

# 25 Watts

## AA25N

**Total Power:** 25 Watts  
**Input Voltages:** 24V or 48V  
**No. of Outputs:** Single, Dual, Triple



### Special Features

- Ideal for telecom/networking applications
- High efficiency
- Unencapsulated 2.0" x 2.0" x 0.50" package.
- Integral heat spreader available
- 100°C Baseplate temperature
- Enable (on/off)
- Thermal protection
- 350kHz Switching frequency
- Under voltage lockout

### Environmental

Operation case temperature range: -40°C to +100°C

Storage temperature: -40°C to +125°C

Humidity: 5% to 100%

### Safety

**UL** UL1950  
**CAN** CAN22.2-950  
**TUV** EN60950

### Electrical Specs

#### Input

Input range 18-36 Vdc (24 Vdc nominal)  
 36 - 75Vdc (48Vdc nominal)  
 Input capacitance 2mF typical

Input reverse voltage protection  
 Input surge voltage Fuse recommended  
 100V for 100mS (048L)  
 50V for 100mS (024L)  
 36V for 100mS (012L)  
 Input reflected ripple <10mA (P-P) See Note 2  
 Undervoltage lockout Vin<32V (-048L ONLY)  
 Efficiency 82% typical

#### Output

Voltage tolerance Main Output ±1.0%  
 Aux Output ±3.0%  
 Dual Output ±2.0%  
 Line regulation Main Output ±0.1%  
 Aux Output ±0.5%  
 Dual Output ±0.2%  
 Load regulation Main Output ±0.75%  
 Aux Output ±3.0%  
 Dual Output ±0.5%  
 (10% to 100% load) Note 6.  
 Noise/ripple 50mV P-P, Singles  
 100mVp-p, Dual, Triple  
 Short circuit protection Continuous power cycle  
 Overvoltage protection 120% of V0, Typ  
 Transient response 2% Vo typ; recovery <500msec typ  
 (25% step load change to within 1%Vo)  
 Temperature coefficient ±0.2%/°C  
 Switching frequency 350kHz

#### Control

Enable on = 2.5 to 5.5Vdc or open circuit  
 off = 0 to 0.8Vdc  
 Ref. to -Vin. TTL compatible  
 Input current (enable OFF) <10ma  
 Output trim Single output models  
 Thermal shutdown 110°C Baseplate temperature (typ)  
 Auto reset

#### Isolation

I/O isolation 1500Vdc  
 Isolation resistance 15 x 108 ohms

## Ordering Information

| Input<br>VDC | Output 1<br>Voltage | Output 2<br>Voltage | Output 3<br>Voltage | Output<br>Power | Model Number       |
|--------------|---------------------|---------------------|---------------------|-----------------|--------------------|
| 18-36        | 12V @ 2.08A         |                     |                     | 25W             | AA25N-024L-120S    |
| 18-36        | 15V @ 0.83A         | -15V @ 0.83A        |                     | 25W             | AA25N-024L-150D    |
| 36-75        | 3.3V @ 6A           |                     |                     | 19.8W           | AA25N-048L-033S    |
| 36-75        | 5V @ 5A             |                     |                     | 25W             | AA25N-048L-050S    |
| 36-75        | 5V @ 5A             | 3.3V @ 6A           |                     | 25W             | AA25N-048L-050D033 |
| 36-75        | 5V @ 2.5A           | 12V @ 0.52A         | -12V @ 0.52A        | 25W             | AA25N-048L-050T120 |

Notes:

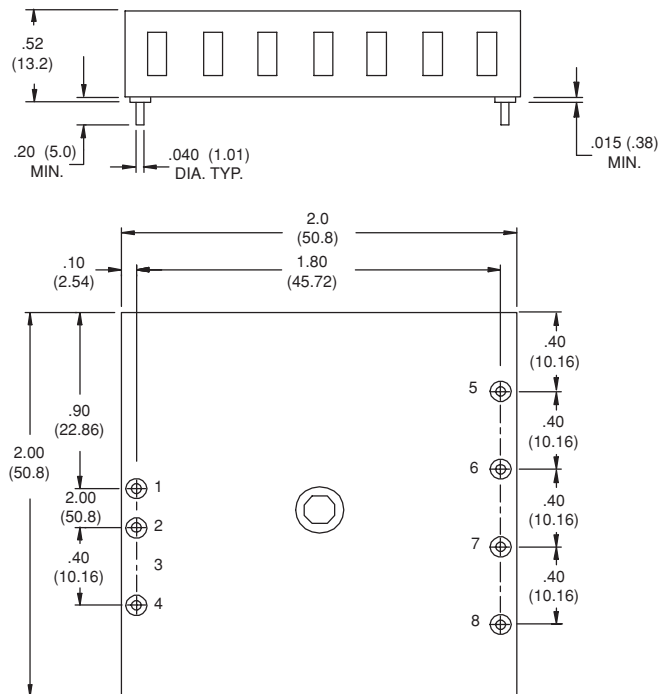
Max output power not to exceed 25W total. The sum of output currents not to exceed 6 Amps. Any output loading ratio within the maximum specified limits is possible.

## Pin Assignments

| Single Output | Dual Output | Triple Output |
|---------------|-------------|---------------|
| 1. +Vin       | 1. +Vin     | 1. +Vin       |
| 2. -Vin       | 2. -Vin     | 2. -Vin       |
| 3. No Pin     | 3. No Pin   | 3. No Pin     |
| 4. Enable     | 4. Enable   | 4. Enable     |
| 5. No Pin     | 5. V1 Out   | 5. V2 Out     |
| 6. V1 Out     | 6. Comm     | 6. V1 Out     |
| 7. Comm       | 7. V2 Out   | 7. Comm       |
| 8. Trim       | 8. N/C      | 8. V3 Out     |

**Notes:**

1. 20 MHz bandwidth. An external 2.2mf ceramic capacitor is recommended to be placed from +V out to -V out.
2. 12V and 24V Input models require external capacitor connected between +V in and -V in to meet FCC class A and ETS300-386-1 requirements for conducted noise. Consult Factory for filtering information to meet FCC class B, VDE or EIC specifications.
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. Balanced loads on dual and Aux output voltage.
7. Warranty: 1 yr



Case material: Metal base/cover  
Weight: 2.5 Oz / 68Gr.

### *Astec Conventional Power*