

IEC SYSTEM FOR CONFORMITY TESTING AND
CERTIFICATION OF ELECTRICAL EQUIPMENT (IECEE)
CB SCHEME

SYSTEME CEI D'ESSAIS DE CONFORMITE ET DE CERTIFICATION
DES EQUIPEMENTS ELECTRIQUES (IECEE)
METHODE OC

CB TEST CERTIFICATE CERTIFICAT D'ESSAI OC

Product
Produit

Name and address of the applicant
Nom et adresse du demandeur

Name and address of the manufacturer
Nom et adresse du fabricant

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

Rating and principal characteristics
Valeurs nominales et caractéristiques principales

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

Model / Type Ref.
Ref. de type

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

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*

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*

Switching Power Supplies

SL Power Electronics Corp.
6050 King St
Ventura, CA 93003, USA

SL Power Electronics Corp.
6050 King St
Ventura, CA 93003, USA

1. Industrias S L S A de C V, Costa Rica #60
Col Cuahutemoc, Mexicali BC, Mexico
2. Shanghai GES Information Technology Co. Ltd, Zhangjiang Hi Tech Park
668 Li Shi Zhen Rd, Shanghai 201203, China
3. SL Power Electronics Xianghe, Anping Economic & Tech Developing
Zone, Xianghe, Hebei 065402, China

Input: 100-240 V ac, 50/60 Hz, 2.0 A

For output ratings see second page of this certificate.



GLM65X-YYY G and G2M65X-YYY G Series, where X is any alpha character,
'A' through 'Z', which represents various output voltage configuration. -YYY is any
numeric value 000-999 which represents value added options not related to safety.
May or may not be followed by an optional "G" which indicates compliance to RoHS.
(RoHS compliance has not been evaluated by UL.)

This report comprises 7 enclosures.

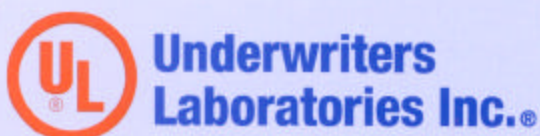
PUBLICATION

EDITION

IEC 60601-1 (1988) Second Edition,
with Amendment No. 1 (1991) and No. 2 (1995) with the exception of:
Clause 36, Electromagnetic Compatibility, Clause 48, Biocompatibility and Clause 52.1,
Programmable Electronic Systems. Inclusive of CENELEC Common Modifications.
See Test Report for National Differences.

E116994-A34-CB-1

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

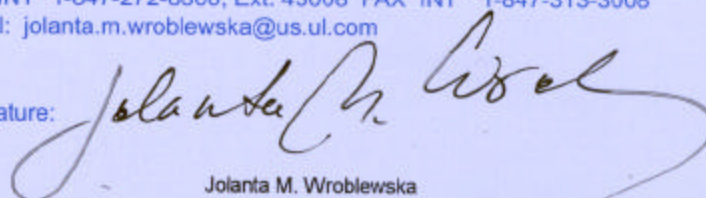


Underwriters Laboratories Inc. / Certification Programs Office
333 Pfingsten Road, Northbrook, IL 60062-2096
United States of America
TEL INT* 1-847-272-8800, Ext. 43008 FAX INT* 1-847-313-3008
email: jolanta.m.wroblewska@us.ul.com

Date:

Issued: 2007 January 23

Signature:



Jolanta M. Wroblewska

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CERTIFICATION OF ELECTRICAL EQUIPMENT (IECEE)
CB SCHEME

SYSTEME CEI D'ESSAIS DE CONFORMITE ET DE CERTIFICATION
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METHODE OC

CB TEST CERTIFICATE CERTIFICAT D'ESSAI OC

Output: GLM65 and G2M65 Models

Output #	Voltage [V dc]	Convection Cool Max [A]	150 LFM Max [A]
#1	3.3 to 5	7	9
#2	3.3 to 24	4	6
#3	-15 to 12	2.5	4

70 W max with a min. of 150 LFM airflow over unit;
60 W max convection cooled.

Output: G2M65A-111 G

Output #	Convection Volts [dc]	Amps
Output #1	5.6	5 max
Output #2	12.8	3 max
Output #3	-12.8	1 max

60 W max convection cooled.

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

This report comprises 7 enclosures.

