DESCRIPTION

PRODUCTS COVERED:

USL, CNL – Open Type Switch Mode Power Supply Model DRB50-5-1-xyz, DRB50-12-1-xyz, DRB50-24-1-xyz and DRB50-48-1-xyz.

GENERAL:

These devices are open type power supply modules intended to be used in combination with Industrial Control Equipment. These devices are suitable for field wiring and for use in a pollution degree 2 environment.

RATINGS:

Cat. No.	Input Ratings	Output Ratings
DRB50-5-1-xyz	100 – 240 Vac, max. 1.2 A, 50/60Hz	5-5.5 Vdc / 6-5.4 A, max 30 W
DRB50-12-1-xyz	100 – 240 Vac, max. 1.2 A, 50/60Hz	12-15 Vdc / 3.4 A, max. 51 W
DRB50-24-1-xyz	100 – 240 Vac, max. 1.2 A, 50/60Hz	24-28 Vdc / 2.1-1.8 A, max. 50.4 W
DRB50-48-1-xyz	100 – 240 Vac, max. 1.2 A, 50/60Hz	48-52.8 Vdc / 1.05-0.95 A, max. 50.4 W

Max Surrounding Air Temperature: 55°C.
Above 55°C the output power is derated 3.3% per °C.

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-2, 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.

SPACINGS AT FIELD WIRING TERMINALS:

Spacings evaluated to UL508, 17th edition, table 36.1, Group B (limited ratings), 50-301V, min. 6.4mm clearance and creepage.

with reference to Table 6 of CSA C22.2 No. 107.1-01, Third Edition: min. 2.4 mm.

SPACINGS ON PRINTED WIRING BOARD:

Spacings between traces of opposite polarity evaluated to UL840, 3rd edition, table 8.1 (clearance, overvoltage category III) and table 9.2 (creepage). Minimum spacings between traces of opposite polarity on printed wiring boards 3.0mm clearance; creepage depending on working voltage min. 1.0mm @ 250V; 1.6mm @ 320V.

With reference to table 8 of CSA C22.2 No. 107.1-01, Third Edition, without limited transients: min. 1.8 mm

GENERAL SPACINGS

Spacings evaluated to UL840, table 8.1 (clearance), table 9.1 (creepage, pollution degree 2, material group IIIa,b). Minimum 3.0mm clearance, creepage depending on working voltage min. 2.5mm @ 250V; 3.2mm @320V creepage.

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. Torque values marking in lb-in for field terminals. These markings could be located adjacent to the terminal or on the wiring diagram.

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