

1 Watt

IQ Series



- Single & Dual Output
- SIP Package
- 1000 VDC Isolation
- Optional 3000 VDC Isolation
- -40 °C to +85 °C Operation
- Semi-regulated
- 3 Year Warranty

Specification

Input

- Input Voltage Range • Nominal $\pm 10\%$
- Input Reflected Ripple Current • 5 & 12 V: 20 mA, 15 V: 30 mA, 24 V: 40 mA, 48 V: 50 mA pk-pk, 5 Hz to 20 MHz
- Input Reverse Voltage Protection • None

Output

- Output Voltage • See table
- Minimum Load • None⁽¹⁾
- Line Regulation • 1.2%/1% ΔV_{in}
- Load Regulation • See table (10-100%)
- Setpoint Accuracy • $\pm 3\%$
- Ripple & Noise • 50 mV pk-pk max, 20 MHz bandwidth
- Temperature Coefficient • 0.02%/°C
- Maximum Capacitive Load • See table

General

- Efficiency • See table
- Isolation Voltage • 1000 VDC minimum, 3000 VDC option⁽²⁾
- Isolation Resistance • $10^9 \Omega$
- Isolation Capacitance • 60 pF typical
- Switching Frequency • Variable, 55 kHz - 85 kHz
- MTBF • >1.1 Mhrs to MIL-HDBK-217F at 25 °C, GB

Environmental

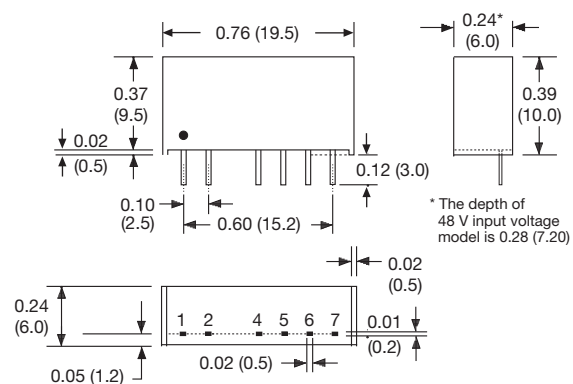
- Operating Temperature • -40 °C to +85 °C
- Storage Temperature • -40 °C to +125 °C
- Case Temperature • 100 °C max
- Cooling • Convection-cooled

Notes

1. Operation at no load will not damage unit but it may not meet all specifications.
2. For optional 3000 VDC isolation, add suffix '-H' to the model number.
3. For dual output delete suffix 'A' and split output current equally between rails.
4. All dimensions in inches (mm).
5. Pin pitch tolerance: ± 0.014 (± 0.35)
6. Case tolerance: ± 0.02 (± 0.5)
7. Weight: 0.06 lbs (2.8 g)

| Input Voltage | Output Voltage | Output Current | No Load Input Current | Max Capacitive Load | Efficiency | Load Reg. | Model [®] Number |
|---------------|----------------|----------------|-----------------------|---------------------|------------|-----------|---------------------------|
| 5 VDC | 5.0 V | 200 mA | 20 mA | 200 μ F | 83% | 6.0% | IQ0505SA |
| | 9.0 V | 111 mA | 20 mA | 200 μ F | 86% | 5.5% | IQ0509SA |
| | 12.0 V | 83 mA | 20 mA | 100 μ F | 87% | 5.5% | IQ0512SA |
| | 15.0 V | 67 mA | 20 mA | 100 μ F | 87% | 5.0% | IQ0515SA |
| 12 VDC | 5.0 V | 200 mA | 15 mA | 200 μ F | 84% | 4.0% | IQ1205SA |
| | 9.0 V | 111 mA | 15 mA | 200 μ F | 86% | 3.5% | IQ1209SA |
| | 12.0 V | 83 mA | 15 mA | 100 μ F | 88% | 3.5% | IQ1212SA |
| | 15.0 V | 67 mA | 15 mA | 100 μ F | 88% | 3.0% | IQ1215SA |
| 15 VDC | 5.0 V | 200 mA | 10 mA | 200 μ F | 84% | 4.0% | IQ1505SA |
| | 9.0 V | 111 mA | 10 mA | 200 μ F | 86% | 3.5% | IQ1509SA |
| | 12.0 V | 83 mA | 10 mA | 100 μ F | 87% | 3.5% | IQ1512SA |
| | 15.0 V | 67 mA | 10 mA | 100 μ F | 89% | 3.0% | IQ1515SA |
| 24 VDC | 5.0 V | 200 mA | 7 mA | 200 μ F | 81% | 4.0% | IQ2405SA |
| | 9.0 V | 111 mA | 7 mA | 200 μ F | 84% | 3.5% | IQ2409SA |
| | 12.0 V | 83 mA | 7 mA | 100 μ F | 85% | 3.5% | IQ2412SA |
| | 15.0 V | 67 mA | 7 mA | 100 μ F | 86% | 2.5% | IQ2415SA |
| 48 VDC | 5.0 V | 200 mA | 5 mA | 200 μ F | 78% | 4.0% | IQ4805SA |
| | 9.0 V | 111 mA | 5 mA | 200 μ F | 80% | 3.5% | IQ4809SA |
| | 12.0 V | 83 mA | 5 mA | 100 μ F | 81% | 3.0% | IQ4812SA |
| | 15.0 V | 67 mA | 5 mA | 100 μ F | 81% | 3.0% | IQ4815SA |

Mechanical Details



| Pin Connections | | | | |
|-----------------|--------|--------|----------|--------|
| Pin | Single | Dual | Single-H | Dual-H |
| 1 | +Vin | +Vin | +Vin | +Vin |
| 2 | -Vin | -Vin | -Vin | -Vin |
| 4 | -Vout | -Vout | N.P | N.P |
| 5 | N.P | Common | -Vout | -Vout |
| 6 | +Vout | +Vout | N.P | Common |
| 7 | N.P | N.P | +Vout | +Vout |