DESCRIPTION

PRODUCTS COVERED:

USL, CNL - Switching Power Supply, Models HWS30A-3, HWS30A-5, HWS30A-12, HWS30A-15, HWS30A-24 or HWS30A-48, followed by /A or /HDA, may be followed by FG or DIN.

GENERAL:

These devices are open-type switching power supplies having limited energy output circuit, employing an Isolating-Type, Step-down Transformer and related circuitry enclosed within a metallic cover. These power supplies are intended for use in industrial control applications, in a pollution degree 2 environment.

ELECTRICAL RATINGS:

Model	Input			Output		
	Vac	Hz	A	Vdc	A (max.)	W (max.)
HWS30A-3	100-240	50-60	0.5	3.3 (2.97-3.96)	6	19.8
HWS30A-5	100-240	50-60	0.7	5 (4.0-6.0)	6	30
HWS30A-12	100-240	50-60	0.7	12 (9.6-14.4)	2.5	30
HWS30A-15	100-240	50-60	0.7	15 (12.0-18.0)	2	30
HWS30A-24	100-240	50-60	0.7	24 (19.2-28.8)	1.3	31.2
HWS30A-48	100-240	50-60	0.7	48 (38.4-52.8)	0.65	31.2

The permissible maximum output current is specified in the derating curve related to the surrounding air temperature, and mounting direction. See ILL. 1 for derating curve.

ENVIRONMENTAL RATINGS: Maximum Surrounding Air Temperature - 70˚C.

NOMENCLATURE

Example:

HWS30A-	3	/A	DIN
A	B	C	D

A - Basic type

B – Output voltage rating
3: 3.3 V
5: 5 V
12: 12 V
15: 15 V
24: 24 V
48: 48 V

C – Conformal coating for PWB
/A: Not provided
/HDA: Provided

D – Other designation
None: Not provided
FG: Low leakage current type
DIN: DIN rail mounting type

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

USL - Indicates Investigated To UL 508, Standard for Industrial Control Equipment.

CNL – Indicates Investigated To Canadian National Standard(s) CSA C22.2 No. 107.1.

Note: CNL = Canadian National Standards – Listed
USL = United States Standards – Listed

CONSTRUCTION DETAILS

Spacings were evaluated to the standard for Industrial Control Equipment – UL 508, 17th Edition, Table 36.3 other than at filed wiring terminal for pollution degree 2 and Table 36.4 at filed wiring terminal for pollution degree 2. CSA C22.2 No. 107.1-01, Standard for General Use Power Supply, Table 6 power supply for use in controlled environment and Table 8 printed circuit board for use in controlled environment, Transient not Limited Uncoated.

Corrosion Protection – All ferrous metal parts are suitably protected against corrosion by painting, plating or the equivalent.

Connections – All electrical connections made by wiring mechanically secured before soldering, or terminated in Listed closed-loop type, unturned-end type, or male/female quick-disconnect type connectors with positive engagement.

Summary of Figures and Illustrations – The following figures and illustrations are included in this Report.

FIG or ILL. No.	Description
FIG. 1	Overall view
FIG. 2	Internal view (PWB)
ILL. 1	Derating curve
ILL. 2	Printed wiring board
ILL. 3	Transformer

MARKINGS:

The following marking shall be appeared on the device by molded, die-stamped, paint-stenciled, stamped, etched metal, laser engraved or on a label R/C (PGDQ2/8) or (PGJI2/8). No. 1 through No. 3 shall be visible when the device is mounted singularly.

1. Listee's name, trademark or trade name.
2. Catalog number.
3. Electrical rating.
4. "Use wires suitable for at least 75˚C" or "Use wires rating at least 75˚C" or equivalent.
5. "For use in Pollution Degree 2 Environment" or "Pollution Degree: 2" or equivalent.
6. "Maximum surrounding air temperature 70˚C" or "Max. surrounding air temperature: 70˚C" or equivalent.
7. The month and year of manufacture or date coding serial numbers.

The following markings shall be appeared on the device, on the smallest unit container or carton, or in the instruction manual in the smallest unit container or carton.

1. Marking for proper connections at wiring terminals.
2. Wire type of field installed conductor, Copper conductors only.
3. Tightening torque for field wiring terminals, 14.2 lb-in. and 1.6 N·m.
4. The output derating curve, related to the surrounding air temperature and mounting direction.
5. "For use in Pollution Degree 2 Environment".