

# HS-500DC

## HOT SWAP - 500 WATTS

-40 to -75VDC INPUT - ONE TO FOUR OUTPUTS

Dual High Current Outputs, Standard Models of 5Vdc/75Amps and 3.3Vdc/20Amps



### FEATURES:

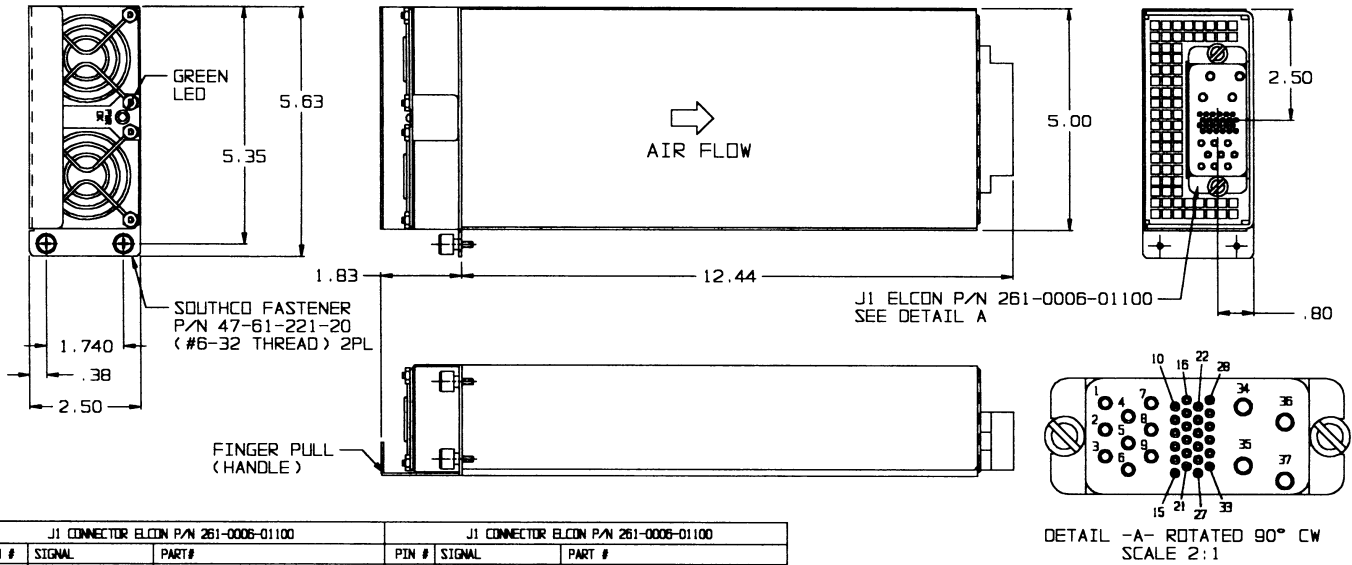
- Size: 2.5" x 5" x 13.5" in Size
  - N+1 Redundant and Hot Swap (ELCON Connector)
  - One to Four outputs with Oring Diodes
  - Meets EN55022 Level A / FCC Class A
  - No Additional Cooling Required up to 50 °C
  - 'Zero' Wire Current Share
  - Remote Sense On V1 / V2 Outputs
  - V4 Output Floating
  - Up to 20A Capability on V2
  - Greater than 90,000 Hrs MTBF (500,000 Hrs in Redundancy)
- See model HS-500P for AC Input Equivalent



	OUTPUT VOLTAGE (VDC)	OUTPUT AMPERES (MAX)	OUTPUT POWER (WATTS)
V1	2 to 48	75	500
V2	2 to 48	20	180
V3	5 to 24	5	96
V4	5 to 24	5	96

# HS-500DC SERIES 500 WATT COMPACT SIZE

\*IN PDF FORMAT, PRINT OR ZOOM TO SEE DRAWING



J1 CONNECTOR ELCON P/N 261-0006-01100			J1 CONNECTOR ELCON P/N 261-0006-01100		
PIN #	SIGNAL	PART #	PIN #	SIGNAL	PART #
1	N/C	N/A	16-19	N/C	N/A
2	0 VDC	701-12-02109 (#12M, GOLD)	20	RTN	701-14-02109 (#20M, GOLD)
3	CASE GND	701-15-02109 (#12M, GOLD PREMATE)	21	RTN	701-14-02109 (#20M, GOLD)
4	-48VDC	701-12-02109 (#12M, GOLD)	22	RTN (PRESENT)	701-14-02109 (#20M, GOLD)
5	N/C	N/A	23	+12V/5A (+V4)	701-14-02109 (#20M, GOLD)
6	+3.3/20A	701-12-02109 (#12M, GOLD)	24	+12V/5A (+V4)	701-14-02109 (#20M, GOLD)
7	-12V/5A	701-12-02109 (#12M, GOLD)	25	-12V/5A (-V4)	701-14-02109 (#20M, GOLD)
8	N/C	N/A	26	-12V/5A (-V4)	701-14-02109 (#20M, GOLD)
9	RTN	701-12-02109 (#12M, GOLD)	27-33	N/C	N/A
10	+5V SENSE	701-14-02109 (#20M, GOLD)	34	RTN	701-11-02107 (#8M, SILVER)
11	+5V SENSE RTN	701-14-02109 (#20M, GOLD)	35	RTN	701-11-02107 (#8M, SILVER)
12	+3.3V SENSE	701-14-02109 (#20M, GOLD)	36	+5V/75A	701-11-02107 (#8M, SILVER)
13	+3.3V SENSE RTN	701-14-02109 (#20M, GOLD)	37	+5V/75A	701-11-02107 (#8M, SILVER)
14	PW_OK	701-14-02109 (#20M, GOLD)			
15	INHIBIT	701-14-02109 (#20M, GOLD)			

