# ARTESYN ADQ600 SERIES

600 Watts



Advanced Energy's Artesyn ADQ600 series quarter-brick isolated DC-DC converter produces a single fully regulated 12 V output. Rated at 600 watts, the converter can deliver up to 50 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 telecommunications equipment.

DATA SHEET

**Total Power:**

600 Watts

**Input Voltage:**

40 - 60 V

**# of Outputs:**

Single

RoHS 6/6 COMPLIANT

## SPECIAL FEATURES

- Delivering up to 50 A output
- Ultra-high efficiency 95.6% typical at full load
- Wide input range: 40 V - 60 V
- Excellent thermal performance
- No minimum load requirement
- Basic isolation
- High power density
- Low output noise
- RoHS 6 compliant
- Remote control function (negative logic)
- Input under voltage lockout
- Output over current protection
- Output over voltage protection
- Over temperature protection
- Industry standard quarter-brick pinout outline
- Open-frame and baseplated
- Pin length option: 3.8 mm

## SAFETY

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

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## ELECTRICAL SPECIFICATIONS

| | |
|---|---|
| **Input** | |
| Input voltage (continuous) | 63 V |
| Input voltage (non-continuous) | 80 V 100 mSec |
| Input over voltage protection | 63 Vdc |
| Input range | 40 - 60 VDC |
| Efficiency | 95.6% @ 12Vo |
| **Output** | |
| Output voltage | 12 V |
| Output current | 50 A |
| Voltage tolerance | +/-1% |
| Line regulation | 0.1% |
| Load regulation | 3.3% |
| Noise/ripple | 200 mV |
| Over voltage protection | Hiccup at between 13.6 V and 16 V |
| Over temperature protection | Auto-restart |
| Switching frequency | 175 KHz |
| Temperature coefficient | ±0.02/°C |
| **Isolation** | |
| I/O isolation | 1500 VDC min. |

## ENVIRONMENTAL SPECIFICATIONS

| | |
|---|---|
| Operating ambient temperature range | -40° C to +85 °C |
| Storage temperature | -55 °C to +125 °C |
| Humidity | 5% to 95% (non-condensing) |
| MTBF | 1.5 Million hours |
| RoHS Compliant | |

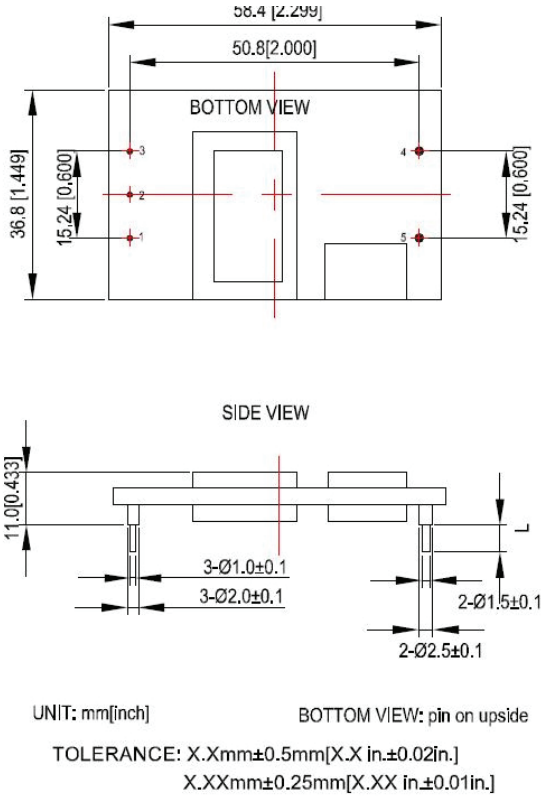
## ORDERING INFORMATION

| Model number | Input voltage | Output voltage | Power |
|---|---|---|---|
| ADQ600-48S12-6L | 40 - 60 V | 12 V @ 50 A | 600 W |
| ADQ600-48S12B-6L | 40 - 60 V | 12 V @ 50 A | 600 W |

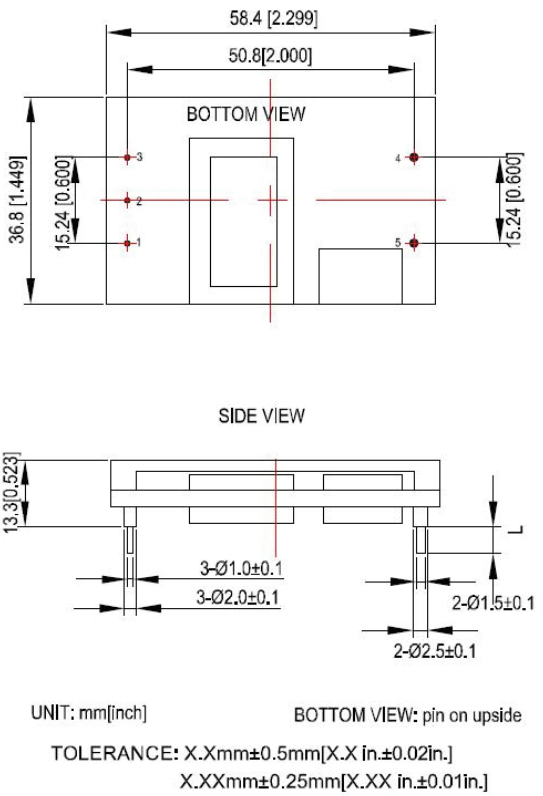
- Standard version is negative enable
- "-6" = 3.8 mm pin length
- "-L" = RoHS 6 compliance
- "B" = Baseplate

## MECHANICAL DRAWINGS

### Open Frame Module:




### Baseplate Module:




## PIN ASSIGNMENTS

| Pin # | Function |
|---|---|
| 1 | +Vin |
| 2 | Remote On/Off |
| 3 | -Vin |
| 4 | -Vout |
| 5 | +Vout |

Notes:
1. All specifications are subject to change without notice. Mechanical drawings are for reference only.
2. Warranty: 2 years
3. Label and logo appearance may vary from what is shown on mechanical drawings.

## 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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