



Ref. Certif. No.

JPTUV-153413

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

CB TEST CERTIFICATE

Product	Switching Power Supply
Name and address of the applicant	TDK-Lambda (China) Electronics Co., Ltd. No.95, Zhujiang Road, Xinwu District Wuxi, 214028 Jiangsu, P.R. China
Name and address of the manufacturer	TDK-Lambda (China) Electronics Co., Ltd. No.95, Zhujiang Road, Xinwu District Wuxi, 214028 Jiangsu, P.R. China
Name and address of the factory	See additional page(s)
Ratings and principal characteristics	Rated Input: 100-240 Vac, 50-60 Hz, for CUS800My-zxxxxxxx, CME800Ay-zxxxxxxx: 8.0 A or 9.5 A for CUS1000My-zxxxxxxx, CME1000Ay-zxxxxxxx: 9.5 A or 11.8 A
Trademark (if any)	TDK-Lambda
Customer's Testing Facility (CTF) Stage used	N/A
Model / Type Ref.	CUS800My-zxxxxxxx, CME800Ay-zxxxxxxx, CUS1000My-zxxxxxxx, CME1000Ay-zxxxxxxx (y = blank; z = 12,24,36,48; xxxxxxx = /CO, /CO2, /G, /SF, /CQC other alphanumeric character, symbol or blank)
Additional information (if necessary may also be reported on page 2)	For output ratings, refer to the test report for details. For model difference, refer to the test report.
A sample of the product was tested and found to be in conformity with	IEC 62368-1:2014
As shown in the Test Report Ref. No. which forms part of this Certificate	CN233LFC 001

This CB Test Certificate is issued by the National Certification Body



TÜV Rheinland Japan Ltd.  
Global Technology Assessment Center  
4-25-2 Kita-Yamata, Tsuzuki-ku  
Yokohama 224-0021, Japan  
Phone + 81 45 914-3888  
Fax + 81 45 914-3354  
Mail: info@jpn.tuv.com  
Web : www.tuv.com

Date: 2023-11-01

Signature:

Mark Chen

1. TDK-Lambda (China) Electronics  
Co., Ltd.  
No.95, Zhujiang Road, Xinwu District  
Wuxi  
214028 Jiangsu, P.R. China
2. TDK-Lambda Malaysia Sdn. Bhd.  
PLO 33, Kawasan Perindustrian Senai  
81400 Senai, Johor  
Malaysia

**Additional information (if necessary)**

Report Ref. No. : CN233LFC 001

Date: 2023-11-01

Signature:

Mark Chen





Test Report issued under the responsibility of:



**TEST REPORT  
IEC 62368-1**

**Audio/video, information and communication technology equipment  
Part 1: Safety requirements**

**Report Number** ..... : CN233LFC 001  
**Date of issue** ..... : 2023-10-31  
**Total number of pages** ..... : 116 (excluding report attachments, see page 3)

**Name of Testing Laboratory  
preparing the Report** ..... : TÜV Rheinland (Shanghai) Co., Ltd.

**Applicant's name** ..... : **TDK-Lambda (China) Electronics Co., Ltd.**  
**Address** ..... : No. 95, Zhujiang Road, Xinwu District, Wuxi 214028 Jiangsu, P.R. China

**Test specification:**  
**Standard** ..... : IEC 62368-1:2014  
**Test procedure** ..... : CB Scheme  
**Non-standard test method** ..... : N/A



**TRF template used** ..... : IECEE OD-2020-F1:2021, Ed.1.4  
**Test Report Form No.** ..... : IEC62368\_1D  
**Test Report Form(s) Originator..** : UL(US)  
**Master TRF** ..... : Dated 2022-04-14

**Copyright © 2022 IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components (IECEE System). All rights reserved.**

This publication may be reproduced in whole or in part for non-commercial purposes as long as the IECEE is acknowledged as copyright owner and source of the material. IECEE takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.  
If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

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

**General disclaimer:**  
The test results presented in this report relate only to the object tested.  
This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory.  
The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.

