

AA20B

20 Watts

AA20B Series

Total Power	20 Watts
Input Voltages	12V, 24V or 48V
# of Outputs	Single, Dual



SPECIAL FEATURES

- Six-sided shielding
- Wide 2:1Δ/Δ4:1 input range
- Telecom models (-048L models) feature thermal shutdown and undervoltage lock out to meet ETS 300 132-2 paragraph 4.6
- Small size 2.0" x 1.6" x 0.40"
- 5 year warranty

ENVIRONMENTAL

Operating ambient temperature range:
-40°C to +60°C

Operating Temperature (baseplate): 105°C max

Storage Temperature: -55°C to +105°C

Cooling Method: Convection

EMI/RFI: Six-sided shielding

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

Bellcore: >1.7 Mil hours. See notes.

SAFETY

UL UL1950 Recognized
CSA CSA22.2-950 Certified
TUV EN60950 Certified

Switching frequency 200kHz

Temperature coefficient $\pm 0.02\%$ per °C

NOTES

1. An external .1μf ceramic capacitor is recommended to be placed from +Vout to -Vout. 20MHz bandwidth.
2. Consult factory for filter recommendations to meet FCC, or other specifications.
3. Requires external 2.2μf 100V film capacitor (ITW/Paktron part # 225K100RA4 or equiv.) on input.
4. Calculated for MIL HDBK-217E ground Benign at 25°C full load. Bellcore calculated per TR-NWT-000332 method 1 parts count, case 1.
5. Minimum load 10% of full load.
6. All specifications are typical at nominal input and full load unless otherwise noted.
7. Specifications subject to change without notice.
8. Mechanical drawings for reference only.

ELECTRICAL SPECIFICATIONS

Input

Input range 9 to 36 VDC; 18 to 75 VDC;
36 to 75 VDC: 9 to 18 VDC

Input capacitance 46L & 48L 2.2μF (typ);
012L & 24L 4.9μF (typ)

Input capacitor Required See Note 3

No load input power 350mW (typ)

Input reflected ripple (P-P) 46L & 48L 105mA (typ);
012L & 24L 90mA (typ);
See Note 2

Input capacitance 2.5μf typical

Input surge voltage 100V for 100mS (046L and 048L)
50V for 100mS (024L)

Efficiency 81 - 88% typical

Control

Enable on = 2.5 to 5.5Vdc or open circuit
off = 0 to 0.8Vdc
Ref. to -Vin. TTL compatible

Output

Voltage tolerance $\pm 1\%$ max (factory set-point)

Line regulation $\pm 0.25\%$ max

Load regulation $\pm 0.5\%$ (10%L-FL max (main))
 $\pm 1.0\%$ (10%L-FL max (aux))
bal. loads

Output voltage

Adjust range $\pm 10\%$ using external resistor or trim pot

Short circuit protection Continuous Power Cycle (main)

Overvoltage protection Zener Clamp

Transient response 500μsec

(50% step load change to with 1% V_o)

Noise/ripple 50mV p-p (typ) (See note 1)

Isolation

Input to output 1500 VDC

Isolation resistance 1×10^9 (Ohms)

Isolation capacitance 100pF

AA20B-012L-033S

AA20B-024L-033S

AA20B-048L-033S

