

# CD-8DGR-400

## PS2 400W IPC Dual Fan Power Supply

### 1. AC Input and Output

AC Input	115V 10A / 230V 6A 47~63Hz, Inrush Current 230V 70A (Max) 25°C				
DC Output	+5V	+12V	-12V	+3.3V	+5Vsb
Current Full Load	16A	23A	0.3A	10A	2A
Current Min. Load	1.1A	2.5A	0A	1A	0.2A
Cross Regulation	+/-5%	+/-5%	+/-10%	+/-5%	+/-5%
Output Ripple	50mV	120mV	120mV	50mV	50mV
Output Noise	100mV	200mV	200mV	100mV	100mV

### ECO Friendly

High energy efficiency



### Dynamic DC Output Characteristics

Transient response is measured by switching the output load from 80 to 100 to 80 percent of its value at a frequency of 100Hz and 50% duty cycle step load change is 0.5A/us. The magnitude Vr is less than +/-5% of +5V and +12v output the recovery time Tr is less than 1ms.

The continuous max. DC output power shall not exceed 400W, +3.3V and +5V combined continuous output power 80W max. When +3.3V is load to 10A, +5VSB peak surge current 15sec. max.(TOLERANCE : ±10%) 0.1uF and 10uF tantalum capacitors should be put across output terminals during ripple & Noise test. The oscilloscope bandwidth is set at 20 MHz and co-axial probe will be used to measure it

Range	Load	+5V	+12V	-12V	+3.3V	+5Vsb
1	+5Vsb High	0A	0A	0A	0A	2A
2	+5V High	16A	2A	0.3A	0A	1A
3	+3.3V High	1.2A	2.5A	0.3A	12A	0.5A
4	+12V High	2A	25A	0.3A	8A	2A
5	Normal 1	12A	25A	0.3A	12A	0.05A
6	Normal 2	6A	12.5A	0.3A	6A	2A
7	Normal 3	2.4A	2.4A	0.3A	10A	1A
8	Normal 4	1.5A	25A	0A	0A	0.05A



### 2. Output Protection

If the power supply is latch into shutdown stage (when OCP, OVP or short protection is working ),the power supply shall return to normal operation only after the fault has been removed and remote signal must reset for a minimum of 1 second or (the AC removed for 10 second ) . Then it will turn on again

#### 2.1 Over Power Protection

Original conditional: input 230V/115V, Output full load +3.3V/10A,+12V/25A,-12V/0.3A,+5V/11A,5VSB/2A  
Increase the output power at the all rail gradually to 480w~540wA, the main output should shutdown

Over Voltage Protection	
Sense Level	Over Voltage
+3.3V	4.2V Max
+5V	6.3V Max
+12V	15V Max

Short Circuit Protection	
Output to GND	

### 3. Power Good Signal

Time Sequence:

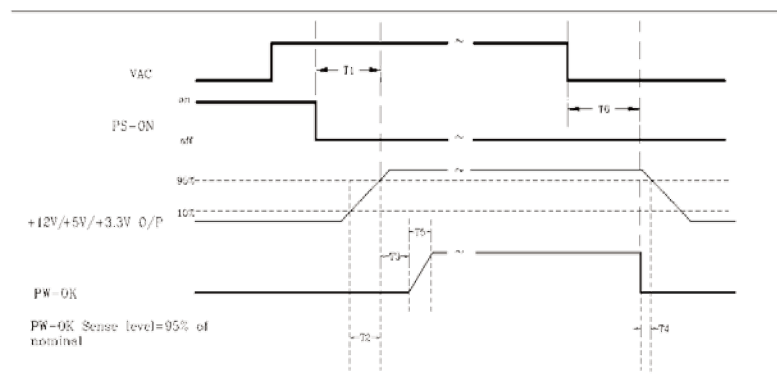
Turn On Time (900msec. Max)

Power Good Delay Time (100msec. < T < 500msec.)

Power Fail Delay Time > 1ms

Hold -up time (16ms. Min.)

+5V +5VSB +12V +3.3V Rise time: 2ms-17ms



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#### 4. Efficiency

##### 4.1 Standby Mode

The power supply is turn on/off by TTL signal

ACTIVE LOW 0~0.8V      Power supply turn ON

ACTIVE HIGH 3~5V      Power supply turn OFF

AUXILIARY +5Vsb

This power supply is specifically equipped with an independent stand-by +5V output current 2.0A max . This output will always provide +5v except when AC line is cut-off

#### 5. Cooling of PSU

Dual 8cm Fans

The acoustic noise of the PS unit is not more than 35 DB with the airflow not less than 19CFM when the ambient temperature is 33°C, and not more than 40DB with the airflow not less than 31CFM when the ambient temperature is 42°C

#### 6. Active Power Factory Correction (APFC)

With Active Power Factor 90% Min (Mid Load and Full Load)

#### 7. Environment

AMBIENT OPERATION TEMPERATURE: +5°C to +40°C

AMBIENT OPERATION RELATIVE HUMIDITY: 20% to 85%

AMBIENT STORAGE TEMPERATURE: - 40°C to +55°C

AMBIENT STORAGE RELATIVE HUMIDITY: 10% to 95%

#### 8. MTBF

Using MIL 217E the calculated MTBF=100,000 hours at 25°C 75% loading

#### 9. EMC

EMI REQUIREMENTS:

MEET GB 9254 CLASS B

MEET GB 17625.1

SAFETY REQUIREMENTS 8.2:

MEET CCEE GB4943

MEET CB IEC950

#### 10. Safety

HI-POT

Input to GND: Voltage 1500Vac Time 2.0~3.0 sec., cut off current 10mA.

Earth Continuity Test: 100mΩ Max. at 25.0A

Primary to Safety Ground 500Vdc 50Mohms Minute

7.4 Leakage current each line to GND

3.5m Max. at 264V 50Hz

