

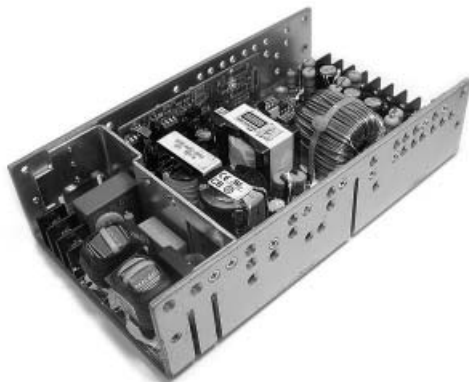
## MEDIMOD AG-350PM SERIES MEDICAL SWITCHERS

### 350 watts - Power Factor Corrected - Single to Quad Output

IF WHAT YOU WANT IS WHAT YOU NEVER GET IN MEDICALLY APPROVED AC INPUT SWITCHERS, the POWER SOLUTION for up to 350 watts steady state of high reliability, Universal AC input power can be found in the AG-350PM family of 8" x 4.5" x 2" HIGH U-Channel mounted MEDIMOD switchers. These models are available in a complete range of single to quad output configurations from 1.5 to >48 VDC. All models deliver 350W (380W peak) of highly regulated output power. The entire family has on-board Class B EMI filtering, is CE marked, complies to EN61000-3-2, delivers continuous full power output to 50°C, and is capable of operation up to 70°C.

MEDIMOD simply means: IF WHAT YOU SEE IS WHAT YOU DON'T WANT, IT CAN BE EASILY CHANGED. MEDIMODS include; extended temperature operating range, isolated outputs, unique output combinations, available DC inputs, low noise versions, unique cables and harnesses and much, much more. All these modifications are available at nominal (if any) additional cost, and normally without any impact on safety agency approvals which reduces both development cost and time to market. A MEDIMOD can be performed on supplies for programs requiring as few as 250 units per year.

Call EASYMOD Support on (U.S.) +1-954-346-2442 or (U.K.) +44 (0)1903 768204 or email [easymod@unipower-europe.com](mailto:easymod@unipower-europe.com).



#### INPUT SPECIFICATION

Input Voltage .....47-63 Hz; 90-264 VAC  
 Harmonic Content ..... Meets EN61000-3-2  
 Inrush Current, 115VAC.....50A P - P  
 Input Current @ 115VAC..... 6A  
 Fusing ..... 8A @ 250VAC On Board  
 Leakage Current ..... < 90µA

#### OUTPUT SPECIFICATION

Continuous Output Power <sup>5</sup> .....350 Watts  
 Line Regulation Over Input Range; V1 - V4 ..... ±0.2%  
 Holdup Time ..... 16mS  
 Load Regulation @ 60% ±40% Full Load  
   V1 - V2 ..... ±3%  
   V3 - 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  
 Overvoltage Protection V1 ..... 130% Vout typ  
 Overshoot, All Outputs ..... 10% max  
 Power Limit ..... Set @120% typ  
 Response Time <sup>1</sup> ..... 500 µSec  
 Ripple & Noise <sup>3</sup> @ 20 Mhz Band Width; Full Load  
   All Outputs..... 1% P-P max  
 Remote Sense; Single Output only ..... 250mV compensation  
 Thermal Protection ..... Optional  
 Output Adjustment Range on V1 ..... ±5% min

#### FEATURES & OPTIONS

- EN61000-3-2 COMPLIANT
- CB REPORT
- 1.5 - 48 VDC OUTPUTS AVAILABLE
- UL-cUL2601 APPROVALS
- 4.5"x8"x2" FOOTPRINT
- ENABLE/INHIBIT - OPTION
- REMOTE ON/OFF - OPTION
- ISOLATED 4th OUTPUT - OPTION
- 40°C START-UP - OPTION
- COVER/FAN ASSEMBLY AVAILABLE
- CE MARKED

#### GENERAL SPECIFICATION

Efficiency .....75% typ  
 Switching Frequency ..... 65KHz typ  
 Susceptibility / Immunity ..... See Note 2  
 Operating Temperature Range <sup>3</sup> ..... 0 to +70°C  
 Minimum Start-up Temperature <sup>3</sup> ..... -20°C  
 Derating from 50-70oC ..... 2.5% / °C  
 Storage Temperature ..... -40 to +85°C  
 Cooling ..... See Note 5  
 Relative Humidity; Non-Condensing ..... 5 - 95%  
 Weight ..... 3lbs / 1.4Kg  
 Altitude ..... 10,000 ft  
 EMI ..... FCC Class B & VDE Class B  
   ..... CISPR 22; EN 55022 Class B  
 MTBF per MIL 217 ..... > 200,000 hrs  
 Vibration <sup>4</sup> from 10 - 55Hz ..... 1.0G Peak  
 Safety Agency Approvals:..... UL & cUL 2601;  
   ..... EN 60601; CE; CB REPORT

