



America

CERTIFICATE

No. B 10 11 57396 082

Holder of Certificate: XP Power LLC.



1241 East Dyer Road, Suite 150
Santa Ana CA 92705
USA

**Production
Facility(ies):**

59319, 71712

Certification Mark:



Product:

**Power supply
Power Supply**

Model(s):

ECS65USXX
(where XX can be number 12 to 48 to indicate the main output voltage), may be also followed by suffix "SF" for single fuse and/or "-B" for additional EMI filter inductor.

Parameters:

Rated Input Voltage:	100-240 V AC
Rated Input Current:	1.2 A
Rated Input Frequency:	50/60 Hz
Rated Output Ratings:	See attachment for output ratings and conditions of acceptability.
Protection Class:	Class I or Class II depend on end use.
Temperature, Ambient:	50°C with maximum output power. 70°C with half maximum output power.
Elevation for use:	0-3000 m above sea level.

Tested according to: EN 60950-1/A11:2009

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.: 095-1010132-000

Date, 2010-11-18

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America

ATTACHMENT TO CERTIFICATE NO. B 10 11 57396 082 FOR XP POWER LLC

POWER SUPPLY

Approved models and output ratings:

Model Number	OUTPUT RATING	
	Voltage (VDC)	Maximum Current (A)
ECS65US12	12	5.4
ECS65US15	15	4.3
ECS65US18	18	3.6
ECS65US24	24	2.7
ECS65US28	28	2.3
ECS65US48	48	1.35

Model Differences:

All models are similar with the differences in Main Transformer T1, and minor secondary components for different output voltages.

Conditions of Acceptability:

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

The models require:

- A suitable electrical and fire enclosure must be provided in the end use equipment.
- Proper bonding to the end-product main protective earthing terminal is required when the power supply is installed in the Class I end product.
- When installed in end product, the clearance and creepage distance between the related circuitry of the power supply and accessible parts shall meet the standard(s) requirements. Hi-pot test, touch current test and ground bond test (for Class I end product) shall be conducted at end product.
- The proper warning to service persons should be marked on the end product when the power supply has a fuse in the neutral of the primary circuit.



America

CERTIFICATE

No. B 11 11 57396 117

Holder of Certificate: **XP Power LLC.**



1241 East Dyer Road, Suite 150
Santa Ana CA 92705
USA

Production
Facility(ies):

59319, 71712

Certification Mark:



Product:

Power supply
(Power Supply)

Model(s):

ECS65USXX
(where XX can be number 12 to 48 to indicate the main output voltage, may be also followed by suffix "SF" for single fuse option and/or "-B" with or without "-" for optional EMI inductor).

Parameters:

Rated Input Voltage: 100-240 V AC,
Rated Input Current: 1.2 A
Rated Input Frequency: 50/60 Hz
Rated Output Ratings: See attachment for output ratings and conditions of acceptability.
Protection Class: I or II end use
Temperature, Ambient: 50°C with maximum output power,
70°C with half maximum output power
See attachment for further information

Tested according to: EN 60601-1:2006

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.: 095-1109602-000

Date, 2011-11-14

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America

**ATTACHMENT TO CERTIFICATE NO. B 11 11 57396 117
FOR XP POWER LLC****POWER SUPPLY****Approved models and output ratings:**

Model Number	OUTPUT RATING	
	Voltage (VDC)	Current (A)
ECS65US12	12	5.4
ECS65US15	15	4.3
ECS65US18	18	3.4
ECS65US24	24	2.7
ECS65US28	28	2.3
ECS65US48	48	1.4

Conditions of Acceptability:

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

The models require:

- The products were tested on a 20 A branch circuit. If used on a branch circuit greater than this, additional testing may be necessary.
- A suitable electrical and fire enclosure must be provided in the end use equipment.
- Proper bonding to the end-product main protective earthing terminal is required when the power supply is installed in the Class I end product.
- Primary side heat sinks are floating and considered live, they shall not be accessible in the end-product.
- When installed in end product, the clearance and creepage distance between the related circuitry of the power supply and accessible parts shall meet the standard(s) requirements. Hi-pot test, touch current test and ground bond test (for Class I end product) shall be conducted at end product.
- The output circuits have not been evaluated for direct patient connection (Type B, BF or CF).
- The input/output connectors are not acceptable for field connections, they are only intended for factory wiring inside the end-use product.
- The power supplies have not been evaluated for use in the presence of flammable anesthetic mixture with air, oxygen or nitrous oxide.
- The end product shall ensure that the requirements related to accompanying documents, clause 7.9.
- The end product shall ensure the requirements related to electromagnetic compatibility, clause 17.
- The power supply may be provided with one fuse in the Line side or fuses in both the Line and Neutral sides. The need of additional fusing shall be determined as part of end-production evaluation.



