

AUTO-RANGING INPUT AC TO DC SINGLE & MULTIPLE OUTPUT INTERNAL SWITCHING POWER SUPPLIES 100 WATT APS100VI-XX & APS100IH-1X SERIES



FEATURES:

- AUTO-RANGING ACCOMMODATES AC SOURCES IN THE WORLD
- LOW-PROFILE BOX OR L-BRACKET FORMAT
- DESIGNED TO MEET UNIVERSAL SAFETY STANDARDS
- EMI/RFI MEET CISPR PUB. 22 CLASS B & FCC CLASS B
- CE MARKING COMPLIANCE

SPECIFICATIONS

INPUT SPECIFICATIONS:

Input Voltage: Auto-ranging

115 (90-130) VAC and 230 (180-260) VAC. Transient threshold 150 VAC typical (Option for dual input selectable)

Input Connector: See Pin Assignment

Input Frequency: 47-63Hz (Consult factory for 440Hz. operation.)

Inrush Current: Max. 20A @ 115VAC, 40A @ 230VAC

Input Current: 2.5A @ 115VAC, 1.1A @ 230VAC

Dielectric Withstand: Meets IEC950; 3,000VAC-Output/Input; 1,500VAC - Input/GND; 500VAC - Output/GND

EMI/RFI: Meets CISPR PUB. 22 class B and FCC CLASS B

Hold-up Time: 22ms @ 115VAC, 27ms @ 230VAC

Power Fail Signal: Optional

Logic Inhibit: Optional in APS100IH-1X and APS100VI-2X dual output series

Earth Leakage: < 500 micro Amp. @ 50/60Hz, 260VAC

Remote Sense: Optional in APS100IH & APS100VI-2X

OUTPUTS SPECIFICATIONS:

Output Voltage: See RATINGS CHARTS.

Output Currents: See RATINGS CHARTS.

Output Connector: See Pin Assignment.

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 & 4 $\pm 0.1\%$ typ.

Load Regulation: Main O/P VO1 $\pm 1\%$ typ.
Aux. O/P VO2; $\pm 2\%$ typ. if with Mag. Amp $\pm 5\%$ typ. if stacked on; Aux. O/P VO3 & VO4 $\pm 1.5\%$ typ. with PR.

Noise & Ripple: Typ. 1% peak to peak

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

Adjustability: VO1 O/P, from -10% to OVP point
VO2 if with Magnetic Amp. $\pm 10\%$

Overload Protection: If output power over 125-150%, OLP reduces all O/P voltages to a safe dissipation level & protects against short circuit at any O/P.

GENERAL SPECIFICATIONS:

Efficiency: Typ. 75%

Switching Frequency: Fixed-frequency at 100KHz

Circuit Topology:

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 L-bracket format

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 20CFM cooling fan

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

Industrial or Commercial Grade Option:

"Industrial" higher MTBF, "Commercial" lower cost



OUTPUT VOLTAGE/CURRENT RATING CHARTS

SINGLE OUTPUT:

MODEL NO.	MAIN VO1 O/P @ ★ #		
	TYP.A	VOLT.	PEAK A
APS100IH-10	20.0A	5V	25.0A
APS100IH-11	8.3A	12V	11.0A
APS100IH-12	6.7A	15V	10.0A
APS100IH-13	4.2A	24V	6.0A
APS100IH-14	3.6A	28V	5.0A
APS100IH-15	2.2A	36V	3.2A

DUAL OUTPUT:

MODEL NO.	MAIN VO1 O/P @ ★ # ◆			AUX. VO2 O/P ◆ ▲ @		
	TYP.A	VOLT.	PEAK A	TYP.A	VOLT.	PEAK A
APS100VI-20	15.0A	5V	20.0A	5.0A	5V	6.0A
APS100VI-21	10.0A	5V	15.0A	4.0A	12V	6.0A
APS100VI-22	10.0A	5V	15.0A	3.0A	15V	4.0A
APS100VI-23	6.0A	5V	12.0A	3.0A	24V	3.0A
APS100VI-24	4.5A	12V	6.0A	4.5A	12V	6.0A
APS100VI-25	3.5A	15V	4.0A	3.4A	15V	4.0A
APS100VI-26	15.0A	5V	20.0A	8.0A	3.3V	6.0A

TRIPLE OUTPUT:

