

## DESCRIPTION

## PRODUCT COVERED:

USR/CNR, Switching Power Supply Output Modules (SSLP) for use in Applicant's Switching Power Supply Unit Chassis.

## ELECTRICAL RATINGS: (Optional)

MODULE	INPUT V (DC)	OUTPUT (DC)			
		V	A	V	A
A1	300	5	35	--	--
A6	300	5	60	--	--
AF	300	15	16	--	--
AG	300	2	60	--	--
AU	300	6	35	--	--
AW	300	10	20	--	--
B1	300	12	20	--	--
B4	300	12	10	-12	10
BF	300	3-7.3	45-60	--	--
BJ	300	2.3	35	--	--
BQ	300	20	5	-20	5
C1	300	15	16	--	--
C4	300	15	8	-15	8
CF	300	8.5	20	--	--
D1	300	24	10	--	--
D4	300	24	5	-24	5
D6	300	24	15	--	--
DS	300	3.4	35	--	--
E1	300	28	8.6	--	--
<b>E3</b>	<b>300</b>	<b>28</b>	<b>13.5</b>	<b>--</b>	<b>--</b>
E6	300	28	10	--	--
E7	300	28	16	--	--
F1	300	2	35	--	--
F6	300	2	60	--	--
G1	300	48	5	--	--
H1	300	3.3	35	--	--
H6	300	3.3	60	12	4
M4	300	12	10	--	--
T1	300	1.5-1.8	35	--	--
T6	300	1.5-1.8	60	--	--
W1	300	14-24	10	--	--

## GENERAL:

The above power supply modules are installed in the power supply chassis (host). They are supplied by a rectified 300 Vdc buss derived from the primary through the host. The maximum continuous output power is determined by the host's output rated capability.

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

Use - For use only in (or with) Applicant's Information Technology Equipment, where the acceptability of the combination is determined by Underwriters Laboratories Inc.

Special Considerations - The following items are considerations that were used when evaluating this product.

**USR/CNR indicates investigation to the U.S. and Canadian (Bi-National) Standard for Safety of Information Technology Equipment, CAN/CSA C22.2, No. 60950-1 UL60950-1, First Edition, dated April 01, 2003.**

The component was submitted and tested for a maximum manufacturer's recommended ambient (Tmra) of 50°C.

Conditions of Acceptability - When installed in the end-use equipment, consideration shall be given to the following:

1. **This component has been judged on the basis of the required spacings in the Standard for Safety of Information Technology Equipment, CSA/UL60950, dated April 01, 2003, Sub-Clause 2.10, which would cover the component itself if submitted for Listing.**
2. Secondary output circuits are SELV and some are hazardous energy levels.
3. These products have some secondary output circuits that exceed 240 VA at a potential of 2 V or more.
4. The terminals and connectors have not been evaluated for field wiring.
5. Performance testing has been conducted with the secondary output terminals referenced to earth.
6. Magnetic device(s) (e.g. transformer, inductor) all employ an Unlisted Component Electrical Insulation Systems (OBJY3), designated Class B or higher. See Report for details. Otherwise designated Class A.
7. The equipment has been evaluated for use in a Pollution Degree 2 environment.
8. A suitable Electrical and Fire enclosure shall be provided.
9. The products were tested on a 30 A branch circuit. If used on a branch circuit greater than this, additional testing may be necessary.
10. These modules have only been evaluated for use in the Applicant's Models SPM2XS, SPM3XS, SPM5XS, SPF4XS, SPF6XS, HPM5XS, HPM7XS, HPF4XS, HPF6XS and HPM6XS Series chassis. Consideration shall be given should these modules are used in any other application.
11. The unit should be protected from the DC (42-60 V) supply source by Listed fuse rated 300 V, 45 A or equivalent. Also DC supply source should have a minimum 225 A short circuit current capacity to insure proper function of the fuse.
12. The requirements of Sub-clause 3.4.11 shall be considered in the end-use product.
13. **Deleted.**

# CERTIFICATE

No. B 04 07 24238 563



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

740 Calle Plano  
Camarillo, CA 93012-8583  
USA

**Certification Mark:**



**Product:** Power supply

**DC / DC Switching 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. See also notes overleaf.

**Test report no.:** 095-674152-000



**Date,** 2004-07-29

A handwritten signature in black ink, appearing to read 'William Altmeyer'.

