

**MG/MH SERIES: LOW PROFILE 500-600W**  
Single Output & Front End with PFC: 12V to 48VDC



**MODULE FEATURES**

- Low Profile, 2.0 or 2.5 Inches
- Three Case Configurations
- Active Power Factor Correction
- Meets EN61000-3-2
- Up to 5.5 Watts/Cu. Inch
- Class B Input EMI Filter
- Single-Wire Current Share
- 5V, 100mA Supervisory Output
- No Minimum Load
- 85% Efficiency
- Remote Inhibit
- Overvoltage Protection
- Overload & Short Circuit Protection
- Thermal Protection
- AC Power Fail & DC Power Good
- 12V, 500mA Auxiliary Fan Supply

**TWO-YEAR WARRANTY**

**STANDARD MODELS**

(Other Outputs Available, Consult Factory)

Max Watts	Output Voltage	Output Current	PFC	Minimum Load	Total Regulation	Case Height	MODEL NUMBER
500	12.0V	42.0A	✓	0A	1%	2.0"	MG3000
500	24.0V	20.8A	✓	0A	1%	2.0"	MG5000
500	28.0V	17.9A	✓	0A	1%	2.0"	MG6000
500	48.0V	10.4A	✓	0A	1%	2.0"	MG7000
600	24.0V	25.0A	✓	0A	1%	2.5"	MH5000
600	28.0V	21.4A	✓	0A	1%	2.5"	MH6000
600	48.0V	12.5A	✓	0A	1%	2.5"	MH7000

For modified versions, call our Modification Center at 954-346-2442, Ext. 400

**SAFETY CERTIFICATIONS**

AGENCY	STANDARD
UL	UL1950
CUL	CSA22.2, No. 950
DEMKO	EN60-950

OPTIONS <sup>1</sup>	
C	Top Cover
N	Cover with End Fan

**NOTES:**

1. For option, add option code as suffix to model number.
2. Standard model no. is open frame version.

## SPECIFICATIONS

Typical at Nominal 115/230VAC Line, Full Load and 25°C Unless Otherwise Noted.

### OUTPUT SPECIFICATIONS

Voltage Adjustment Range	>±5%
Total Regulation <sup>1</sup>	<±1.0%
Ripple & Noise (Pk-Pk) <sup>2</sup>	<1%
Hold-Up	>25mS
Dynamic Response <sup>3</sup>	300µS
Temperature Coefficient	±0.02%/°C
Minimum Load	0A
Overload Protection	Constant Current Limiting
Overvoltage Protection	Power Shutdown
Remote Sense	Up to 0.25V Per Wire

### INPUT SPECIFICATIONS

Input Voltage Range	85-264VAC, Single Phase
Power Factor	0.99
Input Frequency	47-63Hz
Inrush Limiting	30A Peak
Input Current, Full Load	
500W	5.0A, 120VAC; 2.6A, 230VAC
600W	5.9A, 120VAC; 3.1A, 230VAC
Input EMI Filter, Conducted	EN55022 Curve B
	FCC20780 pt. 15J Curve B
Harmonic Distortion	EN61000-3-2
Input Immunity, Conducted	
Fast Transients, Line-Line	±2kV (EN61000-4-4 Level 3)
Surges, Line-Line	±1kV (EN61000-4-5 Level 2)
Surges, Line-Ground	±2kV (EN61000-4-5 Level 3)
Input Protection	Internal Fuse

### GENERAL SPECIFICATIONS

Efficiency <sup>4</sup>	>85% at Full Load
Switching Frequency	150kHz Nominal
Isolation, class I <sup>5</sup>	>3000VAC Input - Output
	>1500VAC Input - Ground
	>50VDC Output - Ground
Safety Standards	EN60-950, UL1950, CSA22.2-950

### ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	0°C to 70°C Ambient
Derating	2.5% / °C, 50°C to 70°C
Storage Temperature	-40°C to +85°C
Cooling	
Standard & 'C' Option	External 25 CFM
'N' Option	Integral Ball Bearing Fan

