



Ref. Certif. No.

JP-13534-A1-UL

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	COSEL CO LTD 1-6-43 KAMIAKAE-MACHI TOYAMA-SHI TOYAMA 930-0816 JAPAN
Name and address of the manufacturer	COSEL CO LTD 1-6-43 KAMIAKAE-MACHI TOYAMA-SHI TOYAMA 930-0816 JAPAN
Name and address of the factory	COSEL CO LTD TATEYAMA FACTORY 78 DOGENJI TATEYAMAMACHI NAKANIIKAWA-GUN TOYAMA 930-0241 JAPAN <input checked="" type="checkbox"/> Additional Information on page 2
Note: When more than one factory, please report on page 2	
Ratings and principal characteristics	AC 100-240 V, 50-60Hz, 2.7 A DC 88-350 V, 3.1 A
Trademark (if any)	
Customer's Testing Facility (CTF) Stage used	CTF Stage 2
Model / Type Ref.	See Page 2
Additional information (if necessary may also be reported on page 2)	The report was revised to include technical modifications. National Differences specified in the CB Test Report. <input checked="" type="checkbox"/> Additional Information on pages 2 and 3
A sample of the product was tested and found to be in conformity with	IEC 60950-1:2005, IEC 60950-1:2005/AMD1:2009, IEC 60950-1:2005/AMD2:2013
As shown in the Test Report Ref. No. which forms part of this Certificate	E132067-A140-CB-1 issued on 2022-02-16

This CB Test Certificate is issued by the National Certification Body



UL (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
 UL (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
 UL (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
 UL (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

For full legal entity names see www.ul.com/ncbnames

Date: 2022-02-17
Original Issue Date: 2016-05-12

Signature:

Masamichi Takagi



Ref. Certif. No.

JP-13534-A1-UL

Factory(ies):

WUXI COSEL ELECTRONICS CO LTD
5TH FL, BLD A3, NO.866 LIYUAN DEVELOPMENT ZONE WUXI JIANGSU 214072 CHINA

Model Detail(s):

KHxA240F-24

x = E or N

May be provided with suffix "-yy". Where y = "C", "N2" and blank.

Summary of Modifications:

- Addition of alternate Y-Capacitors / C104, C107 (C106 is not mounted), Murata Mfg. Co., Ltd., Type EA, 680 pF.
- Addition of alternate Insulation Cap for SCR101, TR401, TR402, Suzhou Suchuan Thermal Electronic Material Technology Co., Ltd., Type SC300.
- Addition of alternate Insulation Cap for SCR101, TR401, TR402, T-GLOBAL TECHNOLOGY CO LTD, Type CP-S.
- Addition of alternate Insulation Cap for TR101, SS102, Suzhou Suchuan Thermal Electronic Material Technology Co., Ltd., Type SC300.
- Addition of alternate Insulation Cap for TR101, SS102, T-GLOBAL TECHNOLOGY CO LTD, Type CP-S.
- Correction of minimum thickness of Thermal Conductible Sheet of between internal parts (Heatsink of SS101 and Chassis) from 6.0 mm to 7.5 mm.
- Addition of alternate Thermal Conductible Sheet of between internal parts (Heatsink of SS101 and Chassis), T-GLOBAL TECHNOLOGY CO LTD, Type TG-A.
- Correction of minimum thickness of Thermal Conductible Sheet of between internal parts (Transformer (T401) and Chassis) from 6.0 mm to 7.5 mm.
- Addition of alternate Thermal Conductible Sheet of between internal parts (Transformer (T401) and Chassis), T-GLOBAL TECHNOLOGY CO LTD, Type TG-A.
- The modifications in Table 1.5.1 for Printed Wiring Board (PWB) and Conformal Coating. (No construction change was made.)
Correction of "Object/part or Description" from "Printed Wiring Board (PWB) for models without suffix C" to "Printed Wiring Board (PWB)".
Deletion of "Printed Wiring Board (PWB) for models with suffix C", CMK Corp., Type M1X, Green circuit Co., Ltd., Type M, Kunshan Huaxin Circuit Board Co., Ltd., Type HXF-M and Kunshan TVS Electron Technology Co., Ltd., Type T-M, T-TM or TD.
Correction of "technical data" for Conformal Coating used on PWB for models with suffix C, from "20 - 360 um thick" to "V-0".
Correction of type of Conformal Coating used on PWB for models with suffix C to 1A27%, 1A27 LTX, 1A27LU, 1A27LU LTX, 1A27NS, 1A27NS-LU from 1A27NS or 1A27.
- Addition of alternate Y-Capacitor / C105, C108, TDK Corporation, Type CD.
- Correction of Flame class of Alternate Insulation sheet between Chassis and PWB, AGC Polycarbonate Co., Ltd., Type CARBOGLASS CFR230B from VTM-0 to V-0.
- Addition of manufacturer of Insulation sheet between Chassis and PWB, Sabic Japan L L C. or Sabic Innovative Plastics BV for Type FR700.
- Addition of alternate Insulation Sheet between Chassis and PWB, Sabic Innovative Plastics US L L C or Sabic Japan L L C., Type EFR95.

