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Product Service

C E R T I F I C A T E

No. B 057396 0651 Rev. 00

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

Certification Mark:

Product: **Converter**
Component DC-DC Converter

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

Test report no.: 095-72169523-000

Valid until: 2026-06-03

Date, 2021-06-10

(Antony Young-Taylor)

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

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Model(s):

JMR03xxyzz Series
(where xx can be 12, 24 or 48, y can be S or D, zz can be 05, 12 or 15)

Parameters:

Input Ratings:	JMR0312S05: 4.5-18 VDC, 1066 mA, JMR0324S05: 9-36 VDC, 526 mA, JMR0348S05: 18-75 VDC, 263 mA, JMR0312S12: 4.5-18 VDC, 1011 mA, JMR0324S12: 9-36 VDC, 499 mA, JMR0348S12: 18-75 VDC, 256 mA, JMR0312S15: 4.5-18 VDC, 1024 mA, JMR0324S15: 9-36 VDC, 493 mA; JMR0348S15: 18-75 VDC, 247 mA, JMR0312D12: 4.5-18 VDC, 1011 mA, JMR0324D12: 9-36 VDC, 499 mA; JMR0348D12: 18-75 VDC, 253 mA, JMR0312D15: 4.5-18 VDC, 985 mA, JMR0324D15: 9-36 VDC, 493 mA, JMR0348D15: 18-75 VDC, 247 mA
Ambient Temperature:	Max 60°C
Elevation for use:	0-5000 m above sea level

Model Differences
JMR03 series where the number "03" represents a maximum output of 3.5 W, while "xx" is the Nominal Input Voltage, 12 VDC, 24 VDC or 48 VDC; and y represents either S for single output or D for a dual output unit and where zz represents the output voltage: 05 = 5 VDC, 12 = 12 VDC, 15 = 15 VDC.

Approved models and Rated Outputs:

Single Output Units:
JMR0312S05: 5 VDC, 700 mA
JMR0312S12: 12 VDC, 292 mA
JMR0312S15: 15 VDC, 234 mA
JMR0324S05: 5 VDC, 700 mA
JMR0324S12: 12 VDC, 292 mA
JMR0324S15: 15 VDC, 234 mA
JMR0348S05: 5 VDC, 700 mA
JMR0348S12: 12 VDC, 292 mA
JMR0348S15: 15 VDC, 234 mA

Dual Output Units:
JMR0312D12: +/-12 VDC, 146 mA
JMR0312D15: +/-15 VDC, 117 mA
JMR0324D12: +/-12 VDC, 146 mA
JMR0324D15: +/-15 VDC, 117 mA
JMR0348D12: +/-12 VDC, 146 mA
JMR0348D15: +/-15 VDC, 117 mA

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Conditions of Acceptability:

When installing the equipment, all requirements of the standards and the manufacturer's specifications must be met.

- The Risk Management requirements of the standard have not been addressed. To be reviewed as part of the end product evaluation.
- The unit is a DC/DC converter and not evaluated for the separation to SUPPLY MAINS; suitable MAINS separation shall be provided during final installation.
- 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.
- The output circuit has not been evaluated for connecting to Applied Parts. For end products intended to connect to Applied Parts, suitable evaluation should be considered.
- The end-product evaluation shall ensure that the requirements related to Accompanying Documents, Clause 7.9 are met.
- 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 anesthetic mixture with air, oxygen, or nitrous oxide. The output circuits have not been evaluated for direct patient connection (Type B, BF or CF).
- The units intended to provide Two MOPP between DC input circuits to DC output circuit.
- Abnormal tests were conducted with the input provided with external fuses of the following values: 2.0 A for the 4.5-18.0 VDC (Nominal 12 VDC) Input units, 1.0 A for the 9.0-36.0 VDC (Nominal 24 VDC) Input units and 0.8A for the 18.0-75.0 VDC (Nominal 48 VDC). Testing conducted with an isolated regulated secondary DC source.
- Scope of this 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), Electromagnetic Compatibility (IEC 60601-1-2) and Biocompatibility (ISO10993-1).
- Scope of this evaluation excludes the following: Patient applied parts clauses: 4.6, 7.2.10, 8.3, 8.5.2, 8.5.5, 8.7.4.7-8.7.4.9, 8.9.1.15; Battery related clauses: 7.3.3, 15.4.3; Hand Control related clauses: 8.10.4; Oxygen related clauses: 11.2.2; Fluids related clauses: 11.6.2 – 11.6.4; Sterilization clause: 11.6.7; Biocompatibility Clause: 11.7 (ISO 10993); Motor related clauses: 13.2.13.3, 13.4; Heating Elements related clause: 13.2; Flammable Anesthetic Mixtures Protection: Annex G.

Tested according to: EN 60601-1:2006/A12:2014

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