

- CHASSIS-MOUNT AC/DC MODULAR POWER SUPPLIES
- UNIVERSAL AC INPUT RANGE
- GREEN POWER DESIGN
- MEET MEDICAL STANDARD EN60601-1/UL60601-1
- EMI MEETS CISPR PUB.22/FCC CLASS B
- CE MARKING COMPLIANCE

**Input Voltage:** 90-264Vac typical.

**Input Frequency:** 47-63 Hz. (Nominal 50/60Hz.).

**Input Current:** 0.16A @115Vac./0.1A @230Vac typical.

**Inrush Current:** 4.2Arms@230Vac typical.

**Input Fuse:** Use external fuse.

**Dielectric Withstand:** Meet IEC60601-1.  
4,000Vac-Output/Input.  
2,000Vac-Input/GND.  
1,000Vac-Output/GND.

**EMI:** Meet CISPR PUB. 22/FCC Class B.

**Hold-up time:** Typ. 22.4 mS @115Vac, 130mS @230Vac.

**Green Power:** 0.25W@132Vac, 0.51W@230Vac for single.

**Earth Leakage:** Less than 0.16mA @230Vac.

**Remote ON/OFF:**  
ON(Enable)=Open.  
OFF(Disable)=Short.

**Output Voltage:** See Ratings Chart.  
**Output Current:** See Ratings Chart.  
**Output Wattage:** 10 Watts typical.  
**Line Regulation:** Various with output voltage. Typ.  $\pm 0.1\%$ .  
**Load Regulation:** Various with output voltage.  
     Main VO1  $\pm 0.1$ -2.0% typical.  
     Aux. VO2  $\pm 0.7$ -1.2% typical.  
     Aux. VO3  $\pm 0.1\%$  typical.  
**Total Regulation:** 0.1-1.9% typical.  
**Noise & ripple:** 1.0% typical peak to peak.  
     Typ. 100mV for 3.3V/5V.  
**OVP:** Built-in on main output VO1.  
**Adjustability:** Available at main output VO1.  
**Overload Protection (OLP):**  
     Fully protected against output overload and short circuit.  
     Typical 125-150% of rating output load.  
     Consult the factory for special OLP setting.

**Operating Temperature:** 0°C to +50°C range. @ full load without derating.  
From +50°C derating linearly to half load @ +70°C  
(Refer to the Derating Chart).

**Storage Temperature:** -20°C to +85°C.

**Temperature Coefficient:**  $\pm 0.03\% / ^\circ\text{C}$ .

**Cooling:** Convection cooling for +50°C @ full load.

**Medical Grade only.**

NOTE: (1) All measurements are at nominal input, full load, and +25°C unless otherwise specified.  
 (2) Load Regulation measured from Full-Load (F-L) to Half-Load (H-L) at nominal input and others loaded at half load.  
 (3) Due to requests in market and advances in technology, specifications subject to change without notice.

## OUTPUT VOLTAGE/ CURRENT RATINGS CHART

### SINGLE OUTPUT

| MODEL NO.       | VO1 ★@<br>TYP. VOLT. |
|-----------------|----------------------|
| HASM10G-S033250 | 2.50A +3.3V          |
| HASM10G-S050200 | 2.00A +5.0V          |
| HASM10G-S090111 | 1.11A +9.0V          |
| HASM10G-S120085 | 0.85A +12.0V         |
| HASM10G-S150067 | 0.67A +15.0V         |
| HASM10G-S240041 | 0.41A +24.0V         |

### DUAL OUTPUT

| MODEL NO.    | VO1 ★@<br>TYP. VOLT. | VO2●<br>TYP. VOLT. |
|--------------|----------------------|--------------------|
| HASM10-D050E | 1.00A +5V            | 1.00A -5V          |
| HASM10-D050I | 1.00A +5V            | 0.42A +12V         |
| HASM10-D120I | 0.42A +12V           | 0.42A -12V         |
| HASM10-D150K | 0.34A +15V           | 0.34A -15V         |
| HASM10-D033E | 1.51A +3.3V          | 1.00A -5V          |

### TRIPLE OUTPUT

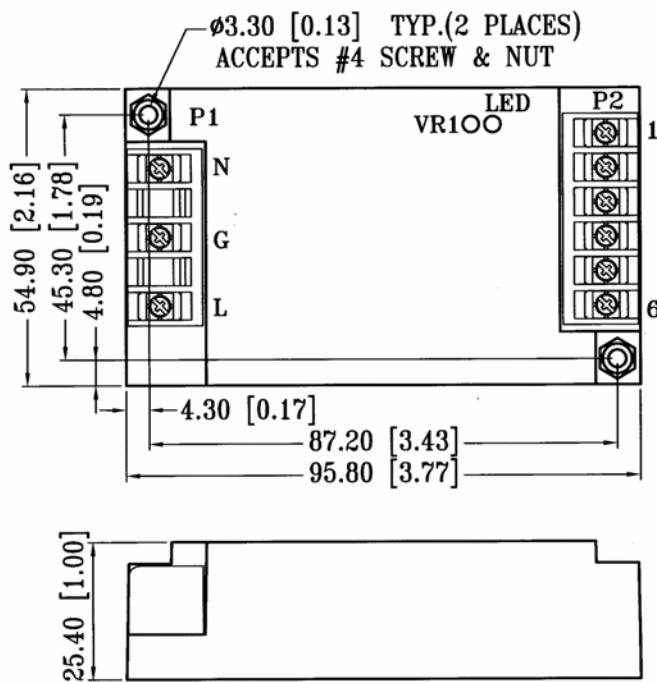
| MODEL NO.     | VO1 @ ★<br>TYP. VOLT. | VO2 ●<br>TYP. VOLT. | VO3 ●<br>TYP. VOLT. |
|---------------|-----------------------|---------------------|---------------------|
| HASM10-T033II | 1.51A +3.3V           | 0.10A +12V          | 0.10A -12V          |
| HASM10-T050II | 1.50A +5.0V           | 0.10A +12V          | 0.10A -12V          |
| HASM10-T050KK | 1.40A +5.0V           | 0.10A +15V          | 0.10A -15V          |

Symbols: "★" OVP built-in. "@" Adjustable. "●" Installed with Post Regulator (P.R.).

Note: (1) Max. (maximum load) is the continuous operating load of each rail, but the max. load of each rail can not be drawn from all outputs at the same time.

## MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT: 177.5g ( 6.26Oz.)



## PIN ASSIGNMENT

| PIN NO. | SINGLE O/P    | DUAL O/P(-VO2) | DUAL O/P(+VO2) | TRIPLE O/P    |
|---------|---------------|----------------|----------------|---------------|
| P1-1    | L             | L              | L              | L             |
| P1-3    | N             | N              | N              | N             |
| P1-2    | G             | G              | G              | G             |
| P2-1    | REMOTE ON/OFF | REMOTE ON/OFF  | REMOTE ON/OFF  | REMOTE ON/OFF |
| P2-2    | DC COM        | VO2            | DC COM         | +VO1RET       |
| P2-3    | DC COM        | DC COM         | DC COM         | +VO1          |
| P2-4    | VO1           | DC COM         | VO1            | +VO3          |
| P2-5    | VO1           | VO1            | VO2            | DC COM        |
| P2-6    | NC            | NC             | NC             | VO2           |

## DERATING CHART