### PHYSICAL SPECIFICATIONS

Case Material	Aluminum
Dimensions, Inches (mm); Standard & 'C' Option	
500W	2.0 (50.8)H x 5.0 (127)W x 9.0 (229)D
600W	2.5 (63.5)H x 5.0 (127)W x 9.0 (229)D
Dimensions, Inches (mm); 'N' Option	
500W	2.0 (50.8)H x 5.0 (127)W x 10.5 (267)D
600W	2.5 (63.5)H x 5.0 (127)W x 10.5 (267)D

#### NOTES:

1. No Load to full load, including line regulation and load regulation.
2. Whichever is greater. 20MHz bandwidth. Measured with 0.1µF ceramic and 10µF tantalum capacitors in parallel across the output.
3. <4% deviation recovering to within 1% for 25% load change.
4. 80% for 12V MG3000.
5. Input - output isolation figure is for isolation components only. 100% production Hipot tested.

#### J1 CONTROL & SUPERVISORY SIGNALS

PIN	FUNCTION	PIN	FUNCTION
1	+Sense	6	DC Power Good
2	-Sense	7	Inhibit (N.O.)
3	Not Used	8	Not Used
4	Not Used	9	AC Power Fail
5	Current Share	10	Control Common

#### J2: 12V, 500mA FAN SUPPLY

PIN	FUNCTION
1	12V Return
2	+12VDC

#### J3: 5V, 100mA AUX. SUPPLY

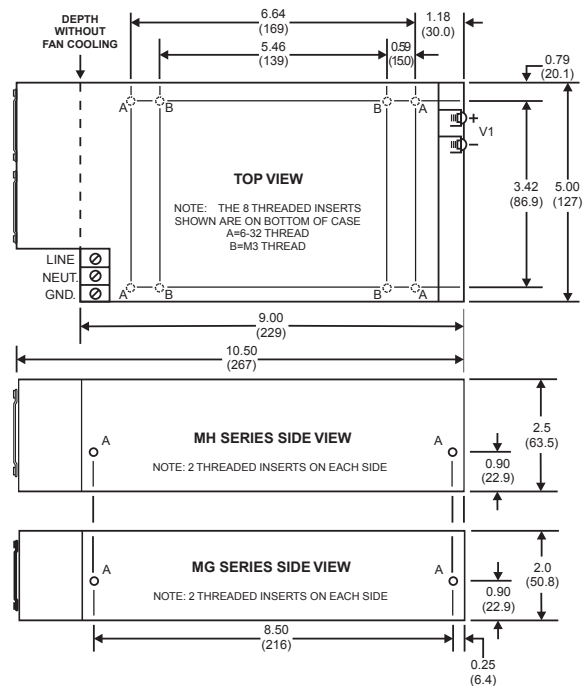
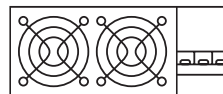
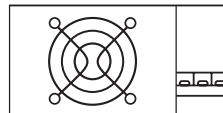
PIN	FUNCTION
1	+5VDC
2	5V Return

CONNECTORS	
J1: AMP 173981-0	10-PIN
J2: LMI 9105.102.02	2-TERM
J3: AMP 171825-2	2-PIN

MATING CONNECTOR KIT
Kit provides mating connectors for all MG and MH Series models.
Order Kit No. 775-1417-000

**NOTE:** This composite drawing illustrates all three versions of the MG, MH Series. The open frame version has no fan or cover. The MG Series (500W) is 2.0" (50.8mm) high. The MH Series (600W) is 2.5" (63.5mm) high. Option C has a cover without fans. Both of these versions are 9.00 Inches (229mm) deep as shown by the dotted line. Option N has a cover and end fan and is 10.50 Inches (267mm) deep. The 500W models have two fans while the 600W models have a single fan. Airflow is from the fans into the power supply.

The power supply top view shows eight threaded inserts which are on the bottom of the supply. The "A" inserts accept 6-32 screws and are also on both sides of the supply; the "B" inserts accept M3 screws and are on the bottom only.



**ALL DIMENSIONS IN INCHES (mm).**  
All specifications subject to change without notice.