



Test Report issued under the responsibility of:



TEST REPORT
IEC 60950-1
Information technology equipment – Safety –
Part 1: General requirements

Report Number : 15081717 002
Date of issue..... : 2016-09-29
Total number of pages : 80 (excluding attachments, see page 3)

Applicant's name : TDK-Lambda Corp. Nagaoka Technical Center
Address..... : 2704-1 Settaya-machi, Nagaoka-shi, Niigata, 940-1195, JAPAN

Test specification:

Standard..... : IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013

Test procedure : CB Scheme

Non-standard test method : N/A

Test Report Form No. : IEC60950_1F

Test Report Form(s) Originator : SGS Fimko Ltd

Master TRF : Dated 2014-02

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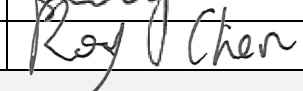
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This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

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.

Test item description : Switching Power Supply	
Trade Mark : TDK-Lambda	
Manufacturer : Same as applicant	
Model/Type reference : CUS200M- zxxxxxxxx ; CME200A- zxxxxxxxx ; CUS150M1- zxxxxxxxx ; CME150A- zxxxxxxxx (z = 12, 18, 24, 36 or 48; xxxxxxxx = T, M, MR, R, J, JR, L, A, CO2, S1, other alphanumeric character, symbol or blank) Refer to pages 18-19 for definition of variables	
Ratings : AC input: 100-240V, 3.0A, 50-60Hz (for CUS200M and CME200A) 100-240V, 1.8A, 50-60Hz (for CUS150M1 and CME150A) DC output: See the model list on pages 17-18 for details	
Testing procedure and testing location:	
<input checked="" type="checkbox"/>	CB Testing Laboratory: TÜV Rheinland (Shanghai) Co., Ltd.
Testing location/ address : No.177, 178, Lane 777, West Guangzhong Road Zhabei District Shanghai CHINA	
<input type="checkbox"/>	Associated CB Testing Laboratory:
Testing location/ address :	
Tested by (name + signature) : Sunny Sun 	
Approved by (name + signature) : Roy Chen 	
<input type="checkbox"/>	Testing procedure: TMP/CTF Stage 1:
Testing location/ address :	
Tested by (name + signature) :	
Approved by (name + signature) :	
<input type="checkbox"/>	Testing procedure: WMT/CTF Stage 2:
Testing location/ address :	
Tested by (name + signature) :	
Witnessed by (name + signature) :	
Approved by (name + signature) :	
<input type="checkbox"/>	Testing procedure: SMT/CTF Stage 3 or 4:
Testing location/ address :	
Tested by (name + signature) :	
Witnessed by (name + signature) :	
Approved by (name + signature) :	
Supervised by (name + signature) :	

List of Attachments (including a total number of pages in each attachment):

- ATTACHMENT 1 - Technical documentation (16pages)
- ATTACHMENT 2 - Photo documentation (8 pages)

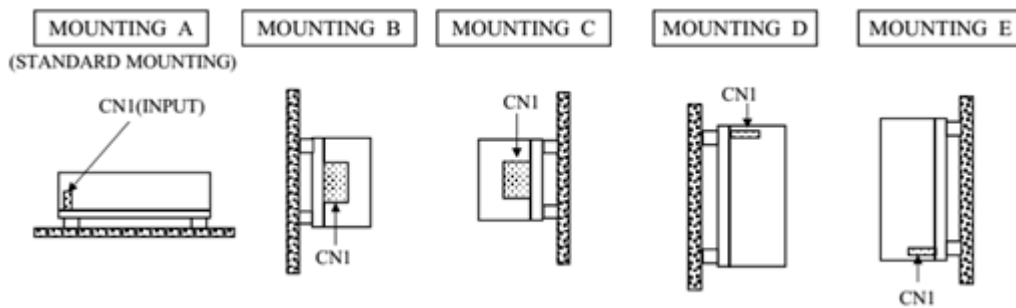
Summary of testing:

All applicable tests as described in Test Case and Measurement Sections were performed.

The maximum specified operation ambient temperature is 70°C.

Specified ambient temperature for operation is according to manufacturer's specification.(see chart of convection cooling and forced air cooling on below on below)

The load conditions used during testing: Maximum normal load according to sub-clause 1.2.2.1 for this equipment is the operation with the maximum specified DC-load with maximum power condition according to the manufacturer specified.

Mounting position: <For Construction B>

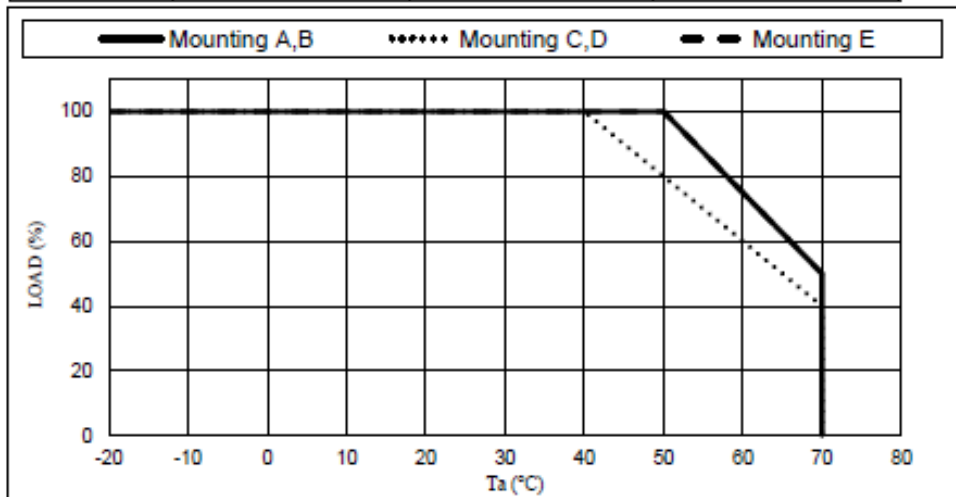
Derating Curve: <For Construction B>

OUTPUT DERATING VERSUS OPERATING AMBIENT TEMPERATURE (Ta)

*COOLING : CONVECTION COOLING

MODEL: CUS200M-18, CUS200M-24, CUS200M-36, CUS200M-48

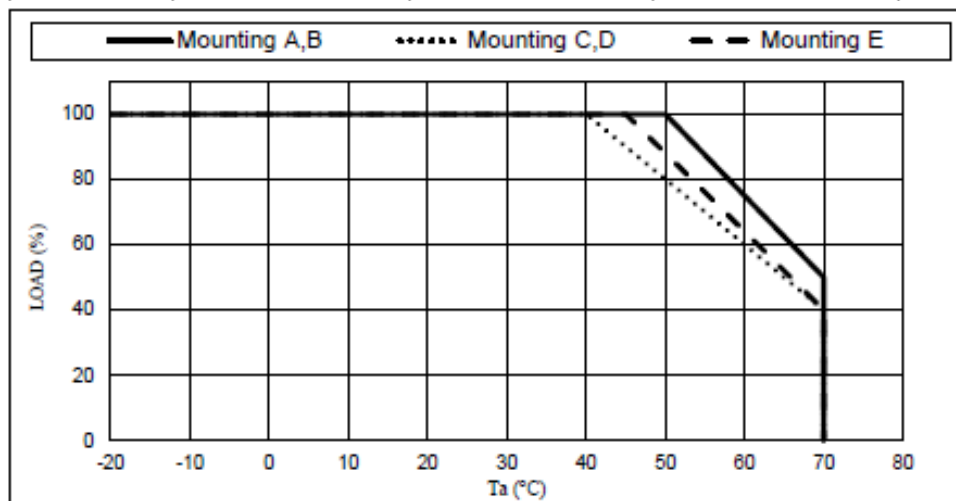
Ta (°C)	MOUNTING A,B	MOUNTING C,D	MOUNTING E
	LOAD (%)	LOAD (%)	LOAD (%)
-20 - +40	100	100	100
50	100	80	100
60	75	60	75
65	63	50	63
70	50	40	50