<b>Test Item description</b> .....	Switching Power Supply	
<b>Trade Mark(s)</b> .....	<b>TDK-Lambda</b>	
<b>Manufacturer</b> .....	Same as applicant	
<b>Model/Type reference</b> .....	CUS800My-zxxxxxxx, CME800Ay-zxxxxxxx, CUS1000My-zxxxxxxx, CME1000Ay-zxxxxxxx (y = blank; z = 12,24,36,48; xxxxxx = /CO, /CO2, /G, /SF, /CQC other alphanumeric character, symbol or blank)	
<b>Ratings</b> .....	See the model list on page 8-9 for details	
<b>Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):</b>		
<input checked="" type="checkbox"/> <b>CB Testing Laboratory:</b>	TÜV Rheinland (Shanghai) Co., Ltd.	
<b>Testing location/ address</b> .....	No.177, 178, Lane 777 West Guangzhong Road, Jing'an District, Shanghai, China	
<b>Tested by (name, function, signature)</b> .....	James Zhang / Technical Expert	
<b>Approved by (name, function, signature)</b> .....	Roy Chen / Technical Reviewer	
<b>Testing procedure: CTF Stage 1:</b>		
<input type="checkbox"/>	N/A	
<b>Testing location/ address</b> .....		
<b>Tested by (name, function, signature)</b> .....		
<b>Approved by (name, function, signature)</b> .....		
<b>Testing procedure: CTF Stage 2:</b>		
<input type="checkbox"/>	N/A	
<b>Testing location/ address</b> .....		
<b>Tested by (name, function, signature)</b> .....		
<b>Witnessed by (name, function, signature)</b> .....		
<b>Approved by (name, function, signature)</b> .....		
<b>Testing procedure: CTF Stage 3 :</b>		
<input type="checkbox"/>	N/A	
<b>Testing procedure: CTF Stage 4:</b>		
<input type="checkbox"/>	N/A	
<b>Testing location/ address</b> .....		
<b>Tested by (name, function, signature)</b> .....		
<b>Witnessed by (name, function, signature)</b> .....		
<b>Approved by (name, function, signature)</b> .....		
<b>Supervised by (name, function, signature)</b> .....		

<p><b>List of Attachments (including a total number of pages in each attachment):</b></p> <ul style="list-style-type: none"> <li>- ATTACHMENT – National Differences (22 pages)</li> <li>- ATTACHMENT – AU/NZ National Differences (30 pages)</li> <li>- ATTACHMENT – Photo Documentation (16 pages)</li> </ul> <p>Note: Total number of pages in each attachment is indicated in individual attachment.</p>	
<p><b>Summary of testing:</b></p>	
<p><b>Tests performed (name of test and test clause):</b></p> <p>All applicable tests as described in Test Case and Measurement Sections performed on models CUS1000M-12, CUS1000M-24, CUS1000M-36, CUS1000M-48, CUS800M-12, CUS800M-24, CUS800M-36, and CUS800M-48 to represent others.</p> <p>The equipment has been evaluated for ambient temperature up to 70 °C.</p> <p>Specified ambient temperature for operation is according to manufacturer's specification.</p> <p>The load conditions used during testing: Maximum normal load for this equipment is the operation with the maximum specified DC load with maximum power condition according to the manufacturer specified.</p> <p>Mounting Direction: Mounting A be used to represent others.</p> <p>The equipment is operated up to 5000m above sea level as declared by manufacturer.</p> <p>The test samples are pre-production without serial numbers.</p>	<p><b>Testing location:</b></p> <p>TÜV Rheinland (Shanghai) Co. Ltd. No.177, 178, Lane 777 West Guangzhong Road, Jing'an District, Shanghai, China</p>
<p><b>Summary of compliance with National Differences (List of countries addressed):</b></p> <p>EU Group Differences, EU Special National Conditions, CA, JP, US.</p> <p>Explanation of used codes: CA=Canada, JP=Japan, US=United States of America.</p> <p><input checked="" type="checkbox"/> <b>The product fulfils the requirements of</b> IEC 62368-1:2014 (Second Edition), EN 62368-1:2014+A11:2017, UL 62368-1:2014 and CAN/CSA-C22.2 No. 62368-1-14.</p>	
<p><b>Other National Differences</b></p> <p>AU, NZ</p> <p>Explanation of used codes: AU=Australia, NZ=New Zealand</p> <p><input checked="" type="checkbox"/> <b>The product fulfils the requirements of</b> AS/NZS 62368.1:2018</p>	

**Use of uncertainty of measurement for decisions on conformity (decision rule) :**

No decision rule is specified by the IEC standard, when comparing the measurement result with the applicable limit according to the specification in that standard. The decisions on conformity are made without applying the measurement uncertainty ("simple acceptance" decision rule, previously known as "accuracy method").

Other:... (to be specified, for example when required by the standard or client, or if national accreditation requirements apply)

**Information on uncertainty of measurement:**

The uncertainties of measurement are calculated by the laboratory based on application of criteria given by OD-5014 for test equipment and application of test methods, decision sheets and operational procedures of IECEE.

IEC Guide 115 provides guidance on the application of measurement uncertainty principles and applying the decision rule when reporting test results within IECEE scheme, noting that the reporting of the measurement uncertainty for measurements is not necessary unless required by the test standard or customer.

Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing.

Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.

