

AA10B

10 WATTS

NEW 3.3V Output



AA10B Series

Total Power	10 Watts
Input Voltages	12V, 24V or 48V
# of Outputs	Single, Dual

SPECIAL FEATURES

- Six-sided shielding
- 2:1/4:1 input ranges
- Telecom model (-048L models) feature thermal shutdown and overvoltage lock out to meet ETS 300 132-2 paragraph 4.6
- Small size 2.0" x 1.0" x 0.40"
- Meets EN55022A for conducted noise
- 5 year warranty
- Optional TTL enable feature

ENVIRONMENTAL

Operating ambient temperature range:
-40°C to +80°C (no derating)

Storage Temperature: -55°C to +105°C

Baseplate: 105°C Max

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

EMI RFI Shielding: Six sided

MTBF: 398,000 hours (MIL HDBK-217) Bellcore
>1.8 Mil hours. See notes.

SAFETY

UL	UL 1950 (recognition pending)
EN60950	Pending
CSA22.2 950	Pending

ELECTRICAL SPECIFICATIONS

Input

Input Range	9 to 36 VDC; 18 to 75 VDC; 36 to 75 VDC
Input Capacitance	46/-48 Models 1.5uF typical -012 Models 2.7uF typical
Input Reflected	
Ripple (P-P)	See Note 2 <5MA
Input Surge Voltage	100V for 100mS (-48 models only)
Efficiency	83% typical
No Load Input Power	350MW typical

Control

Enable	TTL compatible on =2.5 to 5.5Vdc or open circuit, off = 0 to 0.8Vdc
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Output

Voltage Tolerance	±1% (main) ±2% (aux) (factory set-point)
Line Regulation	±0.5% max.
Load Regulation	±1.0% max. (10% load to FL) ±1.0% max. aux. (10% load to FL) (load regulation (duals) assumes a balanced load)
Noise/Ripple	0.5% p-p See Note 1
Short Circuit Protection	Continuous Power Cycle
Over Voltage Protection	Zener clamp all outputs
Transient Response	1.0 MS typical ; 50% step load change
Temperature Coefficient	+0.02% °C max.
Switching Frequency	375kHz (fixed, typ)

Isolation

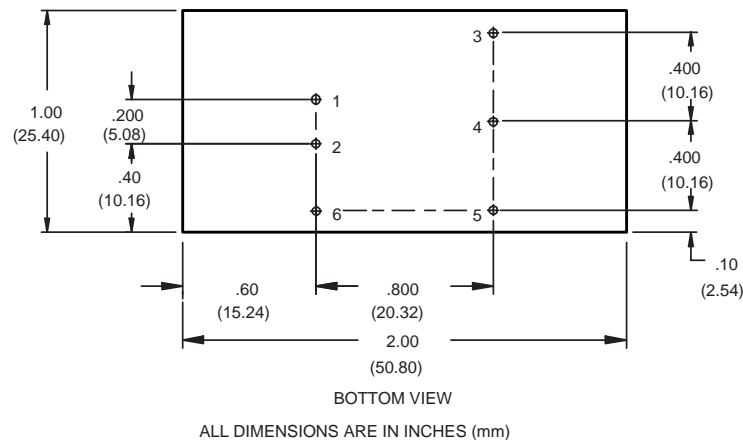
I/O Isolation	1500 VDC
Isolation Resistance	1 x 10 ⁹ (ohms)
Isolation Capacitance	250pF (Max)

ORDERING INFORMATION

Input Voltage	Output 1 Voltage	Output 2 Voltage	Maximum Power	Model Num
9-36V	3.3V @ 2.42A		8W	AA10B-012L-033S NEW
9-36V	5V @ 2A		10W	AA10B-012L-050S
9-36V	12V @ 0.830A		10W	AA10B-012L-120S
9-36V	15V @ 0.670A		10W	AA10B-012L-150S
9-36V	5V @ 0.750A	-5V @ 0.750A	7.5	AA10B-012L-050D
9-36V	12V @ 0.375A	-12V @ 0.375A	9W	AA10B-012L-120D
9-36V	15V @ 0.300A	-15V @ 0.300A	9W	AA10B-012L-150D
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18-75V	3.3V @ 2.42A		8W	AA10B-046L-033S NEW
18-75V	5V @ 2A		10W	AA10B-046L-050S
18-75V	12V @ 0.830A		10W	AA10B-046L-120S
18-75V	15V @ 0.670A		10W	AA10B-046L-150S
18-75V	5V @ 0.750A	-5V @ 0.750A	7.5W	AA10B-046L-050D
18-75V	12V @ 0.375A	-12V @ 0.375A	9W	AA10B-046L-120D
18-75V	15V @ 0.300A	-15V @ 0.300A	9W	AA10B-046L-150D
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36-75V	3.3V @ 2.42A		8W	AA10B-048L-033S NEW
36-75V	5V @ 2A		10W	AA10B-048L-050S
36-75V	12V @ 0.830A		10W	AA10B-048L-120S
36-75V	15V @ 0.670A		10W	AA10B-048L-150S
36-75V	5V @ 0.750A	-5V @ 0.750A	7.5W	AA10B-048L-050D
36-75V	12V @ 0.375A	-12V @ 0.375A	9W	AA10B-048L-120D
36-75V	15V @ 0.300A	-15V @ 0.300A	9W	AA10B-048L-150D

*For remote enable option, add suffix "E" to the part number. For example : AA10B-048L-050SE= 48V in, 5V out with remote enable.
Please contact Astec for information on other output voltages, power ranges and configurations.

DIMENSIONS



PIN ASSIGNMENTS

Single Output

- +Vin (Case GND -48/-46 models)
- Vin (Case GND -12 models)
- Output 1
- No pin
- COMM
- Enable (E models only)

Dual Output

- +Vin (Case GND -48/-46 models)
- Vin (Case GND -12 models)
- Output 1
- Common
- Output 2
- Enable (E models only)

NOTES

- 20 MHz bandwidth. An external 0.1 uf ceramic capacitor is recommended to be placed from +V out to comm.
- Meets EN55022 Class A (-150S/D require 2.2uf input capacitor). Consult factory for filter recommendations to meet FCC class B, VDE or EIC specifications.
- All specifications are typical at nominal line, full load, and 25°C unless otherwise noted.
- All specifications subject to change without notice. Mechanical drawings are for reference only.
- Calculated per MIL-HDBK 217 F, Ground benignity at 25°C full load. BELLCORE calculated per TR-NW T-000332 method 1 parts count, Case 1.

Case Material Metal
Weight 1.4 oz/40 grams