



Certificate of Compliance

Certificate: 2195644

Master Contract: 173688

Project: 2195644

Date Issued: 2009/07/10

Issued to: Power-One, Inc

740 Calle Plano
Camarillo, CA 93012
USA

Attention: Editha Vergara

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.



Dave Brown, B.Eng.

Issued by: Dave Brown, B.Eng.

PRODUCTS

CLASS 5311 91 - POWER SUPPLIES - Component Type(UL 60950-1-2nd Ed)Certified to U.S.Stds

CLASS 5311 11 - POWER SUPPLIES - Component Type(CSA 60950-1-07-2nd Ed)

Component type power supplies intended for use with Information Technology and Business Equipment, where the suitability of the combination is to be determined by CSA International.

AC/DC Switching Power Supply, Models FNP850-12, FNP850-12R, FNP850-12AR, FNP850-12S124, FNP850-12S125, FNP850-S139, FNP850-S151, FNP600-12, FNP600-12R, FNP600-48, FNP600-12S120, FNP1000-48, may be followed by suffix G or SXXX; where X indicates letters and/or numbers 0-9, denoting non safety critical options. FNP600 models may be followed by suffix R indicating reverse.

Electrical Rating:

Model FNP850-12 rated Input: 100-240V, 12A, 50/60Hz; Output(DC)V1:12V, 73A; Vaux: 12V, 0.5A

Model FNP850-12R rated Input: 100-240V, 12A, 50/60Hz; Output(DC): V1: 12V, 73A1); Vaux: 12V, 0.5A

Model FNP850-12S124 rated Input: 100-240V, 12A, 50/60Hz; Output(DC): V1: 12v, 60A; Vaux: 12V, 0.5A

Model FNP850-12S125 rated Input: 100-240V, 12A, 50/60Hz; Output(DC): V1: 12V, 68A; Vaux: 12V, 0.5A



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Model FNP600-12 rated Input: 100-240V, 9A, 50/60Hz; Output(DC): V1: 12V, 51A; Vaux: 12V, 0.5A

Model FNP600-12R rated Input: 100-240V, 9A, 50/60Hz; Output(DC): V1: 12V, 51A; Vaux: 12V, 0.5A

Model FNP600-48 rated Input: 100-240V, 9A, 50/60Hz; Output(DC): V1: 48V, 12.6A; Vaux: 12V, 0.5A

Model FNP600-12S120 rated Input: 100-240V, 9A, 50/60Hz; Output(DC): V1: 12V, 51A; Vaux: 5V, 1A

Model FNP1000-48 rated Input: 100-240V, 14A, 50/60Hz; Output(DC): V1: 48V, 21A; Vaux: 12V, 0.5A

Model FNP850-S139 rated Input: 100-240V, 12A, 50/60Hz; Output(DC): V1: 12V, 73A1); Vaux: 5V, 2A

Model FNP850-S151, FNP850-12AR rated Input: 90-240V, 14A, 50/60Hz; Output(DC): V1: 12V, 69.5A; Vaux: 12V, 1.35A

Notes:

- 1) FNP850-12 models – Maximum total output power: 850 Watts
- 2) FNP600 models – Maximum total output power: 600 Watts
- 3) FNP1000 models – Maximum total output power: 1000 Watts
- 4) 1) Maximum 850 W at 400C ambient, de-rated to 800 W at 500 C ambient.
- 5) FNP850-S151 - Maximum 850 W at 200-240 Vac, maximum 500C ambient, de-rated to 740 W at 90-180 Vac, maximum 400C ambient, de-rated to 700 W at 90-180 Vac, maximum 500C ambient.

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No 60950-1-07 -- Information Technology Equipment - Safety - Part 1: General Requirements

ANSI/UL 60950-1, Second Edition -- Information Technology Equipment - Safety - Part 1: General Requirements

CONDITIONS OF ACCEPTABILITY

1. The power supply is to be installed only by trained service personnel, according to manufacturer installation instructions. Installation Instructions is included with the end system manual in which this power supply is used.
2. Evaluated as Class I (earthed equipment). Reliable earth connection shall be provided in the end use installation.
3. Evaluated for use in a Pollution Degree 2 environment, up to 50 °C ambient, 3048 m altitude.
4. Temperature tests shall be considered for specific installation conditions in the end system.
5. Suitable fire enclosure shall be provided in the end system.
6. All secondary output circuits for all models are SELV.