*COOLING : CONVECTION COOLING

MODEL: CUS200M-12

Ta (°C)	MOUNTING A,B	MOUNTING C,D	MOUNTING E
	LOAD (%)	LOAD (%)	LOAD (%)
-20 - +40	100	100	100
45	100	90	100
50	100	80	88
60	75	60	64
65	63	50	52
70	50	40	40



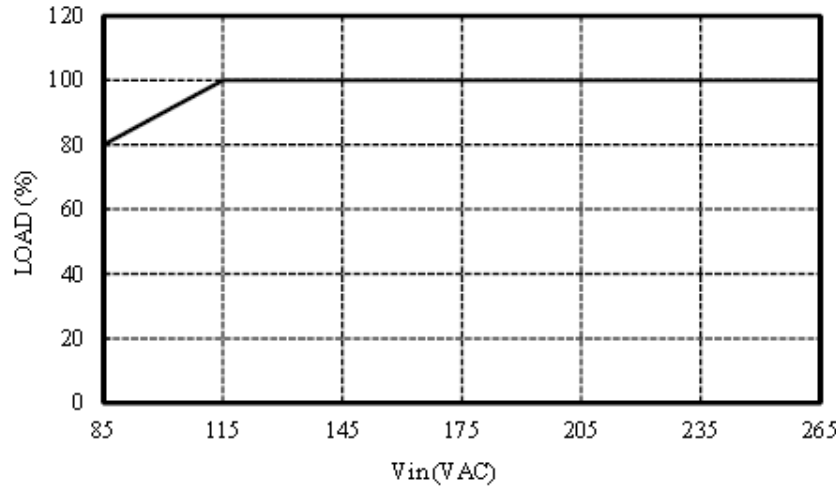
For Model CUS200M

OUTPUT DERATING VERSUS INPUT VOLTAGE

*COOLING : CONVECTION COOLING

FOR ALL MOUNTINGS AND ALL MODELS

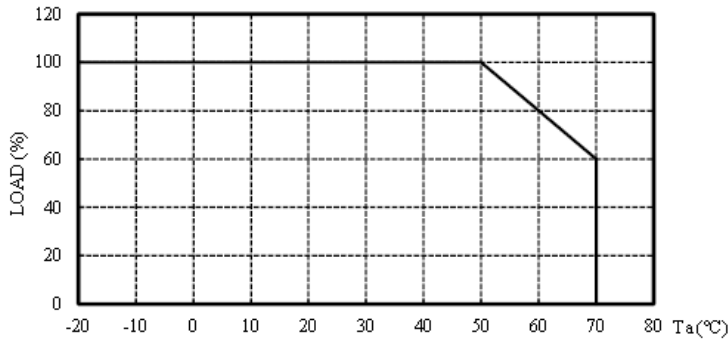
INPUT VOLTAGE (V AC)	LOAD (%)
85	80
115~265	100



OUTPUT DERATING VERSUS OPERATING AMBIENT TEMPERATURE (Ta)

*COOLING: FORCED AIR COOLING

FOR ALL MOUNTINGS AND ALL MODELS

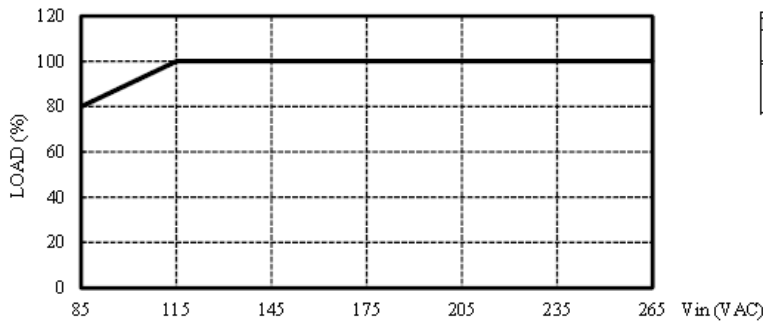


Ta(°C)	LOAD (%)
-20 - +50	100
60	80
70	60

OUTPUT DERATING VERSUS INPUT VOLTAGE

*COOLING: FORCED AIR COOLING

FOR ALL MOUNTINGS AND ALL MODELS



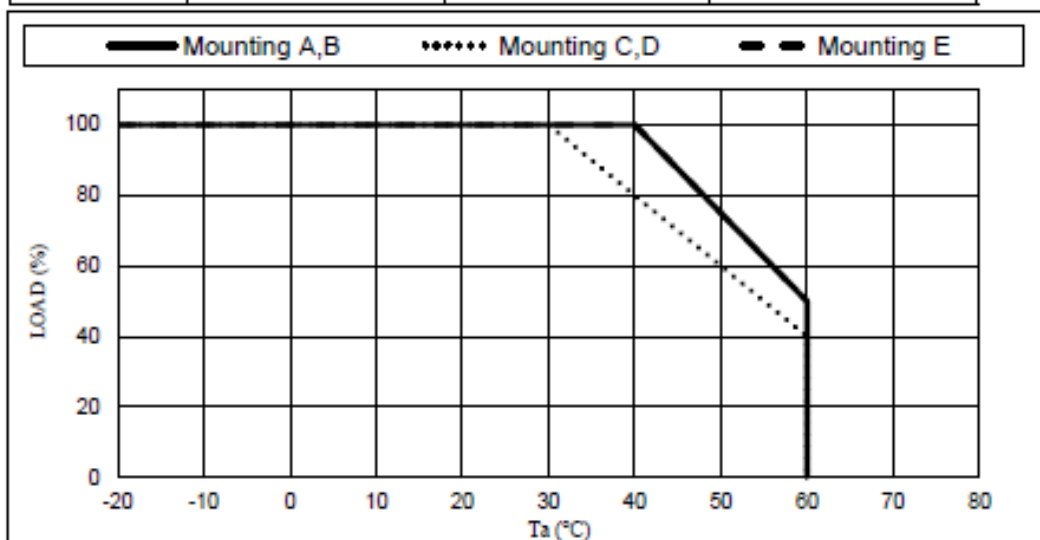
INPUT VOLTAGE (V AC)	LOAD (%)
85	80
115~265	100

OUTPUT DERATING VERSUS OPERATING AMBIENT TEMPERATURE (Ta)

