

HM300/500 & HE300/500 SERIES Single and Dual Outputs

- 60-75% Efficiency
- Excellent Regulation
- OVP on 5V Output
- 115 or 230 VAC Output
- Short Circuit Protection
- Internal Input Filter

This series of off-line switching power modules provides 25 watts of output power at 5, 12 or 15 VDC and 15 watts of power at 5, 12, 15, ± 12 , and ± 15 VDC. The HM300/500 and the HE300/500 series both incorporate a pulse-width modulated flyback circuit; the HM300/500 series also employs linear output regulators. Both series operate at over 25 kHz and achieve 60 to 75% conversion efficiency with excellent line and load regulation. The HE300/500 series have a pi network, balun input filter and a continuous six-sided shield. All 5 VDC output models have overvoltage protection. Other pertinent specifications include $\pm 2.0\%$ output voltage accuracy, 90 to 130 VAC or 180 to 260 VAC input voltage range, and 900 to 1500 VAC isolation voltage. In addition, the HE300 series has remote sensing to compensate for up to 0.3V drop in the load distribution lines.

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See list on pages 175 & 176



SPECIFICATIONS

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

OUTPUT SPECIFICATIONS

Voltage Accuracy	$\pm 2.0\%$, max.
Temperature Coefficient	
HM Series	$\pm 0.03\%/^{\circ}\text{C}$
HE Series	$\pm 0.02\%/^{\circ}\text{C}$
Warm-Up Drift, HM330, HM530	$\pm 0.5\%$
Other HM Series	$\pm 0.2\%$
HE Series	$\pm 0.4\%$, max.
Overvoltage Crowbar	6.2V
Short Circuit Protection	Automatic

INPUT SPECIFICATIONS

Input Voltage Range	
HM Series	90 VAC to 130 VAC
HE Series	100 VAC to 130 VAC
HM Series, "E" Suffix	180 VAC to 260 VAC
HE Series, "E" Suffix	200 VAC to 260 VAC
Input Frequency, HM Series	50 to 400 Hz
HE Series	47 to 400 Hz
Input Filter, HE Series	Pi Network & Balun

GENERAL SPECIFICATIONS

Efficiency, HM330, HM530	60%
Other HM Series	70%
HE Series	75%
Isolation Voltage	
HM330, HM530	2000 VAC RMS, min.
Other HM Series	1500 VAC RMS, min.
HE Series	
115 VAC Input	900 VAC RMS, min.
230 VAC Input	1500 VAC RMS, min.
Isolation Capacitance, HM Series	50 pF
HE Series	100 pF
Isolation Resistance	50 megohms
Switching Frequency	25 kHz

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature Range	-25°C to $+71^{\circ}\text{C}$
Derating, 50°C to 70°C	$2.5\%/^{\circ}\text{C}$
Storage Temperature Range	-25°C to $+85^{\circ}\text{C}$
Humidity, Non-Condensing	20% to 95% RH
Cooling	Free-Air Convection

PHYSICAL SPECIFICATIONS

Weight, B2 Case	12 oz. (340 grams)
C1 Case	16 oz. (454 grams)
Case Material	Non-Conductive Black Plastic
Mating Sockets, Case B2	MS-013-0