**Notes :**

1. All outputs return within 1% of nominal for load change from 25-75% lo excursion.
2. Meets EN61000-4-2; -3; -4; -5; -6; -8; -11
3. Ripple & noise may not meet published specifications for 2 min. after start-up below 0°C.
4. Three orthogonal axes @ 1 octave/min. 5 min. dwell @ four major resonances.
5. Rating with 30 CFM air; Rated at 250 watts convection.
6. All specifications typical at nominal line, full load & 25°C, and are subject to change without notice.

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# MEDIMOD AG-350PM FAMILY

## AVAILABLE STEADY STATE CURRENT <sup>1</sup> @ 50°C AMBIENT

### MULTIPLE OUTPUT MODELS / OUTPUT CURRENT / AMPS

OUTPUT	DC OUTPUT <sup>1</sup>	MINIMUM	MAXIMUM <sup>3</sup>	MAXIMUM <sup>4</sup>	PEAK <sup>4,5</sup>
V1	1.5 to 48 <sup>7</sup> V	6 <sup>2</sup>	35	55	60
V2	1.5 to 48 <sup>8</sup> V	0.3	3	6	6
V3	1.5 to 48 <sup>8</sup> V	0.5	5	5	5
V4	1.5 to 48 <sup>8</sup> V	1 <sup>2</sup>	11	16	18

### SINGLE OUTPUT MODELS (1.5 to 48VDC <sup>7,11</sup>) / OUTPUT CURRENT / AMPS

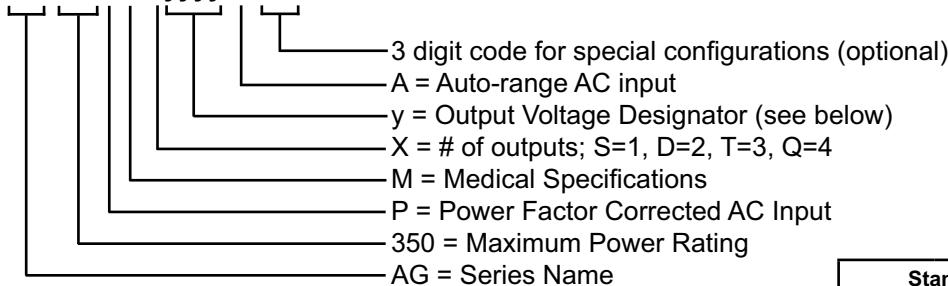
OUTPUT CURRENT	1.5V ~ 3.3V	5V	12V	15V	24V	48V
MINIMUM	0	0	0	0	0	0
MAXIMUM <sup>3</sup>	35	35	15	17	10	5
MAXIMUM <sup>4</sup>	55	55	29	23	14.5	7.25
PEAK <sup>5</sup>	60	60	31	25	16	8

- (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) 15CFM forced air cooling.  
 (5) 30 seconds maximum duration.  
 (6) Most output combinations from 2 to 48+ Volts possible; up to maximum rated Current / Power...Consult EASYMOD Support.

- (7) Specify 0.1V increments.  
 (8) Specific output voltage is current dependent  
 (9) Regulation may degrade under some output conditions. Consult EASYMOD Support.  
 (10) Consult EASYMOD Support for Model #. See below for standard voltages.  
 (11) For outputs >48 Volts, consult EASYMOD Support.  
 (12) Cover / Fan assembly available.

## MODEL NUMBERING

### AG-350PM-xyyyy-A-zzz



Consult EASYMOD Support for non-standard voltage configurations.