< representative >

**CME800A-12** *TDK-Lambda*  
MADE IN CHINA  
INPUT: 100-240VAC - 8.0 A  
50-60Hz  
OUTPUT: 12 V == 56.7 A

EU: TDK-Lambda Germany GmbH, Karlsruhe-Str.40, 77855 Achern  
UK: TDK-Lambda UK, Devon EX34 8ES, UK  
email: lambda@tdk.com/manual

**CUS800M-12** *TDK-Lambda*  
MADE IN CHINA  
INPUT: 100-240VAC - 8.0 A  
50-60Hz  
OUTPUT: 12 V == 56.7 A

EU: TDK-Lambda Germany GmbH, Karlsruhe-Str.40, 77855 Achern  
UK: TDK-Lambda UK, Devon EX34 8ES, UK  
email: lambda@tdk.com/manual

**CME1000A-12** *TDK-Lambda*  
MADE IN CHINA  
INPUT: 100-240VAC - 9.5 A  
50-60Hz  
OUTPUT: 12 V == 66.7 A

EU: TDK-Lambda Germany GmbH, Karlsruhe-Str.40, 77855 Achern  
UK: TDK-Lambda UK, Devon EX34 8ES, UK  
email: lambda@tdk.com/manual

**CUS1000M-12** *TDK-Lambda*  
MADE IN CHINA  
INPUT: 100-240VAC - 9.5 A  
50-60Hz  
OUTPUT: 12 V == 66.7 A

EU: TDK-Lambda Germany GmbH, Karlsruhe-Str.40, 77855 Achern  
UK: TDK-Lambda UK, Devon EX34 8ES, UK  
email: lambda@tdk.com/manual

**CME800A-24** *TDK-Lambda*  
MADE IN CHINA  
INPUT: 100-240VAC - 9.5 A  
50-60Hz  
OUTPUT: 24 V == 33.4 A

EU: TDK-Lambda Germany GmbH, Karlsruhe-Str.40, 77855 Achern  
UK: TDK-Lambda UK, Devon EX34 8ES, UK  
email: lambda@tdk.com/manual

**CUS800M-24** *TDK-Lambda*  
MADE IN CHINA  
INPUT: 100-240VAC - 9.5 A  
50-60Hz  
OUTPUT: 24 V == 33.4 A

EU: TDK-Lambda Germany GmbH, Karlsruhe-Str.40, 77855 Achern  
UK: TDK-Lambda UK, Devon EX34 8ES, UK  
email: lambda@tdk.com/manual

**CME1000A-24** *TDK-Lambda*  
MADE IN CHINA  
INPUT: 100-240VAC - 11.0 A  
50-60Hz  
OUTPUT: 24 V == 41.7 A

EU: TDK-Lambda Germany GmbH, Karlsruhe-Str.40, 77855 Achern  
UK: TDK-Lambda UK, Devon EX34 8ES, UK  
email: lambda@tdk.com/manual

**CUS1000M-24** *TDK-Lambda*  
MADE IN CHINA  
INPUT: 100-240VAC - 11.0 A  
50-60Hz  
OUTPUT: 24 V == 41.7 A

EU: TDK-Lambda Germany GmbH, Karlsruhe-Str.40, 77855 Achern  
UK: TDK-Lambda UK, Devon EX34 8ES, UK  
email: lambda@tdk.com/manual

**CME800A-36** *TDK-Lambda*  
MADE IN CHINA  
INPUT: 100-240VAC - 9.5 A  
50-60Hz  
OUTPUT: 36 V == 22.2 A

EU: TDK-Lambda Germany GmbH, Karlsruhe-Str.40, 77855 Achern  
UK: TDK-Lambda UK, Devon EX34 8ES, UK  
email: lambda@tdk.com/manual

**CUS800M-36** *TDK-Lambda*  
MADE IN CHINA  
INPUT: 100-240VAC - 9.5 A  
50-60Hz  
OUTPUT: 36 V == 22.2 A

EU: TDK-Lambda Germany GmbH, Karlsruhe-Str.40, 77855 Achern  
UK: TDK-Lambda UK, Devon EX34 8ES, UK  
email: lambda@tdk.com/manual

**CME1000A-36** *TDK-Lambda*  
MADE IN CHINA  
INPUT: 100-240VAC - 11.0 A  
50-60Hz  
OUTPUT: 36 V == 27.8 A

EU: TDK-Lambda Germany GmbH, Karlsruhe-Str.40, 77855 Achern  
UK: TDK-Lambda UK, Devon EX34 8ES, UK  
email: lambda@tdk.com/manual

**CUS1000M-36** *TDK-Lambda*  
MADE IN CHINA  
INPUT: 100-240VAC - 11.0 A  
50-60Hz  
OUTPUT: 36 V == 27.8 A

EU: TDK-Lambda Germany GmbH, Karlsruhe-Str.40, 77855 Achern  
UK: TDK-Lambda UK, Devon EX34 8ES, UK  
email: lambda@tdk.com/manual

