

### **UNIVERSAL INPUT HARMONIC CORRECTION AC TO DC SINGLE & MULTIPLE OUTPUT N+1 REDUNDANCY AND CURRENT-SHARING INTERNAL SWITCHING POWERSUPPLIES 350WATTS APS350VP SERIES**



#### **FEATURES:**

- ACCOMMODATES UNIVERSAL AC SOURCES
- MEETS IEC1000-3-2 HARMONIC CORRECTION
- N+1 REDUNDANCY & CURRENT SHARING
- DESIGNED TO MEET UNIVERSAL SAFETY STANDARDS
- EMI/RFI MEET CISPR PUB. 22 CLASS B
- CE MARKING COMPLIANCE

#### **SPECIFICATIONS**

##### **INPUT SPECIFICATIONS:**

**Input Voltage:** Typ. 85-264VAC  
**Input Connector:** Optional  
**Input Frequency:** 47-63Hz.(Consult factory for 440Hz. operation.)  
**Inrush Current:** Typ. 10A @ 115VAC by active inrush current circuit  
**Input Current:** 1.5-5.0A within AC input  
**Dielectric Withstand:** Meets IEC950  
3,000VAC-Output/Input  
1,500VAC-Input/GND  
500VAC-Output/GND  
**EMI/RFI:** Meets CISPR PUB.22 Class B  
**Hold-up Time:** 20ms @ 115VAC  
**Power Fail Signal:** Optional  
**Power Factor Correction:**  
Meet Harmonic Correction per IEC1000-3-2  
**Earth Leakage:** Less than 500 micron Amp

##### **OUTPUTS SPECIFICATIONS:**

**Output Voltage:** See RATINGS CHARTS  
**Output Currents:** See RATINGS CHARTS  
**Output Connector:** Optional  
**Centering:** Initial setting on Aux. all O/P  
50% typ. load.  $\pm 5\%$  typ.  $\pm 2\%$  optional  
**Line Regulation:** Main VO1  $\pm 0.1\%$  typ.  
Aux. VO2  $\pm 0.5\%$ , VO3  $\pm 0.1\%$  typ.  
**Load Regulation:** Main O/P VO1  $\pm 1\%$  typ.  
Aux. O/P VO2  $\pm 1\%$  typ. Magnetic Amp.  
Aux. O/P VO3  $\pm 1.5\%$  typ. with PR.  
**Noise & Ripple:** Typ. 1% peak to peak.  
**OVP:** Main O/P only set @ 124%  $\pm 8\%$  VO1.  
**Remote Sense:** Option.  
**Redundancy:** Available for N+1 redundant Operation for sharing the load.  
**Current Sharing:** Or-ring diodes available.  
**Adjustability:** VO1 O/P, from -10% to OVP.  
VO2 with Magnetic Amp.  $\pm 10\%$ .  
**Overload Protection:** If output power is over 130% power, OLP reduces all output voltages to a safe dissipation level & protects against short circuit at any O/P.

##### **GENERAL SPECIFICATIONS:**

**Efficiency:** Typ. 73%  
**Switching Frequency:** Fixed freq. at 85K Hz  
**Circuit Topology:** PWM Fixed-frequency forward circuit  
**Transient Response:**  
Output voltage returns in less than 3ms following a 50% load change  
**Safety Standard:** UL1950/EN60950 Class I  
**Construction:** Enclosure box or U-bracket  
**Hot Swap:** Installed  
**Operating Temperature:** 0-45°C convection  
If with 20CFM Fan cooling 0-70°C  
**Storage Temperature:** -20 to +85°C  
**Temperature Coefficient:** 0.04%/°C  
**Cooling:** Free air convection  
Recommended 35CFM fan cooling  
**Long Term Stability:** After 20 minutes warm-up  
0.1% for 8 hours  
**Industrial Grade**

## OUTPUT VOLTAGE/CURRENT RATING CHARTS

### SINGLE OUTPUT

MODEL NO.	MAIN VO1 O/P @ ★ # TYP.A VOLT. PEAK A		
APS350VP-10	65.0A	5V	70.0A
APS350VP-11	27.0A	12V	30.0A
APS350VP-12	22.0A	15V	23.0A
APS350VP-13	14.0A	24V	15.0A
APS350VP-14	12.0A	28V	13.0A
APS350VP-15	10.0A	36V	11.0A

### DUAL OUTPUT

MODEL NO.	MAIN VO1 O/P @ ★ TYP.A VOLT. PEAK A			AUX. VO2 O/P ▲◆ TYP.A VOLT. PEAK A		
APS350VP-20	30.0A	+5V	35.0A	30.0A	5V	35.0A
APS350VP-21	25.0A	+5V	30.0A	18.0A	12V	30.0A
APS350VP-22	25.0A	+5V	30.0A	16.0A	15V	25.0A
APS350VP-23	25.0A	+5V	30.0A	10.0A	24V	15.0A

### TRIPLE OUTPUT

MODEL NO.	MAIN VO1 O/P @ ★ TYP.A VOLT. PEAK A			AUX. VO2 O/P ▲◆ TYP.A VOLT. PEAK A			AUX. +/-VO3 O/P • TYP.A VOLT. PEAK A		
APS350VP-30	25.0A	+5V	30.0A	12.0A	12V	15.0A	3.0A	12V	5.0A
APS350VP-31	25.0A	+5V	30.0A	12.0A	12V	15.0A	3.0A	5V	5.0A
APS350VP-32	25.0A	+5V	30.0A	6.0A	24V	8.0 A	3.0A	12V	5.0A
APS350VP-33	25.0A	+5V	30.0A	10.0A	15V	12.0A	3.0A	15V	5.0A

Symbols: "★" OVP built-in. "@" Adjustable. "◆" Floating(or isolated) output. "•" Installed with Post Regulator(PR).

"#" Remote sensing. "▲" Installed with magnetic amplifier. "±" Positive or Negative selectable(factory set).

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

(2) Peak output, less than 60sec. Peak current can't be drawn from all output at the same time.

**MECHANICAL DIMENSIONS:** MM (INCHES)    **WEIGHT:** 1,872 g (66.0 Oz) for enclosure box  
**POWER DENSITY:** 3.25W/Cubic Inch.                      1,675 g (59.0 Oz) for U-Bracket construction

