

D E S C R I P T I O N

PRODUCT COVERED:

Component - Switching Power Supplies for Use in Medical and Dental Equipment, Model GPM200A, -200B, -200D, -200E, -200F, and GPM200-XYZ. Where X is either B, C or D; Y is either A, B, C, Q, R or S; and Z is A, B, C or D.

ELECTRICAL RATING:

Input: 100-240 VAC, 47-63 Hz, 5.5 A

Output: Maximum Continuous Output Power at 50°C With 26 cfm Airflow = 200 Watts  
Standard Models:

Model	Output #1 <sup>1</sup>	I <sub>sc</sub>	Output #2 <sup>1</sup>	I <sub>sc</sub>	Output #3	I <sub>sc</sub>	Output #4 <sup>2</sup>	I <sub>sc</sub>
GPM200A	+5V 26A <sup>3</sup>	25A	+12V 8.0A	15A	-12V 1.2A	2A	12V 4.0A	2A
GPM200B	+5V 26A <sup>3</sup>	25A	+12V 8.0A	15A	-5V 1.2A	2A	12V 4.0A	2A
GPM200D	+5V 26A <sup>3</sup>	25A	+24V 5.0A	15A	-12V 1.2A	2A	12V 4.0A	2A
GPM200E	+5V 26A <sup>3</sup>	25A	+24V 5.0A	15A	-15V 1.2A	2A	15V 4.0A	2A
GPM200F	+5V 26A <sup>3</sup>	25A	+12V 8.0A	15A	-12V 1.2A	2A	5V 4.0A	2A

Special Models: (Place Code Letters for desired outputs from Table below, example = GPM200-BAA)

GPM200- ( ) ( ) ( )

Output #1 <sup>1</sup>	Output #2 <sup>1</sup>	Output #3		Output #4 <sup>2</sup>
+5V 26A <sup>3</sup> (For all models)	B = +12V 8.0A	A = -5V 1.2A	Q = -5V 2.4A	A = 5V 4.0A
	C = +15V 8.0A	B = -12V 1.2A	R = -12V 2.4A	B = 12V 4.0A
	D = +24V 5.0A	C = -15V 1.2A	S = -15V 2.4A	C = 15V 4.0A
				D = 24V 2.0A

Notes:

1. The combined loads of Outputs No. 1 and No. 2 must not exceed 32 Amps.
2. Isolated output which may be referenced as a positive or negative voltage.
3. Maximum Operating Relative Humidity 96%, no condensation.
4. I<sub>sc</sub> = Maximum output short circuit current.
5. Minimum load current = 4A.

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

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

\* The products, models GPM200A, -B, -D, -E, and -F, were evaluated to the Second Edition of the Standard for Medical and Dental Equipment, UL 544; and the First Edition of the Standard For Medical Electrical Equipment, Part 1: General Requirements for Safety, UL 2601-1. An insulation diagram is provided as Ill. 4 and the manufacturer's installation instructions are provided as Ill. 3.

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

- 1.\* The power supplies, models GPM200A, -B, -D, -E, and -F, have 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, and the second edition of the Standard for Medical and Dental Equipment, UL 544, which covers the end use product for which the component is designed.
2. The device 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. All transformers comply with Class 155 limits.
4. The input and output connectors or terminal blocks are not acceptable for field connections, they are only intended for connection to mating connectors of internal wiring inside the end-use machine. The acceptability of these in the mating connectors relative to secureness, insulating materials, and temperature shall be considered.
5. The end-use product shall ensure that a fuse warning marking is provided adjacent to the primary fuse (F1). The marking shall include the following wording: "WARNING - For continued protection against risk of fire, replace only with the same type and ratings of fuse" and the fuse ratings. The minimum letter height 7/64 in.

6. The power supply should be properly bonded to ground in the end-use product.
- 7.\* The power supply has been evaluated for patient care equipment, but not patient connected.
- 8.\* The output circuits have not been evaluated for direct patient connection (Type B, BF or CF).
9. Consideration should be given to repeating the Temperature Tests if the power supply is not used within its output power ratings and cooling requirements, or if used, in ambients greater than 25°C.
- 10.\* Leakage current testing should be repeated in the end product application.
- 11.\* The UL 2601 power supplies were evaluated as Reinforced insulation between primary and secondary; basic insulation between primary to ground; and operational insulation only between secondary to ground.
- 12.\* The UL 2601 power supplies have 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.
- 13.\* Fusing in the end product shall be considered since only one fuse rated 6 A, 250 V is provided in the hot side of the input supply circuit.
- 14.\* For the UL 2601-1 power supplies, under normal and single fault conditions, the outputs do not exceed 25 V ac or 60 V dc.



# Certificate of Compliance

Certificate Number: LR 46516-148C

Revision: LR 46516-301C

Date Issued: April 22, 1999

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*



Issued by: Shane Stevenson, ASCT.  
Vancouver, BC, Canada

Signature: 

## PRODUCTS

### CLASS 5311 03 - POWER SUPPLIES - Component Type

Component type power supplies intended for use with Information Technology and Business Equipment, where the suitability of the combination is to be determined by the Canadian Standards Association.

Model GPC200A and GPM200A, (Level 3), input rated 100-240 V (continuous), 47-63 Hz, 5.5 A; dc output rated 5 V/26 A, +12 V/8 A, -12 V/ 1.2 A, 12 V/4 A; 200 W with 26 cfm airflow, with or without cover.

Model GPC200B and GPM200B, (Level 3), input rated 100-240 V (continuous), 47-63 Hz, 5.5 A; dc output rated 5 V/26 A, +12 V/8 A, -5 V/ 1.2 A, 12 V/4 A; 200 W with 26 cfm airflow, with or without cover.