**CME800A-48** *TDK-Lambda*  
MADE IN CHINA  
INPUT: 100-240VAC - 9.5 A  
50-60Hz  
OUTPUT: 48 V == 16.7 A

EU: TDK-Lambda Germany GmbH, Karlsruhe-Str.40, 77855 Achern  
UK: TDK-Lambda UK, Devon EX34 8ES, UK  
email: lambda@tdk.com/manual

**CUS800M-48** *TDK-Lambda*  
MADE IN CHINA  
INPUT: 100-240VAC - 9.5 A  
50-60Hz  
OUTPUT: 48 V == 16.7 A

EU: TDK-Lambda Germany GmbH, Karlsruhe-Str.40, 77855 Achern  
UK: TDK-Lambda UK, Devon EX34 8ES, UK  
email: lambda@tdk.com/manual

**CME1000A-48** *TDK-Lambda*  
MADE IN CHINA  
INPUT: 100-240VAC - 11.0 A  
50-60Hz  
OUTPUT: 48 V == 20.9 A

EU: TDK-Lambda Germany GmbH, Karlsruhe-Str.40, 77855 Achern  
UK: TDK-Lambda UK, Devon EX34 8ES, UK  
email: lambda@tdk.com/manual

**CUS1000M-48** *TDK-Lambda*  
MADE IN CHINA  
INPUT: 100-240VAC - 11.0 A  
50-60Hz  
OUTPUT: 48 V == 20.9 A

EU: TDK-Lambda Germany GmbH, Karlsruhe-Str.40, 77855 Achern  
UK: TDK-Lambda UK, Devon EX34 8ES, UK  
email: lambda@tdk.com/manual

TEST ITEM PARTICULARS:	
Classification of use by..... :	<input type="checkbox"/> Ordinary person <input checked="" type="checkbox"/> Instructed person <input checked="" type="checkbox"/> Skilled person <input type="checkbox"/> Children likely to be present
Supply Connection..... :	<input checked="" type="checkbox"/> AC Mains <input type="checkbox"/> DC Mains <input type="checkbox"/> External Circuit - not Mains connected - <input type="checkbox"/> ES1 <input type="checkbox"/> ES2 <input type="checkbox"/> ES3
Supply % Tolerance .....	<input checked="" type="checkbox"/> +10%/-10% <input type="checkbox"/> +20%/-15% <input type="checkbox"/> + ___ %/ - ___ % <input type="checkbox"/> None
Supply Connection – Type .....	<input type="checkbox"/> pluggable equipment type A - <input type="checkbox"/> non-detachable supply cord <input checked="" type="checkbox"/> appliance coupler <input type="checkbox"/> direct plug-in <input type="checkbox"/> mating connector <input type="checkbox"/> pluggable equipment type B - <input type="checkbox"/> non-detachable supply cord <input type="checkbox"/> appliance coupler <input checked="" type="checkbox"/> permanent connection <input checked="" type="checkbox"/> mating connector <input checked="" type="checkbox"/> other: <u>Terminal Block</u>
Considered current rating of protective device as part of building or equipment installation..... :	<u>16A (20A for US/CSA):</u> Installation location: <input checked="" type="checkbox"/> building; <input type="checkbox"/> equipment
Equipment mobility..... :	<input type="checkbox"/> movable <input type="checkbox"/> hand-held <input type="checkbox"/> transportable <input type="checkbox"/> stationary <input checked="" type="checkbox"/> for building-in <input type="checkbox"/> direct plug-in <input type="checkbox"/> rack-mounting <input type="checkbox"/> wall-mounted
Over voltage category (OVC) .....	<input type="checkbox"/> OVC I <input checked="" type="checkbox"/> OVC II <input type="checkbox"/> OVC III <input type="checkbox"/> OVC IV <input type="checkbox"/> other: _____
Class of equipment .....	<input checked="" type="checkbox"/> Class I <input type="checkbox"/> Class II <input type="checkbox"/> Class III <input type="checkbox"/> Class II with functional earthing <input type="checkbox"/> Not classified
Access location .....	<input checked="" type="checkbox"/> restricted access area <input type="checkbox"/> N/A
Pollution degree (PD) .....	<input type="checkbox"/> PD 1 <input checked="" type="checkbox"/> PD 2 <input type="checkbox"/> PD 3
Manufacturer's specified maximum operating ambient :	<u>70</u> °C
IP protection class .....	<input checked="" type="checkbox"/> IPX0 <input type="checkbox"/> IP___
Power Systems .....	<input checked="" type="checkbox"/> TN <input type="checkbox"/> TT <input checked="" type="checkbox"/> IT - <u>230</u> V L-L; <input type="checkbox"/> dc mains <input type="checkbox"/> N/A
Altitude during operation (m) .....	<input type="checkbox"/> 2000 m or less <input checked="" type="checkbox"/> <u>5000</u> m
Altitude of test laboratory (m) .....	<input checked="" type="checkbox"/> 2000 m or less <input type="checkbox"/> _____ m
Mass of equipment (kg) .....	Approx. 0.85kg for CUS1000M series Approx. 0.81kg for CUS800M series



