Underwriters Laboratories Inc.®

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File E116994
Project 98SC40165

June 12, 1998

REPORT

ON

COMPONENT - POWER SUPPLIES,
MEDICAL AND DENTAL EQUIPMENT

Condor D C Power Supplies Inc.
Oxnard, California

EF/DK:ad
SCDLS

DESCRIPTION

PRODUCT COVERED:

* Component - Switching Power Supplies, Medical Electrical Equipment, Models MSP1563, and GPFM600-24.

ELECTRICAL RATINGS:

Input: 100-240 V ac, 50/60 Hz, 10 A.
Outputs: 24 V dc, 25 A

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

For use in product where the acceptability of the combination is determined by Underwriters Laboratories Inc.

This product was evaluated to the Second Edition of the Standard For Medical Electrical Equipment, Part 1: General Requirements for Safety, UL 2601-1. An insulation diagram is provided as ILL. 1.

Condition of Acceptability - When installed in the end-use equipment, the following are among the considerations to be made:

1. This component has been judged on the basis of the required spacings in the First Edition of the Standards for Medical Electrical Equipment, Part 1: General Requirements for Safety, UL 2601-1, which covers the end use product for which the component is designed.

2. The component shall be installed in compliance with the enclosure, mounting, spacing, casualty markings and segregation requirements of the end-use application.

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.

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 machine. The output circuits have not been evaluated for direct patient connection (Type B, BF or CF).

5. The component should be properly bonded to ground in the end-use equipment.

6. The Temperature Test was performed in a raised ambient of 60°C.

7. The main isolation transformer, T5, complies with Class 155 limits.

8. Leakage current testing should be repeated in the end product application.

9. The power supply was evaluated as Reinforced insulation between primary and secondary; basic insulation between primary to ground and secondary to ground.

10. This power supply has been evaluated as Class I, continuous operation, ordinary equipment and has not been evaluated for use in the presence of a flammable anaesthetic mixture with air, oxygen, or nitrous oxide.

11. Fusing in the end-product shall be considered since primary fusing of both sides on the mains supply line was not provided.

12. Two 12 A external fuses were used during Component Abnormal Tests.

CSA INTERNATIONAL

Certificate of Compliance

Certificate: 1252596 **Master Contract:** 150684 (LR 46516C)

Edition: 1 **Date Issued:** October 23, 2001

Issued to: **Condor D.C. Power Supplies Inc.**
2311 Statham Parkway
Oxnard, CA 93033
USA

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US'

C US

Issued by: Shane Stevenson, AScT.

Authorized by: Terry Nagy
Operations Manager

PRODUCTS

CLASS 5311 20 - POWER SUPPLIES - Component Type - For Use in Medical Equipment
CLASS 5311 96 - POWER SUPPLIES - Component Acceptance - Certified to US Standards

Component Power Supply for use in Medical Equipment, where the suitability of the combination is to be determined by CSA International.

- Model MSP1563, input rated 100-240 V ac, 50/60 Hz, 10 A; dc output rated overall classification L5M1, +24 V/25 A.
- Model GPFM600-24, input rated 100-240 V ac, 50/60 Hz, 10 A; dc output rated overall classification L5M1, +24 V/25 A.
- Model MSP1715, input rated 100-240 V ac, 50/60 Hz, 10 A; dc output rated overall classification L5M1, +24 V/25 A.

The 'C' and 'US' indicators adjacent to the CSA Mark signify that the product has been evaluated to the applicable CSA and ANSI/UL Standards, for use in Canada and the U.S., respectively. This 'US' indicator includes products eligible to bear the 'NRTL' indicator. NRTL, i.e. National Recognized Testing Laboratory, is a designation granted by the U.S. Occupational Safety and Health Administration (OSHA) to laboratories which have been recognised to perform certification to U.S. Standards.

CSA INTERNATIONAL

Certificate: 1252596 **Master Contract:** 150684 (LR 46516C)
Edition: 1 **Date:** October 23, 2001

APPLICABLE REQUIREMENTS

CAN/CSA Standard C22.2 No. 601.1-M90	-	Medical Electrical Equipment
UL Standard 2601-1, 2nd Edition	-	Medical Electrical Equipment, Part 1: General Requirements for Safety

CONDITIONS OF ACCEPTABILITY

1. This component has been judged on the basis of the required spacings in the Standard for Medical Electrical equipment, Part 1: General Requirements for Safety, CAN/CSA-C22.2 No. 601.1-M90 and UL 2601-1, which covers the end-use product for which the component is designed.

2. The enclosure provided with this equipment does not meet the applicable requirements for Fire or Electrical enclosures. Suitable enclosure to be provided in the end-use equipment.

3. 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.

4. The main isolation transformer (T5) is provided with Class F insulation.

5. The output circuits have not been evaluated for direct patient connection (Type B, BF or CF).

6. The power supply has been evaluated for patient care equipment, but not patient connected.

7. The temperature test was performed on MSP1563 & GPFM600-24 in a raised ambient of 60 °C, and MSP1715 in a raised ambient of 45 °C.

8. The power supply was evaluated for Reinforced insulation between primary and secondary, and Basic insulation between primary and ground, based on min 250 V ac.

9. The power supply has been evaluated as Class I equipment, continuous operation, ordinary equipment and has not been evaluated for use in the presence of a flammable anesthetic mixture with air, oxygen, or nitrous oxide.

10. Under normal and single fault conditions, the outputs do not exceed 25 V ac or 60 V dc.

11. External fuses for both Line and Neutral must be provided in the end equipment. Recommended fuse value is T 12 A/250 V.

CSA INTERNATIONAL

Supplement to Certificate of Compliance

Certificate: 1252596 **Master Contract:** 150684 (LR 46516C)

The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Edition	Date	Description
1	October 23, 2001	Original Certification. (Re-issued Report 1125256 as 1252596, to include Model MSP1715 and update to C/US).

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Certificate

TÜV PRODUCT SERVICE

No: B 01 12 14549 222

Condor DC Power Supplies, Inc.

2311 Statham Pkwy.
Oxnard, CA 93033
USA

with production facility(is)
16784

is authorized to label the following products with the
certification mark E20
as shown in the certification mark list. See also notes overleaf.

Product: **Netzgeräte**
Switching power supply unit

Model: **MSP1715, MSP1563, GPFM600-24**

Parameters:		
	Rated Input Voltage:	100 - 240 V AC
	Rated Frequency:	50 / 60 Hz
	Rated Input Current:	10 A
	Rated Output Voltage:	24 V DC
	*Rated Output Current:	25 A at 60 degrees Celsius ambient
	Protection Class:	I
	Mode of Operation:	Continuous

*MSP1715 Rated Output Current is 25 A at 45 degrees Celsius ambient.
This certificate issued with regard to project numbers S300-8258-01; SM1F-00640-02; SI105627-103, and SI107068-104.

The product meets the relevant safety requirements and was tested according to (report no.: SI107068-104)

EN 60601-1:1990 +A1:1993 +A2:1995

Released with the above certificate number by TÜV PRODUCT SERVICE, the Product Certification Body of TÜV AMERICA INC.

R - (B 01 11 14549 217)

Department: SDGMED/BJA

Date: 12/04/01