Model GPC200D and GPM200D, (Level 3), input rated 100-240 V (continuous), 47-63 Hz, 5.5 A; dc output rated 5 V/26 A, +24 V/5 A, -12 V/ 1.2 A, 12 V/4 A; 200 W with 26 cfm airflow, with or without cover.

Model GPC200E and GPM200E, (Level 3), input rated 100-240 V (continuous), 47-63 Hz, 5.5 A; dc output rated 5 V/26 A, +24 V/5 A, -15 V/ 1.2 A, 15 V/4 A; 200 W with 26 cfm airflow, with or without cover.

Model GPC200F and GPM200F, (Level 3), input rated 100-240 V (continuous), 47-63 Hz, 5.5 A; dc output rated 5 V/26 A, +12 V/8 A, -12 V/ 1.2 A, 5 V/4 A; 200 W with 26 cfm airflow, with or without cover.



Revision: LR 46516-301C

Special Models: GPC200 - XXX and GPM200 - XXX where X may be any letter noted in the table specifying desired outputs from the table.

Output #1	Output #2	Output #3		Output #4
+5V 26 A (For all models)	B = +12 V 8.0 A	A = -5 V 1.2 A	Q = -5 V 2.4 A	A = 5 V 4.0 A
	C = +15 V 8.0 A	B = -12 V 1.2 A	R = -12 V 2.4 A	B = 12 V 4.0 A
	D = +24 V 5.0 A	C = -15 V 1.2 A	S = -15 V 2.4 A	C = 15 V 4.0 A
				D = 24 V 2.0 A

Notes

- (a) Maximum ambient temperature for continuous output power specified is 50 °C.
- (b) Model numbers may include -C for cover.
- (c) The combined loads of Outputs #1 and #2 must not exceed 32 Amps.
- (d) The minimum load for Output #1 is 4 Amps.

APPLICABLE REQUIREMENTS

- CAN/CSA-C22.2 No 0-M1991 - General Requirements - Canadian Electrical Code, Part II
- C22.2 No 0.4 - M1982 - Bonding and Grounding of Electrical Equipment (Protective Grounding)
- CAN/CSA-C22.2 No 234 - M90 - Safety of Component Power Supplies

# Certificate

No: B 97 03 14549 112



Condor DC Power Supplies Inc.

2311 Statham Parkway  
Oxnard, CA 93033  
USA

with production facilities  
16784

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

**Product:**           **Netzgeräte**  
                          **Switching power supply unit**

**Model:**             **See Attachment**

**Parameters:**      Rate Input Voltage:   100 - 240 V AC  
                          Nennspannung  
                          Rated Frequency:     47 - 63 Hz  
                          Nennfrequenz  
                          Rated Input Current:  5.5 A  
                          Nennaufnahme  
                          Rated Output Voltage: See Attachment  
                          Ausgangsspannung  
                          Rated Output Current: See attachment  
                          Ausgangsleistung  
                          Protection Class:    I  
                          Schutzklasse

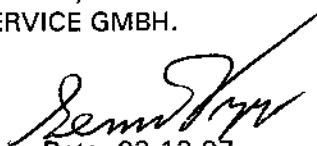
The product meets the relevant safety requirements and was tested  
according to (report no.: S300206601):

EN 60601-1 : 1995 +A1 +A2

Released with the above certificate number by the  
certification body of TÜV PRODUCT SERVICE GMBH.

R - (B 92 10 14549 540)

Department: SDGMED / GV

  
Date: 03-13-97



**Attachment to certificate number B 97 03 14549 112 for Condor DC  
Power Supplies models GPM200A GPM200B GPM200D GPM200E  
GPM200F**

**Output Voltage/Current:**

Maximum Continuous Power, Total of all Outputs, at operating ambient of 50°C, 200 Watts with 26 CFM airflow

**Standard Models:**

Model	Output #1 (1)	Output #2 (1)	Output #3	Output #4 (2)
GPM200A	+ 5V 26A(4)	+ 12V 8.0A	-12V 1.2A	12V 1.0A
GPM200B	+ 5V 26A(4)	+ 12V 8.0A	- 5V 1.2A	12V 4.0A
GPM200D	+ 5V 26A(4)	+ 24V 5.0A	-12V 1.2A	12V 4.0A
GPM200E	+ 5V 26A(4)	+ 24V 5.0A	-15V 1.2A	15V 4.0A
GPM200F	+ 5V 26A(4)	+ 12V 8.0A	-12V 1.2A	5V 4.0A

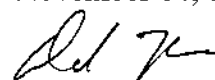
**Special Models:** (Place code letters for desired outputs from Table below: example GPM200-BAA)

GBM200-                    (     )                    (     )                    (     )

Output #1(1)	Output # 2(1)	Output #3	Output #4(2)
+5V 26A(4)	B=+12V 8.0A	A=5V 1.2A	A=5V 4.0A
For all Models	C=+15V 8.0A	B=-12V 1.2A	B=12V 4.0A
	D=+24V 5.0A	C=-15V 1.2A	C= 15V 4.0A
		Q=-5V 2.4A	D=24V 2.0A
		R=-12V 2.4A	
		S=15V 2.4A	

- Notes:
1. The combined loads of Outputs No. 1 and No. 2 must not exceed 32 Amps.
  2. Isolated outputs which may be referenced as a positive or negative voltage
  3. Maximum operating relative humidity 96% noncondensing
  4. Minimum load current 4A

November 04, 1997

  
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