



AUTO-RANGING INPUT AC TO DC EXTERNAL DESKTOP ADAPTER MULTIPLE OUTPUT 100-120 WATTS SWITCHING POWER SUPPLIES HES100 SERIES



FEATURES:

- AUTO-RANGING ACCOMMODATE AC SOURCES IN THE WORLD
- IMPACT RESISTANT THERMO-PLASTIC LOW-PROFILE ENCLOSURE
- MEET UNIVERSAL SAFETY STANDARDS
- CONDUCTED EMI MEET EN55022 / FCC CLASS B, RADIATED EMI MEET CLASS A
- CE MARKING COMPLIANCE

SPECIFICATION

INPUT SPECIFICATION

Input Voltage: Auto-ranging 115Vac for range 90-132Vac and 230Vac for range 180-264Vac.
Transient threshold 150Vac typical.

Input Connector: IEC320 3P AC Inlet/Outlet receptacle, with AC On/Off switch.

Input Frequency: 47-63Hz.

Inrush Current: 20A peak. @115Vac, 40A @230Vac.

Input Current: 2.5A @115Vac, 1.1A @ 230Vac.

Dielectric Withstand: Meet IEC950.

EMI: Conducted EMI meet EN55022 / FCC Class B.
Radiated EMI meet Class A,

Hold-up Time: 22mS @115Vac./ 27mS @230Vac.

Power Fail Signal: Option in all series.

Logic Inhibit: Optional in single & dual output series.

Remote Sensing: Optional for single & dual output series.

OUTPUT SPECIFICATION

Output Voltage: See Ratings Chart.

Output Current: See Ratings Chart.

Output Wattage: Typ.100-120 Watts.

Output Connector & Cable: Optional.
Cord length typ. 3 ft.(1 meter).

Line Regulation: VO1, VO3 & VO4 $\pm 0.1\%$ typ.
Aux.VO2 $\pm 0.5\%$ typ.

Load Regulation: At strain relief end.

Main O/P VO1 $\pm 1.0\%$ typ.

Aux. O/P VO2 $\pm 2.0\%$ typ. with Mag. Amp. or $\pm 5.0\%$ typ. with Stacked on.

Aux. O/P VO3 & VO4 $\pm 1.5\%$ typ. with PR.

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

OVP: Main O/P only set @124% $\pm 8\%$ VO1.

Overload Protection: 125-150% of max. power overrange or short circuit, power foldback & self-recovering.

GENERAL SPECIFICATION

Efficiency: Typ. 75%.

Switching Frequency: Fixed Frequency at 100K Hz.

Circuit Topology: Fixed Frequency Forward circuit.

Transient Response: Output voltage returns in less than 3mS following a 25% load change.

Safety Standard: UL1950/EN60950 Class I.

Construction: Desktop enclosure plastic box.

Power Density: 0.88Watts / Cubic Inch.

Operating Temperature: 0 to +40°C.

Storage Temperature: -20 to +85°C.

Temperature Coefficient: 0.04% /°C.

Cooling: Built-in 6.5CFM 40mm fan cooling.

Long Term Stability: After 20 minutes warm-up, 0.1% for 8 hours.

Industrial or Commercial Grade Option:

" Industrial" higher MTBF, " Commercial" lower cost.

Note: (1) At least 20% of typical main output current is required to maintain stated regulation.

(2) Cord length typical 3 ft. (or 1 meter).



OUTPUT VOLTAGE/CURRENT RATINGS CHART

11/11/2002

SINGLE OUTPUT

MODEL NO.	MAIN O/P VO1 ★#		
	Typ.	Volt.	Peak
HES100-11	8.3A	12.0V	10.0A
HES100-12	6.7A	15.0V	8.0A
HES100-13	4.2A	24.0V	5.0A
HES100-15	2.0A	48.0V	2.5A

DUAL OUTPUT

MODEL NO.	MAIN O/P VO1 ★◇			AUX. O/P VO2 ▲◇		
	Typ.	Volt.	Max.	Typ.	Volt.	Max.
HES100-21	10.0A	5.0V	15.0A	4.0A	5.0V	3.5A
HES100-22	10.0A	5.0V	15.0A	3.0A	12.0V	3.0A
HES100-23	6.0A	5.0V	12.0A	3.0A	24.0V	3.0A
HES100-24	4.5A	12.0V	5.0A	4.5A	12.0V	5.0A
HES100-25	3.5A	15.0V	5.0A	3.4A	15.0V	4.0A

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.
HES100-30	12.0A	+5.0V	13.0A	3.0A	+12.0V	3.5A	0.8A	12.0V	1.0A
HES100-31	12.0A	+5.0V	13.0A	3.0A	+12.0V	3.5A	0.8A	5.0V	1.0A
HES100-32	12.0A	+5.0V	13.0A	1.5A	+24.0V	2.0A	0.8A	12.0V	1.0A
HES100-33	12.0A	+5.0V	13.0A	3.0A	+15.0V	3.3A	0.3A	15.0V	1.0A

QUAD OUTPUT

MODEL NO.	MAIN O/P VO1 ★			AUX. O/P VO2 †			AUX. O/P ± VO3 ●			AUX. O/P ±VO4 ●		
	Typ.	Volt.	Max.	Typ.	Volt.	Max.	Typ.	Volt.	Max.	Typ.	Volt.	Max.
HES100-40	12.0A	+5.0V	13.0A	2.5A	+12.0V	3.0A	0.8A	12.0V	1.0A	0.5A	12.0V	1.0A
HES100-41	12.0A	+5.0V	13.0A	2.5A	+12.0V	3.0A	0.8A	5.0V	1.0A	0.6A	5.0V	1.0A
HES100-42	12.0A	+5.0V	13.0A	1.0A	+24.0V	1.5A	0.8A	12.0V	1.0A	0.5A	12.0V	1.0A
HES100-43	12.0A	+5.0V	13.0A	2.2A	+15.0V	2.7A	0.6A	12.0V	1.0A	0.4A	15.0V	1.0A

Symbols: "★"OVP built-in. "@"Adjustable. "◇" Floating(or isolated) output. "●" Installed with Post Regulator (PR). "†" Stacked on main output.
 "#" Remote sensing. "▲" Installed with magnetic amplifier. "±" Positive or Negative selectable (factory set).

MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT: 1,242.0g (43.8 Oz.)

