File E362999
Project 13CA18759

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REPORT

on

Power Circuit and Motor-mounted Apparatus

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DESCRIPTI0N

PRODUCT COVERED:

USL, CNL - Open Type, Industrial Control Equipment, switch mode power supply model DRF120-24-1-xyz, DRF120-24-1/HL-xyz, where x, y and z can be any alphanumeric character or blank and is non safety related information. HL designates model provided with coating.

GENERAL:

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

ELECTRICAL RATING:

Cat. No.	Input Ratings	Output Ratings
DRF120-24-1-xyz, DRF120-24-1/HL-xyz	100-240 Vac; 1.5 A; 50/60 Hz	24-28 Vdc, 5-4.3 A; max output power: 120 W

Surrounding Air Temperature is as follows:
- 60°C at 100% load (120W), de-rating above 60°C to 70°C at 2.5%/°C.

TECHNICAL 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.

SPACINGS AT FIELD WIRING TERMINALS:

Spacing at field wiring terminals deemed to comply with the following requirements for devices having limited ratings, based on recognition of individual terminals:

- min 1.6 mm through air and min. 3.2 mm over surface based on table 36.1, column B of UL 508 17th edition
- min. 2.4 mm through air and over surface based on table 6 of CSA C22.2 No. 107.1-01.

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, uncoated board: 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 36.3 of UL 508, 17th edition: min. 2.4 mm
- min. 2.4 mm through air and over surface based on table 6 of CSA C22.2 No. 107.1-01.

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, tightening torque 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 (Controlled Environment) shall be described in the instruction manual.