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7. Secondary output, V1, is at Hazardous energy level; Secondary output, Vaux, is at Non-Hazardous energy level.

8. The output connector has not been evaluated for field wiring.

9. Production-Line Dielectric Voltage Withstand (Electric Strength) and Grounding (Protective Earthing) Continuity Tests are being conducted on this power supply.



America

CERTIFICATE

No. B 09 10 24238 01206

Holder of Certificate: **Power-One, Inc.**



740 Calle Plano
Camarillo, CA 93012-8583
USA

Production
Facility(ies):

44727, 59929, 61968

Certification Mark:



Product:

Switching power supply unit
(AC/DC Switching Power Supplies)

Model(s):

FN600 Series ; FN850 Series ; FN1000 Series:
FN600-12, FN600-12R, FN600-48, FN600-12S120
FN850-12, FN850-12R, FN850-12AR, FN850-12S124,
FN850-12S125, FN850-S139, FN850-S151, FN1000-48
(maybe followed by G or SXXX or SXXXG where X is any
numeric character, 0-9, indicating customer ID,
G indicates ROHS version and S indicate customer
specific versions)

Parameters:

Input Voltage, AC:
100 - 240 V, 50 / 60 Hz (All except as below)
90 - 240 V, 50 / 60 Hz (FN850-S151, FN850-12AR)
Input Current: Series specific, see attachment
Protection Class: I
Outputs, DC: See attachment
For further information please see attachment.

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.: 095-900001134-100

Date, 2009-11-09

William A. Wentholt

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America

ATTACHMENT TO CERTIFICATE NO. B 09 10 24238 01206 FOR POWER-ONE, INC.

GENERAL PRODUCT INFORMATION:

FPN850, FPN600 and FPN1000 models are front-end rectifier, for building in. They are provided with AC inlet, fan and I2C communication. Unit can be used on hot-swappable redundant system.

MODEL DIFFERENCES:

FPN600-12 models are the same as FPN850-12 except for lower output power.

FPN1000 -48 models are similar to FPN850-12 except for V01 rating and power transformer.

Model FPN850-12S124 and FPN850-12S125 are exactly the same as FPN850-12 except for reverse airflow, fan and lower maximum output power.

Model FPN850-12R is exactly the same as FPN850-12 except for reverse airflow and fan.

Model FPN850-S139 is exactly the same as FPN850-12R except for auxiliary output rating.

Model FPN600-48 is exactly the same as FPN1000-48 except for lower maximum output power.

Model FPN850-S151 is exactly the same as FPN850-12R except for input voltage operating range, input current rating, different EMI caps (C3,C4,C7,C8,C25), PWB layout and output return connected to chassis.

Model FPN850-12AR is exactly the same as FPN850-S151 except for additional pull-up resistor on AC_OK, DC_OK and OTP_FAN_FAIL signal.

ADDITIONAL RATINGS INFORMATION:

Temperature, Ambient: 50°C

Elevation for use: 3048 m (above sea level)

CONDITIONS OF ACCEPTABILITY:

The following must be evaluated at end use:

- 1) A suitable fire enclosure.
- 2) A reliable ground (Protective Earth) connection.
- 3) Operator access with a tool
- 4) Energy hazard protection
- 5) Interconnection of equipment
- 6) A reliable disconnecting device
- 7) Enclosure test



America

ATTACHMENT TO CERTIFICATE NO. B 09 10 24238 01206 FOR POWER-ONE, INC.

ELECTRICAL RATING:

Model	Input		Hz	Output (DC)	
	V	A		V	A
FNP600-12 & FNP600-12R	100-240	9	50/60	V1: 12 Vaux: 12	51 0.5
FNP600-12S120	100-240	9	50/60	V1: 12 Vaux: 5	51 1
FNP600-48	100-240	9	50/60	V1: 48 Vaux: 12	12.6 0.5
FNP850-12	100-240	12	50/60	V1: 12 Vaux: 12	73 0.5
FNP850-12R	100-240	12	50/60	V1: 12 Vaux: 12	73 ¹⁾ 0.5
FNP850-12S124	100-240	12	50/60	V1: 12 Vaux: 12	60 0.5
FNP850-12S125	100-240	12	50/60	V1: 12 Vaux: 12	68 0.5
FNP850-S139	100-240	12	50/60	V1: 12 Vaux: 5	73 ¹⁾ 2
FNP1000-48	100-240	14	50/60	V1: 48 Vaux: 12	21 0.5
FNP850-S151 & FNP850-12AR	90-240	14	50/60	V1: 12 Vaux: 12	69.5 1.35

