Certificate of Compliance

Certificate:	80304724	**Master Contract:**	170351
Project:	80304724	**Date Issued:**	2026-06-19
Issued to:	**Bel Fuse Inc.** **300 Executive Drive** **Suite 300** **West Orange, New Jersey** **07052** **United States** **Attention:** Editha S. Vergara	**Issued by:**	*Mike Liew* Mike Liew, P. Eng

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.

C US

PRODUCTS

Class 5311 67 POWER SUPPLIES - Component Type (CSA 62368-1)
Class 5311 97 POWER SUPPLIES - 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 Power Shelf, Model TLS-X-48 Series, see below for details.

Model Name Nomenclature:

Typical Model Designation: TLS-X-48
I II III

I – Model Series: TLS

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II – Number of rectifiers: 0 – Empty shelf
1 – One rectifier installed
2 – Two rectifiers installed

III – Output voltage, VDC: 48 – 39 to 57 Vdc (adjustable)

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

Electrical rating:

Model	3-Ph Input (AC), (WYE, without neutral) 3W + PE			Maximum Output (DC)	
	V	A	Hz	V	A
TLS-X-48 Series	230-277/400-480 Vac	18-14	50/60	39-57	200
Maximum Output Power: 10,000 W. (Model dependent, See General Product Information for details)					

APPLICABLE REQUIREMENTS

Standards Used	Description
CSA C22.2 NO. 62368-1:25 - Fourth Edition	Audio/video, information and communication technology equipment — Part 1: Safety requirements
UL 62368-1:2025 - Fourth Edition	Audio/Video, Information and Communication Technology Equipment – Part 1: Safety Requirements

Conditions Of Acceptability

1. Installation instruction and equipment markings related to safety shall be in the language acceptable in the country in which the equipment is to be installed.
2. This report covers only the TLS-X-48 AC-DC Power Shelf, the power supply converters are not part of this investigation. The approved power supply converter may have coolant run through the extruded cooling hole in aluminium heatsink or through the completely sealed stainless tube on heatsink. Coolant and connection to coolant assembly is installed outside of power supply converter and in end product installation. LFC requirement is not part of this evaluation and is to be evaluated in end product installation.
2. The equipment is to be installed in the end product where the suitability of installation is to be evaluated in the end product.
3. Evaluated as Class I (earthed equipment). Reliable earth connection shall be provided in the end use installation.
4. The product was evaluated at maximum ambient temperature, Tma of 70°C. Heating test was conducted monitoring the internal components temperature. Accessibility to high component temperature must be considered on end system equipment.
5. Equipment for building-in. Temperature tests shall be considered for specific installation conditions in the end system.
6. Enclosure provided with the equipment complies with the FIRE, MECHANICAL and ELECTRICAL enclosure requirements.
7. The secondary outputs are ES1 at PS3/PS1. Accessibility is to be determined in the end system.
8. The input terminal block and output busbars are approved for use as field wiring. Interconnecting wires must be installed by service personnel only.
9. Measured temperature of accessible outside surfaces, Front panel and handle, are within the limit of TS1 based on 25°C ambient.

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Accessibility must be determined in the end system when operating at higher ambient temperatures.

10. The power shelves have been tested with Bel Fuse Model TLP5000-1048 AC-DC converter. Additional testing may be required if different modules are used.
11. Evaluated for connection to AC power with a branch circuit protector rated max 25 A. If used on a branch circuit with higher rating, additional testing shall be considered.
12. The ground path from the input connector to the PSU case meets protective bonding and has been evaluated at 50 A. Also path from secondary protective earthing stud to PSU case was evaluated at 50A.

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Notes:

Products certified under Class(es) C531167, C531197 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). www.scc.ca

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Supplement to Certificate of Compliance

Certificate: 80304724 **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
80304724	2026-06-19	Original CSA c/us evaluation of AC-DC Power Shelf, model TLS-X-48 Series - based on acceptance of data under the CPC program

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