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CERTIFICATE

No. B 12 08 57396 163

Holder of Certificate: XP Power LLC.



1241 East Dyer Road, Suite 150
Santa Ana CA 92705
USA

Production Facility(ies):

59319, 71712

Certification Mark:



Product:

Power supply
(Power Supply)

Model(s):

ECS100USxx
(where xx can be 12, 15, 18, 24, 28, 48 to
indicating output voltage; model number may also be
provided with suffix "SF" to indicate single pole fusing.)

Parameters:

Rated Input Voltage:	100 - 240 V AC,
Rated Frequency:	50 / 60 Hz
Rated Input Current:	1.9 A
Rated Output:	See attachment for output information
Protection Class:	Class I or Class II at end use
Temperature, Ambient:	50°C with 100% maximum power, 60°C with 75% maximum power, 70°C with 50% maximum power.

See attachment for conditions of acceptability.

Tested according to: EN 60950-1/A12:2011

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.:

SI1206743105-000

Date, 2012-08-02

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America

ATTACHMENT TO CERTIFICATE NO. B 12 07 57396 163 FOR XP POWER LLC

POWER SUPPLY

Output Rating:

Model Number	Output		Maximum Power (W)	
	Voltage (V)	Current (A)	Convection cooling	10CFM forced cooling
ECS100US12	12	8.3	80	100
ECS100US15	15	6.7		
ECS100US18	18	5.5		
ECS100US24	24	4.2		
ECS100US28	28	3.6		
ECS100US48	48	2.1		

Conditions of Acceptability:

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

The model requires:

- The input terminal/connector CAN J1 must be connected to the end-product supply neutral.
- The power supply units provide double pole fusing, proper warning shall be provided at end product use.
- Touch current test shall be conducted in the end-product evaluation.
- Ground continuity test shall be conducted in the end-product evaluation.
- A suitable fire enclosure must be provided in the end use equipment.

For CLASS I Installation:

The power supply shall be mounted in manner that provides sufficient clearance and creepage distances between the power supply and protectively earthed accessible conductive parts when installed in a Class I end product.

The protective bonding terminal of the power supply shall be reliably bonded to the main protective earthing terminal of the end product when installed in a Class I end product.

For CLASS II Installation:

The power supply shall be mounted on insulating posts that provide sufficient clearance and creepage distance between the power supply and accessible conductive parts when installed in a Class II end product.



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CERTIFICATE

No. B 11 11 57396 118

Holder of Certificate: XP Power LLC.



1241 East Dyer Road, Suite 150
Santa Ana CA 92705
USA

**Production
Facility(ies):**

59319, 71712

Certification Mark:



Product:

**Power supply
(Power Supply)**

Model(s):

ECS100USXX
(where XX can be number 12 to 48 to indicate the
main output voltage, may be also followed by
suffix "SF" for single fuse with or without "-")

Parameters:

Rated Input Voltage: 100-240 V AC,
Rated Input Current: 1.9 A
Rated Input Frequency: 50/60 Hz
Rated Output Ratings: See attachment
Protection Class: I or II at end use
Temperature, Ambient: 50°C for maximum output power
with 10 CFM force cooling,
70°C with half maximum output power
with 10 CFM force cooling.

See attachment for further information

Tested according to: EN 60601-1:2006

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.: 095-1109295-000

Date, 2011-11-14

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America

ATTACHMENT TO CERTIFICATE NO. B 11 11 57396 118 FOR XP POWER LLC

POWER SUPPLY

Output Rating:

Model Number	OUTPUT RATING	
	Voltage (VDC)	Maximum Current (A)
ECS100US12	12	8.3
ECS100US15	15	6.7
ECS100US18	18	5.5
ECS100US24	24	4.2
ECS100US28	28	3.6
ECS100US48	48	2.1

Conditions of Acceptability:

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

The models require:

- The products were tested on a 20 A branch circuit. If used on a branch circuit greater than this, additional testing may be necessary.
- A suitable electrical and fire enclosure must be provided in the end use equipment.
- Proper bonding to the end-product main protective earthing terminal is required when the power supply is installed in the Class I end product.
- Primary side heat sinks are floating and considered live, they shall not be accessible in the end-product.
- When installed in end product, the clearance and creeepage distance between the related circuitry of the power supply and accessible parts shall meet the standard(s) requirements. Hi-pot test, touch current test and ground bond test (for Class I end product) shall be conducted at end product.
- 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 circuits have not been evaluated for direct patient connection (Type B, BF or CF).
- The input/output connectors are not acceptable for field connections, they are only intended for factory wiring inside the end-use product.
- The power supplies have not been evaluated for use in the presence of flammable anesthetic mixture with air, oxygen or nitrous oxide.
- The end product shall ensure the requirements related to accompanying documents, clause 7.9.
- The end product shall ensure the requirements related to electromagnetic compatibility, clause 17.
- 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 with 10 CFM force air cooling. Additionally, the unit was evaluated for a max. output of 80W at 50°C and 40 W at 70°C with convection cooling.

