

Certificate of Compliance

Certificate: 70040697 (170351) **Master Contract:** 170351

Project: 70040697 **Date Issued:** 2015-07-31

Issued to: Bel Fuse Inc.

206 Van Vorst St

Jersey City, New Jersey 07302

USA

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: Juan-Carlos Olivera,

MSc.

PRODUCTS

CLASS – 5311 11 - POWER SUPPLIES - Component Type (CSA 60950-1-07-2nd Ed) CLASS – 5311 91 - POWER SUPPLIES - Component Type (UL 60950-1-2nd Ed) - Certified to U.S. Stds

For details related to rating, size, configuration, etc. reference should be made to the CSA Certification Record or the descriptive report.

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.

AC/DC Switching Power Supplies, Model MPB125 Series, SPAMCDT Series, and model SPAALCL-02.

<u>Note:</u> May be followed by R, which represents additional Vstdby circuit or D, which represents additional output oring diode or G, or SXXXX, where X can be 0-9 or any alpha character, denoting non-safety-critical options.



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Ratings as follows:

Model	Input	Outputs
MPB125-4350	100-240 V ac, 50-60 Hz, 1.8 A	+3.3 V dc, 10 A _{(1) (2)}
MPB125-S292		+5.0 V dc, 15 A _{(1) (2)}
		+12.0 V dc, 5 A
		-12.0 V dc, 0.5 A
		Maximum Output Power: 125 W
MPB125-4250	100-240 V ac, 50-60 Hz, 1.8 A	+2.5 V dc, 12 A _{(1) (2)}
		+5.0 V dc, 15 A _{(1) (2)}
		+12.0 V dc, 5 A
		-12.0 V dc, 0.5 A
		Maximum Output Power: 125 W
MPB125-3000	100-240 V ac, 50-60 Hz, 1.8 A	+5 V dc, 16.5 A ₍₃₎
		+12 V dc, 5 A
		-12 V dc, 0.5 A
1600125 2002	100 0 10 11	Maximum Output Power: 125 W
MPB125-2003	100-240 V ac, 50-60 Hz, 1.8 A	+3.3 V dc, 30 A ₍₇₎
		+12 V dc, 0.5 A
		Maximum Output Power: 105 W
MPB125-2005	100-240 V ac, 50-60 Hz, 1.8 A	+5 V dc, 25 A
		+12 V dc, 0.5 A
		Maximum Output Power: 125 W
MPB125-1012	100-240 V ac, 50-60 Hz, 1.8 A	+12 V dc, 10.5 A
		Maximum Output Power: 125 W
MPB125-2012	100-240 V ac, 50-60 Hz, 1.8 A	+12 V dc, 10.5 A
		+12 V dc, 0.5 A
		Maximum Output Power: 125 W
MPB125-2015	100-240 V ac, 50-60 Hz, 1.8 A	+15 V dc, 8.3 A
		+12 V dc, 0.5 A
		Maximum Output Power: 125 W
MPB125-2024	100-240 V ac, 50-60 Hz, 1.8 A	+24 V dc, 5.2 A
MPB125-S319		+12 V dc, 0.5 A
MPB125-S323		Maximum Output Power: 125 W
MPB125-2048	100-240 V ac, 50-60 Hz, 1.8 A	+48 V dc, 2.6 A
		+12 V dc, 0.5 A
		Maximum Output Power: 125 W
MPB125-RS299	100-240 V ac, 50-60 Hz, 1.8 A	+60 V dc, 2 A
		+12 V dc, 0.5 A
		+5 V sb, 0.2 A
		Maximum Output Power: 125 W
MPB125-S290	100-240 V ac, 50-60 Hz, 1.8 A	+24 V dc, 5.2 A ₍₄₎
MPB125-S304		Maximum Output Power: 100 W
MPB125-S295	100-240 V ac, 50-60 Hz, 1.8 A	+48 V dc, 2.6 Å
		Maximum Output Power: 125 W



