



**UNIVERSAL INPUT AC TO DC EXTERNAL DESKTOP ADAPTOR
MULTIPLE OUTPUT 50-60 WATTS SWITCHING POWER SUPPLIES
APS61ES SERIES**



FEATURES:

- ACCOMMODATES UNIVERSAL AC INPUT
- DESKTOP IEC 320-3P AC RECEPTACLE
- INPUT & OUTPUT LAMPS INDICATION
- MEETS UNIVERSAL SAFETY STANDARDS
- EMI MEET EN55022/ FCC CLASS B
- CE MARKING COMPLIANCE

SPECIFICATION

INPUT SPECIFICATION

Input Voltage: 90 to 264Vac typical
Input Connector: IEC 320-3P AC receptacle
On-Off Switch: Option for Rocker switch with lamp
Input Frequency: 47 to 63Hz
Inrush Current: 20A @ 230Vac
Input Current: 1.3A @ 115Vac / 0.6A @ 230Vac
Dielectric Withstand: Meets IEC950
EMI: Meets EN55022 / FCC Class B
Hold-up Time: 15mS @ 115Vac or
75mS @ 230Vac typical
No Load Operation: No damage at no load

OUTPUT SPECIFICATION

Output Voltage: See Ratings Chart
Output Current: See Ratings Chart
Output Wattage: Typical 50 to 60 watts
Output Connection: Optional
Output LED indicator: Installed
Line Regulation: 0.1% typical
Load Regulation: Main O/P VO1 typical ± 1.5 to 3.0%
Aux. O/P VO2 typical ± 3.0 to 5.0% (stacked on VO1)
Aux. O/P VO3 typical ± 1.0 to 2.0%. (P. R. installed)
Noise & Ripple: Typ. 1.0% peak to peak
OVP: Built-in on main output by crowbar
Overload Protection: 125 to 150% of max. power over-range
or short circuit, power foldback & self-recovering

GENERAL SPECIFICATION

Efficiency: 75 to 80% typical
Switching Frequency: Approximately 44KHz
Circuit Topology: Fixed Frequency Flyback circuit
Transient Response: Output voltage returns in
less than 5mS following a 25% load change
Safety Standard: UL1950/ EN60950 Class I
Power Density: 1.36 Watts/ Inch³
Operating Temperature: 0 to +40°C
Storage Temperature: -20°C to +85°C
Temperature Coefficient: 0.04% per °C
Cooling: Free air convection
Construction: Impact resistant thermo-plastic
enclosure case with venting slots
Desktop Format

Notes: (1) The exact voltage regulation obtainable depends upon the cord selected and load current.
(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 (unit $\pm\%$).
For the multi-output, the main output remains 50% load and other aux. output remains 20% load.
(3) The typical cord length 1 meter (about 3.3ft.), AWG#18 cord for various load conditions.



OUTPUT VOLTAGE / CURRENT RATINGS CHART

SINGLE OUTPUT

MODEL NO.	MAIN O/P • @	TYP. VOLT.
APS61ES-10	9.0A	5.0V
APS61ES-11	4.2A	12.0V
APS61ES-11A	4.0A	13.2V
APS61ES-12	3.4A	15.0V
APS61ES-13	2.2A	24.0V
APS61ES-19	9.0A	3.3V

DUAL OUTPUT

MODEL NO.	MAIN O/P VO1 @ •			AUX.O/P +VO2 † or -VO3 •		
	TYP.	VOLT.	MAX.	TYP.	VOLT.	MAX.
APS61ES-20	7.0A	+5.0V	9.0A	0.75A	-5.0V	1.0A
APS61ES-21	5.0A	+5.0V	8.0A	2.00A	+12.0V	3.0A
APS61ES-21A	7.5A	+5.0V	9.0A	0.50A	+12.0V	1.0A
APS61ES-22	5.0A	+5.0V	8.0A	1.60A	+15.0V	2.0A
APS61ES-23	5.0A	+5.0V	8.0A	1.00A	+24.0V	1.5A
APS61ES-25	2.0A	+15.0V	3.0A	1.70A	+8.0V	2.0A

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.
APS61ES-30	5.0A	+5.0V	8.0A	1.50A	+12.0V	2.0A	0.5A	-12.0V	1.0A
APS61ES-31	5.0A	+5.0V	8.0A	1.50A	+12.0V	2.0A	0.8A	-5.0V	1.0A
APS61ES-32	5.0A	+5.0V	8.0A	0.75A	+24.0V	1.0A	0.5A	-12.0V	0.9A
APS61ES-33	5.0A	+5.0V	8.0A	1.50A	+15.0V	2.0A	0.5A	-5.0V	1.0A
APS61ES-34	5.0A	+5.0V	8.0A	1.50A	+15.0V	2.0A	0.2A	-15.0V	0.4A

Symbol: " † " Stacked on main output. " • " Installed with Post of Regulator(PR). " • " OVP built-in. " # " Remote sense. "@Adjustable

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

(2) Max. Load (maximum load) is the continuous operating load of each rail,
but the max. load of each rail can't be drawn from all outputs at the same time.

MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT:531g (18.73 Oz)