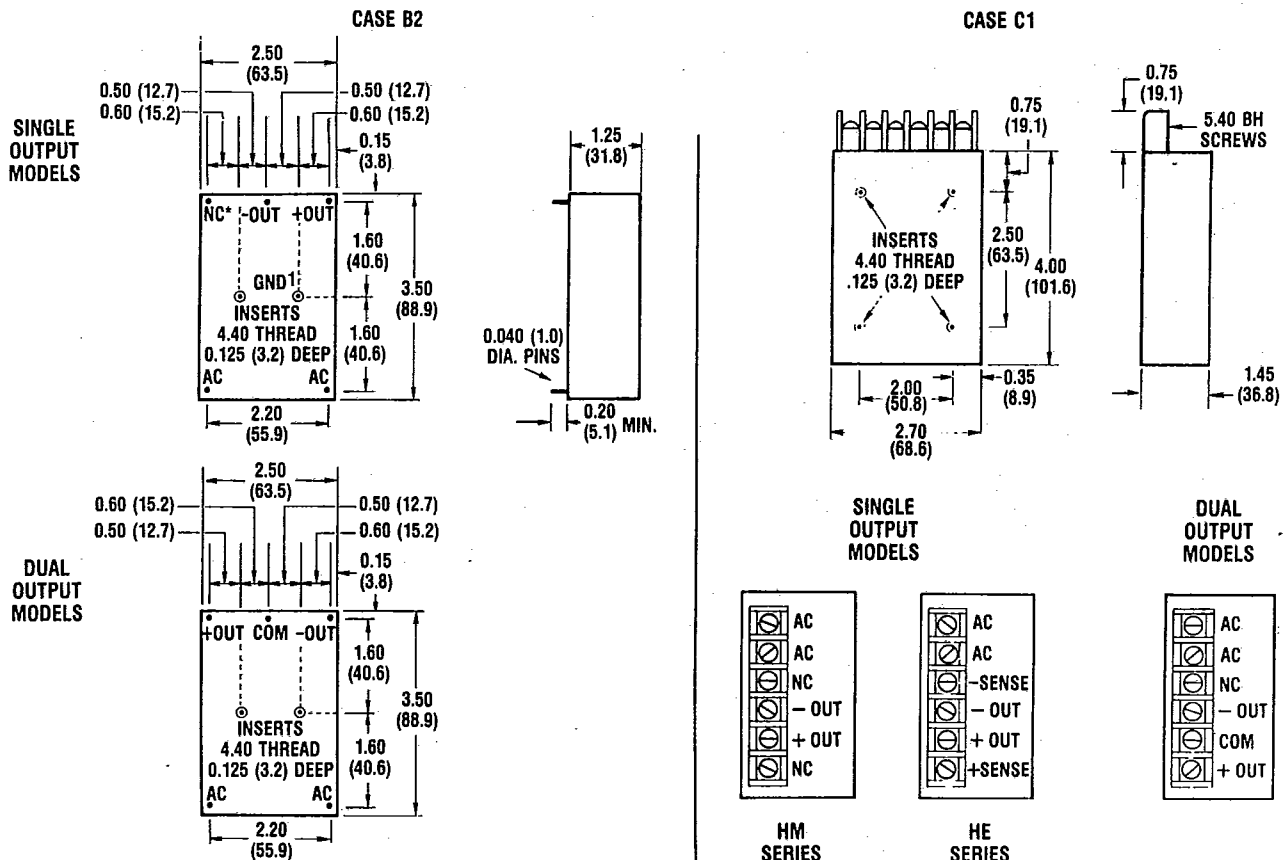
Input Voltage	Suffix
115 VAC	NONE
230 VAC	E

TWO-YEAR WARRANTY



15 and 25 Watt AC/DC Switching Modules

OUTPUT VOLTAGE	OUTPUT CURRENT	OVP	REGULATION		RIPPLE AND NOISE	INPUT FILTER AND SHIELD	REMOTE SENSE	CASE	MODEL NUMBER
			LINE	LOAD					
15 WATT PC MOUNTABLE									
5 VDC	3.0 A	✓	±0.05%	±0.1%	50 mV P-P			B2	HM530
12 VDC	1.25 A		±0.05%	±0.1%	50 mV P-P			B2	HM503
15 VDC	1.0 A		±0.05%	±0.1%	50 mV P-P			B2	HM504
±12 VDC	±625 mA		±0.05%	±0.1%	50 mV P-P			B2	HM551
±15 VDC	±500 mA		±0.05%	±0.1%	50 mV P-P			B2	HM552
15 WATT CHASSIS MOUNTABLE									
5 VDC	3.0 A	✓	±0.05%	±0.2%	100 mV P-P			C1	HM330
12 VDC	1.25 A		±0.05%	±0.1%	100 mV P-P			C1	HM303
15 VDC	1.0 A		±0.05%	±0.1%	100 mV P-P			C1	HM304
±12 VDC	±625 mA		±0.05%	±0.1%	100 mV P-P			C1	HM351
±15 VDC	±500 mA		±0.05%	±0.1%	100 mV P-P			C1	HM352
25 WATT PC MOUNTABLE									
5 VDC	5.0 A	✓	±0.05%	±0.1%	100 mV P-P	✓		B2	HE581
12 VDC	2.2 A		±0.05%	±0.1%	100 mV P-P	✓		B2	HE583
15 VDC	1.8 A		±0.05%	±0.1%	100 mV P-P	✓		B2	HE584
25 WATT CHASSIS MOUNTABLE									
5 VDC	5.0 A	✓	±0.05%	±0.1%	100 mV P-P	✓	✓	C1	HE381
12 VDC	2.2 A		±0.05%	±0.1%	100 mV P-P	✓	✓	C1	HE383
15 VDC	1.8 A		±0.05%	±0.1%	100 mV P-P	✓	✓	C1	HE384

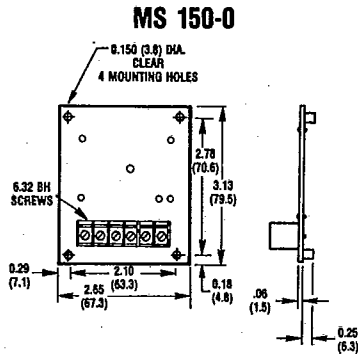
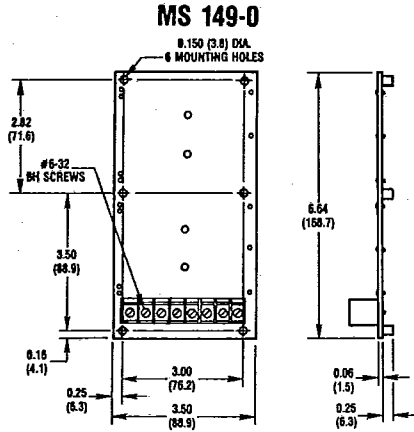


NOTE: Applies to HE500 Series only.

