

# 3000 Watts

## HPS3KW



Total Power: 3000-18000 Watts  
Input Voltage: 180-264 VAC  
# of Outputs: Single

### Special Features - \*Module only

- Active Power Factor Correction
- EN61000-3-2 Harmonic Compliance
- 48VDC output
- Remote INHIBIT
- Single Wire Parallel
- Built-in EMI Filter
- Low Output Ripple
- +5V standby Output
- Built-in Cooling Fans
- Over Current Protection
- Over Voltage Protection
- Over Temperature Protection
- Hot Swap
- Built-in OR'ing Diodes

### Environmental - \*Module only

Operating Temperature: +5°C to 40°C  
(50% power derating at 70°C)

Non-Operating Temperature: -40° to +70°C

Electromagnetic Susceptibility: Designed to meet  
EN61000-4-2, -4-3, 4-4, -4-5 Level 3

Humidity: 5 to 95% RH, non-condensing

Operating: Sinusoidal Vibration - 0.25G zero to peak,  
10 to 500Hz, 0.25 oct/min in each three mutually  
perpendicular axes. Random vibration - 0.002 G<sup>2</sup>/Hz,  
10 to 500Hz, nominal 1G rms.

Non-operating: Sinusoidal Vibration - 0.75G zero to  
peak, 10 to 500Hz, 0.50 oct/min in each three mutually  
perpendicular axes. Random vibration - 0.008 G<sup>2</sup>/Hz,  
10 to 500Hz, nominal 2G rms.

MTBF (demonstrated): >500KHrs at full load, 40°C

### Electrical Specs - \*Module only

#### Input

|                 |                          |
|-----------------|--------------------------|
| Input Range     | 180-264VAC               |
| Frequency       | 47 - 63 Hz               |
| Inrush Current  | 100A (peak)              |
| Efficiency      | 85% typical at full load |
| EMI Filter      | CISPR22 Class A          |
| Power Factor    | 0.98 typical             |
| Leakage Current | 1.16 mA @ 240 VAC        |

#### Output

|                    |                           |
|--------------------|---------------------------|
| DC Voltage         | 48V @ 57A                 |
|                    | 5Vsb @ 5A                 |
| Maximum Power      | 3000W                     |
| Adjustment Range   | + 5%                      |
| Supervisory Output | 5V @ 5A                   |
| Hold Up Time       | 20ms                      |
| Over Current       | 48V: 110% - 150%          |
|                    | 5Vsb: 101% - 125%         |
| Over Voltage       | 125% above nominal output |

#### Logic Control

|            |                                                                                                                            |
|------------|----------------------------------------------------------------------------------------------------------------------------|
| ENABLE     | Requires contact closure from<br>"PSON" to 5Vsb return.                                                                    |
| AC OK      | TTL signal LOW                                                                                                             |
| POWER FAIL | TTL signal LOW;<br>goes HIGH in the event of failure                                                                       |
| POWER GOOD | TTL logic signal goes high 100-<br>1000 msec after 48VDC output. It<br>goes LOW at least 1ms before loss<br>of regulation. |

### Safety - \*Module only

UL 60950 (UL Recognized)  
NEMKO EN60950  
TUV EN60950  
CE Mark

\* Astec Part Number for Module = AA21970-288

# AMERICAS

5810 Van Allen Way  
Carlsbad, CA 92008  
Telephone: 760-930-4600  
Facsimile: 760-930-0698

# EUROPE

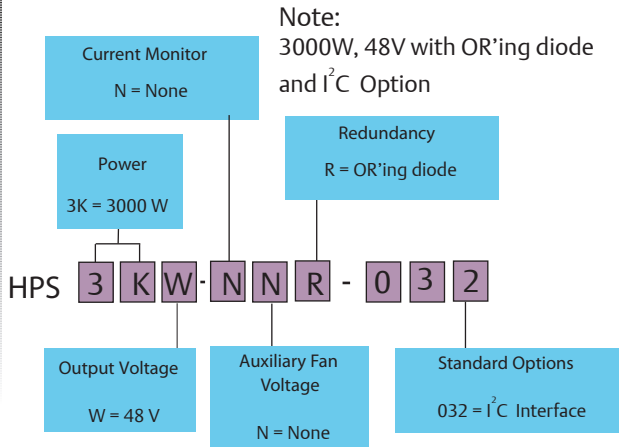
Astec House, Waterfront Business Park  
Merry Hill, Dudley  
West Midlands, DY5 1LX, UK  
Telephone: 44 (1384) 842-211  
Facsimile: 44 (1384) 843-355

# ASIA

14/F, Lu Plaza  
2 Wing Yip Street  
Kwun Tong, Kowloon  
Hong Kong  
Telephone: 852-2176-3333  
Facsimile: 852-2176-3888



