

AYA Series

2 Watts

Data Sheet

Total Power: 2 W
Input Voltage: 5, 12, 24, 48 V
of Outputs: Single and Dual

SPECIAL FEATURES

- Ultra compact DIP package (14 x 14 x 8.0 mm; 0.55 x 0.55 x 0.31 inches)
- Efficiency up to 87%
- I/O-isolation 1500 Vdc
- Wide 2:1 input range
- Operating temperature range -40 °C to +85 °C (with derating)
- Three year product warranty
- UL/cUL/IEC/EN 60950-1 Safety Approval, CE Mark

SAFETY

- cUL/UL 60950-1 recognition
- CE Mark



Electrical Specifications

| Input | |
|--------------------------|--|
| Input range | 4.5 - 10 Vdc; 9 - 18 Vdc; 18 - 36 Vdc; 36 - 75 Vdc |
| Efficiency | 87% @ 12 Vo |
| Output | |
| Voltage tolerance | ±1.5% |
| Line regulation | ±0.2% |
| Load regulation | 1.0% |
| Noise/ripple | 70 mV |
| Overload protection | 170% typ of Io max, foldback |
| Short circuit protection | Continuous, automatic recovery |
| Switching frequency | 100 kHz |
| Isolation | |
| I/O isolation | I/O: 1500 Vdc |
| Insulation resistance | 1000 Mohm |
| Insulation capacitance | 100 pF |

Environmental Specifications

| | |
|--|--------------------------|
| Operating ambient temperature range | -40 °C to +85 °C |
| Storage temperature | -50 °C to +125 °C |
| Humidity | 5% to 95% non-condensing |
| MTBF | 3.5 Mhrs calculated |

Ordering Information

| Part Number | Input Voltage | Output Voltage | Output Current | Efficiency | Power |
|-------------|---------------|----------------|----------------|------------|-------|
| AYA00F05-L | 4.5-10 Vdc | 3.3 Vdc | 0.4 A | 79% | 1.3 W |
| AYA00F12-L | 9-18 Vdc | 3.3 Vdc | 0.4 A | 80% | 1.3 W |
| AYA00F24-L | 18-36 Vdc | 3.3 Vdc | 0.4 A | 80% | 1.3 W |
| AYA00F48-L | 36-75 Vdc | 3.3 Vdc | 0.4 A | 79% | 1.3 W |
| AYA00A05-L | 4.5-10 Vdc | 5 Vdc | 0.4 A | 81% | 2 W |
| AYA00A12-L | 9-18 Vdc | 5 Vdc | 0.4 A | 83% | 2 W |
| AYA00A24-L | 18-36 Vdc | 5 Vdc | 0.4 A | 83% | 2 W |
| AYA00A48-L | 36-75 Vdc | 5 Vdc | 0.4 A | 82% | 2 W |
| AYA00AA05-L | 4.5-10 Vdc | ± 5 Vdc | 0.2 A | 82% | 2 W |
| AYA00AA12-L | 9-18 Vdc | ± 5 Vdc | 0.2 A | 84% | 2 W |
| AYA00AA24-L | 18-36 Vdc | ± 5 Vdc | 0.2 A | 84% | 2 W |
| AYA00AA48-L | 36-75 Vdc | ± 5 Vdc | 0.2 A | 82% | 2 W |
| AYA00B05-L | 4.5-10 Vdc | 12 Vdc | 0.167 A | 85% | 2 W |
| AYA00B12-L | 9-18 Vdc | 12 Vdc | 0.167 A | 87% | 2 W |
| AYA00B24-L | 18-36 Vdc | 12 Vdc | 0.167 A | 87% | 2 W |
| AYA00B48-L | 36-75 Vdc | 12 Vdc | 0.167 A | 86% | 2 W |
| AYA00BB05-L | 4.5-10 Vdc | ± 12 Vdc | 0.083 A | 84% | 2 W |
| AYA00BB12-L | 9-18 Vdc | ± 12 Vdc | 0.083 A | 86% | 2 W |
| AYA00BB24-L | 18-36 Vdc | ± 12 Vdc | 0.083 A | 86% | 2 W |
| AYA00BB48-L | 36-75 Vdc | ± 12 Vdc | 0.083 A | 85% | 2 W |
| AYA00C05-L | 4.5-10 Vdc | 15 Vdc | 0.134 A | 85% | 2 W |
| AYA00C12-L | 9-18 Vdc | 15 Vdc | 0.134 A | 87% | 2 W |
| AYA00C24-L | 18-36 Vdc | 15 Vdc | 0.134 A | 87% | 2 W |
| AYA00C48-L | 36-75 Vdc | 15 Vdc | 0.134 A | 86% | 2 W |
| AYA00CC05-L | 4.5-10 Vdc | ± 15 Vdc | 0.067 A | 85% | 2 W |
| AYA00CC12-L | 9-18 Vdc | ± 15 Vdc | 0.067 A | 87% | 2 W |
| AYA00CC24-L | 18-36 Vdc | ± 15 Vdc | 0.067 A | 87% | 2 W |
| AYA00CC48-L | 36-75 Vdc | ± 15 Vdc | 0.067 A | 85% | 2 W |

Mechanical Dimensions



- All dimensions in mm (inches)
- Tolerance: X.X±0.5 (X.XX±0.02)
X.XX±0.25 (X.XXX±0.01)
- Pin diameter $\varnothing 0.5 \pm 0.05$ (0.02 ± 0.002)

| Pin Connections | | |
|-----------------|---------------|-------------|
| Pin | Single Output | Dual Output |
| 1 | -Vin | -Vin |
| 4 | +Vin | +Vin |
| 5 | +Vout | +Vout |
| 6 | No pin | Common |
| 7 | -Vout | -Vout |

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