



Product Service

# CERTIFICATE

No. B 057396 0635 Rev. 00

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

**Certification Mark:**



**Product:** **Switching power supply unit**

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. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: [www.tuvsud.com/ps-cert](http://www.tuvsud.com/ps-cert)

**Test report no.:** 095-72158899-000

**Valid until:** 2023-01-06

**Date,** 2021-01-15

( Liyuan (Mandy) Zhao )



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**Model(s):**

X4-MMMMM-PPSSNN, X5-MMMMM-PPSSNN, X7-MMMMMPPSSNN,  
X9-MMMMM-PPSSNN, X10-MMMMMMM-PPSSNN,  
X15-MMMMM-PPSSNN/ MMMMM-PPSSNN, XT16MMMMMM-PPSSNN

Where M can be blank or a combination of one number 1, 2, 3, 4, or 5 or 7 or blank and one letter A-Z or blank; Where P can be any number 0-9 or blank; Where S can be any number 0-9 or blank; Where N can be any number 0-9 or blank; "-" provided optionally).

Model X7-3D3J3J-230003-XD0142A (P/N 10011368)

**Parameters:**

- Rated Input: X4-MMMMM-PPSSNN: 100-240VAC 50/60/440Hz 5.6A  
 X5-MMMMM-PPSSNN: 100-240VAC 50/60/440Hz 7.0A  
 X7-MMMMM-PPSSNN: 100-240VAC 50/60/440Hz 10.0A  
 X7-3D3J3J-230003-XD0142A: 100-240VAC 50/60/440Hz 12A  
 X9-MMMMM-PPSSNN: 100-240VAC 50/60/440Hz 12.7A  
 X10-MMMMMMM-PPSSNN: 100-240VAC 50/60/440Hz 14.2A  
 X15-MMMMM-PPSSNN/ MMMMM-PPSSNN: 100-240VAC 50/60/440Hz 20A  
 XT16-MMMMMMM-PPSSNN: 342-528Vac, (3W+PE), 50/60/400 Hz, 5.5A  
 PER PHASE (includes ±10% Tolerance, Nominal Input 380-480Vac)
- Output Ratings: See next page
- Protection Class: Class I at end use.
- Degree of Protection: IPX0
- Ambient Temperature: 100% rated load at 50°C,  
75% rated load at 60°C,  
50% rated load at 70°C.
- Maximum Altitude: 4000 m



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## SWITCHING POWER SUPPLY

### Model Differences

All models provided with a power platform and maybe provided with various combinations of Output Modules.

Models within Model X4, X5, X6 and X7 Series are identical, with exception to the output wattage rating. and provided Plug-in output Modules. See output rating table provided below.

Model X9 Series is similar to X7 Series with exception to the power platform, number of output module slots, and the output wattage rating. See output rating table provided below.

Model X10 Series is similar to X7 Series with exception to the power platform, number of output module slots, and the output wattage rating. See output rating table provided below.

Model X7-3D3J3J-230003-XD0142A is identical to X7 series except cooling fan mounted externally (airflow outward) and alternate PWB.

Model X15 is a two output module bay design that consists of platforms and can accommodate the same output modules as the X7 Series.

Model XT16 is similar to X10 Series with exception to the platform, main PWB, 3 phase input rating and 1600W output rating.

### Output Rating:

X4 Series: Max 400 W (100-180 Vac input)/Max 600 W (180-240Vac input): up to 5 output modules provided. X5 Series: Max 500 W (100-180 Vac input)/Max 700 W (180-240 Vac input): up to 5 output modules provided. X7 Series: Max 700 W (100-180 Vac input)/Max 900 W (180-240 Vac input): up to 5 output modules provided. X9 Series: Max 900 W (100-180 Vac input)/Max 1100 W (180-240 Vac input): up to 6 output modules provided. X10 Series: Max 1000 W (100-180 Vac input)/Max 1200 W (180-240 Vac input): up to 7 output modules provided. X7-3D3J3J-230003-XD0142A (100-240Vac, 12A input): Rated Output 5Vdc/60A; 12Vdc/28A; 12Vdc/28A; Max 772W. X15 Series: Max 1500 W (100-180 Vac input)/Max 2500 W (180-240 Vac input): up to 10 output modules provided. XT16 Series: Max 1600W: up to 7 output modules provided.

### Output Module Ratings:

Modules 1A-1Z: 2 Slot Module, 3.3 to 60 Vdc, Max. 20 A, Max. 126 W

Modules 2A-2Z: 2 Slot Module, 3.3 to 60 Vdc, Max. 40 A, Max. 252 W

Modules 3A-3Z: 3 Slot Module, 3.3 to 60 Vdc, Max. 60 A, Max. 420 W

Modules 4A-4Z: 4 Slot Module, 12.0 to 60 Vdc, Max 62.5A, Max 756W

Modules 5A-5Z: 2 Slot Module, Dual Output: V1=3.3 to 24 Vdc, Max. 10 A, Max, 150 W: V2 = 2.0 to 24 Vdc, Max. 10 A, Max. 150 W (V1+V2 150W Max.)

