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Project 4786889302

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REPORT

on

Power Circuit and Motor-mounted Apparatus

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DESCRIPTION

PRODUCT COVERED:

USL/CUL - Open type, Switching Power Supply Models:  
DRL60-24-1-xyz, DRL60-12-1-xyz, [DRL60-15-1-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)
<a href="#">DRL60-12-1-xyz and DRL60-15-1-xyz</a> (+)	100-240	1.34	50/60	12-15	4.5-3.6 A (54 W) (++)
DRL60-24-1-xyz (+)	100-240	1.34	50/60	24-28	2.5-2.14 A (60 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:

- Surrounding Air Temperature: up to +55°C full load
- Surrounding Air Temperature: +55°C to +71°C, derate linearly to 60% load at +71°C

MODEL DIFFERENCES:

Model DRL60-24-1-xyz is identical to model DRL60-12-1-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, 4<sup>th</sup> 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, 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 36.1 of UL 508, Seventeenth Edition: for devices having limited ratings:

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