INSTALLATION INSTRUCTION

RCM500/1000 Series
500/1000 W DC-DC Converters

OPERATION RANGE

Refer to product rating label for input and output ratings.

INSTALLATION

Connection to the system shall only be performed with cables with suitable section or mating connectors (option K).

The auxiliary connector shall be connected via the suitable female connector.

Other installation methods may not meet the safety requirements. Check that PE is safely connected to protective earth.

Do not open the converters, or the warranty will be invalidated.

For more details refer to Product datasheet / Accessories datasheets (application notes) at belfuse.com/power-solutions and go to the respective product or family part number listing.

CLEANING LIQUIDS AND PROTECTION DEGREE

The converters are not hermetically sealed. In order to avoid possible damage, any penetration of liquids shall be avoided.

The converters correspond to protection degree IP 30.

CAUTIONS

These converters are components, intended exclusively for inclusion by an industrial assembly process or by a professionally competent person. Installation must strictly follow the national safety regulations in respect of the enclosure, mounting, creepage distances, clearances, markings and segregation requirements of the end-use application.

This is a Class A product. In a residential environment this product may cause radio interference in which case the user may be required to take adequate measures.

SAFETY OF OPERATOR-ACCESSIBLE OUTPUT CIRCUITS

If the output circuit of a DC-DC converter is operator accessible, it shall be an ES1 circuit according to the IEC 62368-1 3rd edition related safety standard. It is the sole responsibility of the installer to ensure the compliance with the relevant and applicable safety regulations.

If several outputs are connected in series, the resulting voltage may exceed the ES1 level and require additional safety measures in order to comply with international safety standards.

ISOLATION

The electric strength test is performed in the factory as routine test. It should not be repeated in the field. The Company will not honor warranty claims resulting from incorrectly executed electric strength tests.

FUSING

The converter is not equipped with internal fuse (except for option F). Make sure the fuse is installed before the input connector.

Option F has an incorporated fuse with active reverse polarity protection formed by a FET device. The fuse is not accessible and will not trip, unless the converter is defective.

The recommended types of incorporated / external fuses are listed in the table below.

Recommended external fuses (same as with option F)

Model	Fuse type	Reference and rating
72RCM500-24	15 A fast acting	Littlefuse 0505015.MX52 LEP
110RCM500-24	15 A fast acting	Littlefuse 0505015.MX52 LEP
72RCM1000-24	2x 25 A fast acting	Littlefuse 0505025.MX52 LEP
110RCM1000-24	25 A fast acting	Littlefuse 0505025.MX52 LEP

SERVICING

The product(s) must be returned to the Authorized Bel Service Center for repair with a pre-assigned RMA number

LIMITED WARRANTY

The company warrants each power supply of its manufacture for a period of five years from the date of original shipment. This warranty applies to defects in materials and workmanship that result in non-performance to published specifications. The product(s) must be returned to the Authorized Service Center for repair with a pre-assigned RMA number.

The company assumes no liabilities for consequential damages of any kind through the use or misuse of its products by any user. No other obligations are expressed or implied.

Please note that the specifications, terms, and conditions stated are subject to change without notice.

INPUT AND OUTPUT CONNECTOR DETAILS

Refer to the Product datasheet at belfuse.com/power-solutions.

MECHANICAL DIMENSIONS AND MOUNTING REQUIREMENTS

Refer to the Product datasheet at belfuse.com/power-solutions.

ALLOWED MOUNTING POSITION

Make sure that there is sufficient airflow available for convection cooling and that the temperature of the bottom plate is within the specified range. This should be verified by measuring the case temperature at the specified measuring point, when the converter is operated in the end-use application. $T_{C\,max}$ should not be exceeded. Ensure that a failure of the converter does not result in a hazardous condition.

NUCLEAR AND MEDICAL APPLICATIONS

These products are not designed or intended for use as critical components in life support systems, equipment used in hazardous environments, or nuclear control systems.

TECHNICAL REVISIONS

The appearance of products, including safety agency certifications pictured on labels, may change depending on the date manufactured. Specifications are subject to change without notice.

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