

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

Uninterruptible Power Supply

Name and address of the applicant  
Nom et adresse du demandeur

EATON POWER QUALITY SAS  
110 Rue Blaize Pascal  
38330 Montbonnot St Martin, France

Name and address of the manufacturer  
Nom et adresse du fabricant

EATON POWER QUALITY SAS  
110 Rue Blaize Pascal  
38330 Montbonnot St Martin, France

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

UPE Electronics (Shenzhen) Co., Ltd  
R. 407-409, 6th Hong Mian Rd.  
Futian Free Trade Zone, Shenzhen 518038, China

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

Ratings and principal characteristics  
Valeurs nominales et caractéristiques principales

i/p: AC 220-240V; 50/60Hz; 10A max.; Class I;  
o/p: AC 220/230/240V; 50/60Hz; 1) 1.6A max.; 375VA/225W;  
2) 2.6A max.; 600VA/360W; 3) 3.5A max.; 750VA/450W;  
Bypass o/p: refer to the test report

Trade mark (if any)  
Marque de fabrique (si elle existe)

MGE OFFICE PROTECTION SYSTEMS

Model/type Ref.  
Ref. de type

1) Ellipse 375;  
2) Ellipse 600; Ellipse 600 USBS;  
3) Ellipse 750 USBS

Additional information (if necessary may also be  
reported on page 2)  
Les Information complémentaire (si nécessaire,  
peuvent être indiqués sur la 2<sup>ème</sup> page)

- change the name and address of applicant and manufacturer;  
- change of trademark;  
- add alternative components and change charger transformer;  
- see also test report ref. no. 21126023 001.

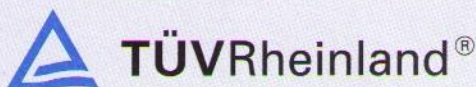
A sample of the product was tested and found  
to be in conformity with  
Un échantillon de ce produit a été essayé et a été  
considéré conforme à la

**PUBLICATION** **EDITION**  
IEC 62040-1-1:2002  
National differences see test report

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 une partie de ce Certificat

21126023 002

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



TÜV Rheinland Product Safety GmbH  
Am Grauen Stein · D-51105 Köln  
Phone + 49 221 806-1400  
Fax + 49 221 806-2095  
Mail: cert-validity@de.tuv.com  
Web: www.tuv.com



Date: 04.09.2008

Signature:

Dipl.-Ing. H. J. Beck

**TEST REPORT****IEC 62040-1-1****Uninterruptible power systems (UPS) –  
Part 1-1: General and safety requirements for UPS used in operator access areas**

Report reference No ..... : 21126023 002

Tested by  
(printed name and signature) ..... : Sommy ChenApproved by  
(printed name and signature) ..... : C.D. Reeves

Date of issue ..... : 04 08 2008

**Testing Laboratory Name** ..... : TÜV Rheinland Product Safety GmbH

Address ..... : Am Grauen Stein, D-51105 Köln

Testing location ..... : CBTL  SMT  TMP 

Address ..... : See above

**Applicant's Name** ..... : Eaton Power Quality SAS

Address ..... : 110 Rue Blaize Pascal, 38330 Montbonnot St Martin, France

**Test specification**Standard ..... : IEC 62040-1-1:2002 (1<sup>st</sup> Edition)

Test procedure ..... : CB Scheme

Non-standard test method ..... : N/A

**Test Report Form No** ..... : IEC62040\_1\_1A

TRF originator ..... : SGS Fimko Ltd.

Master TRF ..... : dated 2003-03

**Test item description** ..... : Uninterruptible Power Supply

Trademark ..... : MGE OFFICE PROTECTION SYSTEMS

Manufacturer ..... : Same as applicant

Model and/or type reference ..... : 1) Ellipse 375, 2) Ellipse 600, Ellipse 600 USBS, 3) Ellipse 750 USBS

Serial number ..... : Pre-production samples without serial number

Rating(s) ..... : Input: AC220-240V, 50/60Hz, 10Amax, 1Φ

Output:

1) AC 220V/230V/240V, 50/60Hz, 1.6Amax, 375VA/225W, 1Φ

Bypass output: AC 220V/230V/240V, 50/60Hz, 8.4A, 375VA/225W

2) AC 220V/230V/240V, 50/60Hz, 2.6Amax, 600VA/360W, 1Φ

Bypass output: AC 220V/230V/240V, 50/60Hz, 7.4A, 600VA/360W

3) AC 220V/230V/240V, 50/60Hz, 3.5Amax, 750VA/450W, 1Φ

Bypass output: AC 220V/230V/240V, 50/60Hz, 6.5A, 750VA/450W

**Copy of marking plate:**

Trademark: Shown on the front panel

**M G E**

**Office Protection Systems**



**www.mgeops.com**

Remark: Other information of rating label and caution label, see original report for details

**Summary of testing:**

7.7 Heating Test considered to be repeated

**Particulars: test item vs. test requirements**

Equipment mobility ..... : Movable  
 Operating condition ..... : Continuous  
 Mains supply tolerance (%) ..... : 184-264V (declared by manufacturer)  
 Tested for IT power systems ..... : No  
 IT testing, phase-phase voltage (V) ..... : N.A.  
 Class of equipment ..... : Class I  
 Mass of equipment (kg)..... : Approx. 5.8kg  
 Protection against ingress of water ..... : Not tested

**Test case verdicts**

Test case does not apply to the test object : N/A  
 Test item does meet the requirement ..... : P(ass)  
 Test item does not meet the requirement .. : F(ail)

**Testing**

Date of receipt of test item ..... : 03.04.2008  
 Date(s) of performance of test ..... : June.2008

General remarks:

**"This report is not valid as a CB Test Report unless appended by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IEC 02".**

The test result presented in this report relate only to the object(s) tested.