MODEL NO.	MAIN VO1 O/P @ ★			AUX. VO2 O/P †			AUX. +/-VO3 O/P •		
	TYP.A	VOLT.	PEAK A	TYP.A	VOLT.	PEAK A	TYP.A	VOLT.	PEAK A
APS100VI-30	12.0A	+5V	15.0A	3.0A	+12V	5.0A	0.8A	12V	1.0A
APS100VI-31	12.0A	+5V	15.0A	3.0A	+12V	5.0A	0.8A	5V	1.0A
APS100VI-32	12.0A	+5V	15.0A	1.5A	+24V	2.5A	0.8A	12V	1.0A
APS100VI-33	12.0A	+5V	15.0A	3.0A	+15V	5.0A	0.3A	15V	1.0A

QUAD OUTPUT

MODEL NO.	MAIN VO1 O/P @ ★			AUX. VO2 O/P †			AUX. +/-VO3 O/P •			AUX. +/-VO4 O/P •		
	TYP.A	VOLT.	PEAK A	TYP.A	VOLT.	PEAK A	TYP.A	VOLT.	PEAK A	TYP.A	VOLT.	PEAK A
APS100VI-40	12.0A	+5V	15.0A	2.5A	+12V	4.0A	0.8A	12V	1.0A	0.5A	12V	1.0A
APS100VI-41	12.0A	+5V	15.0A	2.5A	+12V	4.0A	0.8A	5V	1.0A	0.6A	5V	1.0A
APS100VI-42	12.0A	+5V	15.0A	1.0A	+24V	2.0A	0.8A	12V	1.0A	0.5A	12V	1.0A
APS100VI-43	12.0A	+5V	15.0A	2.2A	+15V	4.0A	0.6A	12V	1.0A	0.4A	15V	1.0A

Symbols: "★" OVP built-in. "@" Adjustable. "◆" Floating (or isolated) output. "†" Stacked on main output

"•" Installed with Post Regulator (PR). "#" Remote sensing.

"▲" Installed with magnetic amplifier. "+/-" Positive or Negative selectable (factory set).

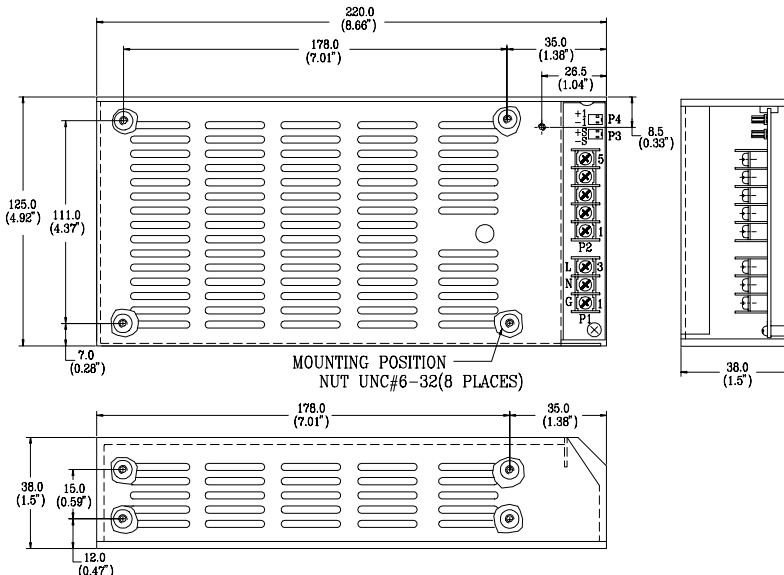
Remark: (1) At least 20% of typical main output current is required to maintain stated regulations.

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

MECHANICAL DIMENSIONS: MM (INCHES)

WEIGHT: 860 g (30.3 Oz)

POWER DENSITY: 1.56W/Cubic Inch



PIN ASSIGNMENTS:

PIN #	APS100IH	APS100VI	APS100VI	
APS100VI				
	-1X	-2X	-3X	-4X
P1-L	L	L	L	L
P1-N	N	N	N	N
P1-G	G	G	G	G
P2-1	PFS	PFS	PFS	PFS
P2-2	-VO1	- VO2	+VO1	+VO1
P2-3	-VO1	+VO2	+VO1	+VO1
P2-4	+VO1	+VO1	DC COM.	DC COM.
P2-5	+VO1	- VO1	DC COM.	DC COM.
P2-6	N.A.	N.A.	+VO2	+VO2
P2-7	N.A.	N.A.	+VO3	+VO3
P2-8	N.A.	N.A.	N.C.	+VO4
P3+S	+SEN	+SEN	N.A.	N.A.
P3- S	-. SEN	-.SEN	N.A.	N.A.
P4+I	+INHIB	+INHIB	N.A.	N.A.
P4 -I	-INHIB	-INHIB	N.A.	N.A.

MATING CONNECTOR:

P1&P2: NON, SCREW ON TOP.
P3 REMOTE SENSE: MOLEX 5051
P4 LOGIC INHIBIT: MOLEX 5051