Notes:

- 1) FNP600 models – Maximum total output power: 600 Watts.
- 2) FNP850 models – Maximum total output power: 850 Watts.
- 3) FNP1000 models – Maximum total output power: 1000 Watts.
- 4) ¹⁾ Maximum 850 W at 40°C ambient, derated to 800 W at 50°C ambient.
- 5) FNP850-S151, FNP850-12AR – Maximum 850 W at 180-264 Vac, maximum 50°C ambient, de-rated to 740 W at 81-180 Vac, maximum 40°C ambient, de-rated to 700 W at 81-180 Vac, maximum 50°C ambient.

William A. Wentworth

Rpt Ref. No.: 095-900001134-100

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Ref. Certif. No.

DE 3 - 58177M1

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST
CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE)
CB SCHEME

SYSTEME CEI D'ACCEPTATION MUTUELLE DE
CERTIFICATS D'ESSAIS DES EQUIPEMENTS
ELECTRIQUES (IECEE) METHODE OC

CB TEST CERTIFICATE CERTIFICAT D'ESSAI OC

Product

Produit

Name and address of the applicant

Nom et adresse du demandeur

Name and address of the manufacturer

Nom et adresse du fabricant

Name and address of the factory

Nom et adresse de l'usine

Rating and principal characteristics

Valeurs nominales et caractéristiques principales

Trade mark (if any)

Marque de fabrique (si elle existe)

Model/type Ref.

Ref. de type

Additional information (if necessary)

Information complémentaire (si nécessaire)

A sample of the product was tested and found
to be in conformity with

Un échantillon de ce produit a été essayé et a été
considéré conforme à la

as shown in the Test Report Ref. No.

which form part of this certificate

comme indiqué dans le Rapport d'essais numéro
de référence qui constitue une partie de ce
certificat

Switching power supply unit

(AC/DC Switching Power Supplies)

Power-One, Inc.

740 Calle Plano

Camarillo, CA 93012-8583, USA

Power-One, Inc., 740 Calle Plano, Camarillo, CA 93012-8583, USA

Power-One s.r.o., ArealZTS Dubnica n.Vahom c.924, 01841 Dubnica nad
Vahom, SLOVAK REPUBLIC

For further information please see attachment

Input Voltage, AC:

100 - 240 V, 50 / 60 Hz (All except as below)

90 - 240 V, 50 / 60 Hz (FNP850-S151, FNP850-12AR)

Input Current:

Series specific, see attachment

Protection Class:

I

Outputs, DC:

See attachment

For further information please see attachment.

Power-One

FNP600 Series ; FNP850 Series ; FNP1000 Series:

FNP600-12, FNP600-12R, FNP600-48, FNP600-12S120

FNP850-12, FNP850-12R, FNP850-12AR, FNP850-12S124,

FNP850-12S125, FNP850-S139, FNP850-S151, FNP1000-48

(maybe followed by G or SXXX or SXXXG where X is any
numeric character, 0-9, indicating customer ID,

G indicates ROHS version and S indicate customer
specific versions)

WMT

IEC 60950-1:2005

095-900001134-100

This CB Test Certificate is issued by the National Certification Body
Ce Certificat d'essai OC est établi par l'Organisme **National de Certification**

Date,

2009-11-10

CB 09 10 24238 01207

William Wenthold



TÜV SÜD Product Service GmbH · Certification Body · Ridlerstrasse 65 · D-80339 München

Product Service

Additional factory information:

Name and address of the factory (59929) Power-One, LTD,
Nom et adresse de l'usine Autopista Las Americas Km.22,
 Zone Franca Las Americas,
 11606 Santa Domingo, Dominican Republic

(61968) Power-one Asia Pacific Electronics (Shenzhen) Co., Ltd.
 Block 5, 6; Area B, Tantou Western Industrial Park,
 Songgang, Baoan District, Shenzhen,
 Guangdong, China 518105

GENERAL PRODUCT INFORMATION:

FPN850, FNP600 and FNP1000 models are front-end rectifier, for building in. They are provided with AC inlet, fan and I2C communication. Unit can be used on hot-swappable redundant system.

