

Certificate of Compliance

Certificate:	80014013	Master Contract:	170351
Project:	80014013	Date Issued:	2019-08-14

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 (ANSI/UL 62368-1) - Cert to U.S. 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.

AC/DC Switching Power Supply, Models FNP850-12, FNP850-12R, FNP850-12AR, FNP850-12S124, FNP850-12S125, FNP850-S139, FNP850-S151, FNP600-12, FNP600-12R, FNP600-48, FNP600-12S120, FNP1000-48, FNP1000-48S101 may be followed by suffix G or SXXX; where X indicates letters and/or numbers 0-9, denoting non-safety critical options. FNP600 models may be followed by suffix R indicating reverse.

Electrical Rating:



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Model FNP850-12 rated Input: 100-240V, 12A, 50/60Hz; Output (DC): V1: 12V, 73A; Vaux: 12V, 0.5A

Model FNP850-12R rated Input: 100-240V, 12A, 50/60Hz; Output (DC): V1: 12V, 73A¹; Vaux: 12V, 0.5A

Model FNP850-12S124 rated Input: 100-240V, 12A, 50/60Hz; Output (DC): V1: 12V, 60A; Vaux: 12V, 0.5A

Model FNP850-12S125 rated Input: 100-240V, 12A, 50/60Hz; Output (DC): V1: 12V, 68A; Vaux: 12V, 0.5A

Model FNP850-S139 rated Input: 100-240V, 12A, 50/60Hz; Output (DC): V1: 12V, 73A¹); Vaux: 5V, 2A

Model FNP850-S151 and FNP850-12AR rated Input: 90-240V, 14A, 50/60Hz; Output (DC): V1: 12V, 69.5A; Vaux: 12V, 1.35A

Model FNP600-12 rated Input: 100-240V, 9A, 50/60Hz; Output (DC): V1: 12V, 51A; Vaux: 12V, 0.5A

Model FNP600-12R rated Input: 100-240V, 9A, 50/60Hz; Output (DC): V1: 12V, 51A; Vaux: 12V, 0.5A

Model FNP600-48 rated Input: 100-240V, 9A, 50/60Hz; Output (DC): V1: 48V, 12.6A; Vaux: 12V, 0.5A

Model FNP600-12S120 rated Input: 100-240V, 9A, 50/60Hz; Output (DC): V1: 12V, 51A; Vaux: 5V, 1A

Model FNP1000-48 and FNP1000-48S101 rated Input: 100-240V, 14A, 50/60Hz; Output (DC): V1: 48V, 21A; Vaux: 12V, 0.5A

Notes:

- 1) FNP850-12 series models Maximum total output power: 850 Watts at 40°C ambient, de-rated to 800 W at 50°C ambient.
- FNP850-S151 Maximum 850 W at 200-240 V ac, maximum 50°C ambient, de-rated to 740 W at 90-180 V ac, maximum 40°C ambient, de-rated to 700 W at 90-180 V ac, maximum 50°C ambient.
- 3) FNP600 series models Maximum total output power: 600 Watts
- 4) FNP1000 series models Maximum total output power: 1000 Watts

CONDITIONS OF ACCEPTABILITY

- 1. Equipment shall be installed only by trained service personnel, according to the manufacturer installation instructions.
- 2. The detachable power supply cord connector for the detachable power supply cord is considered the main disconnect device.
- 3. Suitability of the equipment enclosure as a Fire, Mechanical and Electrical Enclosure is to be determined in the end use installation. Front panel has been evaluated and meets electrical and mechanical enclosure.
- 4. Evaluated as Class I (earthed equipment). Reliable earth connection shall be provided in the end use installation.



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- 5. Spacing of the Power Supply Unit (PSU) have been evaluated for an altitude of 10,000ft (3048m), under IEC60664-1: 1992 Table A.2 (altitude correction factor is 1.15).
- 6. The secondary outputs of PSU are Electrical energy source class 1 (ES1).
- 7. The secondary Vo1: 12V output of PSU is Power source class 3 (PS3).
- 8. The PSU was tested on a listed 20A branch circuit. If use on branch circuit greater than this, additional testing may be necessary
- 9. The ground path from AC inlet to the PSU case meets protective bonding and has been evaluated at 40 A
- 10. The Connector Current Interruption Test was performed on the output card edge for 100 cycles (insertion/withdrawal) under normal operation. Testing for additional cycles shall be determined during the end product evaluation, depending on end product application.
- 11. For model FNP1000-48S101G only, varistor is connected from line to GND. End system equipment must have a permanent GND connection.

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 62368-1:14	-	Audio/video, information and communication
		technology equipment – Part 1: Safety requirements
UL 62368-1 2 nd Ed.	-	Audio/video, information and communication
		technology equipment – Part 1: Safety requirements



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
80014013	2019-08-14	Models FNP850-12, FNP850-12R, FNP850-12AR, FNP850-12S124, FNP850-12S125, FNP850-S139, FNP850-S151, FNP600-12, FNP600-12R, FNP600-48, FNP600-12S120, FNP1000-48, FNP1000-48S101 (CSA c/us) (upgrade 70034634 to 62368-1)