Certificate of Compliance

Certificate: 80127723 **Master Contract:** 170351

Project: 80127723 **Date Issued:** 2022-09-16

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: *Regenald Macaranas*
Regenald Macaranas

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 Switching Power Supply, Model MAP110 Series and MAP140 Series; input rated MAP110 100-250 V, 3.3 A, 50/60 Hz or 50-60Hz; MAP140 100-240 V, 3.5 A, 50/60 Hz or 50-60Hz; models may be provided with suffixes C, P, L, M, T, G ,SXXX or SXXXG (where X is equal to 0 to 9, indicating non-safety critical options), as follows:

1. “C” denoting unit with additional cover
2. “P” with Power fail

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3. "L" with mounting bracket
4. "M" denotes metric hardware
5. "T" with thermal switch
6. "G" ROHS version
7. "SXXX" denotes non-safety critical options

Output Rating:

Model	AC Input			DC Output								
				#1		#2		#3		#4		Max.
	Vac	A	Hz	Vdc	A	Vdc	A	Vdc	A	Vdc	A	W
MAP110-S163	100 - 250	3.3	50 - 60	5	12	24	3	-15	1	15	1	1)
MAP110-1012	100 - 250	3.3	50 - 60	12 or 15	10 or 8	—	—	—	—	—	—	2) 5)
MAP110-1024	100 - 250	3.3	50 - 60	24 or 28	5 or 4.3	—	—	—	—	—	—	2) 4)
MAP110-4000	100 - 250	3.3	50 - 60	5	12	12	5	-12	1	-5	1	1)
MAP110-4002	100 - 250	3.3	50 - 60	5	12	12	5	-12	1	12	1	1)
MAP110-4004	100 - 250	3.3	50 - 60	5	12	24	3	-15	1	15	1	1)
MAP110-4011	100 - 250	3.3	50 - 60	5	12	12	5	-12	1	24	1	1)
MAP110-4200	100 - 250	3.3	50 - 60	12	5	24	4	-15	1	15	2	1)
MAP140-1024	100 - 240	3.5	50 - 60	24 or 28	6.3 or 5.4	—	—	—		—	—	3) 4)

Notes:
1) 80 W with convection cooling, 110 W with minimum 200 LFM external forced cooling.
2) 90 W with convection cooling, 120 W with minimum 200 LFM external forced cooling.
3) 110 W with convection cooling, 150 W with minimum 200 LFM external forced cooling.
4) MAP110-1024, MAP140-1024 output currents are expressed as 24V/28V operation.
5) MAP110-1012 output currents are expressed as 12V/15V operation.

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Conditions of Acceptability:

1) Equipment shall be installed only by trained service personnel, according to the manufacturer installation instructions.
2) Evaluated for use at max 50ºC ambient temperature (Tma), in a Pollution Degree 2 environment.
3) Temperature tests shall be performed for specific installation conditions in the end system.
4) Evaluated as Class I (earthed equipment). Reliable connection to Protective Earth shall be provided in the end use installation.
5) The PSU is intended to be used with Certified Branch Circuit Breaker rated 20A. If branch circuit breaker rating greater than this is used, additional testing may be necessary.
6) Suitable disconnect devices for disconnecting the equipment from power for servicing are to be provided in the end system.
7) Suitability of the enclosure provided with the equipment as a FIRE, MECHANICAL and ELECTRICAL enclosure is to be determined in the end system.
8) The output circuits are class 1 level (electrical energy source) and operate at class 3 (power source).
9) The Input & Output connectors are not suitable for field wiring; they are only intended for connection to the mating connectors in the end system.
10) For "C" option, the manufacturer's instructions regarding power derating and/or airflow requirements must be met.
11) Units are tested with air forced cooling from input to T1 transformer.
12) The steel standoff with the height of 10mm, was used in the separation between PWB and Chassis.
13) Voltage of model MAP110-1012, MAP110-1024 and MAP140-1024 are adjustable by the trained service personnel only, according to the manufacturer installation instructions.

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

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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
80127723	2022-09-16	Component Power Supply, Model MAP110 Series and MAP140 Series (62368-1) (CSA c/us) - acceptance of CB Nemko Report -Add alternate insulation system, add alternate sources of components

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