MODEL DIFFERENCES:

FPN600-12 models are the same as FNP850-12 except for lower output power.

FPN1000 -48 models are similar to FNP850-12 except for V01 rating and power transformer.

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Model FNP850-12R is exactly the same as FNP850-12 except for reverse airflow and fan.

Model FNP850-S139 is exactly the same as FNP850-12R except for auxiliary output rating.

Model FNP600-48 is exactly the same as FNP1000-48 except for lower maximum output power.

Model FNP850-S151 is exactly the same as FNP850-12R except for input voltage operating range, input current rating, different EMI caps (C3,C4,C7,C8,C25), PWB layout and output return connected to chassis.

Model FNP850-12AR is exactly the same as FNP850-S151 except for additional pull-up resistor on AC_OK, DC_OK and OTP_FAN_FAIL signal.

ADDITIONAL RATINGS INFORMATION:

Temperature, Ambient: 50°C

Elevation for use: 3048 m (above sea level)

Date: 2009-11-10

Report No.: 095-900001134-100

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Product Service

ELECTRICAL RATING:

Model	Input		Hz	Output (DC)	
	V	A		V	A
FNP600-12 & FNP600-12R	100-240	9	50/60	V1: 12 Vaux: 12	51 0.5
FNP600-12S120	100-240	9	50/60	V1: 12 Vaux: 5	51 1
FNP600-48	100-240	9	50/60	V1: 48 Vaux: 12	12.6 0.5
FNP850-12	100-240	12	50/60	V1: 12 Vaux: 12	73 0.5
FNP850-12R	100-240	12	50/60	V1: 12 Vaux: 12	73 ¹⁾ 0.5
FNP850-12S124	100-240	12	50/60	V1: 12 Vaux: 12	60 0.5
FNP850-12S125	100-240	12	50/60	V1: 12 Vaux: 12	68 0.5
FNP850-S139	100-240	12	50/60	V1: 12 Vaux: 5	73 ¹⁾ 2
FNP850-S151 & FNP850-12AR	90-240	14	50/60	V1: 12 Vaux: 12	69.5 1.35
FNP1000-48	100-240	14	50/60	V1: 48 Vaux: 12	21 0.5

- Notes: 1) FNP1000 models – Maximum total output power: 1000 Watts.
 2) FNP850 models – Maximum total output power: 850 Watts.
 3) FNP600 models – Maximum total output power: 600 Watts.
 4)¹⁾ Maximum 850 W at 40°C ambient, derated to 800 W at 50°C ambient.
 5) FNP850-S151, FNP850-12AR – Maximum 850 W at 180-264 Vac, maximum 50°C ambient, de-rated to 740 W at 81-180 Vac, maximum 40°C ambient, de-rated to 700 W at 81-180 Vac, maximum 50°C ambient.

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TÜV SÜD Product Service GmbH • Certification Body • Ridlerstrasse 65 • D-80339 München
 Product Service

СИСТЕМА СЕРТИФИКАЦИИ ГОСТ Р
ГОССТАНДАРТ РОССИИ



СЕРТИФИКАТ СООТВЕТСТВИЯ

№ РОСС US.МЛ04.В04906

Срок действия с 06.08.2009 г. по 05.08.2012 г.

8799362

ОРГАН ПО СЕРТИФИКАЦИИ

Аттестат аккредитации №РОСС RU.0001.11МЛ04

ОРГАН ПО СЕРТИФИКАЦИИ ПРОДУКЦИИ ООО «РАДИОФИЗИЧЕСКИЕ ТЕСТОВЫЕ ТЕХНОЛОГИИ»

Юридический адрес: 125315, г. Москва, ул. Адмирала Макарова, д.10, стр. 1.

Фактический адрес: 107258, г. Москва, ул. 1-я Бухвостова, д. 12/11, корп.17, офис 10.

тел./факс: +7 (495) 748 7861, e-mail: mail@certific.ru

ПРОДУКЦИЯ

Блоки питания, модели согласно приложению на 1 листе.

