

## DESCRIPTION

## PRODUCT COVERED:

USR, CNR Component - Power Supplies,

Model: PAQ65D48 series for use in Information Technology Equipment Including Electrical Business Equipment

## GENERAL CHARACTER AND USE:

The units covered by this Report are DC to DC converters. They are provided with input and output pins for PWB connection to the end use equipment.

MODELS AND RATINGS:

Model	Input, dc		Output, dc	
	V	A	V	A
PAQ65D48-5033	36-76	2.1	5.0	13
			3.3	16
PAQ65D48-3325	36-76	1.72	3.3	15
			2.5	17
PAQ65D48-3318	36-76	1.82	3.3	15
			1.8	17
PAQ65D48-2518	36-76	1.43	2.5	15
			1.8	17

Note: Maximum output power of 65W not to be exceeded. The total current of both outputs is not to exceed 18A.

PAQ65D48-xxxx standard model height 8.9mm, 2 trim pins, negative logic, shutdown OVP. (where xxxx can be 5033 or 3325 or 3318 or 2518.

May be marked with additional suffix as follows:-

/P : Positive ON/OFF control.

/V : Auto-restart OVP.

/C : 1 trim pin to adjust both output voltages and height of power module is 10.2mm.

/L : 1 trim pin to adjust both output voltages.

/H : Height of power module is 10.2mm

/W : Trim range channel 2 +10%, -40%.

## ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

For use only in complete equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

\*USR/CNR indicates investigation to the US and Canadian (Bi-National) Standard for Safety of Information Technology Equipment, Including Electrical Business Equipment UL 60950-1, 2nd Edition, 2007-03-27 (Information Technology Equipment - Safety - Part 1: General Requirements) and CSA C22.2 No. 60950-1-07, 2nd Edition, 2007-03 (Information Technology Equipment - Safety - Part 1: General Requirements). The component has been judged on the basis of the required creepage and clearance distances in the Standard for Safety of Information Technology Equipment, Including Electrical Business Equipment UL 60950-1, 2nd Edition, 2007-03-27 (Information Technology Equipment - Safety - Part 1: General Requirements) and CSA C22.2 No. 60950-1-07, 2nd Edition, 2007-03 (Information Technology Equipment - Safety - Part 1: General Requirements) which would cover the end use product for which the component was designed.

Conditions of Acceptability - When installed in the end use equipment, the following are among the considerations to be made.

\* 1. The component has been judged on the basis of the required creepage and clearances in the Standard for Safety of Information Technology Equipment, Including Electrical Business Equipment UL 60950-1, 2nd Edition, 2007-03-27 (Information Technology Equipment - Safety - Part 1: General Requirements) and CSA C22.2 No. 60950-1-07, 2nd Edition, 2007-03 (Information Technology Equipment - Safety - Part 1: General Requirements), which would cover the end use product for which the component was designed.

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2. These dc/dc converters are intended to be supplied from an isolated source, such as a battery, or a source which meets the requirements for basic (ELV) or reinforced (SELV) insulation from primary (mains) or TNV-2 circuitry, depending on output type required.

If the input meets all the requirements for ELV, the outputs may be considered ELV.

If the input meets all the requirements for SELV or TNV-2, then the outputs may be considered SELV. Output voltages remain within SELV limits, even with internally generated non SELV voltages, if any.

For cases where the input voltage is between  $60 < V < 75$ , the following must be adhered to, if the converter output is to be considered SELV:

Double or reinforced insulation must be provided in the 61-75 V source that isolates it from the ac mains. The working voltages shall be taken into consideration on primary and secondary of the 61-75 V power source. In addition, the source shall meet all spacing (creepage and clearance), electrical and insulation requirements for reinforced insulation.

3. All dynamic testing was conducted with the units loaded to their specified output current. No potting material or cover was assessed for use with the PAF65D48 series.

4. The equipment has been evaluated for use in a pollution Degree 2 environment.

5. It must be ensured that the temperature of Q15 does not exceed 125°C. This temperature limit governs the working ambient temperature. The handbook must make reference to this temperature limit.

6. The DC to DC converters have not been assessed for an IT power system.

7. The input and output connectors are not acceptable for field wiring connections and are only intended for connection to a PWB inside the end use equipment.

8. As a component part, compliance with the standard will be based upon installation in the final application. This product must be installed in a restricted access location, accessible to authorized competent personnel only. This product was assessed for Basic insulation between input and output. All fault testing across the barriers was conducted under all input and output earth combinations.

9. The recommended input fuse rating within the instructions and that used for all test is as follows: 250V, F5A HBC fast acting fuse. The breaking capacity and voltage rating of this fuse maybe subject to the end use application.