Rpt. Ref. No.: 095-1109295-000

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2011-11-14



America

CERTIFICATE

No. B 12 07 57396 159

Holder of Certificate: XP Power LLC.



1241 East Dyer Road, Suite 150
Santa Ana CA 92705
USA

**Production
Facility(ies):**

71712, 59319

Certification Mark:



Product:

**Power supply
(Power Supply)**

Model(s):

**ECS100USxx-B, ECS100USxx-BSF,
ECS100USxx-BC
(where xx can be 12 to 48 to indicate output
voltage).**

Parameters:

Rated Input Voltage: 100 - 240 V AC,
Rated Frequency: 50 / 60 Hz
Rated Input Current: 1.9 A
Rated Output: See attachment
Protection Class: Class I or Class II at end use
Elevation for use: 0-3048m above sea level
See attachment for further information.

Tested according to: EN 60950-1/A12:2011

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.: SI1206743106-000

Date, 2012-07-20

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America

ATTACHMENT TO CERTIFICATE NO. B 12 07 57396 159 FOR XP POWER LLC

POWER SUPPLY

Output Rating:

Approved models and rated output:

Model Number	Output		Maximum Power (W)	
	Voltage (V)	Current (A)	Convection cooling	10CFM forced cooling
ECS100US12	12	8.3	80	100
ECS100US15	15	6.7		
ECS100US18	18	5.5		
ECS100US24	24	4.2		
ECS100US28	28	3.6		
ECS100US48	48	2.1		

External Forced Air Cooling: 10CFM air flow, 2.75 inch (7.0 mm) distance from Fan to input side of the unit with inward air-flow direction.

Model Suffix differences:

ECS100USxx-B: Class B radiated emission models

ECS100USxx-BSF: Models with single fusing.

ECS100USxx-BC: Models provided with cover for Class I use only.

Conditions of Acceptability:

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

The models require:

- A suitable fire and electrical enclosure must be provided in the end use equipment.
- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's: 50°C for 100% load at forced air cooling condition and 80% load at convection cooling condition; 70°C for 50% load at forced air cooling condition and 40% load at convection cooling condition. Other than above loading condition on Tma shall be done in the end production application.
- When installed in end product, the clearance and creepage distance between the related circuitry of the power supply and accessible parts shall meet the standard(s) requirements. Hi-pot test, touch current test and ground bond test (Class I end product) shall be conducted at end product.
- The power supply units provide double pole fusing, proper warning shall be provided at end product use.

Rpt. Ref. No.: SI1206743106-000

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2012-07-20



America

CERTIFICATE

No. B 12 01 57396 136

Holder of Certificate: **XP Power LLC.**



1241 East Dyer Road, Suite 150
Santa Ana CA 92705
USA

**Production
Facility(ies):**

59319, 71712

Certification Mark:



Product:

**Power supply
(Power supply)**

Model(s):

ECS100USXX-B
(where XX can be number 12 to 48 to indicate
the main output voltage, may be also followed
by suffix "SF" for single fuse)

Parameters:

Rated Input Voltage: 100-240 V AC
Rated Input Current: 1.9 A
Rated Input Frequency: 50/60 Hz
Rated Output Voltage: See attachment
Protection Class: Class I or Class II at end use
Temperature, Ambient: Convection cooling:
50°C at 80% load, 70°C at 40% load.
10 CFM force cooling:
50°C at 100% load, 70°C at 50% load.
See attachment for further information.

Tested according to: EN 60601-1:2006

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.: 095-1200231-000

Date, 2012-01-23

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John





America

ATTACHMENT TO CERTIFICATE NO. B 12 01 57396 136 FOR XP POWER LLC

POWER SUPPLY

Models covered in this report are component power supplies intended for use in Medical Electrical Equipment. They are open frame power supplies intended for building-in Class I or Class II end product.

