

# ARTESYN ADQ800 SERIES

800 Watt Quarter Brick DC-DC  
Converter



ADQ800 series quarter-brick (ADQ800-48S12B-4L) isolated DC-DC converter produces a single fully regulated 11.8 V output. Rated at 800 watts, this converter can deliver up to 70 amps output current and has no minimum load requirement. It has an input voltage range of 40 to 60 V and is primarily designed for use with standard 48 V supplies in computing and server applications, as well as regulated 48V supplies in communications equipment.

## 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

- TUV/CE 62368-1
- UL/cUL 60950-1

## DATA SHEET

### Total Power:

800 Watt  
(11.8 V @ 70 A)

### Input Voltage:

40 - 60 V

### # of Outputs:

Single  
(11.8 V Nom)

## 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

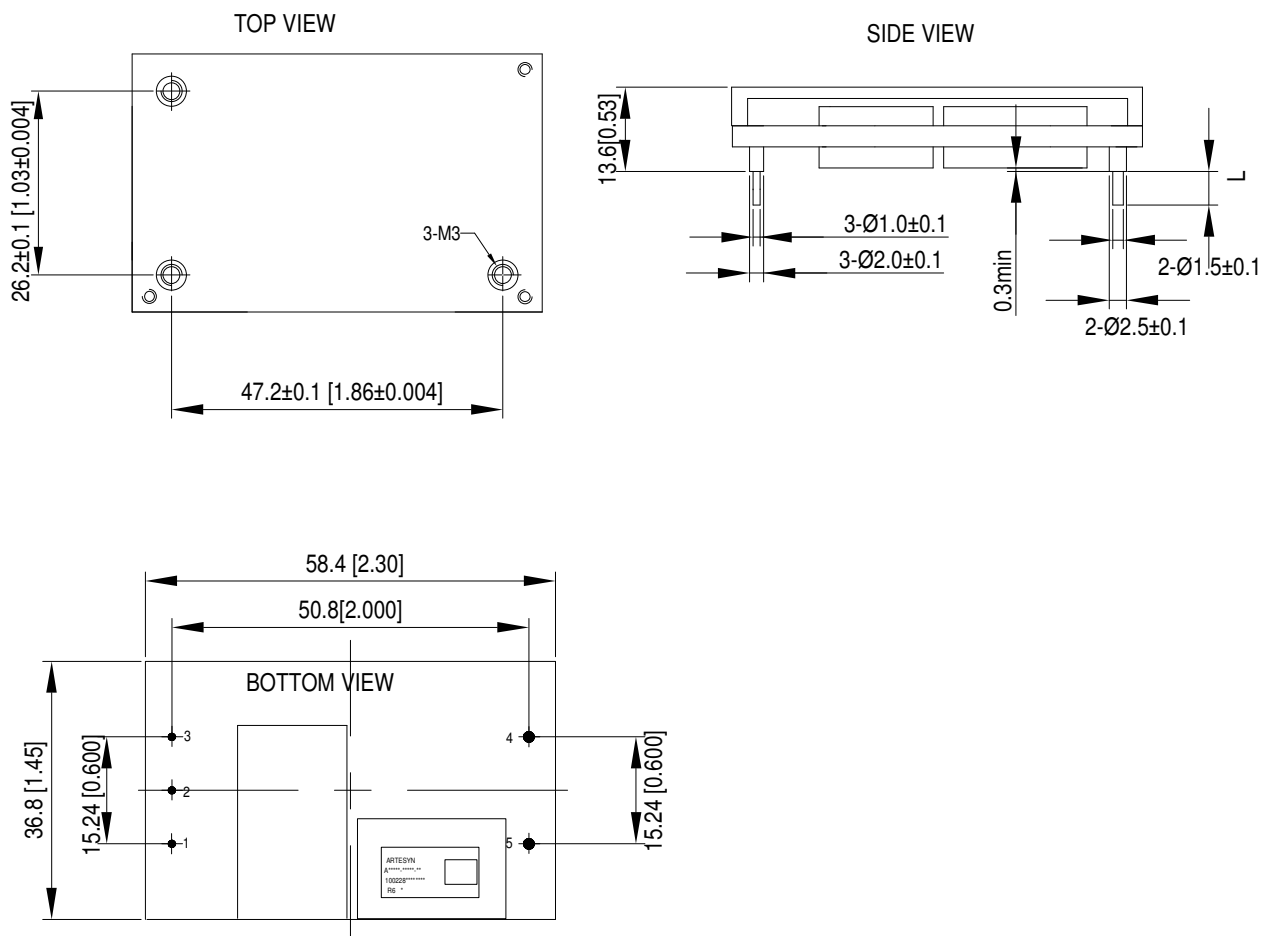
Operating ambient temperature range	-40° C to +85 °C
Storage temperature	-55 °C to +125 °C
Humidity	5% to 90% (non-condensing)
MTBF	1 Million hours (target)
RoHS compliant	6/6

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



For international contact information,  
visit [advancedenergy.com](http://advancedenergy.com).

[powersales@aei.com](mailto:powersales@aei.com) (Sales Support)  
[productsupport.ep@aei.com](mailto:productsupport.ep@aei.com) (Technical Support)  
+1 888 412 7832

## ABOUT ADVANCED ENERGY

Advanced Energy (AE) has devoted more than three decades to perfecting power for its global customers. AE designs and manufactures highly engineered, precision power conversion, measurement and control solutions for mission-critical applications and processes.

Our products enable customer innovation in complex applications for a wide range of industries including semiconductor equipment, industrial, manufacturing, telecommunications, data center computing, and medical. With deep applications know-how and responsive service and support across the globe, we build collaborative partnerships to meet rapid technological developments, propel growth for our customers, and innovate the future of power.

PRECISION | POWER | PERFORMANCE

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