<b>Possible test case verdicts:</b>	
- test case does not apply to the test object .....	N/A
- test object does meet the requirement .....	P (Pass)
- test object does not meet the requirement .....	F (Fail)
<b>Testing..... :</b>	
<b>Date of receipt of test item .....</b>	2023-09-01
<b>Date (s) of performance of tests..... :</b>	2023-09-02 to 2023-09-28
<b>General remarks:</b>	
<p>"(See Enclosure #)" refers to additional information appended to the report.          "(See appended table)" refers to a table appended to the report.</p> <p>Throughout this report a <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator.</p>	
<b>Manufacturer's Declaration per sub-clause 4.2.5 of IEC 60385-2:</b>	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided..... :	<input checked="" type="checkbox"/> <b>Yes</b> <input type="checkbox"/> <b>Not applicable</b>
<b>When differences exist; they shall be identified in the General product information section.</b>	
<b>Name and address of factory (ies) .....</b>	<ol style="list-style-type: none"> <li>1. TDK-Lambda (China) Electronics Co., Ltd. No. 95, Zhujiang Road, Xinwu District, Wuxi 214028 Jiangsu, P.R. China</li> <li>2. TDK-Lambda Malaysia Sdn. Bhd PLO33, Kawasan Perindustrian Senai, 81400 Senai Johor Malaysia</li> </ol>
<b>General product information and other remarks:</b>	
<p>The PSU is a component type switching mode power supplies intended for use with the earthed construction or non-earthed construction of IT/AV equipment.</p> <p>For earthed construction (Class I), the PSU need to be reliably earthed and professionally installed and fixed with metal screws.</p> <p>Model CME800Ay-zxxxxxxx is identical to model CUS800My-zxxxxxxx except for model name.</p> <p>Model CME1000Ay-zxxxxxxx is identical to model CUS1000My-zxxxxxxx except for model name.</p> <p>All models are identical, except for the optional chassis, cover, turns of Transformer and the rating of some components that results in different output ratings. See Model List below for details. All models are identical, except of the optional chassis, cover, turns of Transformer and the rating of some components which results in different output ratings. See Model List below for details.</p> <p>CUS800M series and CUS1000M series have same PCB and circuit topology. Compared to CUS1000M series, CUS800M series have no additional heatsink on PFC heatsink for D1 and SCR1 and no additional busbar on bottom side. CUS800M series and CUS1000M series have different heatsinks for output rectifier components.</p>	
<b>Additional application considerations – (Considerations used to test a component or sub-assembly)</b>	
<ul style="list-style-type: none"> <li>• Some components are <b>pre-certified</b>, which have been evaluated according to the relevant requirements of IEC 62368-1, are employed in this product. Their suitability of use has been checked according to <u>subclause 4.1.1 and 4.1.2.</u></li> <li>• The product is to be operated up to 5000m above sea level, the minimum clearances were multiplied by the factor given in Table A.2 of IEC 60664-1: 1.48.</li> </ul> <p>Tests were repeated with each alternative source of components with identical results unless otherwise specified.</p>	

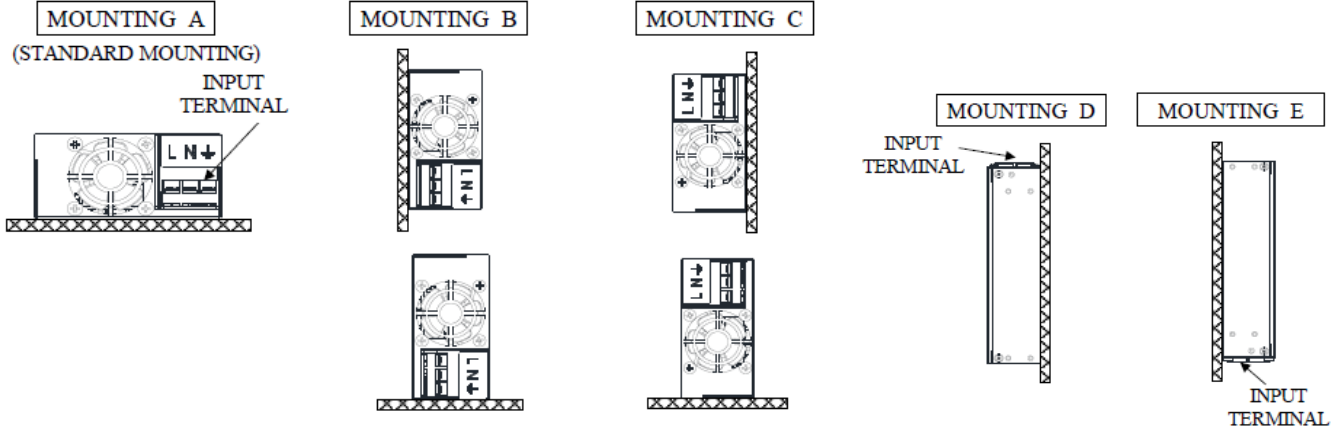
**For rating differences between the models see below tables:**

