DESCRIPTION

PRODUCTS COVERED:

USL, CNL – Open Type Switch Mode Power Supply, model DRB30-12-1-xyz, DRB30-24-1-xyz, where x, y and z can be any alphanumeric character or blank and is non safety relevant information.

GENERAL:

This device is open type power supply module intended for DIN rail mounting and to be used in combination with Industrial Control Equipment. This device is suitable for field wiring and for use in a pollution degree 2 environment (Controlled Environment).

RATINGS:

Cat. No.	Input Ratings	Output Ratings
DRB30-12-1-xyz	100 – 240 Vac, 50-60 Hz, 0.76 A	12-15 Vdc, 2.5-2.0 A; Max. output power: 30 W
DRB30-24-1-xyz	100 – 240 Vac, 50-60 Hz, 0.76 A	24-28 Vdc / 1.25-1.07 A; Max. output power: 30 W

Surrounding Air Temperature is as follows:

- 55°C at 100% load (30W), de-rating above 55°C to 70°C at 50% load (15W)

ENGINEERING CONSIDERATIONS (NOT FOR UL REPRESENTATIVE'S USE):

USL – Indicates investigated to United States Standard UL 508 17th edition.
CNL - Indicates investigated to Canadian National Standard C22.2 No. 107.1-01 3rd edition.

Note:

CNL = Canadian National Standards - Listed
USL = United States 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 parts are of corrosion resistant material or are painted as corrosion protection.

Printed Wiring Boards - All printed wiring boards are R/C (ZPMV2) rated min V-1, 130°C and suitable for direct support in accordance with UL 796, except otherwise described in the Report. Refer to R/C Directory for dwell time and solder temperature limitations unless specified otherwise.

MODEL DIFFERENCES:

Models DRB30-12-1 and DRB30-24-1 are identical except different number of turns in the separating transformer and parameters of components in the secondary circuit.

SPACINGS AT FIELD WIRING TERMINALS:

Minimum spacings at field wiring terminals for pollution degree 2 environment:

- with reference to Table 36.1 of UL 508, column B, Seventeenth Edition, for more unfavorable pollution degree 3 and device having limited ratings: min. 1.6 mm through air and min. 3.2 mm over surface
- with reference to Table 6 of CSA C22.2 No. 107.1-01, Third Edition: min. 2.4 mm.

SPACINGS ON PRINTED WIRING BOARD:

No Clearance and Creepage requirements considered in output circuit within same ISC's based on table 32.0 UL508 17th edition and based on section 4.17.6 (b) (iii) of CSA C22.2 No. 107.1-01, Third Edition.

Minimum spacings between traces of opposite polarity on printed wiring boards:
- with reference to table 36.3 of UL 508, 17th edition: min. 2.4 mm
- with reference to table 8 of CSA C22.2 No. 107.1-01, Third Edition, without limited transients: min. 1.8 mm

SPACINGS GENERAL:

No Clearance and Creepage requirements considered in output circuit within same ISC's based on table 32.0 UL508 17th edition and based on section 4.17.6 (b) (iii) of CSA C22.2 No. 107.1-01, Third Edition.

Minimum spacings between live parts of opposite polarity:
- with reference to Table 6 of CSA C22.2 No. 107.1: min. 2.4 mm.
- with reference to Table 36.3 UL 508 17th ed.: min. 2.4 mm.

MARKINGS:

Plainly mark with Listed company name, trademark or file number, model number, electrical ratings and surrounding air temperature (may be on a separate sheet).

The month and year of manufacture shall also be marked. Date coding, serial numbers, or equivalent means may be used.

Field Wiring Terminal Markings – Wiring terminals shall be marked to indicate the proper connections for power supply and load, or a wiring diagram coded to the terminal marking shall be securely attached to the device, and “Use Copper Conductors Only, 75°C” or equivalent. This marking could be located adjacent to the terminal or on the wiring diagram.

Instructions for installation in a Pollution Degree 2 environment and for Controlled Environment shall be described in the instruction manual.