*COOLING : CONVECTION COOLING

MODEL: CUS200M-18/A, CUS200M-24/A, CUS200M-36/A, CUS200M-48/A

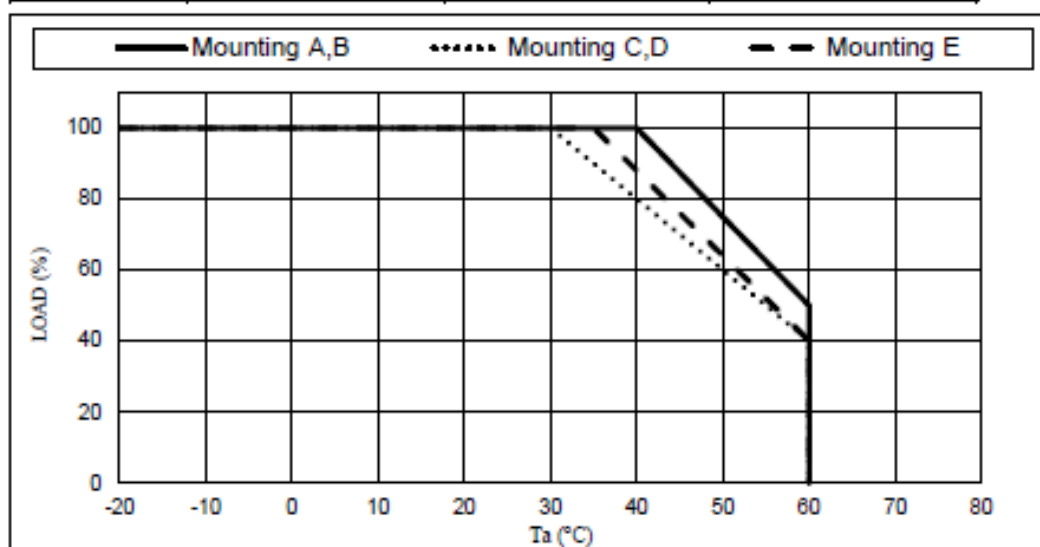
Ta (°C)	MOUNTING A,B	MOUNTING C,D	MOUNTING E
	LOAD (%)	LOAD (%)	LOAD (%)
-20 - +30	100	100	100
40	100	80	100
50	75	60	75
55	63	50	63
60	50	40	50



*COOLING : CONVECTION COOLING

MODEL: CUS200M-12/A

Ta (°C)	MOUNTING A,B	MOUNTING C,D	MOUNTING E
	LOAD (%)	LOAD (%)	LOAD (%)
-20 - +30	100	100	100
35	100	90	100
40	100	80	88
50	75	60	64
55	63	50	52
60	50	40	40



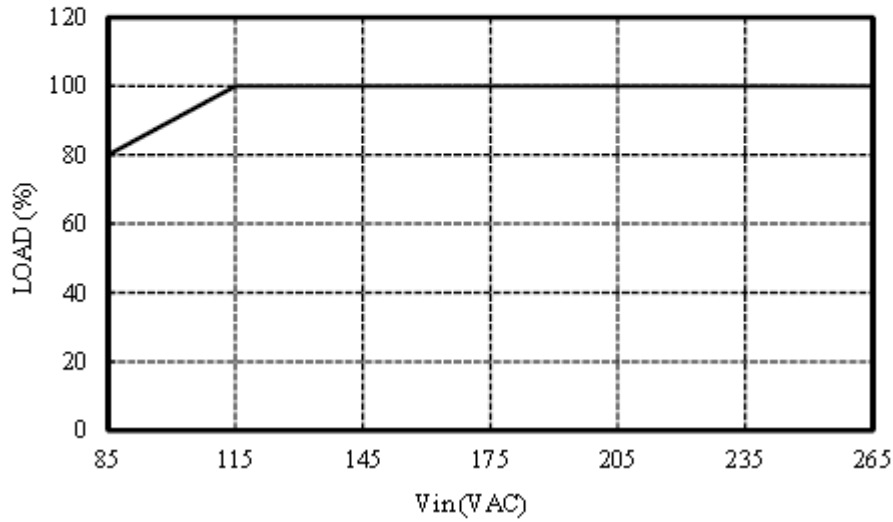
For Model CUS200M-A

OUTPUT DERATING VERSUS INPUT VOLTAGE

*COOLING : CONVECTION COOLING

FOR ALL MOUNTINGS AND ALL MODELS

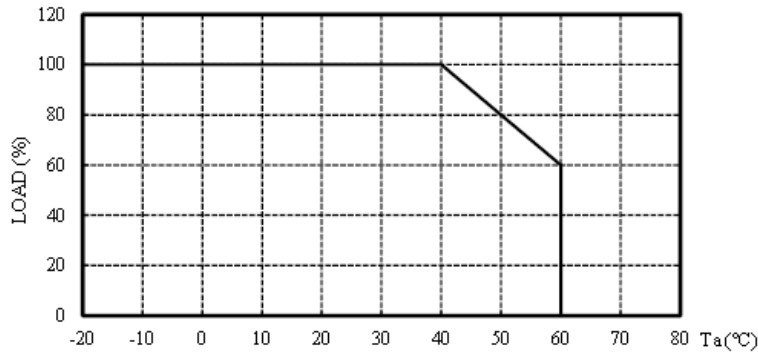
INPUT VOLTAGE (VAC)	LOAD (%)
85	80
115~265	100



OUTPUT DERATING VERSUS OPERATING AMBIENT TEMPERATURE (Ta)

*COOLING: FORCED AIR COOLING

FOR ALL MOUNTINGS AND ALL MODELS

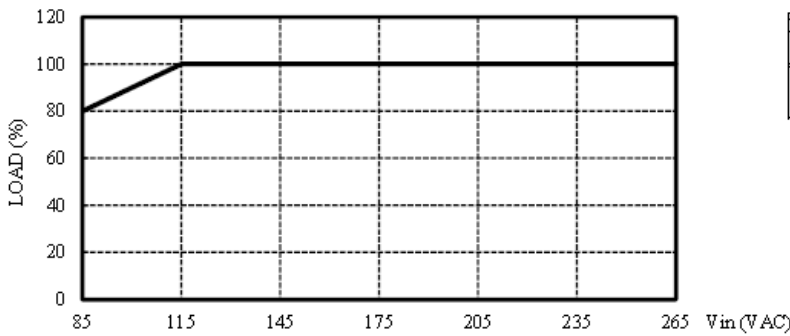


Ta(°C)	LOAD (%)
-20 - +40	100
50	80
60	60

OUTPUT DERATING VERSUS INPUT VOLTAGE

*COOLING: FORCED AIR COOLING

FOR ALL MOUNTINGS AND ALL MODELS



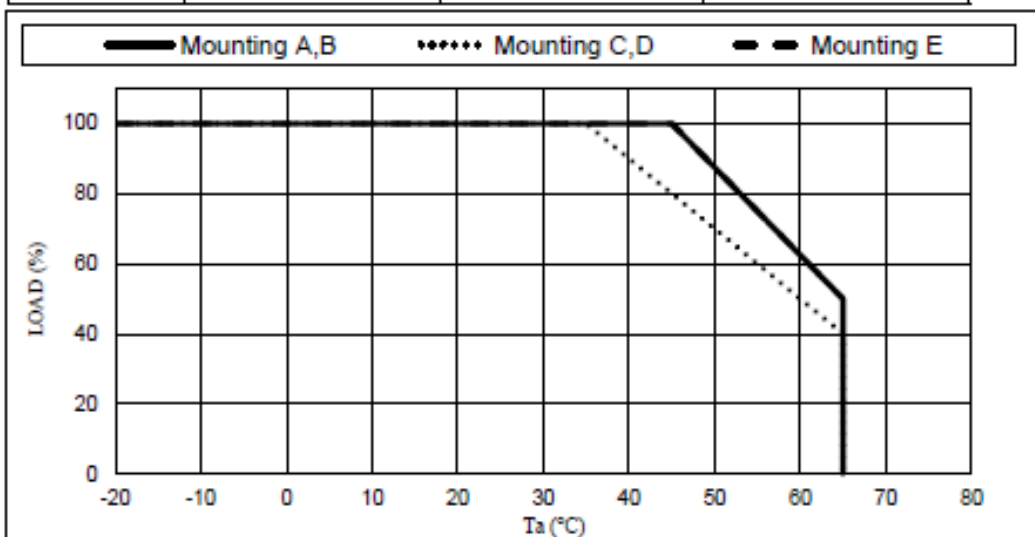
INPUT VOLTAGE (VAC)	LOAD (%)
85	80
115~265	100