Series Model	I/p voltage (Vac)	Freq (Hz)	I/p current (A)	Output Channel	Minimal output	Rated output (typical)	Maximum output
Forced air by build-in intake fan							
CUS800M-12xxxxxxx CME800A-12xxxxxxx	100-240	50-60	8.0	Main output	10.8Vdc	12Vdc	12.6 Vdc
					10.8Vdc~12.6Vdc , Normal: 56.7A & 680.4W max. Peak: 66.7A & 800.4W max. (Dynamic)		
				Standby mode power (optional)	4.8Vdc	5Vdc	5.2Vdc
					2A	2A	1.9A
CUS800M-24xxxxxxx CME800A-24xxxxxxx	100-240	50-60	9.5	Main output	21.6 Vdc	24Vdc	25.9 Vdc
					21.6Vdc~25.9Vdc , Normal: 33.4A & 801.6W max.		
				Standby mode power (optional)	4.8Vdc	5Vdc	5.2Vdc
					2A	2A	1.9A
CUS800M-36xxxxxxx CME800A-36xxxxxxx	100-240	50-60	9.5	Main output	32.4 Vdc	36 Vdc	38.8Vdc
					32.4Vdc~38.8Vdc , Normal: 22.2A & 799.2W max.		
				Standby mode power (optional)	4.8Vdc	5Vdc	5.2Vdc
					2A	2A	1.9A
CUS800M-48xxxxxxx CME800A-48xxxxxxx	100-240	50-60	9.5	Main output	43.2Vdc	48 Vdc	51.8Vdc
					43.2Vdc~51.8Vdc , Normal: 16.7A & 801.6W max.		
				Standby mode power (optional)	4.8Vdc	5Vdc	5.2Vdc
					2A	2A	1.9A
Remark 1: Operating temp.: up to +70°C (operating temperature depending on equipment's load, mounting position, for details refer to instruction manual).							

**For rating differences between the models see below tables:**

Series Model	I/p voltage (Vac)	Freq (Hz)	I/p current (A)	Output Channel	Minimal output	Rated output (typical)	Maximum output
Forced air by build-in intake fan							
CUS1000M-12xxxxxxx CME1000A-12xxxxxxx	100-240	50-60	9.5	Main output	10.8Vdc	12Vdc	12.6 Vdc
					10.8Vdc~12.6Vdc , Normal: 66.7A & 800.4W max. Peak: 83.4A & 1000.8W max. (Dynamic)		
				Standby mode power (optional)	4.8Vdc	5Vdc	5.2Vdc
					2A	2A	1.9A
CUS1000M-24xxxxxxx CME1000A-24xxxxxxx	100-240	50-60	11.8	Main output	21.6 Vdc	24Vdc	25.9 Vdc
					21.6Vdc~25.9Vdc , Normal: 41.7A & 1000.8W max.		
				Standby mode power (optional)	4.8Vdc	5Vdc	5.2Vdc
					2A	2A	1.9A
CUS1000M-36xxxxxxx CME1000A-36xxxxxxx	100-240	50-60	11.8	Main output	32.4 Vdc	36 Vdc	38.8Vdc
					32.4Vdc~38.8Vdc , Normal: 27.8A & 1000.8W max.		
				Standby mode power (optional)	4.8Vdc	5Vdc	5.2Vdc
					2A	2A	1.9A
CUS1000M-48xxxxxxx CME1000A-48xxxxxxx	100-240	50-60	11.8	Main output	43.2Vdc	48 Vdc	51.8Vdc
					43.2Vdc~51.8Vdc , Normal: 20.9A & 1003.2W max.		
				Standby mode power (optional)	4.8Vdc	5Vdc	5.2Vdc
					2A	2A	1.9A
Remark 1: Operating temp.: up to +70°C (operating temperature depending on equipment's load, mounting position, for details refer to instruction manual).							

