

**DCMOD® AG-350D**  
DC INPUT / ITE APPROVED  
350 WATT POWER PLATFORM  
8.00 x 4.50 x 2.00" / 203.2 x 114.3 x 50.8mm



## DESCRIPTION

UNIPOWER's DCMOD® AG-350D SERIES is a 350 Watt DC Input Power Supply platform with both standard and configurable models featuring output voltage(s) that can be quickly configured to order while maintaining all international safety approvals.

These power supplies are available with 24V or 48V Input Ranges and single or quad output configurations ranging from 1.5 to 48 VDC. The AG-350D feature an industry-standard footprint, international safety approvals, Class B emissions; and -20 ~ +70°C operation (see derating).

DCMOD® UPGRADES include a multitude of output voltage configurations, optional covers (with or without fan), extended temperature operating range, isolated outputs, attached wire harnesses and much, much more. All these modifications are available without any impact on safety approvals to reduce both development cost and time to market.

## FEATURES

- ◆ 24V or 48V DC Inputs
- ◆ 1 or 4 Outputs configurable from 1.5-48VDC
- ◆ International Safety Approvals
- ◆ >500k Hours MTBF, Demonstrated
- ◆ Optional -40°C Guaranteed Start-Up
- ◆ Double Sided PC Board



Contact UNIPOWER to discuss  
your application and define  
the right part number for your  
specific application:

Tel: +1-954-905-1070

Email: [the.power.solution@unipowerco.com](mailto:the.power.solution@unipowerco.com)



**FIVE YEAR WARRANTY**

## INTERNATIONAL STANDARDS

UL/cUL 60950-1 2nd Ed.  
EN60950-1 2nd Ed.  
CB Report, IEC60950-1  
CE Mark (LVD)

For the AC input version see [EASMOD AG-350P](#) datasheet

For the Medical Approved version see [MEDIMOD AG-350PM](#) datasheet

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**"IF WHAT YOU SEE IS WHAT YOU DON'T WANT, IT CAN EASILY BE CHANGED."** The DCMOD® family of switching power supplies has been designed with two precepts; (1) the laws of physics are immutable, and (2) the satisfaction of customer requirements and needs is paramount.

A host of modifications, only some of which are listed below, can and will be performed on products for customer programs requiring as few as 250 units per year. These "mods" are available at nominal premium (if any), normally without non-recurring engineering costs (although a one time documentation fee may be incurred), and usually with all safety agency approvals in place. This minimizes both product development cost and new product time to market. Effectively, DCMODs® allow small program requirements the luxury of costly custom power supply designs.

**TYPICAL MODIFICATIONS**

- Unique Output Combinations from 1.5 to >48 volts
- Power Fail / Power Good Signals
- Enable / Inhibit
- Isolated Outputs
- Low Output Ripple and Noise
- Cover & Fan Assembly
- Extended Temperature Operating Range
- -40°C Start-Up
- Zero Load Operation
- Remote Sense
- Remote On / Off

**FLEXIBLE OUTPUT CONFIGURATION GUIDELINES**

with 12, 24 or VDC Input and -20-50°C Operation

**Single Output Capabilities**

OUTPUT CURRENT	1.5~3.3V	5V	12V	15V	24V	48V
MINIMUM	0A	0A	0A	0A	0A	0A
CONVECTION <sup>(3)</sup>	30A	30A	16.6A	13.3A	8.3A	4.2A
30 CFM AIR <sup>(4)</sup>	60A	60A	29A	23A	14.5A	7.25A
PEAK <sup>(5)</sup>	65A	65A	31A	25A	16A	18A

**Multiple Output Capabilities**

OUTPUT	DC OUTPUT	MIN	CON <sup>(3)</sup>	AIR <sup>(4)</sup>	PEAK <sup>(4, 5)</sup>
V1	1.5 ~ 48V <sup>(7)</sup>	4.0A <sup>(2, 13)</sup>	40A	60A	65A
V2	1.5 ~ 48V <sup>(8)</sup>	1.7A <sup>(2, 13)</sup>	17A	32A	35A
V3	1.5 ~ 48V <sup>(8)</sup>	0.5A <sup>(2, 13)</sup>	5A	7A	10A
V4	1.5 ~ 48V <sup>(8)</sup>	1.1A <sup>(2, 13)</sup>	11A	14A	18A

(1) Full power out on V3-V4 with minimal V1 and V2 loading—Option.  
 (2) 10% minimum load for stated regulation on multiple O/P units.  
 (3) Convection cooling.  
 (4) 30 CFM forced air cooling conditions.  
 (5) 30 seconds maximum duration.  
 (6) Most output combinations from 1.5 to 48 Volts possible: up to maximum rated Current / Power...Consult UNIPOWER.