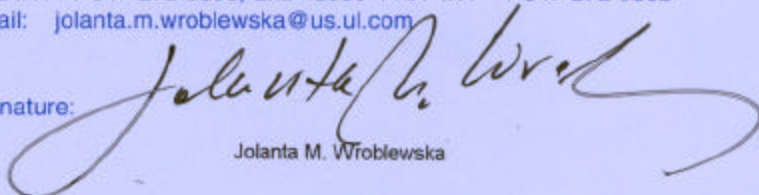
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Date issued: 2007 January 23

Signature:



Jolanta M. Wroblewska

SPECIFIC TECHNICAL CRITERIA

TEST REPORT UL 60601-1 Medical Electrical Equipment Part 1: General requirements for safety				
Report Reference No	E116994-A34-UL-1			
Compiled by	Ahmad Daoudi			
Reviewed by	Elizabeth Drew			
Date of issue	2007-01-23			
Standards	UL 60601-1, 1st Edition, 2006-04-26 (Medical Electrical Equipment, Part 1: General Requirements for Safety) CAN/CSA-C22.2 No. 601.1-M90, 1st Edition, 2003-11 (Medical Electrical Equipment - Part 1: General Requirements for Safety)			
Test procedure	Component Recognition			
Non-standard test method	N/A			
Test item description	Switching Power Supplies			
Trademark	—CONDOR			
Model and/or type reference	GLM65X-YYY G and G2M65X-YYY G Series where X is any alpha character, "A" through "Z", which represents various output voltage configuration. -YYY is any numeric value 000-999 which represents value added options not related to safety. May or may not be followed by an optional "G" which indicates compliance to RoHS. (RoHS compliance has not been evaluated by UL.)			
Rating(s)	Input: 100-240 V ac, 50/60 Hz, 2.0 A Output: GLM65 and G2M65 Models			
	Output #	Voltage [V dc]	Convection Cool Max [A]	150 LFM Max [A]
	#1	3.3 to 5	7	9
	#2	3.3 to 24	4	6
	#3	-15 to 12	2.5	4
	70 W max with a min. of 150 LFM airflow over unit; 60 W max convection cooled.			
	Output: G2M65A-111 G			
		Volts [dc]	Convection Amps	
	Output #1	5.6	5 max	
	Output #2	12.8	3 max	
	Output #3	-12.8	1 max	
	60 W max convection cooled.			

GENERAL INFORMATION			
Test item particulars (see also clause 5):			
Classification of installation and use	:	Permanently installed	
Supply connection	:	Permanently installed	
Accessories and detachable parts included in the evaluation	:	None	
Options included	:	None	
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) (acceptable only if a corresponding, less stringent national requirement is "Pass")	
Abbreviations used in the report:			
- normal condition	:	N.C. - single fault condition	S.F.C.
- operational insulation	:	OP - basic insulation	BI
- basic insulation between parts of opposite polarity:		BOP - supplementary insulation	SI
- double insulation	:	DI - reinforced insulation	RI
General remarks:			
- "(see Enclosure #)" refers to additional information appended to the Test Report			
- "(see appended table)" refers to a table appended to the Test Report			
- Throughout the Test Report a point is used as the decimal separator			


General Product Information:	
CA1.0	Report Summary
CA1.1	N/A
CB1.0	Product Description
CB1.1	The equipment (DC power supplies) covered by this report, are components, which are intended for use in end-product equipment used in a hospital or related health care facility, evaluated to standard Medical Equipment.
CC1.0	Model Differences
CC1.1	The GLM65X-YYY G Series models are Class I power supplies and are similar to each other and differ only on secondary circuitry. The G2M65X-YYY G Series models are Class II power supplies and are similar to each other and differ only on secondary circuitry. Differences between Class I and Class II models: Components C4, C8, W1, W3 and Ground Tab are provided in Class I models and are not

