Model name maybe followed by alpha-numeric characters indicating non-safety critical options.

CONDITIONS OF ACCEPTABILITY:

- 1. The power supply is to be installed in the end product where the suitability of installation is to be evaluated in the end product.
- 2. Evaluated as Class I (earthed equipment). Reliable earth connection shall be provided in the end use installation.



 Certificate: 80174469
 Master Contract: 170351

 Project: 80174469
 Date Issued: 2023-07-06

- 3. The product was evaluated at maximum Case Temperature, Tc of 90°C for 72RCM1000 and Tc of 80°C for 110RCM1000, with full output power. Temperature tests shall be considered for specific installation conditions in the end system.
- 4. Maximum operating temperatures: Equipment for building-in. Heating test was conducted monitoring the internal components temperature. Accessibility to high component temperature must be considered on end system equipment.
- 5. Suitability of the enclosure provided with the equipment as a FIRE, MECHANICAL and ELECTRICAL enclosure is to be determined in the end system except for front panel which complies with FIRE, MECHANICAL and ELECTRICAL enclosure requirement.
- 6. The secondary outputs are ES1 at PS3. Accessibility is to be determined in the end system.
- 7. The input and output connectors are approved for use as field wiring (Non K-option models).
- 8. Measured temperature of outside surfaces are within the limit of TS1 based on 25°C ambient. Accessibility must be determined in the end system when operating at higher ambient temperatures.
- 9. The unit was tested on a DC power source of max. 25 A capacity for 110RCM1000 models and 50 A for 72RCM1000 models. Additional evaluation may be needed if higher current source is used.
- 10. The ground path from the input connector to the PSU case meets protective bonding at 50 A for 110RCM1000 models and 100A for 72RCM1000 models.
- 11. Safety isolating transformers T101 and T102 employ an insulation system designated Class F.
- 12. The unit was tested per manufacturer's recommended rated input voltage with zero tolerance.
- 13. The Clearance values of the Power Supply unit (PSU) have been evaluated for an altitude of 3000m, under IEC60664-1:2007 Table A.2 (altitude correction factor is 1.14).
- 14. Basic insulation is provided between input to metal enclosure, If the unit is operated within an IT Power system, the Power system shall provide an additional safety measure against electrical shock in case of failure (e.g. Insulation monitor).
- 15. PCBs used for this equipment have been separately evaluated and determined to comply with requirements for Printed Boards per G.13.4.
- 16. Identification marking (trade-mark and model name) are marked on the equipment. However, the marked surface is not to be located an external area where it is likely to be cleaned with cleaning solution, rubbed, etc. Therefore, the durability test was not considered because the equipment is a component level product for building-in.



Certificate: 80174469 **Project:** 80174469

Master Contract: 170351 Date Issued: 2023-07-06

APPLICABLE REQUIREMENTS

CAN/CSA C22.2 No. 62368-1-19 Audio/video, information and communication technology

equipment – Part 1: Safety requirements

UL 62368-1 3rd Ed. Audio/video, information and communication technology

equipment - Part 1: Safety requirements

Notes:

Products certified under Class C531167 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). www.scc.ca





Supplement to Certificate of Compliance

Certificate: 80174469 Master Contract: 170351

The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
80174469	2023-07-06	Original CSA c/us evaluation of DC-DC Switching Power Supply, RCM1000 Series - based on acceptance of data under the CPC / CTF-3 program