**Mounting position:**



**Derating Curve:**

Model: CUS800M-12/24/36/48

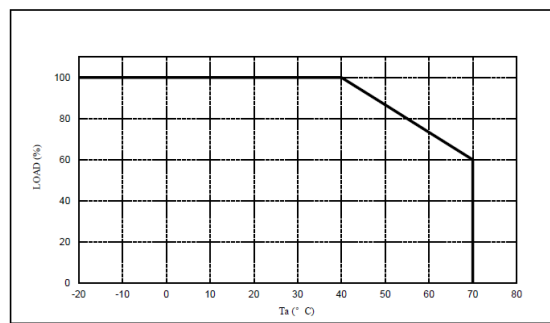
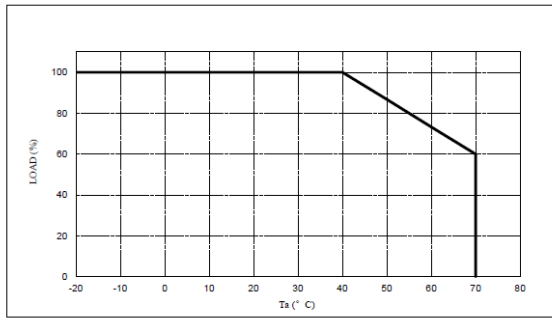
Model: CUS1000M-12/24/36/48

MODEL: CUS800M-12/24/36/48

MODEL: CUS1000M-12/24/36/48

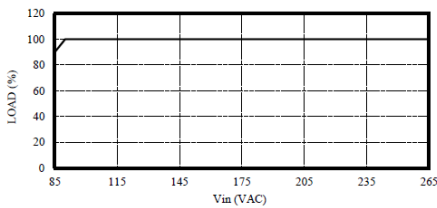
Ta (°C)	LOAD (%)
-20 ~ +40	100
50	86.7
60	73.3
70	60

Ta (°C)	LOAD (%)
-20 ~ +40	100
50	86.7
60	73.3
70	60



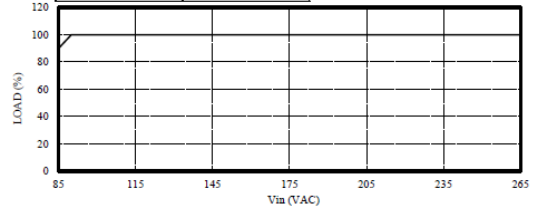
**OUTPUT DERATING VERSUS INPUT VOLTAGE**

INPUT VOLTAGE (VAC)	LOAD (%)
85	90
90~265	100



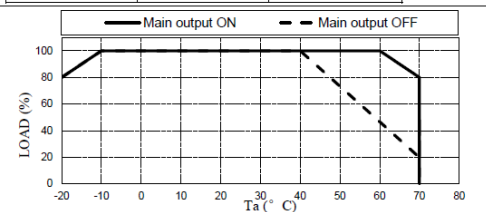
**OUTPUT DERATING VERSUS INPUT VOLTAGE**

INPUT VOLTAGE (VAC)	LOAD (%)
85	90
90~265	100



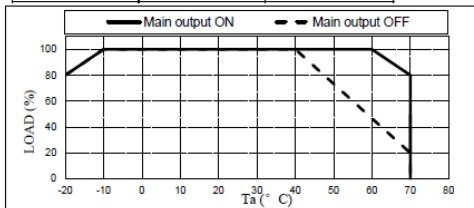
**STANDBY SUPPLY OUTPUT DERATING VERSUS OPERATING AMBIENT TEMPERATURE (Ta)**

Ta (°C)	LOAD (%)	
	Main output ON	Main output OFF
-20	80	80
-10	100	100
-10 ~ 40	100	100
60	100	46.7
70	80	20



**STANDBY SUPPLY OUTPUT DERATING VERSUS OPERATING AMBIENT TEMPERATURE (Ta)**

Ta (°C)	LOAD (%)	
	Main output ON	Main output OFF
-20	80	80
-10	100	100
-10 ~ 40	100	100
60	100	46.7
70	80	20



**Additional Information:**

- The product is a component type switching power supply, the overall compliance shall be investigated in the complete end system/equipment, in particular as:
  - Fire enclosure
  - Mechanical enclosure
  - Electrical enclosure
- The label is draft of artwork for marking plates pending approval by National Certification Bodies and it shall not be affixed to products prior to such an approval.
- The input circuit includes one fuse (F1A) in the Line conductor and the other fuse (F1B) is optional in neutral conductor. Overall consideration needed to re-check in the end-use product regarding addition of the second fuse having the same or better characteristics in order to comply with fusing requirements of the standard.
- The power supply cord set is not evaluated together with the equipment. The suitable certified power supply cord set need to provide in the country where the equipment sold.

**Definition of various:**

Variable:	Suffix	Description
<b>y</b>	blank	Denotes for standard model
<b>z</b>	12,24,36,48	Denotes for output voltage
<b>xxxxxxx</b>	blank	Denotes for standard model
	/CO	Denotes for single side PWB Coating
	/CO2	Denotes for double side PWB Coating
	/SF	Denotes for single fuse
	/G	Denotes for low earth Leakage current
	/CQC	Denotes for CQC approval
	other alphanumeric character, symbol	For market purposes, no construction differences and no safety impact.

