H HiTRON

AC/DC EXTERNAL DESKTOP ADAPTER UNIVERSAL INPUT MULTIPLE OUTPUT 14-16 WATTS SWITCHING POWER SUPPLIES HES14 SERIES



FEATURES:

- **ACCOMMODATE UNIVERSAL AC SOURCES**
- **DESKTOP WITH IEC320 AC RECEPTACLE**
- **MEET UNIVERSAL SAFETY STANDARDS**
- **EMI MEET EN55022/ 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: 26A @230Vac typical.

Input Current: 0.4A @115Vac/ 0.2A @230Vac typical.

Dielectric Withstand: Meet IEC60950.

EMI: Meet EN55022 / FCC Class B.

Hold-up Time: 10mS @115Vac or
40mS @230Vac typical.

OUTPUT SPECIFICATION

Output Voltage: See Ratings Chart.
Output Current: See Ratings Chart.
Output Wattage: 14-16 Watts typical.
Output Connector & Cord: Optional.
Line Regulation: 0.1% typical.
Load Regulation: Main O/P VO1 ±1.5-3.0% typical.
Aux. O/P VO2 ±3.0-5.0% typical.
Aux. O/P VO3 ±1.0-2.0% typical with P.R.
Noise & Ripple: 1.0% peak to peak typical.
OVP: Built-in "Latch type" on main output VO1 only.
Latch type or Zener diode clamp for dual output series.
Overload Protection:
125-150% typical of max. power overrange or
short circuit, power foldback & self-recovering.

GENERAL SPECIFICATION

Efficiency: 74-78% typical.
Switching Frequency: Approximate 35K Hz.
Circuit Topology: Fixed Frequency Flyback circuit.
Transient Response: Output voltage returns in less than 3mS following a 25% load change.
Safety Standard: Meet UL60950/ EN60950 Class I.
Class II for dual output series.
Power Density: 1.12Watts / Cubic inch.

Operating Temperature: 0 °C to room temperature.
Storage Temperature: -20°C to +85°C.
Temperature Coefficient: 0.04%/°C typical.
Cooling: Free air convection.
Construction: Impact resistant thermo-plastic enclosure case.
Desktop 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 is 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.

In application

OUTPUT VOLTAGE/CURRENT RATINGS CHART

SINGLE OUTPUT

MODEL NO.	MAIN O/P VO1 ★	
	TYP.	VOLT.
HES14-10	2.50A	**5.0Vdc**
HES14-10A	2.20A	**6.2Vdc**
HES14-11	1.25A	**12.0Vdc**
HES14-12	1.00A	**15.0Vdc**
HES14-14	1.40A	**9.5Vdc**
HES14-16	1.50A	**9.0Vdc**
HES14-19	3.00A	**3.3Vdc**

DUAL OUTPUT

MODEL NO.	MAIN O/P VO1 ★			AUX. O/P VO2 †		
	TYP.	VOLT.	MAX.	TYP.	VOLT.	MAX.
HES14-21	1.0A	**+5.0Vdc**	1.5A	0.75A	**+12Vdc**	1.5A
HES14-22	1.0A	**+5.0Vdc**	1.5A	0.60A	**+15Vdc**	1.2A
HES14-23	1.0A	**+5.0Vdc**	1.5A	0.40A	**+24Vdc**	0.8A
HES14-291	1.0A	**+3.3Vdc**	1.5A	0.75A	**+12Vdc**	1.5A
HES14-292	1.0A	**+3.3Vdc**	1.5A	0.60A	**+15Vdc**	1.2A
HES14-293	1.0A	**+3.3Vdc**	1.5A	0.40A	**+24Vdc**	0.8A

TRIPLE OUTPUT

MODEL NO.	MAIN O/P VO1 ★			AUX. O/P VO2 †			AUX. O/P VO3 ●		
	TYP.	VOLT.	MAX.	TYP.	VOLT.	MAX.	TYP.	VOLT.	MAX.
HES14-30A	0.75A	**+5Vdc**	2.0A	1.0A	**+12Vdc**	1.0A	0.05A	**-12Vdc**	0.5A
HES14-30	1.50A	**+5Vdc**	2.0A	0.2A	**+12Vdc**	0.5A	0.20A	**-12Vdc**	0.4A
HES14-31	1.50A	**+5Vdc**	2.0A	0.2A	**+12Vdc**	0.5A	0.50A	**-5Vdc**	0.9A
HES14-32	1.50A	**+5Vdc**	2.0A	0.1A	**+24Vdc**	0.3A	0.20A	**-12Vdc**	0.4A
HES14-33	1.50A	**+5Vdc**	2.0A	0.2A	**+15Vdc**	0.4A	0.50A	**-5Vdc**	0.8A
HES14-34	1.50A	**+5Vdc**	2.0A	0.2A	**+15Vdc**	0.4A	0.15A	**-15Vdc**	0.3A

Symbol: "★" OVP Built-in. "●" Installed with Post Regulator (P.R.). " †" Stacked on main output.
Remark: (1) At least 20% of typical main output current is required to maintain stated regulation.
(2) Max. load is the continuous operating load of each rail. But the max. load of each rail can not be drawn from all output at the same time.

MECHANICAL DIMENSIONS: MM [INCHES] **WEIGHT:** 330.0g (11.6 Oz.).