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Model	Input	Outputs
MPB125-S300	100-240 V ac, 50/60 Hz, 1.8 A	+3.3 V dc, 13 A ₍₆₎
		+5 V dc, 10 A ₍₆₎
		+12 V dc, 2 A
		Maximum Output Power: 100 W
MPB125-S306	100-240 V ac, 50/60 Hz, 1.8 A	+12 V dc, 10.5 A
		Maximum Output Power: 125 W
MPB125-S322	100-240 V ac, 50/60 Hz, 1.8 A	+5 V dc, 16.5 A (3)
		+12 V dc, 5 A
		Maximum Output Power: 125 W
MPB125-4350S282	100-240 V ac, 50-60 Hz, 1.8 A	+3.3 V dc, 11 A
		+5 V dc, 4 A
		+12 V dc, 1.5 A
		Maximum Output Power: 75 W
SPAALCL-02	100/115/220/230 V ac, 50/60 Hz,	+24 V dc, 5.2 A ₍₄₎
	2/2/1 A	Maximum Output Power: 100 W
SPAMCDT-01	100-240 V ac, 50-60 Hz, 1.8 A	+12 V dc, 10.5 A ₍₅₎
SPAMCDT-02		Maximum Output Power: 125 W
SPAMCDT-03		
SPAMCDT-04		
SPAMCDT-05		
SPAMCDT-06		

These units have been evaluated for a maximum ambient temperature of 50°C using a 5 CFM external forced air cooling system and maximum total output power of 125 W, or with convection cooling to a maximum output power of 70 W. See below for other conditions.

Notes: $_{(1)}$ - The V1 and V2 outputs have been evaluated for a maximum combined output power of 80 W with 5 CFM.

- The V1 and V2 outputs have been evaluated for a maximum combined output power of 40 W with no airflow.
- (3) The V1 output has been evaluated for a maximum output power of 60 W with no airflow.
- (4) The V1 output has been evaluated for a maximum output power of 100 W with no airflow.
- (5) The unit is provided with internal fan.
- (6) The V1 and V2 outputs have been evaluated for a maximum combined output power of 75 W with 5 CFM.
- With external 5 CFM airflow V1 output may only operate up to 25A, and 30A with 10 CFM. Combined output power may not exceed 105 W with 10 CFM and 55 W with convection cooling.

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No 60950-1-07, +Am.1:2011 +Am.2:2014

UL 60950-1-2014

- Information Technology Equipment Safety Part 1: General Requirements
- Information Technology Equipment Safety Part 1: General Requirements



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CONDITIONS OF ACCEPTABILITY

- 1. This component has been judged on the basis of the required spacings in the Standard for Safety of Information Technology Equipment, CSA/UL 60950-1, Second Edition, Sub clause 2.10, which would cover the component itself if submitted for Listing.
- 2. The power supply shall be installed in compliance with the enclosure, mounting, spacing, casualty and segregation requirements of the end-use application.
- 3. This power supply has only been evaluated for use in a Pollution Degree 2 environment.
- This power supply has been evaluated for use in a 50°C ambient. An additional evaluation should be made if the power supply is intended to be used in an elevated ambient.
- 5. The power supply shall be properly bonded to main protective earthing termination in the end product.
- 6. The input and output connectors have not been evaluated for field connection and are only intended for connection to mating connectors of internal wiring inside the end-use machine. The acceptability of these and the mating connectors relative to secureness, insulating materials, and temperature shall be considered.
- 7. Magnetic device transformer, T1 employs an OBJY2 electrical insulation system designated Class B.
- 8. The secondary outputs of this power supply are SELV, except the outputs of model MPB125-RS299 which are hazardous voltage.
- 9. All secondary outputs of these power supplies are not hazardous energy levels.
- 10. The unit was evaluated with external forced air cooling of 5 CFM, (10 CFM for MPB125-2003) and with convection cooling only; except as noted for model SPAALCL-02, which is tested inside a chassis.

 Models SPAMCDT-01 and SPAMCDT-02 were tested with their chassis which include 3 internal fans.

 No external cooling was provided. Power for the fans was provided by an external power source.
- 11. A suitable Electrical and Fire enclosure shall be provided.



Supplement to Certificate of Compliance

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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
70040697	2015-07-31	AC/DC Switching Power Supplies, Model MPB125 Series, SPAMCDT Series, and model SPAALCL-02. (C/US) (transferred from 173688 -2237842 and upgraded to include Am2).