

## AC/DC MEDICAL APPLICATION EXTERNAL ADAPTER UNIVERSAL INPUT SINGLE OUTPUT 22-24 WATTS SWITCHING POWER SUPPLIES HES22 SERIES



### FEATURES:

- UNIVERSAL AC SOURCES
- DESKTOP IEC320 AC RECEPTACLE
- MEDICAL STANDARDS EN60601-1/  
UL2601-1
- EMI MEET EN55011 / FCC CLASS B
- CE MARKING COMPLIANCE

### SPECIFICATION

#### INPUT SPECIFICATION

**Input Voltage:** 90-264Vac typical.  
**Input Connector:** IEC320-3P DT7 AC receptacle.  
**Input Frequency:** 47-63Hz.  
**Inrush Current:** 30A @ 230Vac & 15A @ 110Vac typical.  
**Input Current:** 0.60A @ 115Vac typical.  
 0.30A @ 230Vac typical.  
**Dielectric Withstand:** Meet IEC60601-1.  
**EMI:** Meet EN 55011 & FCC CLASS B.  
**Hold-up Time:** 16mS @ 115Vac typical.  
 64mS @ 230Vac typical.  
**Earth Leakage:** Less than 0.1 mA @ 264Vac.

#### OUTPUT SPECIFICATION

**Output Voltage:** See Ratings Chart.  
**Output Current:** See Ratings Chart.  
**Output Wattage:** 22-24Watts typical.  
**Output Connector & Cord:** Optional.  
**Line Regulation:** 0.1% typical.  
**Load Regulation:** ±1.5-3.0 % typical.  
**Noise & Ripple:** 1.0% typical peak to peak.  
**OVP:** Built-in, by latched circuit.  
**Adjustability:** Factory set.  
**Overload Protection (OLP):**  
 Fully protected against output overload and short circuit.  
 OLP set at about 125-150% rating output wattage.  
 Consult the factory for OLP setting.

#### GENERAL SPECIFICATION

**Efficiency:** 80% typical.  
**Switching Frequency:** 75K Hz typical.  
**Circuit Topology:** Fixed Frequency Flyback circuit.  
**Transient Response:** Output voltage returns in less than  
 3mS following a 50% load change.  
**Safety Standard:** Meet Medical standards EN 60601-1/  
 UL 2601-1 Class I.  
**Power Density:** 1.75Watts / Cubic inch.

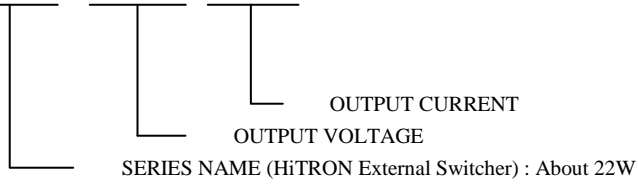
**Operating Temperature:** 0 to +25/35/40°C  
 without derating. (various with output voltage)  
**Storage Temperature:** -20 to +85°C.  
**Temperature Coefficient:** 0.04% /°C typical.  
**Cooling:** Free air convection.  
**Construction:** Impact resistant thermo- plastic  
 enclosure case SE100 94V.0 Nylon.  
**Desktop construction format.**

NOTE: (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 varied from half load to full load(±%).  
 (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.  
 (4) Due to requests in market and advances in technology, specifications subject to change without notice.



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

**MODEL NO. DESCRIPTION: HES22 - X X X Y Y Y**



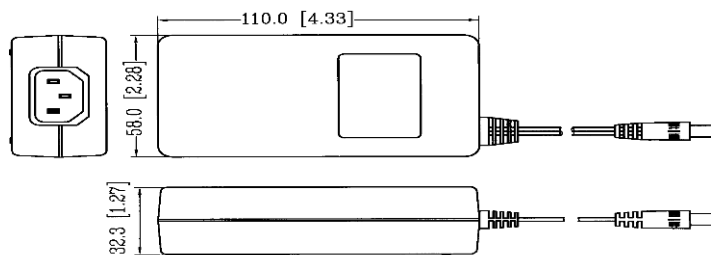
**OUTPUT VOLTAGE/CURRENT RATINGS CHART**

**SINGLE OUTPUT**

MODEL NO.	AC PLUG	O/P VOLTAGE	O/P CURRENT
HES22-033400	DT7	3.3Vdc	4.00A
HES22-050400	DT7	5.0Vdc	4.00A
HES22-075300	DT7	7.5Vdc	3.00A
HES22-090250	DT7	9.0Vdc	2.50A
HES22-120200	DT7	12.0Vdc	2.00A
HES22-150160	DT7	15.0Vdc	1.60A
HES22-210115	DT7	21.0Vdc	1.15A
HES22-240100	DT7	24.0Vdc	1.00A
HES22-300080	DT7	30.0Vdc	0.80A

**MECHANICAL DIMENSIONS: MM [INCHES]**

**WEIGHT: 206.0g (6.23 Oz.).**



HES22\_HES24  
B00110A