This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.

"(see Enclosure #)" refers to additional information appended to the report.

"(see appended table)" refers to a table appended to the report.

Throughout this report a point is used as the decimal separator.

Standard IEC 62040-1-1:2002 is to be used in conjunction with IEC 60950-1:2001, which is referred to in this TRF by "RD".

**Comments:**

Summary of compliance with National Differences (for explanation of codes see below):

AT, CH, DE, FI, HU, IT, NL, NO, SE, SI, TR

AT=Austria, CH=Switzerland, DE=Germany, FI=Finland, HU=Hungary, IT=Italy, NL=The Netherlands, NO=Norway, SE=Sweden, SI=Slovenia, TR=Turkey, Including CENELEC group differences

For national difference, see original report 21126023 001 for details

Factory(ies):

See original report 21126023 001 for details

History of amendments and modifications:

Ref. No. 21126023 001, dated 09.02.2007 (original test report)

Ref. No. 21126023 002, dated 04.08.2008 (1<sup>st</sup> modification)

**General product information:**

Description of change(s):

1. Change the name and address of applicant and change of trademark, see information on cover page and page 2 for details
2. Add alternative source for some components, see bold font in page 4 for details
3. Change the type for charger transformer TV1 from TFM-00025 to TFM-00091, see bold font in page 4 for details

For the above described change(s) the following was considered to be necessary:

Change	Testing	Comments
1.	N/A	No testing necessary, see information on cover page for details
2.	N/A	Same rating/type materials used, after evaluation, no additional tests required.
3	7.7: Maximum temperature	Change the size from EE22 to EE19, other parameters are the same to the original one, after evaluation, only heating test considered to be repeated necessary.

4.3		TABLE: list of critical components				P
object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity <sup>1</sup> .	
PCB	MULTI CIRCUIT BOARD CO LTD	MCEM-1	V-0, 130°C	UL 94	UL E85416	
<b>(Alternative)</b>	<b>Taishan Electronic Co., Ltd.</b>	<b>TS-04, TS-05</b>	<b>V-0, 130°C</b>	<b>UL 94</b>	<b>UL</b>	
Relay (K1)	Omron	G2R-2 (air gap=0.4mm) <sup>5</sup>	250Vac, 5A Coil:12Vdc	IEC/EN 61810-1 IEC/EN 60255- 23	UL E41643 VDE 40015012	
(Optional)	Songchuan	<b>894 series</b>	250Vac, 12A Coil:12Vdc	IEC/EN 61810-1 IEC/EN 60255- 23	UL E88991 VDE 40007827 TUV R50008226	
Charger transformer TV1	Lion	<b>TFM-00091</b>	130°C	--	Test in appliance	
DC/DC Converter transformer TV2	Lion	TFM-00024	130°C	--	Test in appliance	
<b>(Alternative)</b>	<b>Maoxin</b>	<b>TFM-00024</b>	<b>130°C</b>	--	<b>Test in appliance</b>	
DC/DC Converter transformer TV3	Lion	TFM-00048	130°C	--	Test in appliance	
<b>(Alternative)</b>	<b>Maoxin</b>	<b>TFM-00048</b>	<b>130°C</b>	--	<b>Test in appliance</b>	
GAS TUBE (GT2)	SEA UNION	ARR-MM470L- CAA	470V	--	UL	
<b>(Alternative)</b>	<b>Welljet</b>	<b>GB83R470RBF</b>	<b>470V</b>	--	<b>UL</b>	
GAS TUBE (GT1)	SEA UNION	ARR-BM150L- CA8	150V	--	UL	
<b>(Alternative)</b>	<b>Welljet</b>	<b>GD52R150A</b>	<b>150V</b>	--	<b>UL</b>	
Note(s): 1. An asterisk indicates a mark which assures the agreed level of surveillance 2. Transformer sources are identical in design (which includes used materials). Only differences are manufacturer and type designation.						

7.7	TABLE A: maximum temperatures				P
	test voltage (V) .....	184V/60Hz	264V/50Hz	—	
	t <sub>amb1</sub> (°C) .....	--	--	—	
	t <sub>amb2</sub> (°C) .....	--	--	—	
maximum temperature T of part/at:		T (°C)			allowed T <sub>max</sub> (°C)
Test performed on model Ellipse 750 USBS					
Charger transformer core (TV1)		88.5	98.7	120	
Charger transformer coil (TV1)		94.5	104.2	120	
Ambient		34.2	34.3	--	
temperature T of winding:		R <sub>1</sub> (Ω)	R <sub>2</sub> (Ω)	T (°C)	allowed T <sub>max</sub> (°C)
Note(s):					
1. The temperatures were measured under worst case normal mode defined in 1.2.2.1/RD and as described in sub-clause 1.6.2/RD and at voltages as described above.					
2. Test on model Ellipse 750 USBS					
3. Having a specified maximum ambient temperature of +35 °C					