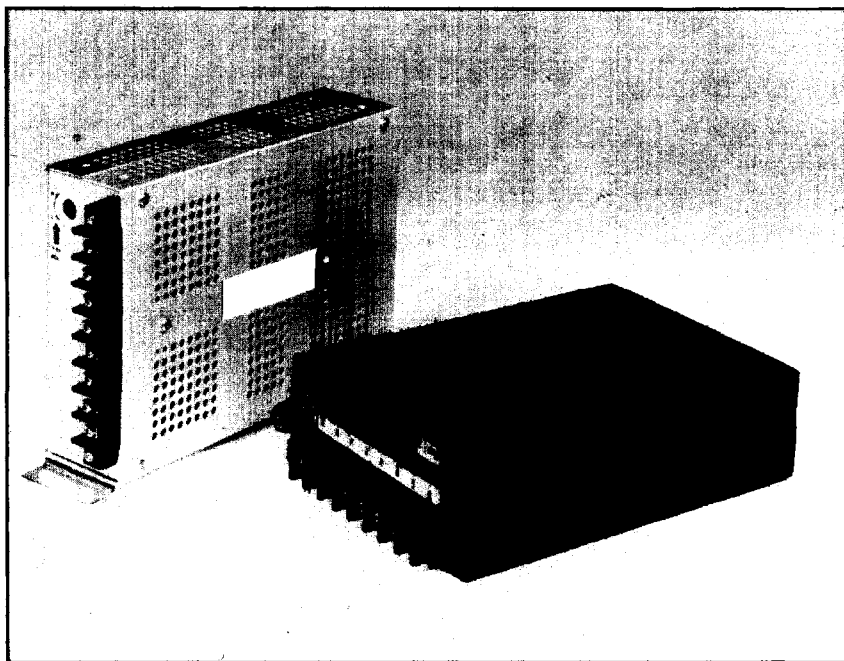


70/100 Watt Single and Multiple Output

- High efficiency/Low cost
- Compact size/Light weight design
- 115/230 Vac input dual selectable
- Fully enclosed packaging
- Input surge current protection
- Main output overvoltage protection
- Short circuit foldback protection
- 100% burn-in under high ambient temperature for at least 24 hours
- Built-in EMI filter
-  UL recognition (File No. E82453)



Specifications

Input

Input Voltages	90V to 130V (115V Nominal), 180V to 260V (230V Nominal), Jumper Selectable.
Input Frequency	47-440HZ
Inrush Current	20A Maximum Peak At Cold Start
Fuse on Input Line	2A, 250V

DIELECTRIC WITHSTAND: 1500VAC For 1 Minute Input/ Output
1500VAC For 1 Minute Input /Safety GND
500VAC For 1 Minute Output /Safety GND
(OR 3750VAC FOR EUROPEAN SAFETY REQUIREMENT)

Ambient Temperature Range	0 °C - 70 °C (Operating). -20 °C - 85 °C (Storage).
Temperature Coefficient	0.02 % / °C on +5V 0.05 % / °C on Other Outputs
Efficiency	70 % (Typical)
Full Output Rating	0 °C - 50 °C (Derated to 50 % at 70 °C)
Cooling	Fan cooling
Hold-Up Time	20msec. Minimum at Full Load & Nominal Input Voltage
Transient Response	Output voltage returns in less than 1 millisecond max. Following A 50 % load change.

Output

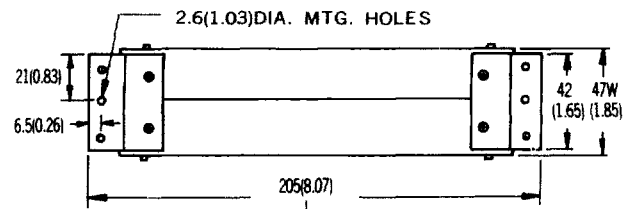
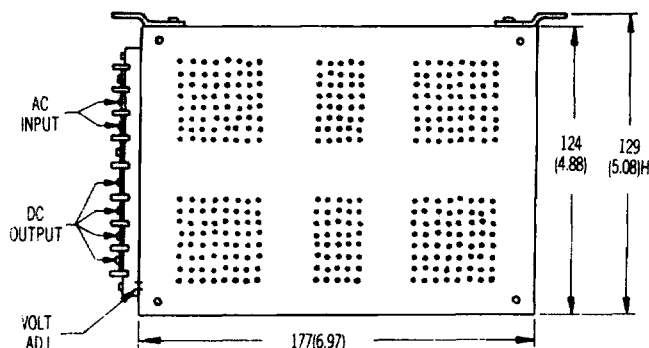
Output Voltages	See Rating Chart
Output Current	See Rating Chart
Line Regulation	0.2% Maximum ($\pm 10\%$ Change)
Load Regulation	2 % Maximum on +5V, 5 % Maximum on Other Outputs (At 50 % to 100 % % Of Rated Load).
Cross Regulation	0.2 % Maximum on +5V When Any Output Changed From 50 % to 100 % of Rated Load. 5 % Maximum on Other Outputs When +5V Output Changed From 50 % to 100 % of Rated Load. 1 % Maximum on Other Output When Any Other Output Excluding +5V is Changed From 50 % to 100 % of Rated Load.
Output Voltage Adjustment	From 4.5V to OVP Trip Point on +5V Nominal Output Voltage $\pm 5\%$ on Other Outputs When +5V is Set at 5.00V Peak to Peak Typical 1 % , Maximum 2 %
Noise and Ripple	See Rating Chart
Minimum Load	See Rating Chart
Overvoltage Protection	6.2V $\pm 0.4V$ on +5V
Overcurrent Protection	Maximum Current Cannot Be Drawn From All Outputs at The Same Time. The Overcurrent Protection Feature Will Reduce All Output Voltage to A safe Dissipation Level When The Average Power Rating Exceeds 125 % Of Maximum Power. The Overload Feature Will Also Protect Against Short Circuit on Any Output.

