

## 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 17<sup>th</sup> 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, 17<sup>th</sup> 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, 3<sup>rd</sup> 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.