

10 Watts

AA10U

Total Power: 10 Watts
Input Voltages: 12V, 24V or 48V
No. of Outputs: Single, Dual



Electrical Specs

Input

| | | |
|------------------------------|---------------------------|-------------------|
| Input range | 9 to 36 VDC; 18 to 75 VDC | |
| Input capacitance | 48 models | 1.5uF typical |
| | 24 models | 2.7uF typical |
| No load input power | 150mW typical | |
| Input reflected ripple (P-P) | 48 Models | 4mA |
| | 24 Models | 10mA (see Note 2) |
| Efficiency | 82% (typ) | |

Output

| | | |
|--------------------------|---|--|
| Voltage tolerance | ±1.0% (main); ±2.0% (aux) (factory set-point) | |
| Line regulation | +0.5% max (main); ±0.5% (aux) | |
| Load regulation | ±0.5% (10% load to full load (singles)) ±1.0% (10% load to full load (duals)) | |
| Noise/ripple | 1% p-p (See Note 1) | |
| Short circuit protection | Continuous Power Cycle | |
| Overvoltage protection | Zener clamp | |
| Transient response | 1mS 50% Step load change to within 1% Vout | |
| Switching frequency | All models 380kHz except 150S & 150D Models 300kHz (typ.) | |
| Temperature coefficient | ±0.02%/°C max. | |

Isolation

| | |
|------------------------|------------------------------------|
| I/O isolation | 1500 VDC min |
| Insulation resistance | 50 M ohm |
| Insulation capacitance | 220pF |
| Fuse | .024 - 2.25A/250V 048 - 1A/250V |

Special Features

- Unencapsulated
- Wide 4:1 input range
- 1 year warranty
- 1.0" x 2.0" x 0.38" case
- Meets EN55022A for conducted noise

Environmental

Operating ambient temperature range:
-40°C to +75°C (no derating)

Baseplate: 105°C Max.

Storage Temperature: -55°C to +125°C

Humidity: 5% to 95% (non-condensing)

EMI/RFI Shielding: Five-Sided

MTBF: 361,000 hours (MIL-HDBK-217)

Safety

| | |
|------------|--|
| UL | UL 1950 Recognized CAN22.2-950 Recognized |
| TUV | EN60950 Certified |

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Ordering Information

| Input Voltage | Output 1 Voltage | Output 2 Voltage | Maximum Power | Model Number |
|---------------|------------------|------------------|---------------|-----------------|
| 9-36V | 3.3V @ 2.42A | | 8W | AA10U-024L-033S |
| 9-36V | 5V @ 2.00A | | 10W | AA10U-024L-050S |
| 9-36V | 12V @ 0.830A | | 10W | AA10U-024L-120S |
| 9-36V | 15V @ 0.670A | | 10W | AA10U-024L-150S |
| 9-36V | 5V @ .750A | -5V @ .750A | 7.5W | AA10U-024L-050D |
| 9-36V | 12V @ .375A | -12V @ 0.375A | 9W | AA10U-024L-120D |
| 9-36V | 15V @ .300A | -15V @ 0.300A | 9W | AA10U-024L-150D |
| 18-75V | 3.3V @ 2.42A | | 8W | AA10U-048L-033S |
| 18-75V | 5V @ 2.00A | | 10W | AA10U-048L-050S |
| 18-75V | 12V @ 0.830A | | 10W | AA10U-048L-120S |
| 18-75V | 15V @ .670A | | 10W | AA10U-048L-150S |
| 18-75V | 5V @ .750A | -5V @ 0.750A | 7.5W | AA10U-048L-050D |
| 18-75V | 12V @ 0.375A | -12V @ 0.375A | 9W | AA10U-048L-120D |
| 18-75V | 15V @ 0.300A | -15V @ 0.300A | 9W | AA10U-048L-150D |

Please contact Astec for information on other output voltages, power ranges and configurations.

Pin Assignments

Single Output

1. +Vin
2. -Vin
3. Output 1
4. No pin
5. COMM

Dual Output

1. +Vin.
2. -Vin
3. Output 1
4. COMM
5. Output 2

Notes:

1. 20MHz bandwidth. An external 0.1uf ceramic capacitor is recommended to be placed from +V out to -V out.
2. Meets FCC class A and ETS300-386-1 requirements for conducted noise. Consult factory for filter recommendations 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. Calculated per MIL HDBK 217F, Ground Benign at 25°C, full load.
6. Warranty: 1 yr