	<p>provided in class II models. Components W2, C20 and C23 are provided in class II models and are not provided in class I models.</p> <p>GLM65X-YYY G and G2M65X-YYY G Series where X is any alpha character, "A" through "Z", which represents various output voltage configurations. Models may or may not be followed by suffix -YYY and/or "G", where -YYY may be any number from 000 thru 999. The -YYY suffix is used for value added configurations that have no impact on safety and suffix "G" indicates compliance to RoHS.</p>	
CD1.0	Additional Information	
CD1.1	<p>This Report is issued based on testing conducted on Models GLM65A, GLM65B, GLM65D, GLM65E, GLM65G, and GLM65H to represent the entire series, and the results from UL CB Report No. E116994-V1-S68, Issued: 2003 July 29. IN addition, the following models were tested for this re-issue. G2M65A, G2M65B, G2M65D, G2M65E, G2M65G, G2M65H, G2M65A-111G</p> <p>The schematics for these models are kept on file at the CB Testing Laboratory mentioned in the first page of this test report, and can be provided by the applicant upon request by CBTLs.</p>	
CE1.0	Technical Considerations	
CE1.1	The product was investigated to the following additional standards:	CAN/CSA C22.2 No. 601.1-M90 (R1997), CAN/CSA C22.2 No. 601.1S1-94, and CAN/CSA C22.2 No. 601.1B-98 (National Differences for Canada), EN 60601-1: 1990 + A1:1993 + A2:1995 + A13:1996 (except EMC limitations, EN 60601-1-2, Biocompatibility, EN 10993-1, Programmable Electronic Systems, IEC 60601-1-4),
CE1.2	The product was not investigated to the following standards or clauses:	Clause 52.1, Programmable Electronic Systems (IEC 601-1-4), Clause 48, Biocompatibility (ISO 10993-1), Clause 36, Electromagnetic Compatibility (IEC 601-1-2)
CE1.3	The product is Classified only to the following hazards:	Shock, Fire,
CE1.4	The degree of protection against harmful ingress of water is:	Ordinary
CE1.6	The mode of operation is:	Continuous
CE1.7	Software is relied upon for meeting safety requirements related to mechanical, fire and shock:	No
CE1.8	The product is suitable for use in the presence of a flammable anesthetics mixture with air or oxygen or with nitrous oxide:	No
CF1.0	Engineering Conditions of Acceptability	

CF1.1	For use only in or with complete equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc. When installed in an end-product, consideration must be given to the following:	
CF2.0	The power supplies covered by this report are components intended for use in end-product equipment which are used in a hospital or related health care facility.	--
CF2.1	The power supplies have been judged on the basis of the required spacings in the Second Edition of the Standards for Medical Electrical Equipment, Part 1: General Requirements for Safety, UL 60601-1, which covers the end use product for which the component is designed.	--
CF2.2	The component shall be installed in compliance with the enclosure, mounting, spacing, casualty markings and segregation requirements of the end-use application.	--
CF2.3	Consideration should be given to measuring the temperature on power electronic components and transformer windings when the power supply is installed in the end-use equipment.	--
CF2.4	The input/output connectors are not acceptable for field connections, they are only intended for connection to mating connectors of internal wiring inside the end-use equipment.	--
CF2.5	The output circuits have not been evaluated for direct patient connection (Type B, BF or CF).	--
CF2.6	The GLM65 power supplies are class I components and should be properly bonded to ground in the end-use equipment.	--
CF2.7	The Temperature Test was performed in a raised ambient of 50°C.	--
CF2.8	Transformer T2 uses a UL R/C (OBJY2) Class H (180) insulation system, and transformer T3 uses UL R/C (OBJY2) Class F (155°C) insulation system.	--
CF2.9	Leakage current testing should be repeated in the end product application.	--
CF3	The power supply was evaluated as Reinforced insulation between primary and secondary on the GLM65 and G2M65 series; basic Insulation between primary to ground on the GLM65 series only. Primary to ground on the G2M65 is considered reinforced insulation.	--
CF3.1	The GLM65 Series of power supplies has been evaluated as Class I, and the G2M65 Series of	--

