

File E362999  
Project 4786889302

January 9, 2016

REPORT

on

Power Circuit and Motor-mounted Apparatus

TDL LAMBDA CO. LTD  
Ilfracombe, U.K.

Copyright © 2016 UL LLC

UL LLC authorizes the above named company to reproduce this Report only for purposes as described in the Conclusion, provided it is reproduced in its entirety.

## DESCRIPTION

## PRODUCT COVERED:

USL/CNL - Open type, Switching Power Supply Models:  
DRL30-24-1-xyz, DRL30-12-1-xyz, DRL30-15-1-xyz (+)

## GENERAL USE:

The devices are open type AC/DC Switching Power Supplies intended to be used in industrial control applications for DIN-Rail mounting (building-in), permanently connected (field wired), for use in a pollution degree 2 environment (Controlled Environment).

## RATINGS:

Model	Input			Output (DC)	
	Voltage (Vac)	Current (A)	Frequency (Hz)	Voltage (V dc)	Current (A)
DRL30-12-1-xyz <u>and DRL30-15-1-xyz</u> (+)	100-240	0.64	50/60	12-15	2.1-1.68 A (25.2 W) (++)
DRL30-24-1-xyz (+)	100-240	0.64	50/60	24-28	1.25-1.07 A (30 W) (++)

(+)Where suffix 'xyz' can be any combination of letters or digits or blank and denotes special order (eg. Fixed output voltage or no LED) and is deemed not safety relevant.

(++)Derating applies as follows:

- operating temperature up to +55°C, full load
- operating temperature +55°C to +71°C, derate linearly to 60% load at +71°C.

## MODEL DIFFERENCES:

Model DRL30-24-1-xyz is identical to model DRL30-12-1-xyz except for main transformer (same materials, different number of turns in windings), output ratings and derating information.

## ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

Special Considerations - The following items are considerations that were used when evaluating this product.

- USL: Indicates investigation to the U.S. Standard UL 508, 17<sup>th</sup> Ed.
- \* CNL: Indicates investigation to the CAN/CSA C22.2 No. **107.1-16, 4th Ed.**

Note: USL = United States Standards - Listed.  
CNL = Canadian Standards - Listed

## CONSTRUCTION DETAILS:

The product shall be constructed in accordance with the following description.

Tolerances - Unless specified otherwise, all indicated dimensions are nominal.

Corrosion Protection - All ferrous metal parts are suitably protected against corrosion by painting, plating or the equivalent.

Printed Wiring Boards - Recognized Component printed wiring board (ZPMV2/8) suitable for direct support of live parts according to UL 796 or with a CTI greater than 175, rated 130°C min., unless specified elsewhere in this report, may be coated with any coating. The manufacturer of the complete PWB assembly must pay attention to the maximum unpierced conductor area of a printed wiring board, which is judged by the diameter of the largest circle that can be inscribed within the pattern.

## SPACINGS AT FIELD WIRING TERMINALS:

Minimum spacings at field wiring terminals for pollution degree 2 environment. Reference Table 36.4 of UL 508, Seventeenth Edition:

- Min. 1.6 mm through air and min. 3.2 over surface at input terminal
- Min. 1.6 through air and over surface at output terminal

In accordance with clause 4.1.6 of CSA C22.2 no. 107.1 spacings at terminals are considered as suitable based on previous evaluation to UL, CAN/CSA C22.2 No. 60950-1 2nd Edition.