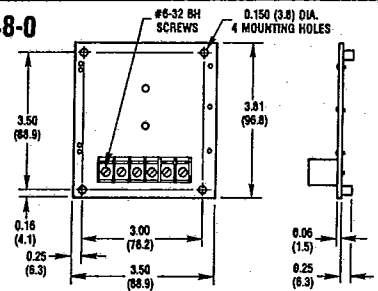
ALL DIMENSIONS IN INCHES (mm)

Accessories

TERMINAL STRIP TYPE



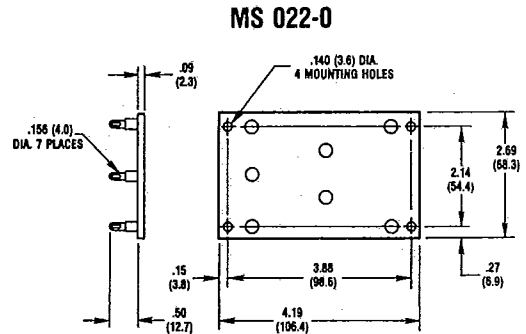
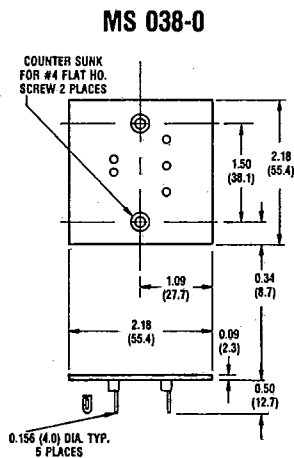
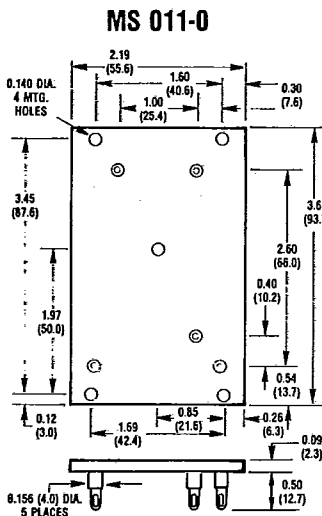
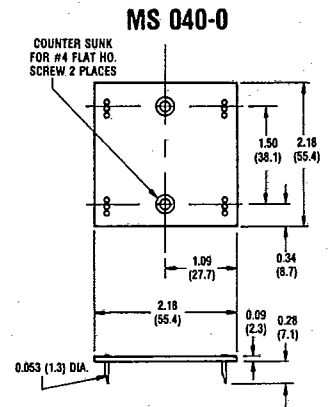
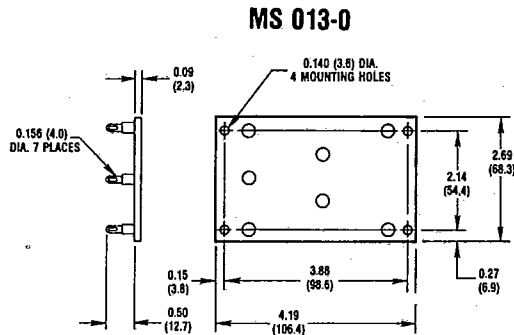
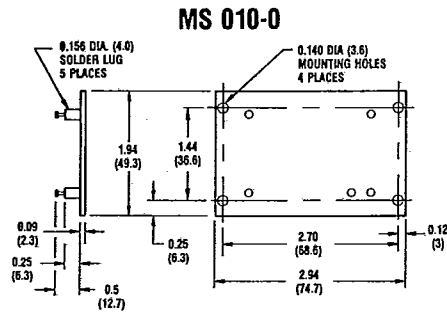
MS 148-0



Power Supply Case Size	Mating Socket Model No.
A (One Supply)	MS150-0
B1, B2, B3 (One Supply)	MS148-0
B1, B2, B3 (Two Supplies)	MS149-0

ALL DIMENSIONS IN INCHES (mm)

SOLDER LUG TYPE



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(305) 974-2442

Power Supply Case Size	Mating Socket Model No.
A	MS010-0
B2, B2, B3	MS013-0*
B2, B3	MS022-0*
G	MS038-0
GA	MS040-0
H	MS011-1

* NOTE: For suffix "S" power supplies (2.00 inch AC pin spacing) specify either MS013-1 or MS022-1.

ALL DIMENSIONS IN INCHES (mm)