Note: These suffixes may be used together (e.g. /G, /GCO).

<b>ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE:</b>	
(Note 1: Identify the following six (6) energy source forms based on the origin of the energy.) (Note 2: The identified classification e.g., ES2, TS1, should be with respect to its ability to cause pain or injury on the body or its ability to ignite a combustible material. Any energy source can be declared Class 3 as a worse case classification e.g. PS3, ES3.)	
<b>Electrically-caused injury (Clause 5):</b> (Note: Identify type of source, list sub-assembly or circuit designation and corresponding energy source classification) Example: +5 V dc input	
	ES1
Source of electrical energy	Corresponding classification (ES)
Primary circuit	ES3
Secondary circuit	ES1
<b>Electrically-caused fire (Clause 6):</b> (Note: List sub-assembly or circuit designation and corresponding energy source classification) Example: Battery pack (maximum 85 watts):	
	PS2
Source of power or PIS	Corresponding classification (PS)
All circuits	PS3
<b>Injury caused by hazardous substances (Clause 7)</b> (Note: Specify hazardous chemicals, whether produces ozone or other chemical construction not addressed as part of the component evaluation.) Example: Liquid in filled component	
	Glycol
Source of hazardous substances	Corresponding chemical
N/A	N/A
<b>Mechanically-caused injury (Clause 8)</b> (Note: List moving part(s), fan, special installations, etc. & corresponding MS classification based on Table 35.) Example: Wall mount unit	
	MS2
Source of kinetic/mechanical energy	Corresponding classification (MS)
Sharp edge and corners	MS1
Equipment mass (<7 kg)	MS1
MS3: Moving parts (DC fan, plastic fan blade)	MS3
<b>Thermal burn injury (Clause 9)</b> (Note: Identify the surface or support, and corresponding energy source classification based on type of part, location, operating temperature and contact time in Table 38.) Example: Hand-held scanner – thermoplastic enclosure	
	TS1
Source of thermal energy	Corresponding classification (TS)
To be determined by end-product use	--
<b>Radiation (Clause 10)</b> (Note: List the types of radiation present in the product and the corresponding energy source classification.) Example: DVD – Class 1 Laser Product	
	RS1
Type of radiation	Corresponding classification (RS)
N/A	N/A

**ENERGY SOURCE DIAGRAM**

Indicate which energy sources are included in the energy source diagram. Insert diagram below

**See ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE**
 ES     PS     MS     TS     RS
**OVERVIEW OF EMPLOYED SAFEGUARDS**

Clause	Possible Hazard			
5.1	Electrically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (ES3: Primary Filter circuit)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
Instructed person, Skilled person	ES3: Primary circuit	Bleeding resistors or ICX, Certified X-Capacitor & Y- Capacitors, Insulation sheet	Earthed Protectively bonding chassis	Isolating Transformers and certified Optocouplers
Instructed person, Skilled person	ES1: Secondary circuit	N/A	N/A	N/A
6.1	Electrically-caused fire			
Material part (e.g. mouse enclosure)	Energy Source (PS2: 100 Watt circuit)	Safeguards		
		Basic	Supplementary	Reinforced
Combustible materials	PS3: > 100 Watt circuits	See 6.3.1 (a) (N)	See 6.4.6 (N, A, S)	N/A
Internal wiring material	PS3: > 100 Watt circuits	No ignition occurs see sub-clause 6.3	Equipment safeguards (rated VW-1, see 6.5)	N/A
7.1	Injury caused by hazardous substances			
Body Part (e.g., skilled)	Energy Source (hazardous material)	Safeguards		
		Basic	Supplementary	Reinforced
N/A	N/A	N/A	N/A	N/A
8.1	Mechanically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (MS3:High Pressure Lamp)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
Instructed person, Skilled person	MS1: Sharp edges and corners	N/A	N/A	N/A
	MS1: Equipment mass	N/A	N/A	N/A
	MS3: DC fan blade	(see F.4 described, applies to commercial or industrial equipment)		

9.1		Thermal Burn		
Body Part (e.g., Ordinary)	Energy Source (TS2)	Safeguards		
		Basic	Supplementary	Reinforced
To be determined by end-product use	--	--	--	--
10.1		Radiation		
Body Part (e.g., Ordinary)	Energy Source (Output from audio port)	Safeguards		
		Basic	Supplementary	Reinforced
N/A	N/A	N/A	N/A	N/A
Supplementary Information:				
(1) See attached energy source diagram for additional details.				
(2) "N" – Normal Condition; "A" – Abnormal Condition; "S" Single Fault				