(7) Specify 01V increments.  
 (8) Specific output voltage is current dependent.  
 (9) Regulation may degrade under some output Consult UNIPOWER.  
 (10) Consult UNIPOWER for Model #.  
 (11) For outputs >48 Volts, consult UNIPOWER.  
 (12) Cover and custom sheet metal available.  
 (13) 10% minimum of marked rating

**Contact UNIPOWER to discuss your application and define the right part number for your specific application:**

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For the Medical Approved version see [MEDIMOD AG-350PM](#) datasheet | For the AC Input version see [EASYSMOD AG-350P](#) datasheet.

# SPECIFICATIONS

Typical at Nominal Line, Full Load and 25°C Unless Otherwise Noted.

### INPUT

Input Voltage Range Options	18-36 or 36-72 VDC Ranges
Input Current @ 18VDC Input	22A Max
Input Current @ 36 VDC Input	14A Max
Fusing @ 24 VDC Input Range	30A Max
Fusing @ 48 VDC Input Range	20A Max

### OUTPUT

Output Power	200W Convection / 350W with 30 cfm Airflow
Efficiency	75% Typical
Adjustment Range (V1 Only)	±5%
Ripple / Noise, max	1% pk-pk max
Line Regulation	Max ±0.2%
Load Regulation @ 60% ±40% Full Load	
V1	±3% max
V2-V4	±5% max
Cross Regulation @ 60% ± 40% Full Load	
V1: Change in V2 - V4	±0.5%
V2 - V4: Change in V1 @75 ±25% F/L	±5% max
Overshoot Protection (V1 Only)	>130% (Latch Off)
Power Limit	>120% (Auto-Recovery)
Overshoot (all outputs)	10% max
Response Time	500 µSec (25-75% step load)
Switching Frequency	60KHz (typical)

### ENVIRONMENTAL

Operating Temp. Range	-20°C to +50°C (Full Load)
	Consult factory for -40°C Guaranteed Start-Up and Industrial Temperature Range options
Output Current Derating	2.5%/°C, 50°C to 70°C
Storage Temp. Range	-40°C to + 85°C
Humidity	5% to 95%, Non-Condensing
MTBF, Demonstrated	>500,000 Hours
Cooling	30 cfm Airflow for Full Power
Immunity	EN61000-4-2: -3; -4; -5; -6; -8; -11
Altitude	10,000 feet

### PHYSICAL SPECIFICATIONS

Case Dimensions	8.00 x 4.50 x 2.00" / 203.2 x 114.3 x 50.8mm
Weight	3.15 lbs. (1.43 kg.)
Vibration from 10 - 55Hz	1.0G Peak
	(3 orthogonal axes @ 1 octave/min, 5 minute dwell @ 4 major resonances)

### SAFETY STANDARDS

UL60950-1 2nd Ed., EN60950-1 2nd Ed., CB REPORT (IEC 60950-1), CE MARK (LVD)

### EMI STANDARDS

FCC Class A & VDE Class A, CISPR 11; EN 55011 Class A (Class B available. Consult factory.)

### CONNECTOR 1

Terminal Blocks, 9.5mm pitch  
 PIN1.....+VIN  
 PIN2.....-VIN  
 PIN3.....GND

### CONNECTOR 2 (single output)

Terminal Blocks, 9.5mm pitch  
 PIN1 ..... V1  
 PIN2 ..... V1  
 PIN3 ..... V1  
 PIN4 ..... V1  
 PIN5 ..... RET  
 PIN6 ..... RET  
 PIN7 ..... RET  
 PIN8 ..... RET

### CONNECTOR 2 (multi-output)

PIN1 ..... V1  
 PIN2 ..... V1  
 PIN3 ..... RET  
 PIN4 ..... RET  
 PIN5 ..... V2  
 PIN6 ..... V3  
 PIN7 ..... -V4  
 PIN8 ..... +V4

### CONNECTOR 3

MOLEX 22-27-2061 or equivalent  
 Mates with MOLEX 22-01-3067  
 PIN1.....+SENSE  
 PIN2.....-SENSE  
 PIN3.....RC  
 PIN4.....INPUT FAIL  
 PIN5.....RTN  
 PIN6.....PG

## OUTLINE DRAWING

