

# ARTESYN AIQ02R300-L

65 Watts



The AIQ02R series high voltage quarter-brick DC-DC converters accept a wide range 250 to 420 Vdc input and are designed for use with power factor correction (PFC) modules. Rated at 65 watts, the AIQ02R series can deliver full continuous power at operating baseplate temperatures from -40 to 100°C. The converters have a typical efficiency of 90% and produce a 28 Vdc output that can deliver up to 2.32 amps; the output voltage can be adjusted from 25.2 to 29.4 V with an external trim resistor.

## DATA SHEET

### Total Power:

65 Watts  
(28 V @ 2.32 A)

### Input Voltage:

390 V

### # of Outputs:

Single

### SPECIAL FEATURES

- 65 W Continuous power at 100°C baseplate temperature
- High efficiency: up to 90%
- Low output ripple and noise
- Positive Enable function
- Excellent transient response
- Safety isolated low voltage control and monitoring
- High reliability
- Wide input voltage range
- Adjustable output voltage
- Regulation to zero load
- EU Directive 2002/95/EC compliant for RoHS

### SAFETY

- UL cUL 60950 Recognized
- TUV EN60950 Licensed
- CE CE Mark



## ELECTRICAL SPECIFICATIONS

Input	
Input Range:	250 - 420 VDC
Input Surge:	500 V / 100 ms
Efficiency:	90% @ 28.0 V 65 W (typical)
Isolation Voltage:	2500 VDC
Output	
Line Regulation:	0.2 % typical
Load Regulation:	0.2 % typical
Noise / ripple:	3% Vo,
Transient response:	5% Vo deviation with 100% to 80% full load @ 0.1 A / $\mu$ S
Overvoltage protection:	30 - 31.5 V
Current limit:	130% Io maximum
Control	
Output Voltage Adjust:	90% - 105% (via external trim resistor)
Enable:	TTL compatible (positive enable logic)

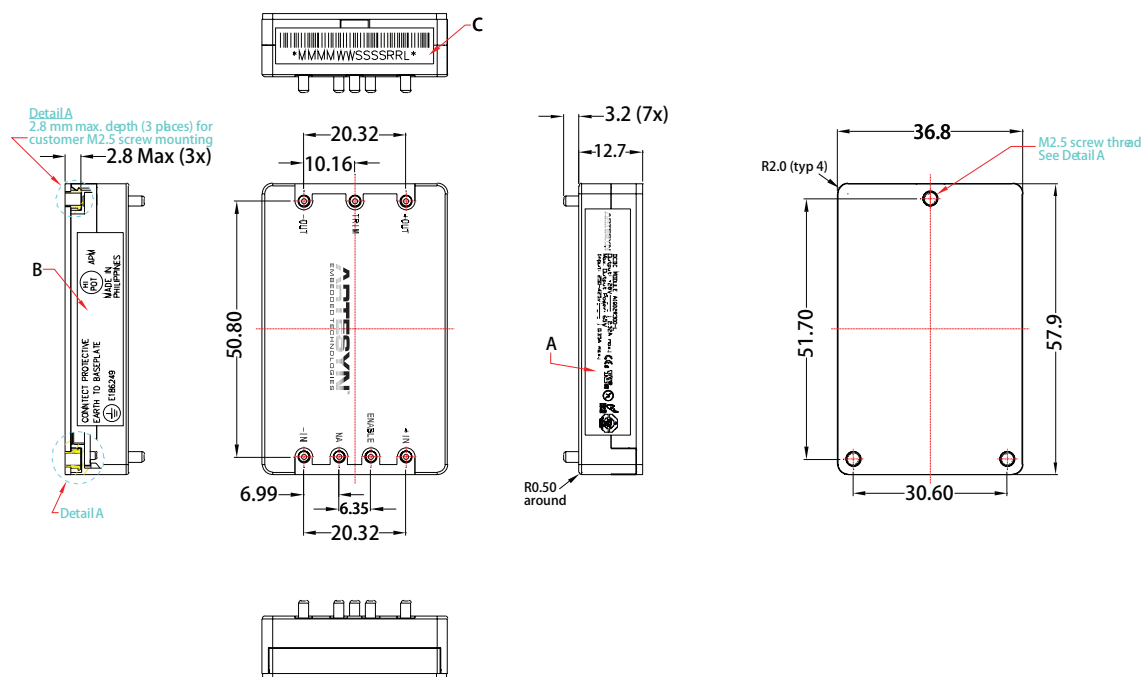
## ENVIRONMENTAL SPECIFICATIONS

Operating ambient temperature range:	-40 °C to +100 °C (baseplate temperature)
Storage temperature:	-55 °C to +125 °C (environment temperature)
Overtemperature protection:	120 °C max
Demonstrated MTTF (Telcordia SR-332)	4.15Mhrs

## ORDERING INFORMATION

Input Voltage	Output Voltage	Efficiency	Model Number
390 V	28 V @ 2.32 A	89% typ	AIQ02R300-L

## MECHANICAL DRAWINGS



## CONVERTER PINS

No.	Label
1	+In
2	Enable
3	NA
4	-In
5	-Out
6	Trim
7	+Out



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## 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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