VOLTAGE/CURRENT RATING CHART

MODEL NO.	D.C. OUTPUT CURRENT (AMP) AT						CONSTRUCTION	MAX. OUTPUT	OUTPUT CONNECT.-OR
	MAIN OUTPUT TYP. MAX.	SELECTABLE AUXILIARY OUTPUTS							
		TYP.	MAX.	TYP.	MAX.	TYP.			
HSA-12X	+V01 @★	+V02 †	-V03 ●	-		BOX	60-70W	B-S	
HSA-110B	+5 V 7A 8A	-	-	-		BOX	60W	B-S	
HSA-122B(C)	+5 V 7A 8A	+12V 2A 2A	-	-		BOX	60W	B-S	
HSA-122B(D)	+5 V 8A 8A	+12V 2A 2A	-	-		BOX	60W	B-S	
HSA-122B(E)	+5 V 11A 12A	+12V 2A 2A	-	-		BOX	70W	B-S	
HSA-122B(G)	+5 V 9A 12A	+12V 1.5A 2A	-	-		BOX	70W	B-S	
HSA-122B(H)	+5 V 10A 12A	-	-5 V 0.5A 1A	-		BOX	70W	B-S	
HSA-122B(S)	+5 V 10A 12A	-	-	-		BOX	70W	B-S	
HSA-122B(T)	+5 V 13A 15A	-	-	-		BOX	70W	B-S	
HSA-122B(U)	+5 V 15A 15A	-	-	-		BOX	70W	B-S	
HSA-122	+5 V 5A 8A	+12V 1A 2A	-	-		BOX	60W	B-S	
HSA-13X	+V01 @★	+V02 †	-V03 ●	-V04 ●	BOX	60-70W	B-S		
HSA-130	+5 V 7A 8A	+12V 1A 2A	-	-5 V 1A 1A	BOX	60W	B-S		
HSA-130C	+5 V 7A 8A	+12V 1A 1A	-5 V 1A 1A	-	BOX	60A	B-S		
HSA-130D	+5 V 5A 8A	+12V 3A 3A	-	-5 V 1A 1A	BOX	70W	B-S		
HSA-130E	+5 V 10A 12A	+12V 1A 1A	-5 V 1A 1A	-	BOX	70W	B-S		
HSA-130F	+5 V 11A 12A	+12V 1A 1A	-5 V 1A 1A	-	BOX	70W	B-S		
HSA-131	+5 V 7A 8A	+12V 1A 1A	-12V 1A 1A	-	BOX	60W	B-S		
HSA-131N	+5 V 11A 12A	+5 V 1.5A 1.5A	-15V 0.5A 1A	-	BOX	70W	B-S		
HSA-14X	+V01 @★	+V02 †	-V03 ●	-V04 ●	BOX	70W	B-S		
HSA-140	+5 V 5A 8A	+12V 1A 1A	-12V 1A 1A	-5 V 1A 1A	BOX	60W	B-S		
HSA-140C	+5 V 7A 8A	+12V 1A 1A	-12V 1A 1A	-5 V 1A 1A	BOX	70W	B-S		
HSA-140D	+5 V 8A 12A	+12V 1A 1A	-12V 1A 1A	-5 V 1A 1A	BOX	70W	B-S		
HSA-140E	+5 V 10A 12A	+12V 1A 1A	-12V 0.5A 1A	-5 V 0.5A 1A	BOX	70W	B-S		
HSA-145	+5 V 3A 8A	+15V 1A 2A	12V 1A 1A	-12V 0.5A 1A	BOX	70W	B-S		
HSA-14X	+V01 @★	+V02 †	+/-V03 ●	-V04 ●	BOX	100W	B-S		
HSA-130	+5 V 15A 15A	+12V 2A 3A	-	-5 V 1A 1A	BOX	100W	B-S		
HSA-131	+5 V 15A 15A	+12V 2A 3A	-	-12V 0.5A 1A	BOX	100W	B-S		
HSA-132	+5 V 15A 15A	+15V 2A 3A	-	-15V 0.5A 1A	BOX	100W	B-S		
HSA-140	+5 V 14A 15A	+12V 2A 3A	-12V 0.5A 1A	-5 V 0.5A 1A	BOX	100W	B-S		
HSA-141	+5 V 14A 15A	+12V 2A 3A	+12V 0.5A 1A	-12V 0.5A 1A	BOX	100W	B-S		
HSA-142	+5 V 14A 15A	+15V 2A 3A	-15V 0.5A 1A	-15V 0.5A 1A	BOX	100W	B-S		

★ OVP Built-in ● With 3-T post regulator @ Adjustable † Overlapping on main output
+/- Positive or Negative selectable (Factory set) # Remote sensing

Mechanical Dimensions mm(inches)



CONSTRUCTION: All Aluminum Chassis and Safety Cover.
MOUNTING: Changable 4 Positions.
PHYSICAL: Weight 0.7KG, Size H 129 x W 47 x L 205mm
(1.54Lb) (5.08) (1.85) (8.07) inches.