**NOTE THAT ANY OUTPUT CONFIGURATION THAT FITS WITHIN THE VOLTAGE AND CURRENT LIMITS SHOWN IN THE ABOVE TABLES ARE AUTOMATICALLY SAFETY AGENCY APPROVED.**

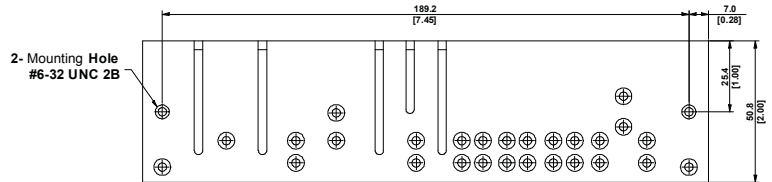
Standard Voltage Codes			
3.3V	0	15V	3
5V	1	18V	8
6V	6	24V	4
9V	9	28V	7
12V	2	48V	5

## MECHANICAL & CONNECTIONS

### CONNECTOR 1

Terminal Block, 3-pole, pitch 9.5mm

Pole 1	LINE
Pole 2	NEUTRAL
Pole 3	GROUND



### CONNECTOR 2

Terminal Block, 8-pole, pitch 9.5mm

1 Output	
Poles 1~4	V1
Poles 5~8	RTN

2 Output (V2 Positive)	
Poles 1~2	V1
Poles 3~4	RTN
Poles 5~6	RTN
Poles 7~8	V2 (+)

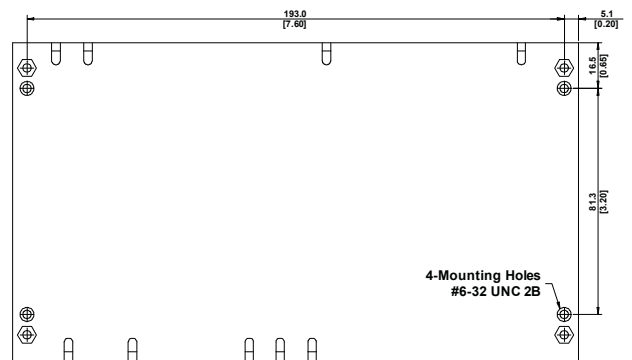
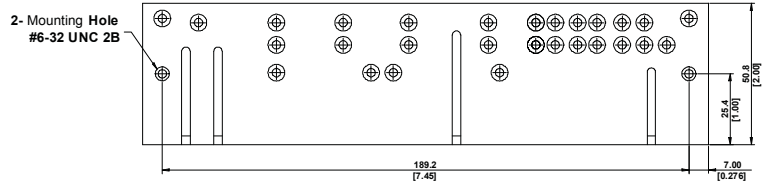
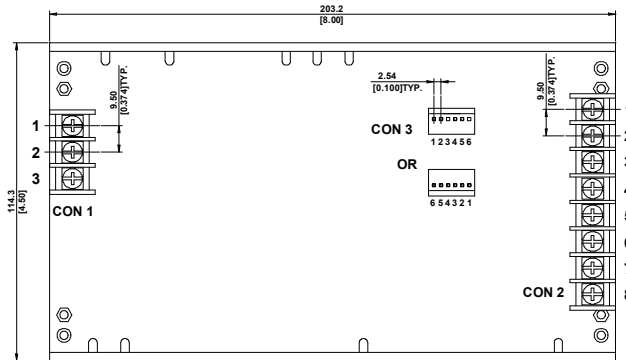
2 Output (V2 Negative)	
Poles 1~2	V1
Poles 3~4	RTN
Poles 5~6	V2 (-)
Poles 7~8	RTN

Dual Output (V2 Isolated)	
Poles 1~2	V1
Poles 3~4	V1 RTN
Poles 5~6	V2 RTN
Poles 7~8	V2

3, 4 Output (V4 Positive)	
Poles 1~2	V1
Poles 3~4	RTN
Pole 5	V2
Pole 6	V3
Pole 7	RTN
Pole 8	V4 (+)

3, 4 Output (V4 Negative)	
Poles 1~2	V1
Poles 3~4	RTN
Pole 5	V2
Pole 6	V3
Pole 7	V4 (-)
Pole 8	RTN

3, 4 Output (V4 Isolated)	
Poles 1~2	V1
Poles 3~4	RTN
Pole 5	V2
Pole 6	V3
Pole 7	V4 RTN
Pole 8	V4



TOLERANCE: mm |  $\pm 0.5$   
[inch] |  $\pm 0.02$

UNIT: mm  
[inch]

### CONNECTOR 3 (OPTIONAL)

Molex # 22-27-2061 or equivalent

Mating Connector - Molex # 22-01-3067

Pin 1	Sense +	Pin 4	AC Fail
Pin 2	Sense -	Pin 5	RTN
Pin 3	R.C.	Pin 6	PG