ARTESYN AGQ500 SERIES

500 Watts



Advanced Energy's Artesyn AGQ500 series Quarter-brick isolated DC-DC converters provides a single, regulated and low noise output. The AGQ500-48S50 has a 50V/10A output. It has a Telecom input range of 36 to 75 Vdc and is designed primarily for use with standard 48 V telecommunications equipment supplies. The converter's main application area is in low power and remote radio head (RRH) telecommunications applications.

DATA SHEET

Total Power:

500 Watts

Input Voltage:

36 - 75 V

# of Outputs:

Single

RoHS 6/6 COMPLIANT

SPECIAL FEATURES

- Delivers up to 500 W output current
- Ultra-high efficiency 94% typ. at full load
- Wide input range: 36 V ~ 75 V
- Excellent thermal performance
- No minimum load requirement
- Basic isolation
- High power density
- Low output noise
- Wide trim range

SAFETY

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

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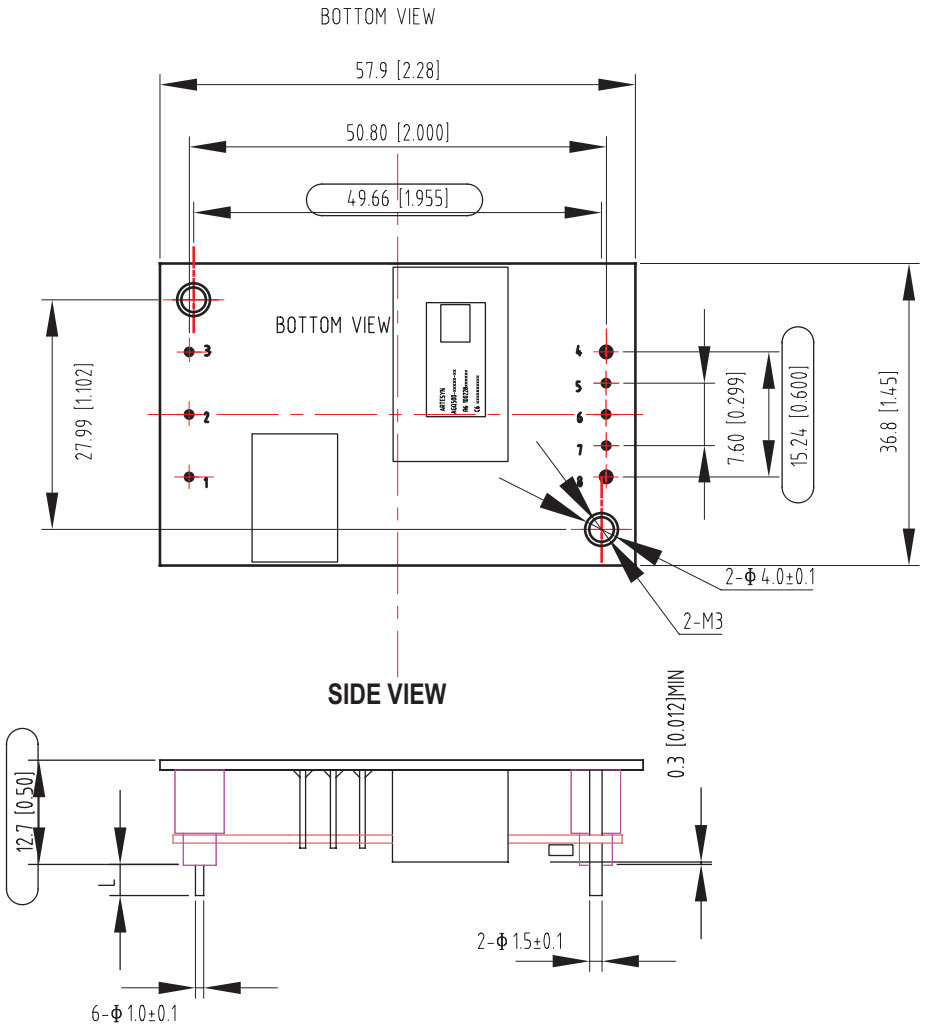
ELECTRICAL SPECIFICATIONS

Input	
Input range	36 - 75 VDC
Efficiency (50% load condition)	95% (AGQ500-48S50); 94% (AGQ500-48S28)
Output	
Output voltage	50 Vdc @ 10 A (AGQ500-48S50); 28 Vdc @ 18 A (AGQ500-48S28)
Voltage tolerance	+/-1%
Line regulation	0.5%
Load regulation	0.5%
Noise/ripple	100 mV
Over voltage protection	Latch
Over temperature protection	Auto-restart
Switching frequency	340 KHz
Temperature coefficient	±0.02/°C
Isolation	
I/O isolation	2250 Vdc (input to output)

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	Yes

MECHANICAL DRAWING



UNIT: mm [inch] L= 3.8 ± 0.5 mm

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

Notes: Dimensions within the box are critical dimensions.

PIN ASSIGNMENTS

Pin #	Name	Function
1	Vin+	Positive input voltage
2	CNT	Remote ON/OFF control
3	Vin-	Negative input voltage
4	Vo-	Negative output voltage
5	S-	Negative output sense
6	Trim	Output voltage trim
7	S+	Positive output sense
8	Vo+	Positive output voltage

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.

ORDERING INFORMATION

Model number	Input voltage	Output voltage	Power
AGQ500-48S28-6L	36 - 75 Vin	28 V @ 18 A	500 W
AGQ500-48S28P-6L	36 - 75 Vin	28 V @ 18 A	500 W
AGQ500-48S50-6L	36 - 75 Vin	50 V @ 10 A	500 W
AGQ500-48S50P-6L	36 - 75 Vin	50 V @ 10 A	500 W

- Standard version is negative enable
- “-6” = 3.8 mm pin length
- “-L” = RoHS 6 compliance
- “ -P” = Positive enable

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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