Certificate of Compliance

Certificate: 70214796 **Master Contract:** 170351

Project: 80113676 **Date Issued:** 2022-01-25

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

C US

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.

AC/DC-DC Converter, Model PES2200-12-080NA and PES2200-12-080RA, model designation may be followed by alpha numeric characters indicating non-safety critical options.

Electrical Rating:

Model	Input (AC or DC)			Output (DC)	
	V	A	Hz	V	A
PES2200-12-080NA PES2200-12-080RA	100-127 Vac	15	50/60	V1: 12V	96 A @ 100-127Vac
	200-240 Vac	14	50/60	V1: 12V	183 A @ 200-240Vac
	180-300 Vdc	14	DC	V1: 12V	183 A @ 180-300Vdc
				Vsb: 12	3.5 A
Note: Maximum operating ambient: 55°C; 50°C at full load, 55°C at V1 derated load.					

CONDITIONS OF ACCEPTABILITY

1. Equipment shall be installed only by trained service personal, according to manufacturer installation instructions.

2. The power supply cord plug 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. The Power Supply Unit (PSU) has been evaluated for use in Class I equipment, reliable connection to Protective Earth shall be provided in the end use installation.

5. The PSU has been evaluated for used at 50°C with V1 output full load and linear derating at 55°C as table below. Temperature tests shall be considered for specific installation conditions in the end system.

Vin(V)\Ambient	50°C		55°C	
	V1: 12V Max output current (A)	Vsb: 12V Max output current (A)	V1: 12V Max output current (A)	Vsb: 12V Max output current (A)
100-127 Vac	96	3.5	96	3.5
200-240 Vac	183	3.5	167	3.5
180-300 Vdc	183	3.5	167	3.5

6. The Clearance values of PSU have been evaluated for an altitude of 5000m, altitude correction factor is 1.48 applied.

7. The secondary outputs of PSU are Electrical energy source class 1 (ES1).

8. The secondary V1: 12V output of PSU is Power source class 3 (PS3).

9. The PSU was tested on a listed 20A branch circuit. If use on branch circuit greater than this, additional testing may be necessary

10. The Connector Current Interruption Test was performed on the output card edge for 200 cycles (insertion/withdrawal) under normal operation. Testing for additional cycles shall be determined during the end product evaluation, depending on end product application.

11. Safety isolating transformer T1 employ an insulation system designated Class F, evaluated to UL 1446, Safety isolating transformer T508 is planar transformer.

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: 70214796 **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
80113676	2022-01-25	Update CSA 70214796 (PES2200) to add transformers due to alternate insulation systems and alternate component sources, and remove AC inlet (Chily, 3541) - based on acceptance of data from CPC program
80069208	2021-01-19	Update CSA 70214796 to lower capacitance rating for X-capacitors C307 and C22
80036078	2020-03-09	Update CSA 70214796 to revise the PCB layout and upgrade to CSA/UL 62368-1 (3.0)
80018500	2019-09-25	Update CSA Report 70214796 to add model PES2200-12-080RA (with reverse airflow)
70214796	2019-02-06	AC-DC/DC-DC Converter, Model PES2200-12-080NA (CSA C/US)