Approved models and Output Rating:

Model Number	OUTPUT RATING	
	Voltage (VDC)	Maximum Current (A)
ECS100US12-B	12	8.3
ECS100US15-B	15	6.7
ECS100US18-B	18	5.5
ECS100US24-B	24	4.2
ECS100US28-B	28	3.6
ECS100US48-B	48	2.1

Conditions of Acceptability:

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

The models require:

- Suitable Fire/Mechanical/Electrical enclosure shall be provided as part of the end product.
- When installed into end product, sufficient clearance and creepage distance shall be provided between power supply and accessible conductive parts.
- 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 circuits have not been evaluated for direct patient connection (Type B, BF or CF).
- The output connectors are not acceptable for field connections, they are only intended for connection to mating connectors of the end use equipment. .
- Proper bonding to the end-product main protective earthing terminal is required when the power supply is installed in the Class I end product.

The product was not investigated to the following standards or clauses: Electromagnetic Compatibility (EN 60601-1-2) Clause 14, Programmable Electronic Systems, Biocompatibility (ISO 10993-1), additional evaluation shall be conducted at end use.

(Continued)



America

**ATTACHMENT TO CERTIFICATE NO. B 12 01 57396 136
FOR XP POWER LLC**

- 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)
- Scope of Power Supply 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



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CERTIFICATE

No. B 13 06 57396 224

Holder of Certificate: **XP Power LLC.**



1241 East Dyer Road, Suite 150
Santa Ana CA 92705
USA

Production Facility(ies):

59319, 71712

Certification Mark:



Product:

Power supply
(Power Supply)

Model(s):

ECS130US15-XA1013, ECS130USXX Series
(where XX can be 12 to 48 to indicate output voltage;
can be optionally followed with suffix "-SF" for single
fusing, and/or suffix "-C" for metal cover in Class I
end product.)

Parameters:

Rated Input Voltage: 100-240 VAC
Rated Input Current: 3 A
Rated input frequency: 50/60 Hz
DC Output Ratings: See attachment
Protection Class: Class I or Class II at end use
Elevation for use: 0-5000 m above sea level
See attachment for further information.

Tested according to: EN 60950-1/A12:2011

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.:

SI1305666-000

Date, 2013-06-14

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America

ATTACHMENT TO CERTIFICATE NO. B 13 06 57396 224 FOR XP POWER LLC

POWER SUPPLY

Approved models and rated output:

Model Number	Output		Maximum Power (W)	
	Voltage (V)	Current (A)	Convection cooling	10CFM forced cooling
ECS130US12	12	10.9	100	130
ECS130US15; ECS130US15-XA1013	15	8.7		
ECS130US18	18	7.3		
ECS130US24	24	5.4		
ECS130US28	28	4.7		
ECS130US48	48	2.7		

ECS130US15-XA1013 is identical to Model ECS130US15, except for the size of the PWB mounting holes.

Maximum temperature, ambient:

50°C for 100% load with forced air cooling condition, 80% load with convection cooling condition and 45% load with convection cooling with metal cover condition; 70°C for 40% load with convection cooling condition.

Conditions of Acceptability :

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

The model requires:

- A suitable electrical and fire enclosure shall be provided in the end use equipment.
- The power supply units provide double pole fusing, proper warning shall be provided at end product use.
- Force air cooling: External fan at 10 CFM applied to power supply input side with inward air-flow direction from 1 inch distance between fan and the unit.
- The protective bonding terminal of the power supply shall be reliably bonded to the main protective earthing terminal of the end product when installed in a Class I end product.
- When installed in end product, the clearance and creepage distance between the hazardous voltage parts and accessible parts shall meet the standard(s) requirements. Hi-pot test, touch current test and ground bond test (Class I end product) shall be conducted at end product.

Rpt. No.: SI1305666-000

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2013-06-14



America

CERTIFICATE

No. B 13 10 57396 234

Holder of Certificate: **XP Power LLC.**



1241 East Dyer Road, Suite 150
Santa Ana CA 92705
USA

Production Facility(ies):

71712, 59319

Certification Mark:



Product:

Switching power supply unit
(Switching Power Supply)

Model(s):

ECS130USxx-yy (where xx can be any number between 12 and 48 designating the output voltage, yy can be blank, C, or SF). Models with suffix SF designate single fuse.
ECS130US15-XA1013

Parameters:

Rated Input Voltage:	100-240 V AC,
Rated Frequency:	50/60 Hz
Rated Input Current:	3 A
Rated Output Voltage:	See attachment
Protection Class:	Class I or II at end use
Elevation for use:	0-5000 m above sea level
Temperature, Ambient:	Up to 70°C max.
See attachment for further information.	