Additional information (if necessary)



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M. Takagi
Masamichi Takagi



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Summary of Modifications (Continued):

- Correction of type designation of Insulation Cap / TR101, SS102 (Fuji polymer industries, Type 45T) in Table 2.10.5 to Sarcon TR.
- Correction of type designation of Insulation cap of SCR101, TR401 and TR402, Dongguan City First Quality Silicone Rubber Electron Material Co., Ltd. Type: TO-220A in Table 2.10.5 to YIP100200300400K10.
- Correction of type designation of Insulation cap of TR101 and SS102, Dongguan City First Quality Silicone Rubber Electron Material Co., Ltd. Type: TO-3PA in Table 2.10.5 to YIP100200300400K10.
- Additional evaluations for national differences of Australia/New Zealand, Canada, European Group, U.S.A. were made.
- Deletion of Inductor (L104) and Alternate Inductor (L104), NEC TOKIN Corporation, Type SCR22-060-1R0A075J and CreateMax Wuxi Electronics Co., Ltd., Type KH03.
- Deletion of Bobbin material of Inductor / L104, MX22V-6R0100, Jiangyin Jihua New Material Co., Ltd., PBT4308G30.
- Correction of manufacturer of Fuse (F101) from "Suzhou Littelfuse OVS Ltd." to "Littelfuse Inc."
- Correction of manufacturer of X-Capacitor (C101) from "Pilkor Electronics Co., Ltd." to "Cowell Fashion Co., Ltd."
- Correction of manufacturer of Inductor (L101), Insulating Cap and Alternate Insulating Cap from "NEC TOKIN Co., Ltd.", "Wintech Polymer Ltd.", "Sabic Innovative plastics Japan L L C." to "TOKIN Corporation", "Polyplastics Co., Ltd.", "Sabic Japan L L C."
- Correction of manufacturer of Fusing resistor (R170) from "Tamura Thermal Device Corporation" to "Uchihashi Estec Co., Ltd."
- Correction of technical data of Input Terminal Block (TB1) (for model KHNA-240 series) and Alternate Input Terminal Block (TB1) (for model KHNA-240 series). from "250 V" to "300V".

Additional information (if necessary)



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Masamichi Takagi

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

Switching Power Supply

Name and address of the applicant
Nom et adresse du demandeur

COSEL CO LTD
1-6-43 KAMIAKAE-MACHI
TOYAMA-SHI
TOYAMA 930-0816 JAPAN

Name and address of the manufacturer
Nom et adresse du fabricant

COSEL CO LTD
1-6-43 KAMIAKAE-MACHI
TOYAMA-SHI
TOYAMA 930-0816 JAPAN

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

COSEL CO LTD
TATEYAMA FACTORY
78 DOGENJI TATEYAMAMACHI NAKANIKAWA-GUN
TOYAMA 930-0241
JAPAN

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

Ratings and principal characteristics
Valeurs nominales et caractéristiques principales

Additional Information on page 2
AC 100-240 V, 50-60Hz, 2.7 A
DC 88-350 V, 3.1 A

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



Type of Manufacturer's Testing Laboratories used
Type de programme du laboratoire d'essais constructeur

Model / Type Ref.
Ref. De type

KHxA240F-24
See Page 2

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

Additionally evaluated to EN 60950-1:2006 /A11:2009 /A1:2010 /A12:2011 /A2:2013. National Differences specified in the CB Test Report.

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

Additional Information on page 2
IEC 60950-1(ed.2), IEC 60950-1(ed.2);am1, IEC 60950-1(ed.2);am2

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

E132067-A140-CB-1 issued on 2016-05-12

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Ce Certificat d'essai OC est établi par l'Organisme **National de Certification**



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Signature:

Akira Kato



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Model Details:

KHxA240F-24 x = E or N

May be provided with suffix "-yy". Where y = "C", "N2" and blank.

Factories:

WUXI COSEL ELECTRONICS CO LTD

5TH FL, BLD A3, NO.866 LIYUAN DEVELOPMENT ZONE WUXI JIANGSU 214072

CHINA

Additional information (if necessary)

Information complémentaire (si nécessaire)



UL (US), 333 Pfingsten Rd IL 60062, Northbrook, USA

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