OUTPUT DERATING VERSUS OPERATING AMBIENT TEMPERATURE (Ta)

*COOLING : CONVECTION COOLING

MODEL: CUS200M-18/L, CUS200M-24/L, CUS200M-36/L, CUS200M-48/L

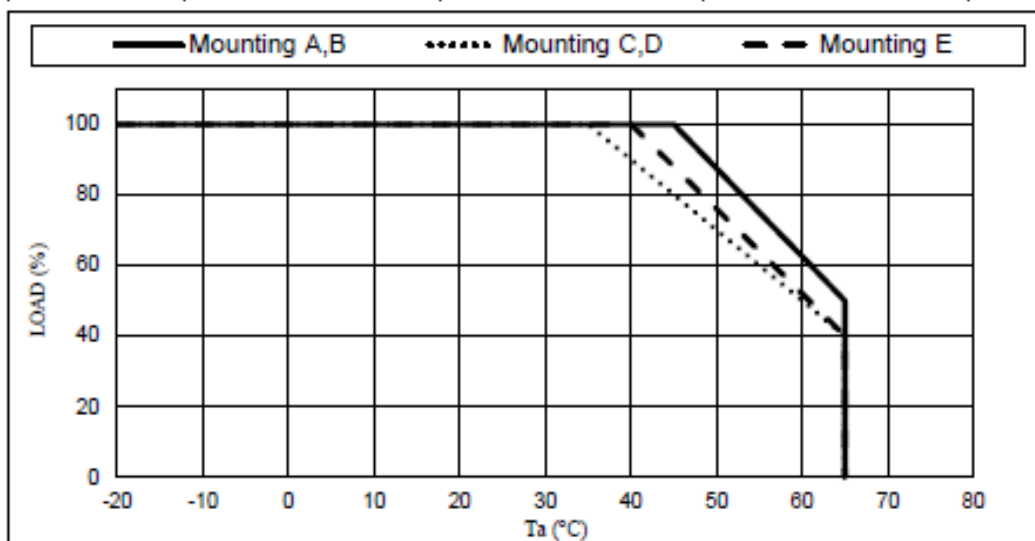
Ta (°C)	MOUNTING A,B	MOUNTING C,D	MOUNTING E
	LOAD (%)	LOAD (%)	LOAD (%)
-20 - +35	100	100	100
45	100	80	100
55	75	60	75
60	63	50	63
65	50	40	50



*COOLING : CONVECTION COOLING

MODEL: CUS200M-12/L

Ta (°C)	MOUNTING A,B	MOUNTING C,D	MOUNTING E
	LOAD (%)	LOAD (%)	LOAD (%)
-20 - +35	100	100	100
40	100	90	100
45	100	80	88
55	75	60	64
60	63	50	52
65	50	40	40

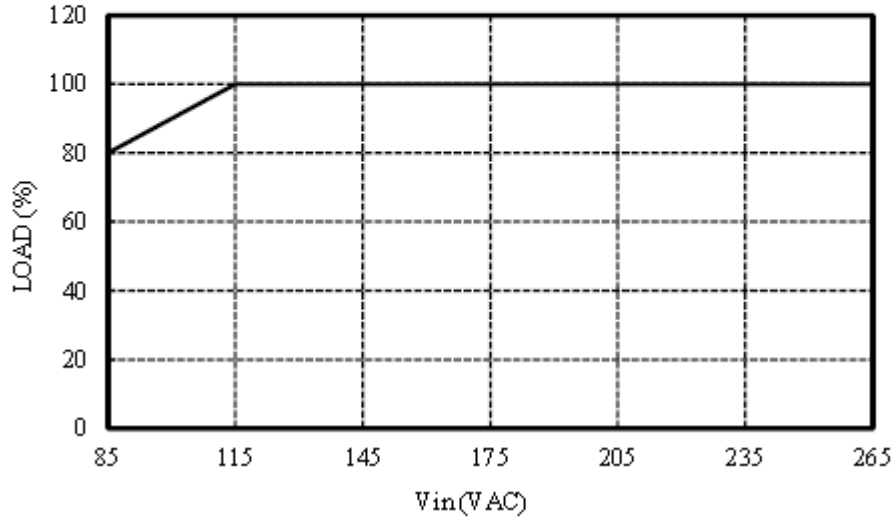


For Model CUS200M-L

OUTPUT DERATING VERSUS INPUT VOLTAGE

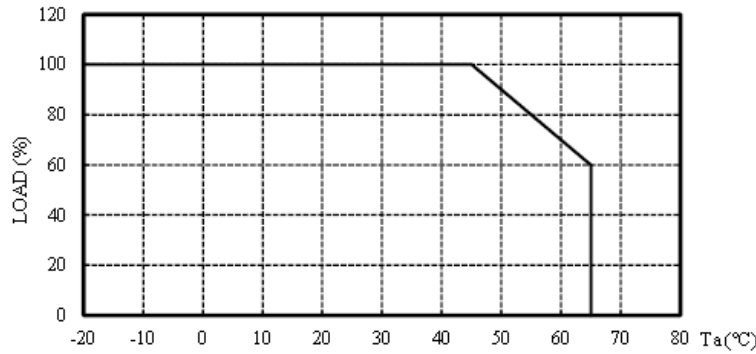
*COOLING : CONVECTION COOLING
FOR ALL MOUNTINGS AND ALL MODELS

INPUT VOLTAGE (VAC)	LOAD (%)
85	80
115~265	100



OUTPUT DERATING VERSUS OPERATING AMBIENT TEMPERATURE (Ta)

