Certificate of Compliance

Certificate: 2728145 **Master Contract:** 182790

Project: 2728145 **Date Issued:** August 22, 2014

Issued to: **PULS GmbH**

Arabellastr. 15
Munich, 81925
Germany
Attention: Michael Raspotnig

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.

Nicholas Cameron

Issued by: Nicholas Cameron

PRODUCTS

CLASS 5318 01 - POWER SUPPLIES - For Hazardous Locations
CLASS 5318 81 - POWER SUPPLIES - For Hazardous Locations - Certified to U.S. Standards

Class I, Division 2, Groups A, B, C, and D

Din Rail Component Type Switching Mode Power Supply, Class I, OVC II, Pollution Degree (PD): 2, Tma = 60°C with Output Derating 24VA/°K

Models: QS40.241, QS40.244, QS40.361, QS40.481, and QS40.484

Ratings:

QS40.241

Input: 100-240Vac; 50-60Hz; 11.2–4.6A

Output: 24-28Vdc; 40.0-34.3A (continuous) 24-28Vdc; 60.0-51.5A (for max. 4s) Ambient Temperature: -25°C to +60°C (+70°C with Derating)

T-Code: T4

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QS40.244

Input: 200-240Vac; 50-60Hz; 5.4A

Output: 24-28Vdc; 40.0-34.3A (continuous) 24-28Vdc; 60.0-51.5A (for max. 4s) Ambient Temperature: -25°C to +60°C (+70°C with Derating)

T-Code: T4

QS40.361Input: 100-240Vac; 50-60Hz; 11.2–4.6A

Output: 36-42Vdc; 26.7-22.9A (continuous) 36-42Vdc; 40.0-34.3A (for max. 4s) Ambient Temperature: -25°C to +60°C (+70°C with Derating)

T-Code: T3

QS40.481Input: 100-240Vac; 50-60Hz; 11.2–4.6A

Output: 48-54Vdc; 20.0-17.8A (continuous) 48-54Vdc; 20.0-17.8A (for max. 4s) Ambient Temperature: -25°C to +60°C (+70°C with Derating)

T-Code: T3

QS40.484Input: 200-240Vac; 50-60Hz; 5.4A

Output: 48-54Vdc; 20.0-17.8A (continuous) 48-54Vdc; 20.0-17.8A (for max. 4s) Ambient Temperature: -25°C to +60°C (+70°C with Derating)

T-Code: T4

Conditions of Certification:

- Units are evaluated as components for building in.
- A suitably rated mechanical, electrical and fire enclosure shall be provided by the end product.
- Suitability of the combination in the end use product shall be determined by CSA.
- Evaluated for Branch/Supply Circuit protection maximum 32A
- Equipment mobility : for building-in
- Connection to the mains : permanent connection

- Operating condition : continuous
- Access location : --
- Over voltage category (OVC) : OVC II
- Mains supply tolerance (%) or absolute mains supply values : AC Mains: +10%, -15%
- Tested for IT power systems : Yes
- IT testing, phase-phase voltage (V) : 240
- Class of equipment : Class I (earthed)
- Considered current rating (A) : 30
- Pollution degree (PD) : PD 2
- IP protection class : IP X0
- Altitude of operation (m): up to 2000 above sea level.
- Altitude of test laboratory (m) : approx. 130
- Mass of equipment (kg) : approx. 1.8kg
- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 60°C and up to 70°C with output Derating of 24VA/°K
- The product is intended for use on the following power systems: TT, TN, IT
- The product was investigated to the following additional standards: EN 60950-1:2006+ A11:2009 (which includes all European national differences, including those specified in this test report).
- The following were investigated as part of the protective earthing/bonding: Printed wiring board trace (refer to Enclosure - Schematics + PWB for layouts)
- The following are available from the Applicant upon request: Specific data sheets for LED indicators that are class I and operate at wavelength in the 400-710 nm range.
- The normal mounting orientation is DIN-Rail horizontal (standard mounting orientation-input/output connectors on bottom). Other mounting orientations have been measured at a lower output power. Refer to heating test table for details.

APPLICABLE REQUIREMENTS

CSA Standard C22.2 No. 0-10 - General Requirements - Canadian Electrical Code Part II

CSA Standard C22.2 No.0.4-04 (R2013) - Bonding of Electrical Equipment

CSA Standard C22.2 No. 107.1-01 (R2011) - General Use Power Supplies

CSA Standard C22.2 No. 213-M1987 (R2013) - Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations

CAN/CSA-C22.2 No. 60950-1-07 +Am1 - Information Technology Equipment – Safety – Part 1: General Requirements

ANSI/ISA–12.12.01–2013 - Non-Incendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations

ANSI/UL 60950-1 (2nd Edition) + Am1 - Information Technology Equipment – Safety – Part 1: General Requirements