Product Service

CERTIFICATE

No. B 057396 0570 Rev. 00

Holder of Certificate: **XP Power LLC.**
15641 Red Hill Avenue, Suite 100
Tustin CA 92780
USA

Certification Mark:

Product: **Power supply**

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. See also notes overleaf.

Test report no.: 095-72143919117-000

Valid until: 2024-05-16

Date, 2019-06-03 (Adrian Rabago Valenzuela)

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Model(s): EMH350PDXX, where XX can be 10-97 to represent model number code, may also be provided with additional suffixes "-U", "-EF", "-SF", "-S", and "-L"; all "-" considered optional

Brand Name: XP

Parameters:

Rated Input: 100-240 Vac
Rated Input Current: 4.8A
Rated Input Frequency: 50/60 Hz
DC Output Ratings: See below for output ratings
Elevation for use: 0-3048 m above sea level
Protection Class: Class I or Class II determined in end product
Maximum temperature, ambient: Rated 50°C ambient at 100% rated load with 10 cfm external air-flow for end fan option and 16 cfm external air-flow for open frame and U-channel options.
Rated 70°C ambient at 50% rated load with 10 cfm external air-flow for end fan option and 16 cfm external air-flow for open frame and U-channel options.

General Product information:

The products covered in this report are dual output switching power supplies for building-in to Information Technology Equipment

Rated Outputs for Models:

Model EMH350PDXX Where XX indicates the output voltage code.
Example: EMH350PD19 has the following output ratings:
V1: 13.6 – 17Vdc, 13.2A Max; V2: 21.1 - 26Vdc, 8.3A Max 350W Max

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Output Ratings (350W Max all codes):

Output Code	Output V1 (Vdc)	Output V1 (A)	Output V2 (Vdc)	Output V2 (A)
10	10.1 – 13.5	16.5	10.1 – 13.5	16.5
11			13.6 – 17	13.2
12			17.1 – 21	11
21			21.1 – 26	8.3
13			26.1 – 31	7.1
14			31.1 – 33	6
22			33.1 – 42	5.5
23			42.1 – 54	4.2
15			54.1 - 66	3.3
16	13.6 - 17	13.2	10.1 – 13.5	16.5
17			13.6 – 17	13.2
18			17.1 – 21	11
19			21.1 – 26	8.3
20			26.1 – 31	7.1
26			31.1 – 33	6
27			33.1 – 42	5.5
28			42.1 – 54	4.2
29			54.1 - 66	3.3

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Output Code	Output V1 (Vdc)	Output V1 (A)	Output V2 (Vdc)	Output V2 (A)
30	17.1 – 21	11	10.1 – 13.5	16.5
31			13.6 – 17	13.2
32			17.1 – 21	11
33			21.1 – 26	8.3
34			26.1 – 31	7.1
35			31.1 – 33	6
36			33.1 – 42	5.5
37			42.1 – 54	4.2
38			54.1 - 66	3.3
40	21.1 – 26	8.3	10.1 – 13.5	16.5
41			13.6 – 17	13.2
42			17.1 – 21	11
43			21.1 – 26	8.3
44			26.1 – 31	7.1
45			31.1 – 33	6
46			33.1 – 42	5.5
24			42.1 – 54	4.2
47			54.1 - 66	3.3
50	26.1 – 31	7.1	10.1 – 13.5	16.5
51			13.6 – 17	13.2
52			17.1 – 21	11
53			21.1 – 26	8.3
54			26.1 – 31	7.1
55			31.1 – 33	6
56			33.1 – 42	5.5
57			42.1 – 54	4.2
58			54.1 - 66	3.3

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Output Code	Output V1 (Vdc)	Output V1 (A)	Output V2 (Vdc)	Output V2 (A)
90	54.1 - 66	3.3	10.1 – 13.5	16.5
91			13.6 – 17	13.2
92			17.1 – 21	11
93			21.1 – 26	8.3
94			26.1 – 31	7.1
95			31.1 – 33	6
96			33.1 – 42	5.5
97			42.1 – 54	4.2
25			54.1 - 66	3.3

Conditions of Acceptability:

- The following product-line tests are conducted for this product : Electric Strength
- The end-product Electric Strength Test is to be based upon a maximum working voltage of : Primary-SELV: 259 Vrms / 620 Vpk, Primary-Earthed Dead Metal: 263 Vrms / 400 Vpk
- The following output circuits are at ES1 energy levels : All models except models with output codes 15, 25, 29, 38, 47, 58, 68, 78, 88, and 90-97.
- The following output circuits are at ES2 energy levels : Models with output codes 15, 25, 29, 38, 47, 58, 68, 78, 88, and 90-97.
- The following output circuits are at PS3 energy levels : All
- The maximum investigated branch circuit rating is : 20A
- The investigated Pollution Degree is : 2
- Proper bonding to the end-product main protective earthing termination is : Required
- The following end-product enclosures are required : Mechanical, Electrical, Fire
- The following magnetic devices (e.g. transformers or inductor) are provided with an OBJY2 insulation system with the indicated rating greater than Class A (105°C) : T1 and T2 (Class F, 155°C)
- The following components require special consideration during end-product Thermal (Heating) tests due to the indicated maximum temperature measurements during component-level testing : PWB (130°C); C1 (105°C)
- The maximum continuous power supply output (Watts) relied on forced air cooling from : 16 cfm fan applied 1 inch from input side, blowing inward.
- The power supply was evaluated to be used at altitudes up to : 3,048 m
- The end-product Electric Strength Test is to be based upon a Mains Transient Voltage of 2500V
- The power supply terminals and/or connectors are suitable for factory wiring only.
- Proper bonding to the end-product main protective earthing termination is: required when the power supply is used in a Class I end product. The power supply will be considered Class II only when protection against electric shock does not rely on Basic Insulation and provides a minimum of 5 mm creepage and 4 mm clearance distance (mounted above chassis/accessible metal parts on Insulating posts etc). Class II units have no reliance upon protective earthing. The Earth connection pin of CON1 is not suitable as the main protective earth terminal. Earthing must be done either at the earthing terminal on the PWB or the chassis must be directly bonded to Protective Earth in the end product.
- Consideration to repeating the Touch Current test should be given in the end-product evaluation.
- Heatsinks are floating and considered live. They should not be accessible in the end-product
- Heating test should be repeated in the end-use product
- Heating test was not conducted on unit with input/output leads. If unit is provided with input and/or output leads, then temperature on leads must be measured and cannot exceed 105°C.

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• End product to determine the need for "Double Pole Fuse" Marking for units provided with double pole fusing.

• Heating test was not conducted on unit with input/output leads. If unit is provided with input and/or output leads, then temperature on leads must be measured and cannot exceed 105°C.
• The fan connector (CON6) is in the Primary circuit. Fans provide basic insulation (greater than 0.4 mm).
• Heatsinks are floating and considered live. They should not be accessible in the end-product.
• An investigation of the protective bonding terminals has: Not been conducted. Will need to be evaluated in the end-product.
• The following input terminals/connectors must be connected to the end-product supply neutral: CON1.
• The equipment is suitable for direct connection to: AC mains supply. Means of connection will need to be evaluated in the end product.
• The fan provided in this sub-assembly is not intended for operator access, to be evaluated in end product.
• The power supplies in this report have been subject to Capacitance Discharge testing. Additionally, all associated component safeguards have been assessed to the applicable requirement in Annex G.10. Additional testing should not be needed if directly connected to mains e.g. using an appliance inlet, wiring terminals, etc.

Tested according to: EN 62368-1:2014/A11:2017

Production Facility(ies): 071712, 089850, 059319, 059061

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