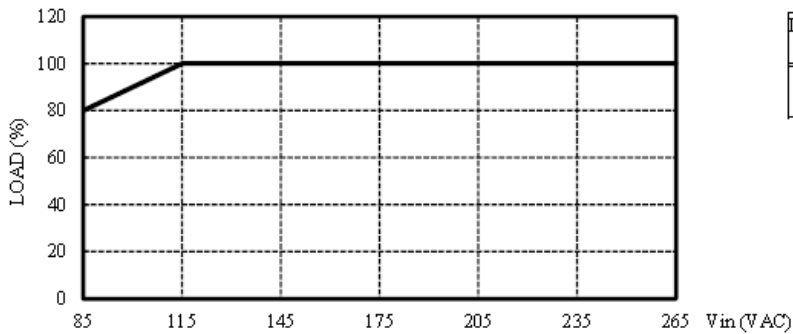
*COOLING: FORCED AIR COOLING
FOR ALL MOUNTINGS AND ALL MODELS



Ta(°C)	LOAD (%)
-20 - +45	100
55	80
65	60

OUTPUT DERATING VERSUS INPUT VOLTAGE

*COOLING: FORCED AIR COOLING
FOR ALL MOUNTINGS AND ALL MODELS



INPUT VOLTAGE (VAC)	LOAD (%)
85	80
115~265	100

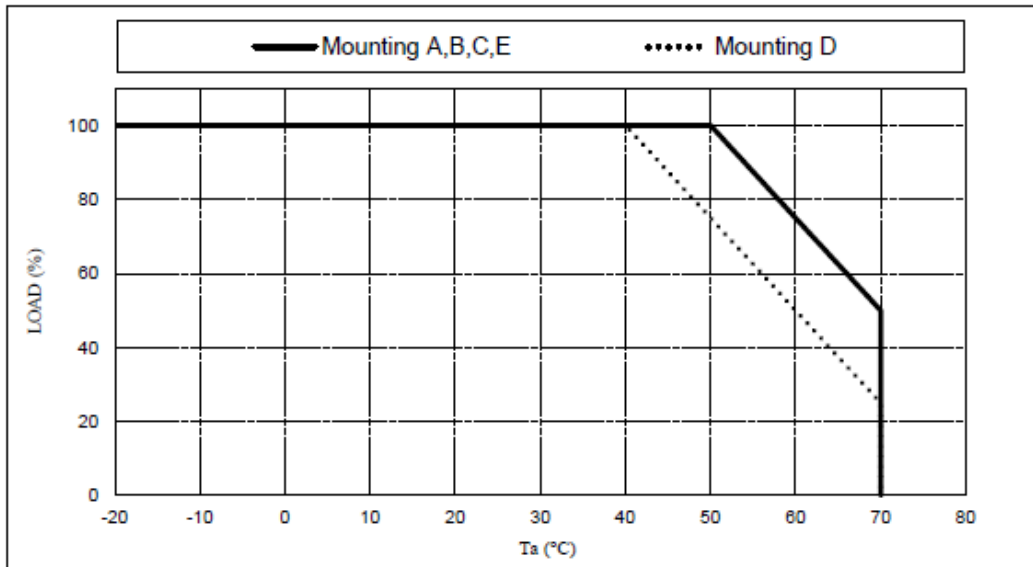
For Model CUS150M1

OUTPUT DERATING VERSUS OPERATING AMBIENT TEMPERATURE (Ta)

*COOLING : CONVECTION COOLING

FOR ALL MODELS

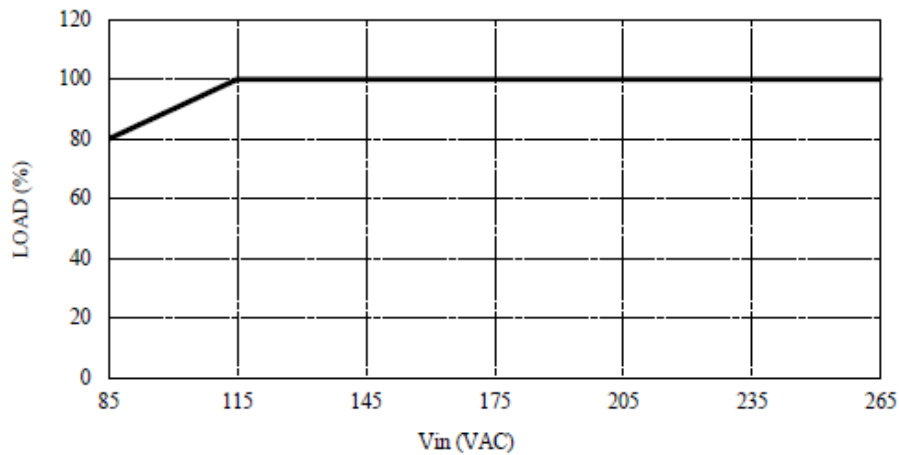
Ta (°C)	MOUNTING A,B,C,E	MOUNTING D
	LOAD (%)	LOAD (%)
-20 - +40	100	100
50	100	75
60	75	50
65	63	38
70	50	25



OUTPUT DERATING VERSUS INPUT VOLTAGE

FOR ALL MOUNTINGS AND ALL MODELS

INPUT VOLTAGE (VAC)	LOAD (%)
85	80
115~265	100



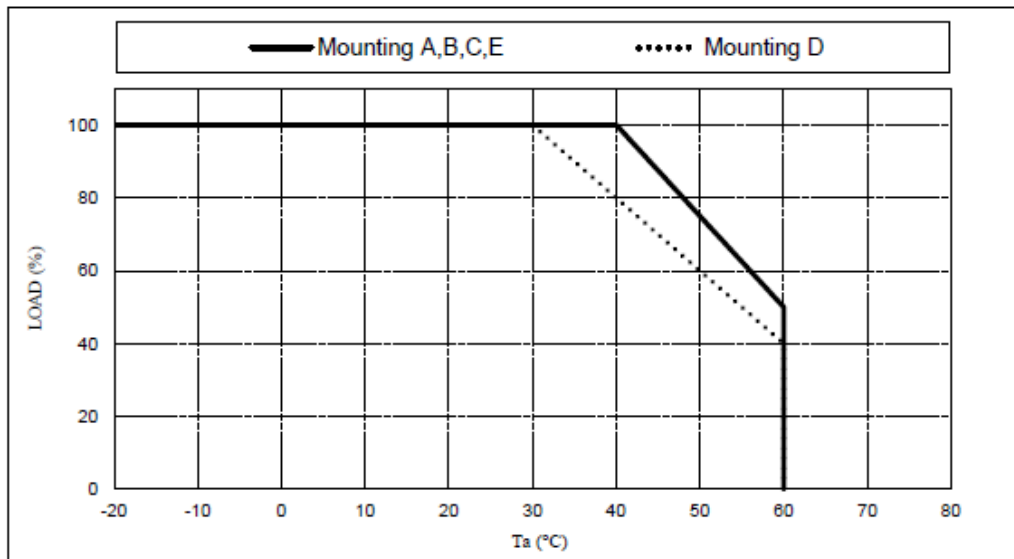
For Model CUS150M1-A

OUTPUT DERATING VERSUS OPERATING AMBIENT TEMPERATURE (Ta)

*COOLING : CONVECTION COOLING

FOR ALL MODELS

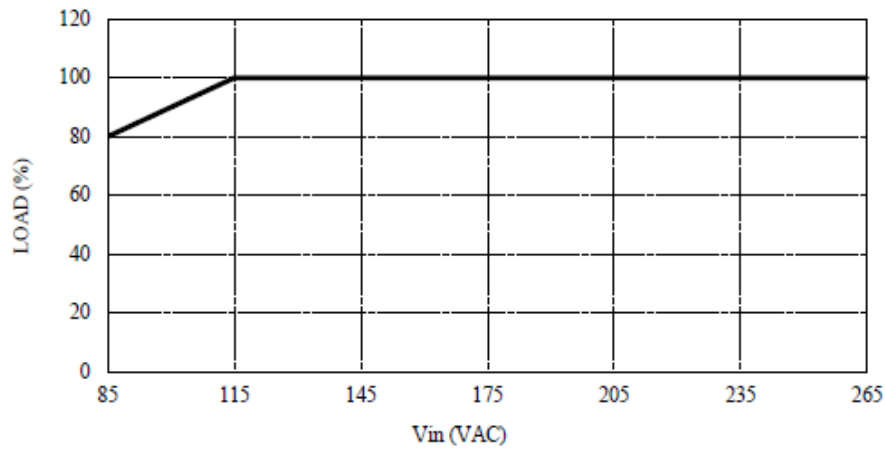
Ta (°C)	MOUNTING A,B,C,E	MOUNTING D
	LOAD (%)	LOAD (%)
-20 - +30	100	100
40	100	80
50	75	60
55	63	50
60	50	40



