



Ref. Certif. No.

CA/7920/CSA

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

Component Power Supply

Name and address of the applicant / Nom et adresse du demandeur

Astec International Ltd.
16th & 17th Floors, Lu Plaza, 2 Wing Yip Street
Kwun Tong, Kowloon, Hong Kong

Name and address of the manufacturer / Nom et adresse du fabricant

Same as Applicant.

Name and address of the factory / Nom et adresse de l'usine

Note: When more than one factory, please report on page 2 / Note: Lorsque il y plus d'une usine, veuillez utiliser la 2eme page

[X] Additional Information on page 2

Ratings and principal characteristics / Valeurs nominales et caractéristiques principales

See pages 3 and 4 of CB Certificate

Trademark (if any) / Marque de fabrique (si elle existe)



Model / Type Ref. / Ref. De type

MP4-XXX-XXX-XXX-XXX-XXX-XX
(X and - refer to model configuration on page 4 of CB certificate)

Additional information (if necessary may also be reported on page 2) / Les informations complémentaires (si nécessaire, peuvent être indiqués sur la 2eme page

Replaces certificate CA5218

[ ] Additional Information on page 2

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

PUBLICATION EDITION

IEC 60950-1 1st (2001)
Including National Deviations of AR, AT, AU, BE, BR, CA, CH, CN, CZ, DE, DK, ES, FI, FR, GB, GR, HU, IE, IL, IN, IT, JP, KE, KR, MY, NL, NO, NZ, PL, PT, RU, SE, SG, SI, SK, TR, UA, US, and Common Modifications per CB Bulletin 109A (2005)

As shown in the Test Report Ref. No. which forms part of this Certificate / Comme indiqué dans le Rapport d'essais numéro de référence qui constitue partie de ce Certificat

CB 163661-1185395 (-1793395)

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



CSA International
178 Rexdale Boulevard
Toronto, ON M9W 1R3

Handwritten signature of Tiki Wong

Date: September 8, 2006

Signature: Tiki Wong, P. Eng.



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CA/7920/CSA

Factory  
Astec Power Philippines Inc.  
Main Avenue, Corner Road "J",  
Cavite Export Processing Zone,  
Rosario, Cavite,  
Philippines

Factory  
Astec Electronics Company Ltd.  
Emerson Industrial Park, Feng Tang Road  
Fu Yong Town, Ba' oan District,  
Shenzhen City, Guangdong,  
People's Republic of China

Factory  
Ultimate Renaissance Ltd.  
Unit 18-19 Woodside Road  
South Marston Park  
Swindon, Wiltshire SN3 4WA  
United Kingdom

Factory  
Arrow Electronics Inc.  
1955 East Sky Harbor Circle N.  
Phoenix, AZ 85034  
USA

Factory  
Norvell Electronics  
2251 Chennault Drive,  
Carrollton, Texas 75006  
USA

Factory  
Alvic Power Systems  
Div of Cosmos Power (Singapore) PTE Ltd.  
#05-01, Lipo Factory,  
621 Aljunied Rd., Singapore 389834

Factory  
Fortec Electronic Vertriebs AG  
Lechwiesenstrasse 9,  
86899 Landsberg,  
Germany

Factory  
All American  
48376 Milmont Drive,  
Fremont, CA 94538



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**Rating and Principal Characteristics**

Model	Input	Output (dc)	Level
MP4-XXX-XXX-XXX-XXX-XXX-XX (See model configuration on page 4 of CB Certificate)	AC 100-240V, 7A, 50/60/400Hz  AC 200-240V, 7A, 50/60/400Hz	Refer to model configuration	See Note 1

Maximum continuous output power is 400W at 50 deg C maximum and 200W at 70 deg C maximum. With rear air exhaust option, maximum continuous output power is 400W at 40 deg C. Total loading of dual output modules not to exceed 144W and total loading of triple output modules not to exceed 36W.

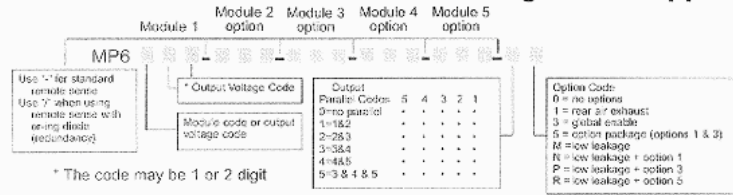
Maximum continuous output power at AC200-240V input is 600W at 50°C maximum.