NOTES:

- 40 TO -75VDC INPUT, 500W MAX OUTPUT TO 50°C AMBIENT.
- ALL OUTPUTS CONTAIN ORING DIODES FOR N+1 REDUNDANCY. A "DROOP" CURRENT SHARE SCHEME ALLOWS FOR GREATER THAN A 60/40 LOAD SHARE ON THE +5V OUTPUT WHEN TWO OR MORE SUPPLIES ARE CONNECTED IN PARALLEL.
- REMOTE SENSE CAPABILITY FOR BOTH THE +5V AND +3.3V OUTPUTS.
- INHIBIT SIGNAL ALLOWS SUPPLY TO BE SHUTDOWN ELECTRONICALLY (CONTACT CLOSURE TO RTN TURNS OFF ALL OUTPUTS).
- THE PW\_OK SIGNAL IS A NORMAL LOGIC "1" WHICH SWITCHES STATES WHENEVER THE +5V, OR +3.3V OUTPUTS GO 5% BELOW OUTPUT SPECIFICATION.
- AN OUTPUT LED IS CONTAINED DRIVEN ON/OFF BY PW\_OK SIGNAL.
- CONSULT FACTORY FOR FURTHER ELECTRICAL SPECIFICATIONS.

DETAIL -A- ROTATED 90° CW  
SCALE 2:1

<b>Nominal Input Voltage</b>	-48 VDC
<b>Operational Input Voltage Range</b>	-40 to -75 VDC. Transients to 140V for 2 secs.
<b>Inrush Current</b>	Less than 5 msec. 60 amperes @ 48VDC
<b>Fusing</b>	30 Ampere, 125 VDC, Internal ceramic body fuse.
<b>Hold up time</b>	5msec minimum after loss of DC Input at full load and nominal input.
<b>Efficiency</b>	65% typical
<b>Turn on time</b>	Less than 1 sec.
<b>Load Regulation</b>	4% for 0% to 100% load change on V1 2% for 0% to 100% load change on V2 3% for 0% to 100% load change on V3 3% for 0% to 100% load change on V4 5% min. load required on V1 for max load reg. on outputs V2 to V4.
<b>Line Regulation</b>	± 0.1% over operating line range, all outputs.
<b>Ripple &amp; Noise</b>	1% PARD or 100mv which ever is greater. 20MHz bandwidth.
<b>Transient Response</b>	Output maximum excursion of ± 5% for 25% load step. Recovery less than 500 µsec.
<b>Short Circuit and Overload Protection</b>	All outputs are protected from short circuit and overload. Automatic recovery.
<b>Overshoot</b>	No turn-on or turn-off overshoot.

<b>Overvoltage Protection</b>	Shutdown at 130% of nominal Vout. Recycle input power to reset.
<b>Overtemperature Protection</b>	Unit shuts down if overheated. DC must be recycled.
<b>Cooling</b>	Integral fans up to 50°C Ambient full power.
<b>Input/Output Isolation</b>	4242 VDC, SELV construction.
<b>Remote Sense (V1 &amp; V2 output)</b>	Up to 0.5 volts total in load.
<b>Inhibit</b>	Open to Run, Contact closure to return, turns off all outputs.
<b>PW_OK</b>	The PW_OK signal is a normal Logic "1" which switches states whenever the +5V, or +3.3V outputs go 5% below output specification.
<b>Operating Temperature</b>	-20°C to 50°C full output
<b>Stability</b>	All outputs 0.5% for 8 hrs. after 1 hour warm-up.
<b>Humidity</b>	Up to 95% non-condensing.
<b>Size</b>	2.5"x 5"x 13.5" <b>Weight:</b> 6 lbs.
<b>EMI</b>	Meets FCC Class A and EN55022 Level A
<b>SAFETY</b>	UL 1950 / CSA C22.2 NO. 950, EN 60950

SERIES BREAKDOWN:      HS-500X1-DC  
where X1= S for Single output, D for Dual output, T for Triple output or Q for Quad output

REV: -