



## AC TO DC EXTERNAL WALLMOUNT ADAPTOR 2-BLADE USA OR EURO-STECKER AC PLUG SINGLE OUTPUT 5 WATTS SWITCHING POWER SUPPLIES HES05 SERIES



### FEATURES:

- VERY SMALL & COMPACT IN SIZE
- 2-BLADE USA OR EURO-STECKER AC PLUG
- EMI MEET EN55022 / FCC CLASS B
- MEET USA, JAPAN & EUROPEAN STANDARDS
- CE MARKING COMPLIANCE

### SPECIFICATION

#### INPUT SPECIFICATION

**Input Voltage:** 90-132 or 90-264Vac typical.  
**Input Connector:** 2-blade USA WM1 or  
Euro-Stecker WM3 AC plug.  
**Input Frequency:** 47-63Hz.  
**Inrush Current:** Typical 27A @ 230Vac.  
**Input Current:** 0.16-0.12A within 90-132Vac or  
0.16-0.07A within 90-264Vac.  
**Dielectric Withstand:** Meet IEC 950.  
**EMI:** Meet EN55022 / FCC Class B.  
**Hold-up Time:** 15mS @115Vac or  
32mS @230Vac typical.

#### OUTPUT SPECIFICATION

**Output Voltage:** See Ratings Chart.  
**Output Current:** See Ratings Chart.  
**Output Wattage:** 5 Watts typical.  
**Output Connector:** Optional.  
**Line Regulation:** 0.1% typical.  
**Load Regulation:**  $\pm 1.5 \sim 3.0\%$ .  
**Noise & Ripple:** 1 % peak to peak typical.  
**OVP:** Built-in, Zener diode clamping.  
**Adjustability:** Factory set.  
**Overload Protection:** Typ. 125~150% of max. power  
overrange or short circuit, power foldback  
& self-recovering.

#### GENERAL SPECIFICATION

**Efficiency:** 70% typical.  
**Switching Frequency:** 50-200K Hz.  
**Circuit Topology:** Free running flyback circuit.  
**Transient Response:** Output voltage returns in  
less than 3mS following a 25% load change.  
**Safety Standard:** UL1950 / EN60950 Class II.  
**Power Density:** 1.00 Watts / Cubic Inch.

**Operating Temperature:** 0 to +40°C.  
**Storage Temperature:** -20 to +85°C.  
**Temperature Coefficient:** 0.04% / °C.  
**Cooling:** Free air convection.  
**Construction:** Impact resistant plastic enclosure case.  
**Wallmount format.**

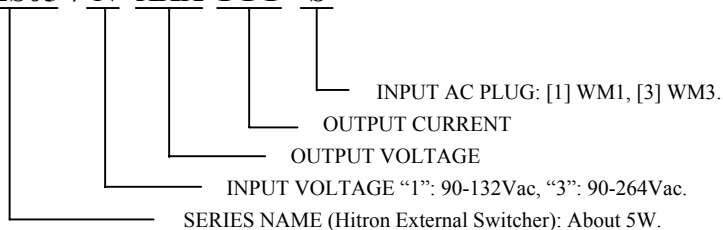
Notes: (1) All measurements are at nominal input, full load, and +25°C unless otherwise specified.

(2) Load regulation is measured at 115Vac or 230Vac 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.



For the details of safety approval, please consult the factory.

**MODEL NO. DESCRIPTION: HES05 / N XXX YYY - S****OUTPUT VOLTAGE/CURRENT RATINGS CHART**

DEFINED OUTPUT VOLTAGE (Vdc)	OUTPUT VOLTAGE (Vdc) / CURRENT (A)
$3.3\text{ Vdc} \leq \text{Any Voltage} < 12.0\text{Vdc}$	3.3-4.0V/1.25-1.2A, 4.1-4.9V/1.18-1.02A, 5.0-6.4V/1.0-0.8A, 6.5-7.5V/0.79-0.7A, 7.6-8.7V/0.69-0.6A, 8.8-10.5V/0.59-0.5A, 10.6-11.9V/0.49-0.44A.
$12.0\text{Vdc} \leq \text{Any Voltage} \leq 24.0\text{Vdc}$	12.0-13.0V/0.43-0.4A, 13.1-15.0V/0.4-0.35A, 15.1-17.4V/0.34-0.3A, 17.5-18.7V/0.29-0.28A, 18.8-20.9V/0.27-0.25A, 21.0-24.0V/0.24-0.2A.

Note: Refer to the upper Chart or consult factory for the exact Model No. and V/A ratings.

**SINGLE OUTPUT** *(Model No. for example.)*

MODEL NO.	AC INPUT	AC PLUG	O/P VOLTAGE	O/P CURRENT
HES05/1-033125-1	90-132Vac	WM1	3.3V	1.25A
HES05/3-035123-3	90-264Vac	WM3	3.5V	1.23A
HES05/3-036122-1	90-264Vac	WM1	3.6V	1.22A
HES05/1-050100-1	90-132Vac	WM1	5.0V	1.00A
HES05/3-052096-1	90-264Vac	WM1	5.2V	0.96A
HES05/3-053094-3	90-264Vac	WM3	5.3V	0.94A
HES05/1-090057-1	90-132Vac	WM1	9.0V	0.57A
HES05/3-120043-1	90-264Vac	WM1	12.0V	0.43A
HES05/3-150035-3	90-264Vac	WM3	15.0V	0.35A
HES05/1-180028-1	90-132Vac	WM1	18.0V	0.28A
HES05/3-240020-3	90-264Vac	WM3	24.0V	0.20A

**MECHANICAL DIMENSIONS: MM [INCHES]****WEIGHT: 113.0g (4.0 Oz.)**