

## UNIVERSAL OR U.S. INPUT RANGE AC TO DC EXTERNAL WALLMOUNT ADAPTERS SINGLE OUTPUT 12 WATTS SWITCHING POWER SUPPLIES HES12 OR HES12B SERIES



### FEATURES:

- LOW COST WALLMOUNT ADAPTER
- DIVERSE AC PLUGS AVAILABLE
- MEET DIVERSE SAFETY STANDARDS
- EMI MEET EN 55022 OR FCC CLASS B
- CE MARKING COMPLIANCE

### SPECIFICATION

#### INPUT SPECIFICATION

**Input Voltage:** HES12 typ. 90-264Vac, rating 100-240Vac.  
HES12B typ. 90-132Vac, rating 120Vac.

**Input Connector:**

HES12: WM1 (U.S.2-blade)/WM3 (Euro-stecker)/DT8(IEC320-2P).  
HES12B: WM1 (U.S.2-blade).

**Input Frequency:** 47-63Hz.

**Inrush Current:**

HES12: Typ. 28A @ 230Vac by adding thermister.  
HES12B: Typ. 22.5A @ 115Vac.

**Input Current:** HES12 Typ. 0.15A @ 230Vac.  
HES12B Typ. 0.24A @ 115Vac.

**Dielectric Withstand:** Meet IEC950.

**EMI:** Meet EN 55022 or FCC Class B.

**Hold-up Time:** Typ. 13.2mS@115Vac/42.0mS@230Vac.

#### OUTPUT SPECIFICATION

**Output Voltage:** See Ratings Chart.

**Output Current:** See Ratings Chart.

**Output Wattage:** Typ. 12 Watts.

**Output Connector:** Optional.

**Line Regulation:** Typ. 0.1%.

**Load Regulation:** Typ.  $\pm 2-3\%$ .

**Noise & Ripple:** Typ. 1.0% peak to peak.

**OVP:** Built-in. By Zener diode clamping.

**Adjustability:** Factory set.

**Overload Protection (OLP):** Fully protected against output overload or short circuit.  
Typ. 120-150% max. load.  
Consult the factory for special OLP setting

#### GENERAL SPECIFICATION

**Efficiency:** Typ. 80.5%.

**Switching Frequency:** Typ. 56-76K Hz. @ full load.

**Circuit Topology:** Free-running flyback circuit.

**Transient Response:** Output voltage returns typ. 1mS following a 25% load change.

**Safety Standard:** UL1950/EN60950.Class II.

**Power Density:** 2.3 Watts. / Cubic Inch.

**Operating Temperature:** 0 to +40°C.

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

**Temperature Coefficient:** Typ. 0.04% /°C.

**Cooling:** Free air convection.

**Construction:** Impact resistant thermo-plastic enclosure case.

**Wallmount or Desktop format.**

Notes: (1) All measurements are at nominal input, full load, and +25°C unless otherwise specified.

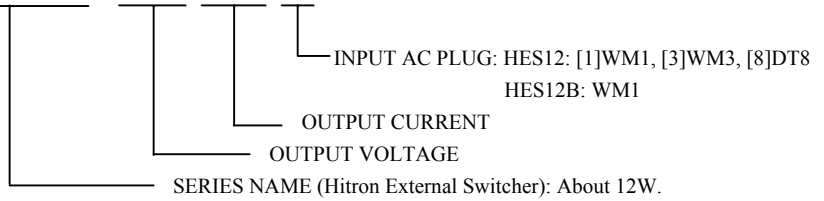
(2) Load regulation is measured at 230Vac or 120Vac in percentage to indicate the change in output voltage as the load is varied from half load to full load ( $\pm\%$ ).

(3) The exact obtainable load regulation depends upon the output cord selected and load current. Upper data are for 6 ft. (2 m) cord AWG#18 wires.



**MODEL NO. DESCRIPTION: HES12 or B - XXX YYY - S**

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**OUTPUT VOLTAGE/CURRENT RATINGS CHART**

**SINGLE OUTPUT**

MODEL NO.	AC INPUT	AC PLUG	O/P VOLTAGE	O/P CURRENT	FORMAT
HES12-033240-1,3,8	90-264Vac	WM1/WM3/DT8	3.3V	2.40A	Wallmount/Desktop
HES12B-033240	120Vac	WM1	3.3V	2.40A	Wallmount
HES12-050240-1,3,8	90-264Vac	WM1/WM3/DT8	5.0V	2.40A	Wallmount/Desktop
HES12B-050240	120Vac	WM1	5.0V	2.40A	Wallmount
HES12-060200-1,3,8	90-264Vac	WM1/WM3/DT8	6.0V	2.00A	Wallmount/Desktop
HES12B-060200	120Vac	WM1	6.0V	2.00A	Wallmount
HES12-065180-1,3,8	90-264Vac	WM1/WM3/DT8	6.5V	1.80A	Wallmount/Desktop
HES12B-065180	120Vac	WM1	6.5V	1.80A	Wallmount
HES12-075160-1,3,8	90-264Vac	WM1/WM3/DT8	7.5V	1.60A	Wallmount/Desktop
HES12B-075160	120Vac	WM1	7.5V	1.60A	Wallmount
HES12-090130-1,3,8	90-264Vac	WM1/WM3/DT8	9.0V	1.30A	Wallmount/Desktop
HES12B-090130	120Vac	WM1	9.0V	1.30A	Wallmount
HES12-120100-1,3,8	90-264Vac	WM1/WM3/DT8	12.0V	1.00A	Wallmount/Desktop t
HES12B-120100	120Vac	WM1	12.0V	1.00A	Wallmount
HES12-150080-1,3,8	90-264Vac	WM1/WM3/DT8	15.0V	0.80A	Wallmount/Desktop
HES12B-150080	120Vac	WM1	15.0V	0.80A	Wallmount
HES12-240050-1,3,8	90-264Vac	WM1/WM3/DT8	24.0V	0.50A	Wallmount/Desktop
HES12B-240050	120Vac	WM1	24.0V	0.50A	Wallmount
HES12-480025-1,3,8	90-264Vac	WM1/WM3/DT8	48.0V	0.25A	Wallmount/Desktop
HES12B-480025	120Vac	WM1	48.0V	0.25A	Wallmount

**MECHANICAL DIMENSIONS: MM [INCHES]**

**WEIGHT: 113g (4.0 Oz.)**