## Ordering Information



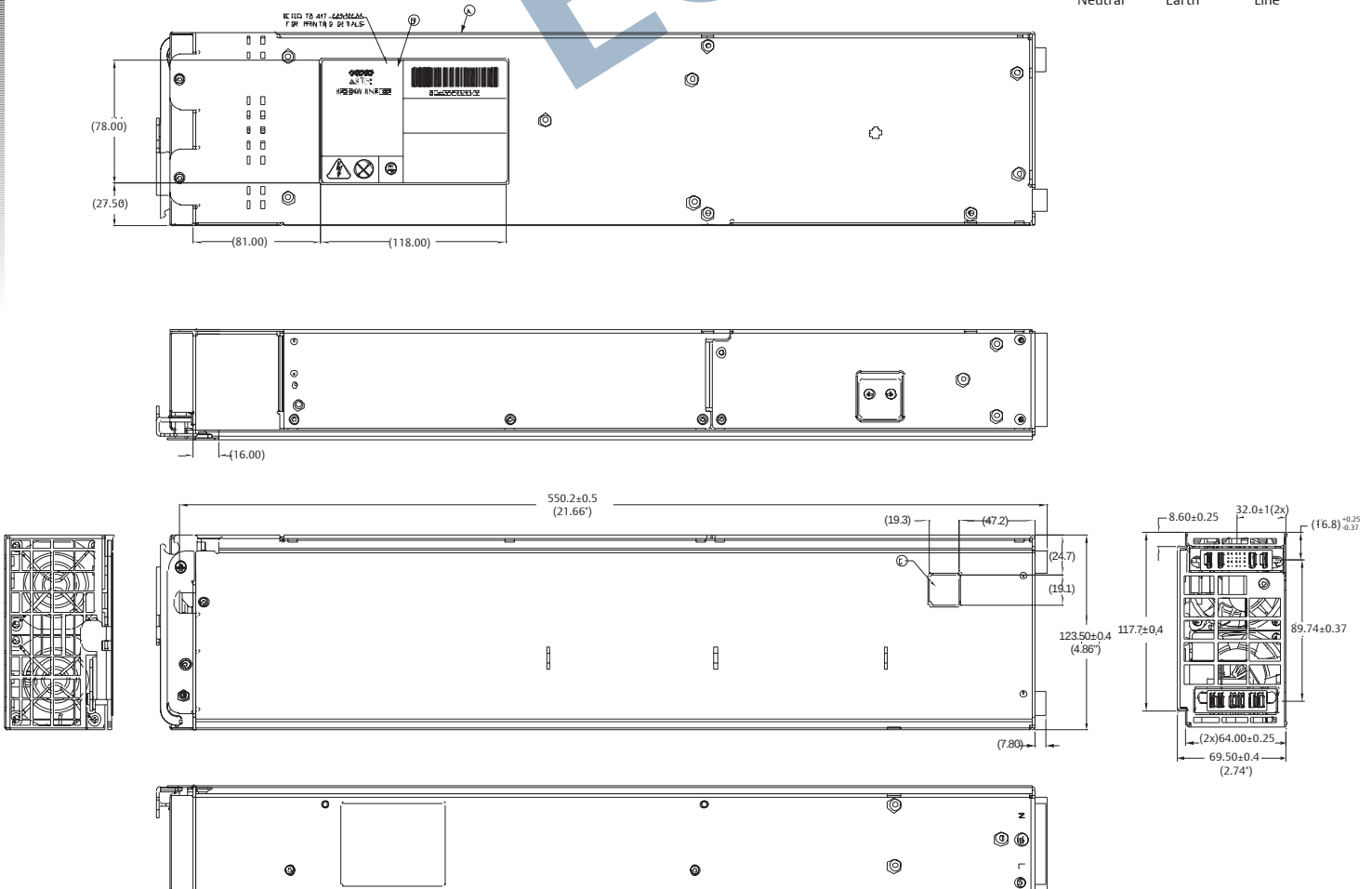
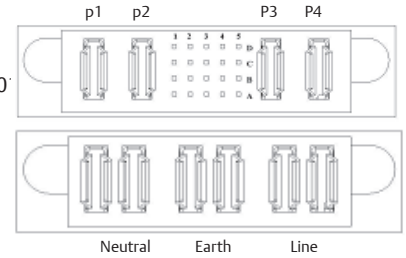
## DC Output Connector Pinout Assignment

| Signal Pins  |      |          |         |             |    |
|--------------|------|----------|---------|-------------|----|
|              | 1    | 2        | 3       | 4           | 5  |
| D            | 5Vsb | 5Vsb rtn | PSON    | SCL         | A0 |
| C            | 5Vsb | 5Vsb rtn | PRESENT | SCL/SDA RTN | A1 |
| B            | 5Vsb | 5Vsb rtn | PSKI    | SDA         | A2 |
| A            | 5Vsb | 5Vsb rtn | PWOK    | FAIL        | A3 |
|              |      |          |         |             |    |
| Power Blades |      |          |         |             |    |
| P1, P2       |      |          | P3, P4  |             |    |
| 48VDC RETURN |      |          | 48VDC   |             |    |

## Mechanical Drawings

DC OUTPUT CONNECTOR: FCI 51874-001  
DC OUTPUT MATING CONNECTOR: FCI 51875-001

AC INPUT CONNECTOR: FCI 51870-001  
AC MATING CONNECTOR: FCI 51871-001  
(REQUIRES 2 FCI 51869-001 BACKSHELL)



# HPS3KW

CONTINUED

## Rack Chassis

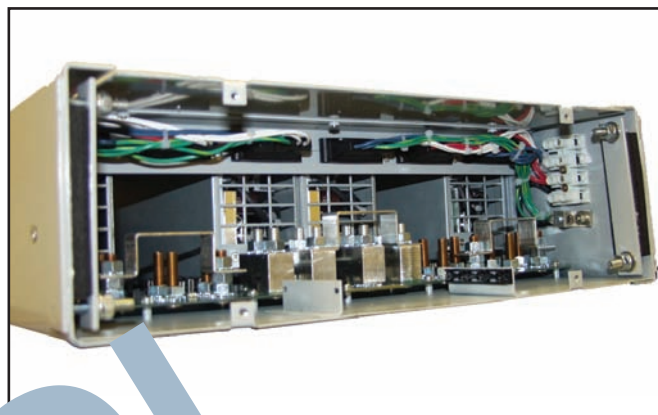
- Hot Swap
- Can accommodate up to 18KW of bulk power
- 48VDC output
- Easy AC input connect
- Easy DC output connect



Back View

## Safety Approvals

Pending



Inside View

