

ADQ800 Series

800 Watt Quarter Brick DC-DC Converter

Data Sheet

Total Power: 800 Watt
(11.8 V @ 70 A)
Input Voltage: 40 - 60 V
of Outputs: Single
(11.8 V Nom)



SPECIAL FEATURES

- Delivering up to 70A output
- Ultra-high efficiency
96.0% typ. at 50% load
- Parallel and Droop current sharing
- Pre-bias startup: 0% Vout ~ 95% Vout
- Excellent thermal performance
- No minimum load requirement
- RoHS 6 compliant
- Remote control function
- Input undervoltage lockout
- Input overvoltage lockout
- Output overcurrent protection
- Output overvoltage protection
- Overtemperature protection
- Industry standard quarter-brick pinoutoutline
- Baseplated
- Pin length option: 4.6 mm
- Two year warranty (consult factory for extended terms)

SAFETY

- EN60950
- UL/CSA60950
- CE

Electrical Specifications

| Input | |
|----------------------------|---|
| Input voltage | 40 - 60 Vdc |
| Input surge | 80 V / 100 mSec |
| Efficiency | 96% (11.8 V @ 100% load) 96% (11.8 V @ 50% load) |
| I/O insulation | Basic insulation |
| I/O isolation | 1500 Vdc |
| Output | |
| Output voltage | 11.8 V nominal |
| Output current maximum | 70 A |
| Noise/ripple | 100 mV pk-pk typ. |
| Overtemperature protection | Baseplate: 110 °C |
| Overvoltage protection | Auto restart |
| Overcurrent protection | Hiccup |
| Control | |
| Enable | TTL compatible (negative logic) |
| Switching frequency | 175 KHz |

Environmental Specifications

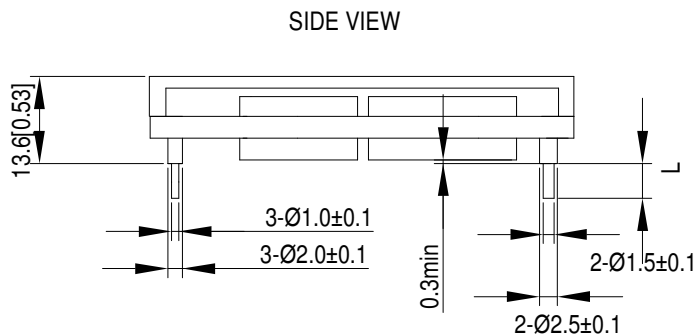
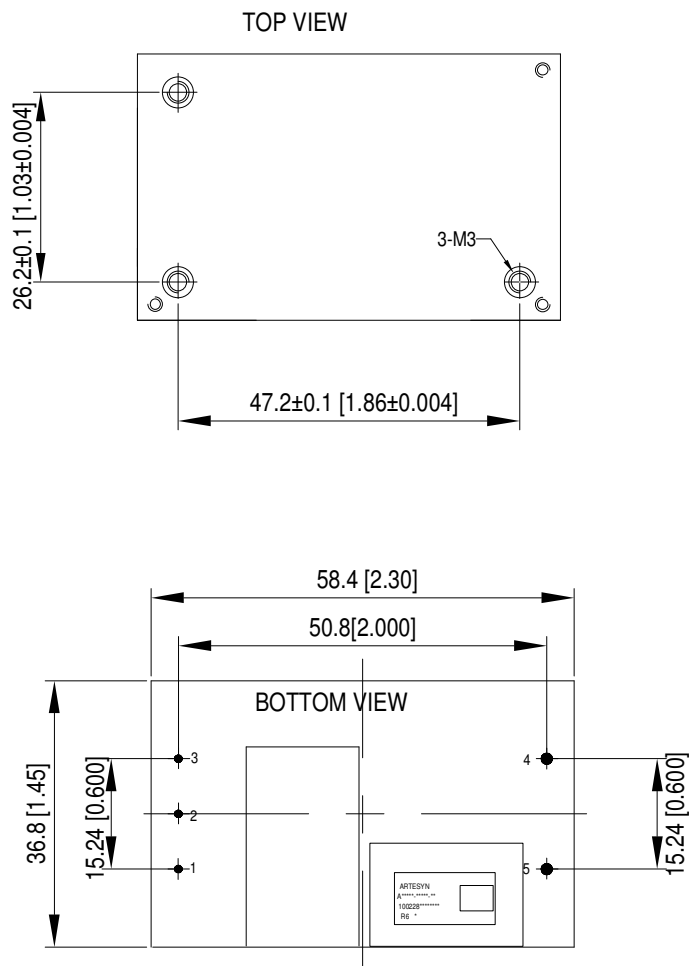
| | |
|-------------------------------------|----------------------------|
| Operating ambient temperature range | -40° C to +85 °C |
| Storage temperature | -55 °C to +125 °C |
| Humidity | 5% to 90% (non-condensing) |
| MTBF | 1 Million hours (target) |
| RoHS compliant | 6/6 |

Ordering Information

| Model number | Input voltage | Output voltage set point | Output current | Structure |
|------------------|---------------|--------------------------|----------------|---------------------------|
| ADQ800-48S12B-4L | 36 - 60 Vdc | 11.8 Vdc | 70 A | Open frame with baseplate |

“B” = Baseplate

Mechanical Drawing



Pin Length Options

| Device code suffix | L |
|--------------------|------------------|
| -4 | 4.6 mm ± 0.25 mm |
| -6 | 3.8 mm ± 0.25 mm |
| -8 | 2.8 mm ± 0.25 mm |
| None | 5.8 mm ± 0.25 mm |

Pin Designations

| Pin Number | Name | Function |
|------------|---------------|--------------------------|
| 1 | Vin+ | Positive input terminal |
| 2 | Remote ON/OFF | ON/OFF control terminal |
| 3 | Vin- | Negative input terminal |
| 4 | Vo- | Negative output terminal |
| 5 | Vo+ | Positive output terminal |

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