



# Certificate of Compliance

**Certificate:** 2413814 **Master Contract:** 182790 (095515\_0\_000)  
**Project:** 70132740 **Date Issued:** 2017-09-25  
**Issued to:** PULS GmbH  
 Elektrastrasse 6  
 Munich, 81925  
 GERMANY  
 Attention: Nils Dohrmann

*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: *Thong Tong*  
 Thong Tong

## PRODUCTS

**CLASS - C531801 - POWER SUPPLIES-For Hazardous Locations**

**CLASS - C531881 - POWER SUPPLIES-For Hazardous Locations - Certified to U.S. Standards**

**Class I Division 2, Groups A, B, C and D, T4**

**Ta: -40°C ≤ Ta ≤ 70°C**

**Redundancy modules for built-in use (DIN rail)**

Model	Input	Output
MLY02.100	2x DC 12-48V +/-25% 2x 0-5A	Input voltage - 0,9V; 0-10A <sup>(1)</sup>
MLY10.241	2x DC 12-48V +/-25% 2x 0-5A	Input voltage - 0,9V; 0-10A <sup>(2)</sup>
YR2.DIODE	2x DC 12-48V +/-25% 2x 0-10A	Input voltage - 0,78V; 0-20A <sup>(3)</sup>
YRM2.DIODE	2x DC 24-48V +/-25% 2x 0-10A	Input voltage - 0,78V; 0-20A <sup>(4)</sup>
YR40.241	2x DC 12-28V +/-30% 2x 0-20A	Input voltage - 0,072V; 0-40A
YR80.241	2x DC 12-28V +/-30% 2x 0-40A	Input voltage - 0,049V; 0-80A
YR40.242	2x DC 12-28V +/-30%; 2 x 0-20A	Input voltage - 0,072V; 0-40A <sup>(5)</sup>
YR40.245	1x DC 12-28V +/-30%; 0-40A	Input voltage - 0,15V; 0-40A <sup>(6)</sup>
YR40.482	2x DC 24-56V +/-15%; 0-20A	Input voltage - 0,06V; 0-40A <sup>(7)</sup>
YR80.242	2x DC 12-28V +/-30%; 0-40A	Input voltage - 0,065V; 0-80A <sup>(8)</sup>



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PIRD20.241	2x DC 12-28V +/-25%; 0-10A	Input voltage - 0,56V; 0-20A <sup>(9)</sup>
YR20.242	2x DC 12-28V +/-30%; 0-20A	Input voltage - 0,06V; 0-24A <sup>(10)</sup>
YR20.246	2x DC 24-28V +/-25%; 0-12A	Input voltage - 0,06V; 0-24A <sup>(11)</sup>

- (1) De-rated linearly between +60°C and +70°C; 7.5A is the reduced output at 70°C
- (2) De-rated linearly between +60°C and +70°C; 7.5A is the reduced output at 70°C
- (3) De-rated linearly between +60°C and +70°C; 15A is the reduced output at 70°C
- (4) De-rated linearly between +60°C and +70°C; 15A is the reduced output at 70°C
- (5) De-rated linearly between +60°C and +70°C; 30A is the reduced output at 70°C
- (6) De-rated linearly between +60°C and +70°C; 30A is the reduced output at 70°C
- (7) De-rated linearly between +60°C and +70°C; 30A is the reduced output at 70°C
- (8) De-rated linearly between +60°C and +70°C; 60A is the reduced output at 70°C
- (9) Derated linearly between +55°C and +70°C; 12,5A is the reduced output at 70°C
- (10) Derated linearly between +45°C and +70°C; 20A is the reduced output at 70°C
- (11) Derated linearly between +45°C and +70°C; 20A is the reduced output at 70°C

(See Att3 - Figure 17, page 1-4, for details)

**NOTE:**

- Units were evaluated as components where the suitability of the combination must be determined in the end use product by the local authority having jurisdiction.
- A suitable mechanical, electrical and fire enclosure must be provided for the end product which provides a minimum protection of IP54 and can only be opened with the use of a tool.
- Suitable for use in Class I, Zone 2

**APPLICABLE REQUIREMENTS**

- CSA Standard C22.2 No. 0-10 - General Requirements - Canadian Electrical Code Part II
- CAN/CSA-C22.2 No. 60950-1-07 - Information Technology Equipment – Safety – Part 1: General Requirements.
- CSA C22.2 No. 213-16, 2nd Ed. - Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
- UL Std. 60950-1 (2nd Edition) - Information Technology Equipment – Safety – Part 1: General Requirements.
- ANSI/ISA-12.12.01-2016, 7th Ed - Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations

**MARKINGS**

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.



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- The submitter's name and/or Master Contract number "182790";
- Model or identifying designation;
- Complete electrical rating (Input and Outputs);
- Date of manufacture, serial number or date code traceable to month and year of manufacture;
- CSA Monogram, with “c”, “us” or “c/us” markings
- Hazardous Location designations
- Temperature Code – T4

Additional Marking required on the following Models:

<b>Model Number</b>	<b>Specific Marking or Instructions</b>
YR20.242, YR20.246, PIRD20.241 - Output current	Ensure that the continuous RMS short-circuit current never exceeds 26A continuously on the output of the module.

**Method of marking**

Laser etched to side of enclosure or CSA/UL Approved label

**ALTERATIONS**

1. Markings as above appear on each unit and in documentation.

**FACTORY TESTS**

- Performed as per CSA-C22.2 No. 60950-1-07 General Requirements and as per UL Project E137006-A2-UL

**Warning:** The factory tests specified may present a hazard of injury to personnel and/or property and should only be performed by persons knowledgeable of such hazards and under conditions designed to minimize the possibility of injury.



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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**

<b>Project</b>	<b>Date</b>	<b>Description</b>
70132740	2017-09-25	Update to report 2413814 to add new models YR20.242, YR20.246 & PIRD20.241. Correct the output voltages and extend the ambient temperature ranges of the all the models to $-40^{\circ}\text{C} \leq T_a \leq 70^{\circ}\text{C}$ on condition that each model output current is linearly de-rated to a specified value at $70^{\circ}\text{C}$ .
2702461	2014-02-25	Update to report 2413814 to include 4 new models, update to descriptive documents, and revision to construction based on submitted IECEx report with national deviations.
2413814	2011-07-28	Original Certification of models MLY02.100, MLY10.241, YR2.DIODE, YRM2.DIODE, YR40.241 and YR80.241 for Class I Div 2