	power supplies has been evaluated as Class II. All these power supplies are evaluated as continuous operation, ordinary equipment and have not been evaluated for use in the presence of a flammable anesthetic mixture with air, oxygen, or nitrous oxide.	
CF3.2	These power supplies have been evaluated for patient care equipment, but not patient connected.	--
CF3.3	Under normal and single fault conditions, the outputs do not exceed 25 V ac or 60 V dc.	--
CF3.4	Double fusing in the end-product should be considered since primary fusing of both sides on the mains supply lines was not provided.	--
CF3.5	On the G2M series, the secondary may be bonded to protective ground in the end use application, provided the segregation from protective ground to the primary is maintained.	--
CF3.6	On the G2M series, it is recommended that plastic standoffs (of sufficient length) and attaching hardware be used to provide segregation from the primary to any protectively earthed mounting surface.	--

Demko Certificate

Product: Switching power Supplies
Manufacturer: SL Power Electronics Corp.
6050 King Drive St.
Ventura, CA 93003, USA
Production site: See appendix
Certified by request of: SL Power Electronics Corp.
6050 King Drive St.
Ventura, CA 93003, USA
Trademark: 
Model/Type ref.: See appendix
Rated current or power: 2.0 A
Rated voltage: 100-240 V ac, 50/60 Hz
Insulation Class:
Degree of protection: IP X0
Additional information:

Variants covered by this certificate are specified in the attached appendix.
Detailed specification of the certified product(s) is listed in the appendix.

A sample of the product has been tested and found in conformity with EN 60601-1:1990+A1:93+A2:95+A13:96, as shown in the Test Report from Underwriters Laboratories with ref. No. E116994-A34-CB-1 dated 2007-01-23

Furthermore, the product complies with the national deviations in Denmark.

Date of expiry: 2017-01-23

UL International Demko AIS is a body notified to the Member States and Commission of the European Communities according to the provisions of Article 8 of the Low Voltage Directive.

The Manufacturer complies with the Production Surveillance Requirements. Products included in this certificate are allowed to carry the registered approval marks of UL International Demko AIS, or for cables <DEMKO>. The name of UL International Demko AIS can be used in the marketing of the products. This Statement is only valid for products, which are identical to the tested product, and manufactured at the above-mentioned production site(s). UL International Demko AIS has to be informed in writing about any changes, in accordance with the "UL International Demko AIS Standard Terms and Conditions" for UL International Demko AIS services. The validity of this certificate is shortened if the EU legislation requires re-testing and re-certification, due to new standards or amendments coming into force, before the expiry date.

Herlev, 2007-02-08


Karina Christiansen
Certification Manager

UL International Demko A/S

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DK-2730 Herlev, Denmark
Telephone: +45 44856565
Fax: +45 44856500



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Appendix to Demko Certificate No. 142563-01

The Certificate covers the following:

GLM65X-YYY G and G2M65X-YYY G Series where X is any alpha character, "A" through "Z", which represents various output voltage configuration. -YYY is any numeric value 000-999 which represents value added options not related to safety. May or may not be followed by an optional "G" which indicates compliance to RoHS. (RoHS compliance has not been evaluated by UL.)

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#3	-15 to 12	2.5	4

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Output: G2M65A-111 G

Output #	Volts [dc]	Convection Amps
Output #1	5.6	5 max
Output #2	12.8	3 max
Output #3	-12.8	1 max

60 W max convection cooled.

Herlev, 2007-02-08


Karina Christiansen
Certification Manager

UL International Demko A/S

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Fax: +45 44856500



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Laboratories Inc.**

Appendix to Demko Certificate No. 142563-01

Production Site:


Industrias S L S A de C V
Costa Rica #60
Col Cuahutemoc
Mexicali
Bc Mexico

Shanghai GES Information Technology Co Ltd
Zhangjiang Hi Tech Park
668 Li Shi Zhen Rd
Shanghai 201203
China

SL Power Electronics Xianghe
Anping Economic & Tech Developing Zone
Xianghe
Hebei 065402
China

The certificate has been issued on the basis of CB certificate (CB Test certificate) No. US/11205/UL,
issued by Underwriters Laboratories, dated 2007-01-23.

Herlev, 2007-02-08


Karina Christiansen
Certification Manager

UL International Demko A/S

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