Tested according to: EN 60601-1:2006

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.: SI1306368-100

Date, 2013-10-21
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Wane





America

ATTACHMENT TO CERTIFICATE NO. B 13 10 57396 234 FOR XP POWER LLC

SWITCHING POWER SUPPLY

General Product information:

The model covered in this report is a component power supply intended for use in Medical Equipment. It is an open frame power supply with or without metal cover intended for building-in Class I or Class II end-products.

Model Differences

All models in the Model ECS130USxx-yy series are identical with exception to the Mains Transformer, T1, and minor secondary components that allow for different output voltage ratings. Models with suffix C is provided with metal cover for Class I use only.

ECS130US15-XA1013 is identical to Model ECS130US15, except for the size of the PWB mounting holes.

Output rating:

MODEL	V1		Pout (W)	
	Vdc	Adc	Conv	10 CFM
ECS130US12	+12V	10.9	100W	130W
ECS130US15	+15V	8.7	100W	130W
ECS130US18	+18V	7.3	100W	130W
ECS130US24	+24V	5.4	100W	130W
ECS130US28	+28V	4.7	100W	130W
ECS130US48	+48V	2.7	100W	130W



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ATTACHMENT TO CERTIFICATE NO. B 13 10 57396 234 FOR XP POWER LLC

Technical Considerations:

- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 50°C for 100% load (130W) with forced air cooling, derated to 50% load (65W) with forced air cooling at 70°C (applicable to all models); 50°C for 77% load (100W) with convection cooling, derated to 39% (50W) with convection cooling at 70°C (applicable to models without cover); 50°C for 58% load (75W) with convection cooling, derated to 29% (38W) with convection cooling at 70°C (applicable to models with cover). See Enclosure "Miscellaneous" for additional details. --
- The unit has two cooling conditions: 1) External Forced Air Cooling: 10CFM air flow, 1 inch distance from Fan to input side of the unit with inward air-flow direction; 2) Convection cooling. --
- Unit may be used with or without metal cover. --

Rpt. Ref. No.: SI1306368-100

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2013-10-21



America

ATTACHMENT TO CERTIFICATE NO. B 13 10 57396 234 FOR XP POWER LLC

Engineering Conditions of Acceptability

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

- The component shall be installed in compliance with the Marking (clause 7) requirements of the end use application.
- Consideration should 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.
- Leakage Current Testing, including when measured with a non-frequency-weighted device (Clause 8.7.3e), shall be considered in the end product application.
- Proper bonding to the end-product main protective earthing termination is required. Grounding continuity shall be conducted in the end product.
- This power supply was evaluated with Two MOPP between primary and secondary; One MOPP primary and Earth; One MOPP between secondary and Earth for Class I application; Functional Insulation between secondary and floated earth trace for class II application
- Magnetic devices T1, L1, L2 employ a Class F (155°C) insulation system.
- PWB is rated 130°C.
- This power supply has been evaluated as 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 products were tested on a 20 A branch circuit. If used on a branch circuit greater than this, additional testing may be necessary.
- The end product should ensure that the requirements related to accompanying documents, clause 7.9, are met
- The available voltage for the secondary outputs does not exceed 25 Vac or 60 Vdc, under normal and single fault conditions.
- The input/output connectors are not acceptable for field connections; they are only intended for connection to mating connectors of internal wiring inside the end-use machine.
- The need for Marking Durability and Marking Legibility Testing to be considered as part of the end product installation
- A single input current rating is provided over the entire 100-240Vac voltage range. The end product evaluation is to determine the acceptability.
- Power supply provides the following MOPP (means of patient protection): two MOPP between Primary to Secondary, one MOPP between Primary and Earth, one MOPP between secondary and earthing trace, operational protection between secondary and floated earthing trace.
- When installed in a Class I end product, the power supply shall be mounted in a manner that provides, at a min. 3.2 mm Clearance, min. 4.0 mm Creepage between the primary side of the power supply and protectively earthed accessible conductive parts. In addition, when installed in a Class I end product, the protective bonding terminal of the power supply shall be reliably connected to the main protective earthing terminal of the end product.
- When installed in a Class II end product, the power supply shall be mounted, on insulating posts, in a manner that provides, at a min. 6.5 mm Clearance, min. 8.0 mm Creepage between the primary side of the power supply and any accessible conductive parts.
- Fire/ Mechanical/ Electrical Enclosure to be provided as part of the end product
- Units with SF suffix are provided with only one fuse in the line side. The need for additional fusing shall be determined as part of the end-product evaluation
- The end-product Electric Strength Test is to be based upon a maximum working voltage of Primary-SELV: 225 Vrms, 603Vpk; Primary to Ground: 245Vrms, 356Vpk.

Rpt. Ref. No.: SI1306368-100

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