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	

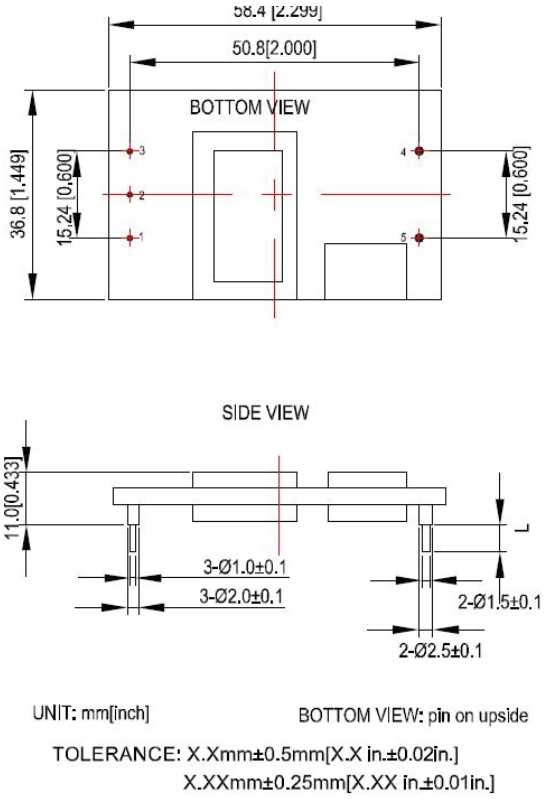
ORDERING INFORMATION

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:

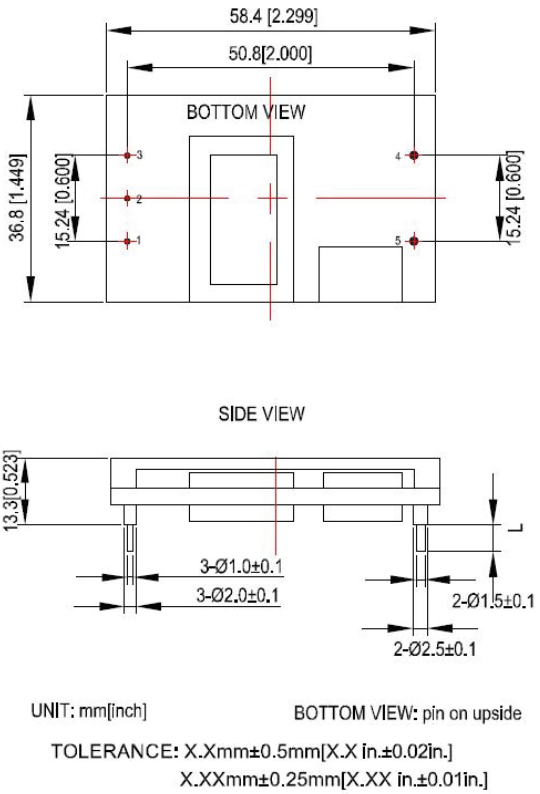


UNIT: mm[inch]

BOTTOM VIEW: pin on upside

TOLERANCE: X.Xmm±0.5mm[X.X in.±0.02in.]
X.XXmm±0.25mm[X.XX in.±0.01in.]

Baseplate Module:



UNIT: mm[inch]

BOTTOM VIEW: pin on upside

TOLERANCE: X.Xmm±0.5mm[X.X in.±0.02in.]
X.XXmm±0.25mm[X.XX in.±0.01in.]

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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