OUTPUT DERATING VERSUS INPUT VOLTAGE

FOR ALL MOUNTINGS AND ALL MODELS

INPUT VOLTAGE (VAC)	LOAD (%)
85	80
115-265	100



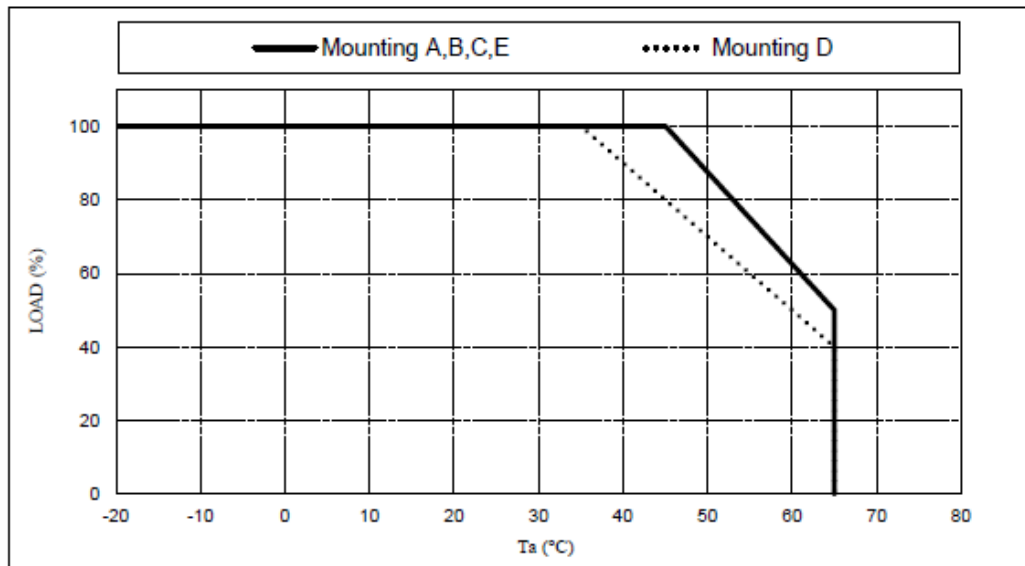
For Model CUS150M1-L

OUTPUT DERATING VERSUS OPERATING AMBIENT TEMPERATURE (Ta)

*COOLING : CONVECTION COOLING

FOR ALL MODELS

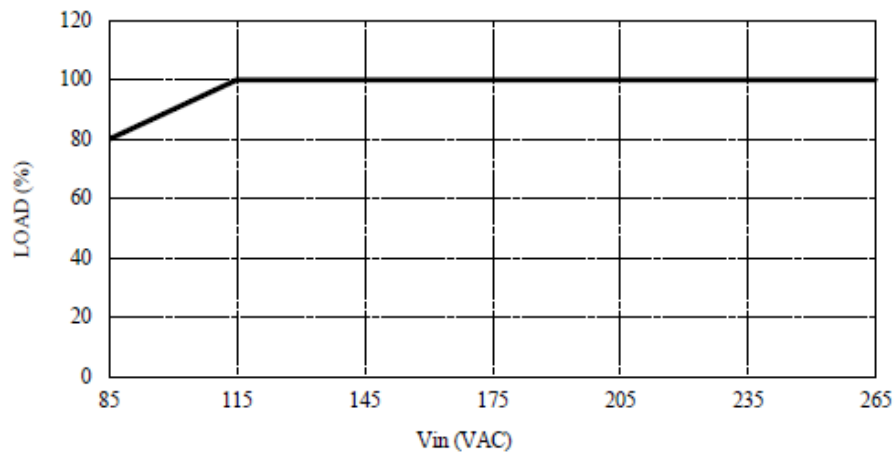
Ta (°C)	MOUNTING A,B,C,E	MOUNTING D
	LOAD (%)	LOAD (%)
-20 - +35	100	100
45	100	80
55	75	60
60	63	50
65	50	40



OUTPUT DERATING VERSUS INPUT VOLTAGE

FOR ALL MOUNTINGS AND ALL MODELS

INPUT VOLTAGE (VAC)	LOAD (%)
85	80
115~265	100



The equipment is operated up to 5000m above sea level as declared by manufacturer. Clearances have been evaluated according to IEC 60664-1 table A.2 with a multiplication factor of 1.48 throughout this report.

Tests performed (name of test and test clause):		Testing location: TÜV Rheinland (Shanghai) Co., Ltd. No.177, 178, Lane 777, West Guangzhong Road Zhabei District Shanghai CHINA
Clause	Test description	
1.6.2	Input Current	
2.1.1.5	Energy Hazards	
2.2.2	Voltages under normal conditions	
2.2.3	Voltages under fault conditions	
2.9.2	Humidity Conditioning – Electrical insulation	
2.10.2	Determination of working voltage	
4.5.2	Temperature tests	
5.2	Electric strength	
5.3	Abnormal operating and fault conditions	
Annex C	Transformers	

Summary of compliance with National Differences

List of countries addressed:

EU Group Differences, EU Special National Conditions, AR, AU, AT, BH, BY, BE, BR, BG, CA, CN, CO, HR, CZ, DK, FI, FR, DE, GR, HU, IN, ID, IE, IL, IT, JP, KE, KR, LR, MY, MX, AN, NZ, NG, NO, PK, PL, PT, RU, SA, RS, SG, SK, SI, ZA, ES, SE, CH, TH, TR, UA, AE, GB, US, VN

Explanation of used codes:

AR = Argentina**; AU = Australia**; AT = Austria*; BH = Bahrain**; BY = Belarus**;
 BE = Belgium*/**; BR = Brazil**; BG = Bulgaria*/**; CA = Canada; CN = China**;
 CO = Colombia**; HR = Croatia**; CZ = Czech** Republic*; DK = Denmark*; FI = Finland*/**;
 FR = France*/**; DE = Germany*/**; GR = Greece*/**; HU = Hungary*/**; IN = India**;
 ID = Indonesia**; IE = Ireland*/**; IL = Israel**; IT = Italy*; JP = Japan**; KE = Kenya**;
 KR = Korea, Republic of**; LR = Libya**; MY = Malaysia**; MX = Mexico**; AN = Netherlands Antilles*/**;
 NZ = New Zealand**; NG = Nigeria**; NO = Norway*/**; PK = Pakistan**; PL = Poland*/**;
 PT = Portugal*/**; RU = Russian Federation**; SA = Saudi Arabia**; RS = Serbia, Republic of**;
 SG = Singapore**; SK = Slovakia*/**; SI = Slovenia*/**; ZA = South Africa**; ES = Spain*/**;
 SE = Sweden*; CH = Switzerland*/**; TH = Thailand**; TR = Turkey*/**; UA = Ukraine**;
 AE = United Arab Emirates**; GB = United Kingdom*; US = United States of America; VN = Vietnam**

Note(s):
 Countries outside the CB Scheme membership may also accept this report.
 * Only applicable for Group Differences (if any). See attachment 2 for details.
 ** No National Differences Declared

Germany, Denmark, Finland, United Kingdom, Israel, Republic of Korea, Sweden and Slovenia National differences to IEC 60950-1:2005 (Second Edition) + Am 1:2009 evaluated.