Page 1 of 3

**TÜV AMERICA INC. • 5 Cherry Hill Drive • Danvers MA 01923 USA**  
**TÜV Süddeutschland Group**

**CERTIFICATE**  
**No. B 04 07 24238 563**



**Model(s):**                    **A1, A6, AF, AG, AU, AW, B1, B4, BF, BJ,  
BQ, C1, C4, CF, D1, D4, D6. DS. E1, E6,  
E7, EG, F1, F6, G1, H1, H6, M4, T1, T6, W1**

**Parameters:**                    Rated Input Voltage:                    300 V DC  
   Rated DC Outputs:                    See attachment  
   Protection Class:                    I (at end use)

When installing the equipment, all requirements  
of the below mentioned standards must be met.

See attachment.

**Tested**                                EN 60950-1:2001  
**according to:**                    IEC 60950-1:2001

**Production**                        24260  
**Facility(ies):**

**Attachment to Certificate B 02 07 24238 563  
For Power-One Inc.**

**General product information:**

These modules, Single Slot Low Power (SSLP) models, are designed only for use and installation in specific Power-One, Inc. power supply chassis. They derive their input voltage (300V DC Buss) and current from sockets on the bias sync board of the power supply chassis. The chassis provides AC mains rectification and P.E. connection. The power supply chassis are separately approved.

The function and reliability of the P.E. connection to be evaluated at the end product

**Output ratings:**

<u>Model:</u>	<u>DC Output:</u>	<u>Model:</u>	<u>DC Output:</u>	<u>Model:</u>	<u>DC Output:</u>
A1	5V / 35A	C1	15V / 16A	F1	2V / 35A
A6	5V / 60A	C4	±15V / 8A	F6	2V / 60A
AF	15V / 16A	CF	8.5V / 20A	G1	48V / 5A
AG	2V / 60A	D1	24V / 10A	H1	3.3V / 35A
AU	6V / 35A	D4	±24V / 5A	H6	3.3V / 60A
AW	10V / 20A	D6	24V / 15A	M4	12/12V / 10/4A
B1	12V / 20A	DS	3.3V / 35A	T1	1.5-1.8V / 35A
B4	±12V / 10A	E1	28V / 8.6A	T6	1.5-1.8V / 60A
BF	3-7.2V / 45-60A	E6	28V / 10A	W1	14-24V / 10A
BJ	2.3V / 35A	E7	28V / 16A		
BQ	±20V / 5A	EG	30V / 8A		



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*

Power supply  
DC / DC Switching Power Supply

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

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

Power-One Group Company Power Electronics, Inc., Z.Franca Las  
Americas, AP Las Americas K.M.22, Santo Domingo, Dominican  
Republic

Model A1:

Rated Input Voltage: 300 V DC  
Rated DC Outputs: 5 V / 35 A  
Protection Class: I (at end use)

Power-One

A1, A6, AF, AG, AU, AW, B1, B4, BF, BJ,  
BQ, C1, C4, CF, D1, D4, D6, DS, E1, E6,  
E7, EG, F1, F6, G1, H1, H6, M4, T1, T6, W1

SMT, see Attachment

IEC 60950-1:2001

TÜV Product Service  
095-674152-000

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

Department: ELSUSSD  
Date, 2004-08-03  
CB 04 07 24238 565

**TÜV PRODUCT SERVICE GMBH · Certification Body · Ridlerstrasse 65 · D-80339 München**

**Attachment to Certificate DE 3 – 52713  
For Power-One Inc.**

**General product information:**

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The function and reliability of the P.E. connection to be evaluated at the end product

**Output ratings:**

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A1	5V / 35A	C1	15V / 16A	F1	2V / 35A
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AF	15V / 16A	CF	8.5V / 20A	G1	48V / 5A
AG	2V / 60A	D1	24V / 10A	H1	3.3V / 35A
AU	6V / 35A	D4	±24V / 5A	H6	3.3V / 60A
AW	10V / 20A	D6	24V / 15A	M4	12/12V / 10/4A
B1	12V / 20A	DS	3.3V / 35A	T1	1.5-1.8V / 35A
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BF	3-7.2V / 45-60A	E6	28V / 10A	W1	14-24V / 10A
BJ	2.3V / 35A	E7	28V / 16A		
BQ	±20V / 5A	EG	30V / 8A		

