10 Watts
AA10U

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



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

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

AMERICAS

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EUROPE

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ASIA

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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