Australia, China, Switzerland, Spain, Ireland and Norway National differences to IEC 60950-1:2005 evaluated.

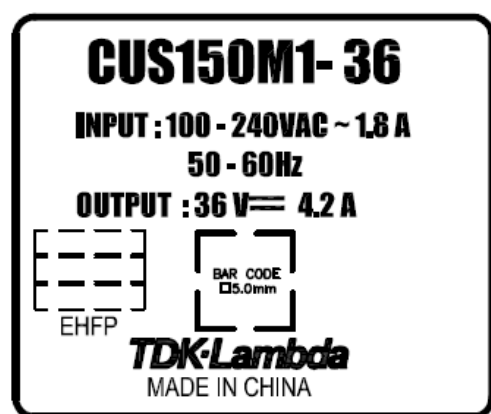
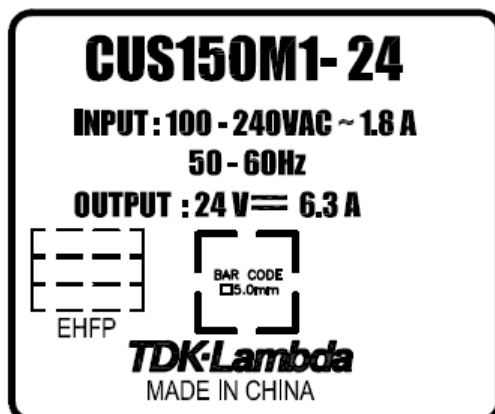
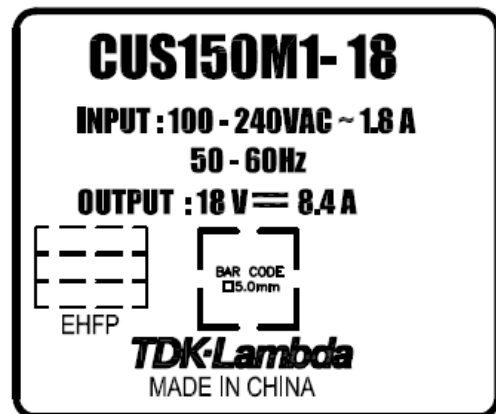
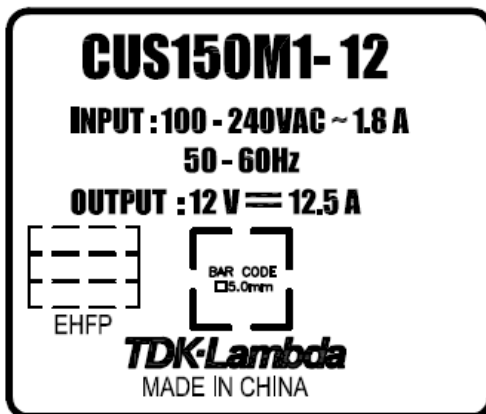
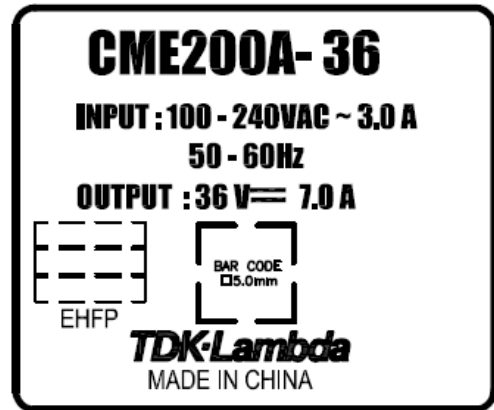
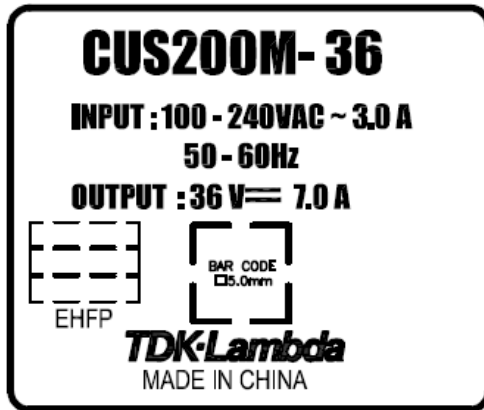
Japan National differences to IEC 60950-1:2001 evaluated.

The product fulfils the requirements of
 EN 60950-1:2006+A11+A1+A12+A2,
 UL 60950-1:2007 R10.14 and
 CAN/CSA C22.2 No. 60950-1-07+A1:2011+A2:2014.



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.

New models





CUS150M1-48
INPUT : 100 - 240VAC ~ 1.8 A
50 - 60Hz
OUTPUT : 48 V = 3.2 A





TDK-Lambda
MADE IN CHINA

CME150A-12
INPUT : 100 - 240VAC ~ 1.8 A
50 - 60Hz
OUTPUT : 12 V = 12.5 A





TDK-Lambda
MADE IN CHINA

CME150A-18
INPUT : 100 - 240VAC ~ 1.8 A
50 - 60Hz
OUTPUT : 18 V = 8.4 A





TDK-Lambda
MADE IN CHINA

CME150A-24
INPUT : 100 - 240VAC ~ 1.8 A
50 - 60Hz
OUTPUT : 24 V = 6.3 A





TDK-Lambda
MADE IN CHINA

CME150A-36
INPUT : 100 - 240VAC ~ 1.8 A
50 - 60Hz
OUTPUT : 36 V = 4.2 A



TDK-Lambda
MADE IN CHINA

CME150A-48
INPUT : 100 - 240VAC ~ 1.8 A
50 - 60Hz
OUTPUT : 48 V = 3.2 A



TDK-Lambda
MADE IN CHINA

Test item particulars	: See below
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
Connection to the mains	: <input checked="" type="checkbox"/> pluggable equipment <input checked="" type="checkbox"/> type A <input checked="" type="checkbox"/> type B <input checked="" type="checkbox"/> permanent connection <input type="checkbox"/> detachable power supply cord <input type="checkbox"/> non-detachable power supply cord <input type="checkbox"/> not directly connected to the mains
Operating condition	: <input checked="" type="checkbox"/> continuous <input type="checkbox"/> rated operating / resting time:
Access location	: <input type="checkbox"/> operator accessible <input checked="" type="checkbox"/> restricted access location
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:
Mains supply tolerance (%) or absolute mains supply values	: ±10%
Tested for IT power systems	: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
IT testing, phase-phase voltage (V)	:
Class of equipment	: <input checked="" type="checkbox"/> Class I <input type="checkbox"/> Class II <input type="checkbox"/> Class III <input type="checkbox"/> Not classified
Considered current rating of protective device as part of the building installation (A)	: 16 (20 for US/CSA)
Pollution degree (PD)	: <input type="checkbox"/> PD 1 <input checked="" type="checkbox"/> PD 2 <input type="checkbox"/> PD 3
IP protection class	: IPX0
Altitude during operation (m)	: Up to 5000
Altitude of test laboratory (m)	: Approx 50
Mass of equipment (kg)	: ≈0.33kg (with chassis and cover)
Possible test case verdicts:	
- 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)
Testing	
Date of receipt of test item	: 2016-07-06
Date(s) of performance of tests	: 2016-09-16 to 2016-09-26
General remarks:	
"(See Enclosure #)" refers to additional information appended to the report. "(See ATTACHMENT #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report.	
Throughout this report a <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator.	

Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:

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..... :

- Yes**
- Not applicable**

When differences exist; they shall be identified in the General product information section.

Name and address of factory (ies) : 1. Wuxi TDK-Lambda Electronics Co., Ltd.
No. 6 Xing Chuang Er Lu, Wuxi, Jiangsu 214028, P. R. China
2. Zhangjiagang Hua Yang Electronics Co., Ltd.
Zhao Feng Industrial Zone, Leyu Town, Zhangjiagang, Jiangsu 215622, P. R. China

General product information:

Refer to original report 15081717 001.

For Construction B Models:

Use single PCB layout (ZCCB166) for all models. 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.

Schematic and PCB layout for models CUS150M1 & CME150A are identical to models CUS200M & CME200A except for output power and some components rating.

Model CME150A-zxxxxxxx is identical to Construction B of model CUS150M1-zxxxxxxx except for model name.

See Model List below for details.

For rating differences between the models see below tables:

Series Model	I/p voltage (Vac)	Freq (Hz)	I/p current (A)	Minimal output	Rated output (typical)	Maximum output
Convection cooling condition						
CUS200M-12 xxxxxxxx CME200A-12 xxxxxxxx	100-240	50-60	3.0	11.4Vdc 16.7A	12Vdc 16.7A	12.6Vdc 15.9A
CUS200M-18 xxxxxxxx CME200A-18 xxxxxxxx	100-240	50-60	3.0	17.1Vdc 11.2A	18Vdc 11.2A	19.8Vdc 10.2A
CUS200M-24 xxxxxxxx CME200A-24 xxxxxxxx	100-240	50-60	3.0	22.8Vdc 8.4A	24Vdc 8.4A	26.4Vdc 7.6A
CUS200M-36 xxxxxxxx CME200A-36 xxxxxxxx	100-240	50-60	3.0	34.2Vdc 5.57A	36Vdc 5.57A	39.6Vdc 5.06A
CUS200M-48 xxxxxxxx CME200A-48 xxxxxxxx	100-240	50-60	3.0	45.6Vdc 4.2A	48Vdc 4.2A	52.8Vdc 3.8A
CUS150M1-12 xxxxxxxx CME150A-12 xxxxxxxx	100-240	50-60	1.8	11.4Vdc 12.5A	12Vdc 12.5A	12.6Vdc 11.9A
CUS150M1-18 xxxxxxxx CME150A-18 xxxxxxxx	100-240	50-60	1.8	17.1Vdc 8.4A	18Vdc 8.4A	19.8Vdc 7.6A
CUS150M1-24 xxxxxxxx CME150A-24 xxxxxxxx	100-240	50-60	1.8	22.8Vdc 6.3A	24Vdc 6.3A	26.4Vdc 5.7A
CUS150M1-36 xxxxxxxx CME150A-36 xxxxxxxx	100-240	50-60	1.8	34.2Vdc 4.2A	36Vdc 4.2A	39.6Vdc 3.8A
CUS150M1-48 xxxxxxxx CME150A-48 xxxxxxxx	100-240	50-60	1.8	45.6Vdc 3.2A	48Vdc 3.2A	52.8Vdc 2.9A

Series Model	I/p voltage (Vac)	Freq (Hz)	I/p current (A)	Minimal output	Rated output (typical)	Maximum output
Forced air cooling condition (airflow: air velocity 1.5m/s)						
CUS200M-12 xxxxxxxx CME200A-12 xxxxxxxx	100-240	50-60	3.0	11.4Vdc 21A	12Vdc 21A	12.6Vdc 20A
CUS200M-18 xxxxxxxx CME200A-18 xxxxxxxx	100-240	50-60	3.0	17.1Vdc 14A	18Vdc 14A	19.8Vdc 12.7A
CUS200M-24 xxxxxxxx CME200A-24 xxxxxxxx	100-240	50-60	3.0	22.8Vdc 10.5A	24Vdc 10.5A	26.4Vdc 9.5A
CUS200M-36 xxxxxxxx CME200A-36 xxxxxxxx	100-240	50-60	3.0	34.2Vdc 7A	36Vdc 7A	39.6Vdc 6.4A
CUS200M-48 xxxxxxxx CME200A-48 xxxxxxxx	100-240	50-60	3.0	45.6Vdc 5.3A	48Vdc 5.3A	52.8Vdc 4.8A

Description of change(s):

1. Add new model CUS200M-36 xxxxxxxx and CME200A-36 xxxxxxxx for Construction B models.
2. Add new model name CUS150M1 series and CME150A series for Construction B models.
3. Re-new **critical components list**.

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

Change	Testing	Comments
1	1.6.2 Input current 2.10.2 Determination of working voltage	Rest testing have been covered in previous series, no further testing was deemed necessary.
2	See "Tests performed" on page 13	See "Summary of testing" and appended tables for details.
3	N/A	See table 1.5.1 for details.

History of amendments and modifications:

Ref. No. 15081717 001, dated 30 November, 2015 (original test report)

Ref. No. 15081717 002, dated 29 September, 2016 (1st modification)

Definition of variable(s):

CUS200M-**z**xxxxxxx; CME200A-**z**xxxxxxx; CUS150M1-**z**xxxxxxx; CME150A-**z**xxxxxxx
(**z** = 12, 18, 24, 36 or 48; **xxxxxxx** = T, M, MR, R, J, JR, L, A, CO2, S1, other alphanumeric character, symbol or blank)

Variable:	Range of variable:	Content:
z	12, 18, 24, 36 or 48	Denotes for different output voltage
xxxxxxx	T	Denotes for Terminal block connector
	M	Denotes for Molex connector
	MR	Denotes for Molex connector in reverse direction
	R	Denotes for JST connector or TE connectivity Connector in reverse direction
	J	Denotes for JST connector
	JR	Denotes for JST connector in reverse direction
	L	Denotes for chassis

	A	Denotes for cover & chassis
	CO2	Denotes PWB coating
	S1	Denotes for two pins input connector & FG Tap
	other alphanumeric character, symbol	For market purposes, no construction differences and no safety impact.
	blank	Denotes for JST connector or TE connectivity Connector
Abbreviations used in the report:		
-Normal conditions	N.C.	-Single fault conditions
-Functional insulation	OP	-Basic insulation
-Double insulation	DI	-Supplementary insulation
-Between parts of opposite polarity	BOP	-Reinforced insulation
-Short-circuited	s-c	-No component damage
-Open-circuited	o-c	-Component damage
-Overloaded	o-l	-Test repeated, similar result
-Internal protection operated	IP	-No indication of dielectric breakdown
-Input	i/p	-Cheesecloth remained intact
-Output	o/p	-Tissue paper remained intact
-Constant temperatures were obtained	CT	-The unit can recover auto when removing the abnormal condition
		S.F.C
		BI
		SI
		RI
		NCD
		CD
		RT
		NB
		NC
		NT
		RA
Indicate used abbreviations (if any)		