



Product Service

# CERTIFICATE

No. B 057396 0941 Rev. 00

**Holder of Certificate:** **XP Power LLC.**  
340 Commerce, Suite 100  
Irvine CA 92602  
USA

**Certification Mark:**



**Product:** **Power supply**  
**Medical Grade 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. 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.:** 095-72195687-000

**Valid until:** 2029-01-02

**Date,** 2024-01-16

( Antony Young-Taylor )



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**Model(s):**

HPF3K0PSXX, where XX can be 24, 36, 48 or 60 which represents rated output voltage. The model may or may not be followed by -SF, where SF representing single fuse

**Brand Name:**

XP

**Parameters:**

Rated Input:	100-240 Vac, 19.5 A, 50/60 Hz
Rated Output:	See next page for output ratings
Protection Class:	Component only to be determined in the end product
Max Ambient Temperature:	Refer to Conditions of Acceptability
Elevation for use:	0-5000 m above sea level

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**Approved models and Rated Outputs:**

Model Name	Input Voltage Range	Output V1 rating	Output V2 rating	Transformer T1/T2 drawing no.	Temperature Sensor TS3, TS4 used on foldback detection circuit
HPF3K05PS24	<180Vac	0-24 VDC /62.5 A	5V/2A	10000016028	F20B09505ACFA06E
	>=180Vac	0-24 VDC /125 A	5V/2A	10000016028	F20B09505ACFA06E
HPF3K05PS36	<180Vac	0-36 VDC /41.67 A	5V/2A	10000017733	F20B09005ACFA06E
	>=180Vac	0-36 VDC /83.33 A	5V/2A	10000017733	F20B09005ACFA06E
HPF3K05PS48	<180Vac	0-48 VDC /31.3 A	5V/2A	10000017734	F20B08505ACFA06E
	>=180Vac	0-48 VDC /62.5 A	5V/2A	10000017734	F20B08505ACFA06E
HPF3K05PS60	<180Vac	0-60 VDC /25 A	5V/2A	10000016034	F20B08005ACFA06E
	>=180Vac	0-60 VDC/50 A	5V/2A	10000016034	F20B08005ACFA06E

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## Conditions of Acceptability:

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

1. End product Risk Management Process to include consideration of requirements specific to the Power Supply.
2. End product Risk Management Process to consider the need for simultaneous fault condition testing.
3. End product Risk Management Process to consider the need for different orientations of installation during testing.
4. Power Supply tested in 40°C, 93%RH. End product Risk Management Process to determine risk acceptability criteria.
5. The product was not investigated to the following standards or clauses: Electromagnetic Compatibility (IEC 60601-1-2), Usability (IEC 60601-1-6), Biocompatibility (ISO 10993-1), Medical device software – Software life cycle processes (IEC 62304), Usability
6. The component shall be considered for compliance with the Marking (clause 7) and Separation (clause 8) requirements as part of the end use application evaluation.
7. Scope of Power Supply evaluation defers the following clauses to the be determined as part of the end product: Clause 7.5 (Safety Signs), Clause 7.9 (Accompanying Documents), Clause 9 (ME Hazard), Clause 10 (Radiation), Clause 14 (PEMS), Clause 16 (ME Systems)
8. The power supply was evaluated for use in 50°C ambient at Full Rated Output and 50% of the Rated Output in 70°C ambient at input voltage rated  $\geq 180\text{Vac}$ ; 50°C ambient at 50% of the Rated Output and 25% of the Rated Output in 70°C ambient at input voltage rated  $< 180\text{Vac}$
9. Consideration shall be given to measuring the temperature on power electronic components and transformer windings when the power supply is installed in the end-use equipment. The end use product shall ensure that the power supply is used within its ratings during normal and abnormal condition. This power supply was evaluated with Two MOPP between Primary and Secondary; One MOPP primary and Earth; 0 MOPP between Secondary and Earth.
10. Required Clearances have been adjusted by multiplying the clearance at sea level by a factor of 1.29 for operating at an altitude of 5000 meters. If the calculated Clearance exceeded the Creepage, the Creepage was adjusted to the value of clearance.
11. This power supply has been evaluated as a continuous operation, ordinary equipment and has not been evaluated for use in the presence of a flammable an aesthetic mixture with air, oxygen, or nitrous oxide.
12. The output circuits have not been evaluated for direct patient connection (Type B, BF or CF).
13. The maximum investigated branch circuit rating is: 30 A
14. The Electric Strength Test conducted on this power supply was based upon a maximum working voltage of: Primary-Earthed Dead Metal: 246 Vrms, 376 Vpk; Primary-SEC: 240Vrms, 624Vpk.
15. 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, T2, T3, T4, T201, T202(Class F, 155°C)
16. Printed Wiring Board rated 130°C.
17. The models with suffix -SF are to be provided with a single fuse, the requirement for 2 fuses is to be considered as part of the end product evaluation.

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18. The need for Marking Durability and Marking Legibility Testing shall be considered as part of the end product installation.
19. Fire/ Mechanical/ Electrical Enclosure to be provided as part of the end product.
20. Temperature, Leakage Current, Protective Earthing, Dielectric Voltage Withstand, and Interruption of the Power Supply tests should be considered as part of the end product evaluation.
21. An investigation of the protective bonding terminals has: Not been conducted.
22. The secondary circuit was connected to Earth during working voltage measurement.

**Tested according to:** EN 60601-1:2006/A2:2021