

# ARTESYN AVE350-24 SERIES

350 Watts



Advanced Energy's Artesyn AVE350B series of isolated DC-DC converters is designed specifically to provide the main 28 Vdc supply for RF power amplifiers in small-cell, low power and remote radio head (RRH) telecommunications applications. The series comprises two single output models: the AVE350B-24S28-6, which accepts a wide range input of 18 to 36 Vdc; and the AVE350B-48S28-6, which accepts a wide range input of 36 to 75 Vdc.

#### **DATA SHEET**

#### **Total Power:**

350 Watts

#### **Input Voltage:**

18 - 36 V

#### # of Outputs:

Single

#### **SPECIAL FEATURES**

- 2:1 Wide input range
- Extra wide trim range 14 V 33 V for 28 Vo
- Optimised for high density, small space applications
- Low ripple and noise
- Fixed switching frequency
- Super high efficiency
- High capacitive load capability
- Basic insulation system
- Aluminium substrate design

#### **SAFETY**

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



### **ELECTRICAL SPECIFICATIONS**

| Input                        |               |  |  |
|------------------------------|---------------|--|--|
| Input range:                 | 18 - 36 VDC   |  |  |
| Efficiency <sup>2-</sup>     | 94%           |  |  |
| utput                        |               |  |  |
| Voltage tolerance:           | +/-1%         |  |  |
| Line regulation:             | ±0.5%         |  |  |
| Load regulation:             | ±0.5%         |  |  |
| Noise/ripple:                | 300 mV        |  |  |
| Over voltage protection:     | Latch off     |  |  |
| Over temperature protection: | Auto-restart  |  |  |
| Switching frequency:         | 220 KHz       |  |  |
| Temperature coefficient:     | ±0.02/°C      |  |  |
| Isolation                    | ation         |  |  |
| 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 Million hours            |
| RoHS Compliant                       |                            |

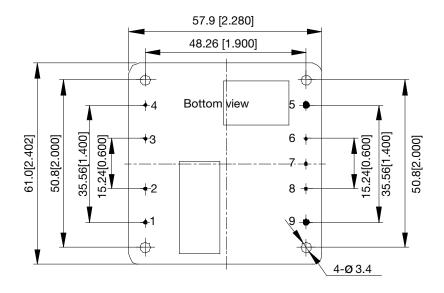


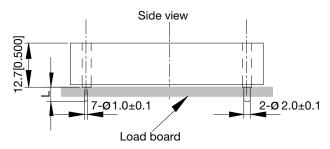
#### **ORDERING INFORMATION**

| Model number    | Input voltage | Output voltage | Power |
|-----------------|---------------|----------------|-------|
| AVE350-24S28-6  | 18-36 Vin     | 28 V @ 12.5 A  | 350 W |
| AVE350-24S28P-6 | 18-36 Vin     | 28 V @ 12.5 A  | 350 W |

- Standard version is negative enable
- "-6" = 3.8mm pin length
- "-P"= Positive enable

#### **MECHANICAL DRAWINGS**





Unit: mm[inch] Bottom view: pin on upside

$$\label{eq:continuous_continuous_continuous_continuous} \begin{split} \text{Tolerance: X.Xmm} &\pm 0.5 \text{mm} [\text{X.X in.} \pm 0.02 \text{in.}] \\ &\quad \text{X.XXmm} \pm 0.25 \text{mm} [\text{X.XX in.} \pm 0.01 \text{in.}] \end{split}$$



### PIN LENGTH OPTION

| Device code suffix | L             |  |
|--------------------|---------------|--|
| -4                 | 4.8mm ± 0.2mm |  |
| -6                 | 3.8mm ±0.2mm  |  |
| -8                 | 2.8mm ± 0.2mm |  |
| None               | 5.8mm ± 0.2mm |  |

### **PIN DESIGNATIONS**

| Pin No. | Name | Function                   |
|---------|------|----------------------------|
| 1       | Vin+ | Positive input voltage     |
| 2       | CNT  | Remote control             |
| 3       | Case | Pin connected to baseplate |
| 4       | Vin- | Negative input voltage     |
| 5       | Vo-  | Negative output voltage    |
| 6       | S-   | Negative sense             |
| 7       | Trim | Output voltage trim        |
| 8       | S+   | Positive sense             |
| 9       | Vo+  | Positive output voltage    |

- Notes:

  1. All specifications are subject to change without notice. Mechanical drawings are for reference only.
- Warranty: 2 years
   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

Specifications are subject to change without notice. Not responsible for errors or omissions. ©2020 Advanced Energy Industries, Inc. All rights reserved. Advanced Energy®, AE® and Artesyn™ are U.S. trademarks of Advanced Energy Industries, Inc.



For international contact information, visit advancedenergy.com.

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