Modules 6A-6Z: 2 Slot Module, Dual Output: V1=5 to 24 Vdc, Max 10 A, Max, 175 W: V2=5 to 24 Vdc, Max 10 A, Max, 175 W (V1+V2 175W Max.)

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## Conditions of Acceptability

When installed in an end-product, consideration must be given to the following:

- 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 :  
For Model X4, X5, X7, X9, and X10 Series:, Primary-Earthed Dead Metal: 240 Vrms, 438 Vpk, Primary-SELV: 268 Vrms, 588 Vpk, For Model X15 Series:, Primary-SELV: 230 Vrms, 691 Vpk, For Model XT16 Series:, Primary-SELV: 375Vac, 472Vpk, Primary-Earth: 297Vac, 424Vpk
- The following output circuits are at ES1 energy levels: All Outputs, unless connected in series. See below C of A for Max Voltage
- The following output circuits are at ES2 energy levels: All Outputs, for certain combinations of output modules connected in series.
- The following output circuits are at ES3 energy levels: All Outputs, for certain combinations of output modules connected in series.
- The following output circuits are at PS3 energy levels: All Outputs
- The maximum investigated branch circuit rating is: All Models except Model X15 Series: 20 A, Model X15 Series: 30 A
- The investigated Pollution Degree is: 2
- Proper bonding to the end-product main protective earthing termination is: Required (Class I)
- An investigation of the protective bonding terminals has: Not been conducted except for Models X4, X5 and X7 Series provided with an appliance inlet.
- The following input terminals/connectors must be connected to the end-product supply neutral: Terminal marked "N" on the supply connector (J1), except when provided with an appliance inlet.
- The following end-product enclosures are required: Mechanical, Fire, Electrical
- The following magnetic devices (e.g. transformers or inductor) are provided with an OBJ2 insulation system with the indicated rating greater than Class A (105°C): T1; Modules: T1, T2, and T3 (Class F)
- The equipment is suitable for direct connection to: AC mains supply
- The power supply was evaluated to be used at altitudes up to: "4000 m"
- When installed in a Class I end product, the power supply shall be mounted in a manner that provides the minimum required Clearance between the primary side of power supply and protectively earthed accessible conductive parts.
- Heatsinks are floating and considered live. They should not be accessible in the end-product.
- A suitable main disconnect device shall be provided in the end product.
- The power supplies covered by this report have a fuse in the neutral of the primary circuit. The need for a marking to warn a service person of the hazards associated with double pole/neutral fusing shall be considered in the end product.
- Consideration to repeating the Touch Current test should be given in the end-product evaluation.
- 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.
- Printed Wiring Boards rated min 130°C. Electrolytic Capacitors rated min 105°C. All inductors providing Functional Insulation are suitable up to 130°C.
- The supply terminal (J1) is suitable for factory wiring. The output terminals and/or connectors have not been investigated for field wiring. Terminal block (J1) is suitable for copper wire only, 22-14 AWG, 10 lbs. torque, 110°C.



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- For Model X4 Series, the maximum continuous output power shall not to exceed 400 W for input voltages 100-180 Vac or 600 W when the supply voltage is 180-240 Vac, when used with any combination of output modules.
- For Model X5 Series, the maximum continuous output power shall not to exceed 500 W for input voltages 100-180 Vac or 700 W when the supply voltage is 180-240 Vac, when used with any combination of output modules.
- For Model X7 Series, the maximum continuous output power shall not to exceed 700 W for input voltages 100-180 Vac or 900 W when the supply voltage is 180-240 Vac, when used with any combination of output modules.
- For Model X9 Series, the maximum continuous output power shall not to exceed 900 W for input voltages 100-180 Vac or 1100 W when the supply voltage is 180-240 Vac, when used with any combination of output modules.
- For Model X10 Series, the maximum continuous output power shall not to exceed 1000 W for input voltages 100-180 Vac or 1200 W when the supply voltage is 180-240 Vac, when used with any combination of output modules.
- For Model X15 Series, the maximum continuous output power shall not to exceed 1500 W for input voltages 100-180 Vac or 2500 W when the supply voltage is 180-240 Vac, when used with any combination of output modules.
- For Model X15 Series: Suitably rated branch protection to be provided as part of the end-product.
- Temperature, Leakage, Earthing, and Dielectric tests are to be considered as part of the end product, investigation.
- Maximum Series connected voltage is 300Vdc.
- For Model XT16 Series, the maximum continuous output power shall not to exceed 1600 W when used with any combination of output modules.

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

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