

# 75 Watts

## AA60A

**Total Power:** 75 Watts  
**Input Voltages:** 48V  
**No. of Outputs:** Dual



### Special Features

- Output loadsharing
- 48VDC Input
- Unencapsulated 2.3" x 2.4" x 0.50" pkg.
- 100°C Baseplate temperature
- Trim feature, both rails
- Industry standard pin-out
- Enable (on/off)
- Thermal protection
- 5.0V/3.3V dual outputs

### Environmental

Operating case temperature range:

-40°C to +105°C

Storage temperature: -40°C to +105°C

Humidity: 5% to 100% (non-condensing)

### Safety

**UL** UL 1950 File E494367  
CAN22.2-950  
**TUV** EN60950 File DE3-5117A

### Electrical Specs

#### Input

|                        |                           |
|------------------------|---------------------------|
| Input range            | 36 to 75 VDC (48Vdc Nom.) |
| Input capacitance      | 6.8mF (typical)           |
| Efficiency             | 82% typical               |
| Input reverse          |                           |
| Voltage protection     | Fuse recommended 3A.MB    |
| Input surge voltage    | 100V for 100mS            |
| Input reflected ripple | <200mA (P-P)              |

#### Output

|                          |                                                                                                           |
|--------------------------|-----------------------------------------------------------------------------------------------------------|
| Voltage tolerance        | + 1% (Main)<br>Output 1; $\pm 1.0\%$<br>Output 2; $\pm 1\%$                                               |
| Line regulation          | Output 1; $\pm 0.2\%$<br>Output 2; $\pm 0.2\%$<br>Low Line - High Line @ Full Load                        |
| Load regulation          | Output 1; $\pm 0.5\%$<br>Output 2; $\pm 0.5\%$<br>(10% to 100% load)<br>1A minimum load per rail required |
| Ripple/noise             | 100mV P-P(max)                                                                                            |
| Temperature coefficient  | +0.02%/°C (max)                                                                                           |
| Short circuit protection | Continuous - Power Cycle                                                                                  |
| Overvoltage protection   | Shutdown (latching)                                                                                       |
| Transient response       | 4% Vo max recovery <100msec<br>(25% to 75% step load change)                                              |
| Switching frequency      | 400 kHz typical                                                                                           |

#### Control

|                            |                                                                                         |
|----------------------------|-----------------------------------------------------------------------------------------|
| Enable                     | on = 2.5 to 5.5Vdc or open circuit<br>off = 0 to 0.8Vdc<br>Ref. to -Vin. TTL compatible |
| Input current (enable off) | <2ma.                                                                                   |
| Output trim                | Both outputs $\pm 10\%$ minimum                                                         |
| Thermal shutdown           | 110°C typ (baseplate temperature)<br>Auto reset                                         |

#### Isolation

|                      |                          |
|----------------------|--------------------------|
| I/O isolation        | 1500 VDC                 |
| Isolation resistance | 1 x 10 <sup>9</sup> ohms |

## 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

Units 2111-2116, Level 21  
Tower 1, Metroplaza  
223, Hing Fong Road  
Fwai Fong, New Territories  
Hong Kong  
Telephone: 852-2437-9662  
Facsimile: 852-2402-4426



## Ordering Information

AA60A

| Input Voltage | Output 1 Voltage | Output 2 Voltage | Model Number       |
|---------------|------------------|------------------|--------------------|
| 36 - 75VDC    | 3.3V @ 19A       | 2.5V @ 19A       | AA60A-048L-033D025 |
| 36 - 75VDC    | 5.0V @ 15A       | 3.3V @ 15A       | AA60A-048L-050D033 |

Note:

### Enable Function

"N" = negative logic enable (without "N" = positive enable)

### Trim Feature

"-PI" suffix = IPD Trim equivalent

1. Maximum output power not to exceed 75W total for 5/3.3V version (15A).
2. The sum of output currents not to exceed 15amps for 5/3.3V (19A max for 3.3/2.5V).
3. Any output loading ratio within the maximum specified limits is possible.

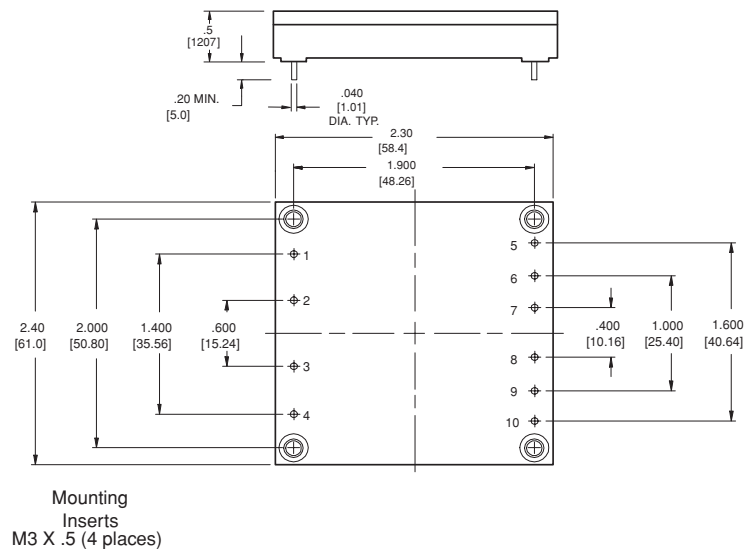
## Pin Assignments

### Single Output

1. -Vin
2. Case
3. Enable (on/off)
4. Vin+
5. V2
6. Rtn (V2)
7. Trim (V2)
8. V1
9. Rtn (V1)
10. Trim (V1)

### Notes:

1. 20MHz bandwidth. An external 2.2mf ceramic capacitor is recommended to be placed from +V out to -V out.
2. Requires a 2.2mf, 100V film capacitor connected between +V in and -V in to meet FCC class A and ETS300-386-1 requirements for conducted noise.
3. All specifications are typical at nominal line, full load, and 25°C unless otherwise noted.
4. All specifications subject to change without notice. Mechanical drawings are for reference only.
5. Please refer to the Technical Reference Notes for more information.
6. Warranty: 1 yr



Astec Industry Standard