Серийный выпуск.

код ОК 005 (ОКП):

40 2500

СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ НОРМАТИВНЫХ ДОКУМЕНТОВ

ГОСТ Р МЭК 60950-1-2005,

ГОСТ Р 51318.22-99,

ГОСТ Р 51317.3.2-2006 (Разд. 6, 7),

ГОСТ Р 51317.3.3-99.

код ТН ВЭД России:

8471000000

ИЗГОТОВИТЕЛЬ

Power-One, Inc.,

адрес: 740 Calle Plano, Camarillo, CA 93012-8583, США, заводы согласно приложению на 1 листе.

СЕРТИФИКАТ ВЫДАН

Power-One, Inc.,

адрес: 740 Calle Plano, Camarillo, CA 93012-8583, США, тел. (805)3835863.

НА ОСНОВАНИИ

Протоколов испытаний:

№US02OF.08RF от 05.08.09 г., ИЛ ТС ЭМС АНО "Радиооборонтест", рег. №РОСС RU.0001.21МЭ53.

№124K/07/2009 от 06.08.09 г., ИЛ ЭТИ "Регион Тест", рег. №РОСС RU.0001.21МЛ37.

ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ

Маркирование продукции знаком соответствия по ГОСТ Р 50460-92. Место нанесения знака соответствия: на изделии, упаковке и в технической документации. Схема сертификации №3.



Руководитель органа

подпись

Эксперт

подпись

А.В. Шелудченков

инициалы, фамилия

А.А. Чижов

инициалы, фамилия

Сертификат имеет юридическую силу на всей территории Российской Федерации

СИСТЕМА СЕРТИФИКАЦИИ ГОСТ Р
ГОССТАНДАРТ РОССИИ

2213791

ПРИЛОЖЕНИЕ

К сертификату соответствия № РОСС US.МЛ04.В04906

Перечень конкретной продукции, на которую распространяется
действие сертификата соответствия

Лист № 1

код ОК 005 (ОКП)	Наименование и обозначение продукции, ее изготовитель	Обозначение документации, по которой выпускается продукция
код ТН ВЭД СНГ		

40 2500

8471000000

Блоки питания FNP600series, FNP850series, FNP1000series, модели FNP600-12, FNP600-12R, FNP600-48, FNP600-12S120, FNP850-12, FNP850-12R, FNP850-12S124, FNP850-12S125, FNP850-S139, FNP850-S151 и FNP1000-48 Series, модели могут оканчиваться на G, S**, S**G, где * символы от 0 до 9 (идентификатор заказчика), G соответствие директиве RoHS, S индивидуальная пользовательская версия, с торговой маркой Power-One,

заводы:

1. Power-One s.r.o., Areal ZTS Dubnica n. Vahom c. 924, 01841 Dubnica nad Vahom, Словакия,

2. Power-One Ltd., Autopista Las Americas Km.22, Zone Franca Las Americas 11606 Santa Domingo, Доминиканская республика,

3. Power-One Asia Pacific Electronics (Shenzhen) Co.,Ltd., Block 5, 6, Area B, Tantou Western Industrial Park, Songgang, Baoan District, Shenzhen, Guandong, 518105 Китай.



Руководитель органа

Эксперт

подпись

подпись

А.В. Шелудченков

инициалы, фамилия

А.А. Чижов

инициалы, фамилия

Declaration of Conformity

CE MARKING

We, **Power-One, Inc., 740 Calle Plano, Camarillo, CA. 93012 USA**
declare under our sole responsibility that the products;

Power Supply Model: FNP1000, FNP850, FNP600 Series

to which this declaration relates, is/are in compliance with the following document(s):

Quality Standard(s): **ISO 9001, EN 29001**

Directive: **2006/95/EC, Low Voltage Directive**

Product Safety Standard(s): **EN 60950-1/A11: 2009**

IEC 60950-1: 2005

(Licensed by a Notified Body to the European Union)

These component level power supplies are intended exclusively for inclusion within other equipment by an industrial assembly operation or by professional installers per the Installation Instructions provided with the power supplies. The power supply is considered Class I and must be connected to a reliable earth grounding system.



(Manufacturer)

Robert P. White Jr.
Product Safety Director

Camarillo, Ca.

(Place)

December 11, 2009

(Date)