Notes:

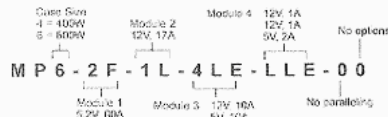
- Output classification level may be 1, 3, 5 or 6 depending on model configuration.  
  
"Level 1" is a CSA designation which denotes that outputs are either not suitable for, or have not been investigated for SELV.  
  
"Level 3" is a CSA designation which denotes that outputs are SELV and non-hazardous energy level of less than 240VA.  
  
"Level 5" is a CSA designation which denotes that outputs are SELV and exceed 240VA hazardous energy level.  
  
"Level 6" is a CSA designation which denotes a multiple output power supply with outputs in any combination of Levels 1, 3 and 5. The individual output classification levels shall be marked adjacent to the output ratings.
- The subject power supplies consist of a front-end AC/DC converter and chassis and DC/DC converter modules, which are CSA approved and listed under the CB scheme.


MVP Series 400 to 600 Watts  
Installation Instructions

Technical Description & Application Notes  
Model Configuration Supplement



Examples:



1. Example: 5V, 10A; Module Code - 2 E

Single Output 3-digit Code Selection Chart

Voltage Code	Voltage ±10%	Module Code		
		1	2	3
A	2.1V	35	60	120
B	2.2V	35	60	120
C	3.1V	35	60	120
D	3.3V	35	60	120
E	5.1V	35	60	120
F	5.2V	35	60	115
G	5.5V	34	35	100
H	6.0V	23	42	78
I	8.0V	20	36	68
J	10V	18	32	60
K	11V	17	31	54.5
L	12V	17	30	50
M	14V	14	21	40.5
N	15V	14	20	39
O	18V	11	19	33.3
P	20V	10.5	18	30
Q	24V	8.5	15	23.9
R	28V	6.7	11	21.4
S	30V	6.5	11	20
T	33V	6.2	10.9	18.2
U	35V	5.8	10	16.6
V	42V	4.2	7.5	12.5
W	48V	4.0	7.5	12.5
X	54V	3.7	6.0	11
Y	60V	3.5	6.0	10

2. Example: 5V, 10A; Module Code - 4 E L

Dual Output 3-digit Code Selection Chart

Voltage Code	Voltage ±10%	Takes up 1 slot	
		Current Max. (A)	V2
A	2.1V	-	10
B	2.2V	-	10
C	3.1V	-	10
D	3.3V	-	10
E	5.1V	10	10
F	5.2V	-	10
G	5.5V	-	10
H	6.0V	-	10
I	8.0V	10	4
J	10V	10	4
K	11V	10	4
L	12V	10	4
M	14V	9	4
N	15V	8	4
O	18V	-	-
P	20V	-	-
Q	24V	4	2
R	28V	3	2

\* Note: Total loading not to exceed 144 watts.

\*\*Output Voltage Code

\*\*No Module Code required

3. Example: 12V, 1A; 20V, 0.5A; 5V, 2A\*

L P E

Triple Output 3-digit Code Selection Chart

Voltage Code	Voltage ±10%	Takes up 1 slot		
		Current Max. (A)	V2	V3
A	2.1V	-	-	2
B	2.2V	-	-	2
C	3.1V	-	-	2
D	3.3V	-	-	2
E	5.1V	-	-	2
F	5.2V	-	-	2
G	5.5V	-	-	2
H	6.0V	-	-	2
I	8.0V	1	1	1
J	10V	1	1	1
K	11V	1	1	1
L	12V	1	1	1
M	14V	1	1	1
N	15V	1	1	1
O	18V	1	1	1
P	20V	-	0.5	0.5
Q	24V	-	0.5	0.5
R	28V	-	0.5	0.5

\* Note: Total loading not to exceed 36 watts.

Voltage Code	Voltage Range	SINGLE OUTPUT MODULE MAXIMUM (A)			DUAL OUTPUT MODULE MAXIMUM (A)		TRIPLE OUTPUT MODULE MAXIMUM (A)		
		1	2	3	V1	V2	V1	V2	V3
Z	2.4 - 2.7	35	60	120	-	10	-	-	2
	3.8 - 4.5	35	60	120	-	10	-	-	2
	6.5 - 7.2	20	35	68	10	4	-	-	1
	8.5 - 9.0	18	32	60	10	4	-	-	1



\* One Z will represent one voltage range only within the module

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Additional information (if necessary)  
Information complémentaire (si nécessaire)

Date: September 8, 2006

Signature: Tiki Wong, P. Eng.