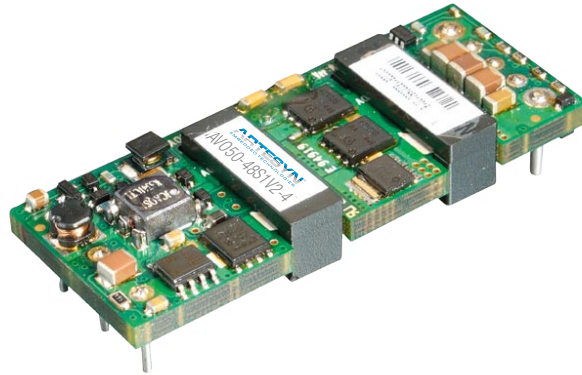


## AVO50 Series

50 Watts

### Data Sheet

**Total Power:** 50 Watts  
**Input Voltage:** 36 - 75 Vdc  
**# of Outputs:** Single



### SPECIAL FEATURES

- 2:1 wide input range
- Optimized for high density, small space applications
- Low ripple and noise
- Fixed switching frequency
- High efficiency
- High capacitive load capability
- Basic insulation system
- Pre-bias start-up capability
- Open-frame structure

### SAFETY

- UL, cUL: UL60950
- TUV/CE: IEC/EN60950

### Electrical Specifications

| Input                                                |                                                                         |
|------------------------------------------------------|-------------------------------------------------------------------------|
| Input range                                          | 36 - 75 Vdc                                                             |
| Efficiency                                           | 91% @ 3.3 V, 5 V and 12 V                                               |
| Output                                               |                                                                         |
| Maximum power                                        | +/-1% to +/-1.6%                                                        |
| Line regulation                                      | 5 V: 4 mV; 12 V: 9 mV; Others: 1 mV                                     |
| Load regulation                                      | 5 V and 12 V: 5 mV; Others: 1 mV                                        |
| Noise/ripple                                         | 1.2 V, 2.5 V, 3.3 V: 50 mV;<br>1.5 V, 5 V, 12 V: 55 mV;<br>1.8 V: 45 mV |
| Overvoltage protection<br>Overtemperature protection | Auto-restart                                                            |
| Switching frequency                                  | 310 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                                | 2.5 Million hours          |
| RoHS compliant                      |                            |

## Ordering Information

| Model number      | Input voltage           | Output voltage | Power  |
|-------------------|-------------------------|----------------|--------|
| AVO50-48S1V2-4    | 36 - 75 V <sub>in</sub> | 1.2 V @ 20 A   | 24 W   |
| AVO50-48S1V2P-4   | 36 - 75 V <sub>in</sub> | 1.2 V @ 20 A   | 24 W   |
| AVO50-48S1V5-4    | 36 - 75 V <sub>in</sub> | 1.5 V @ 20 A   | 30 W   |
| AVO50-48S1V5P-4   | 36 - 75 V <sub>in</sub> | 1.5 V @ 20 A   | 30 W   |
| AVO50-48S1V8-4    | 36 - 75 V <sub>in</sub> | 1.8 V @ 20 A   | 36 W   |
| AVO50-48S1V8P-4   | 36 - 75 V <sub>in</sub> | 1.8 V @ 20 A   | 36 W   |
| AVO50-48S2V5-4    | 36 - 75 V <sub>in</sub> | 2.5 V @ 20 A   | 50 W   |
| AVO50-48S2V5P-4   | 36 - 75 V <sub>in</sub> | 2.5 V @ 20 A   | 50 W   |
| AVO50C-48S3V3-6L  | 36 - 75 V <sub>in</sub> | 3.3 V @ 15 A   | 49.5 W |
| AVO50C-48S3V3P-6L | 36 - 75 V <sub>in</sub> | 3.3 V @ 15 A   | 49.5 W |
| AVO50-48S05-4     | 36 - 75 V <sub>in</sub> | 5 V @ 10 A     | 50 W   |
| AVO50-48S12-6L    | 36 - 75 V <sub>in</sub> | 12 V @ 4.2 A   | 50 W   |
| AVO50-48S12P-4    | 36 - 75 V <sub>in</sub> | 12 V @ 4.2 A   | 50 W   |

Notes:

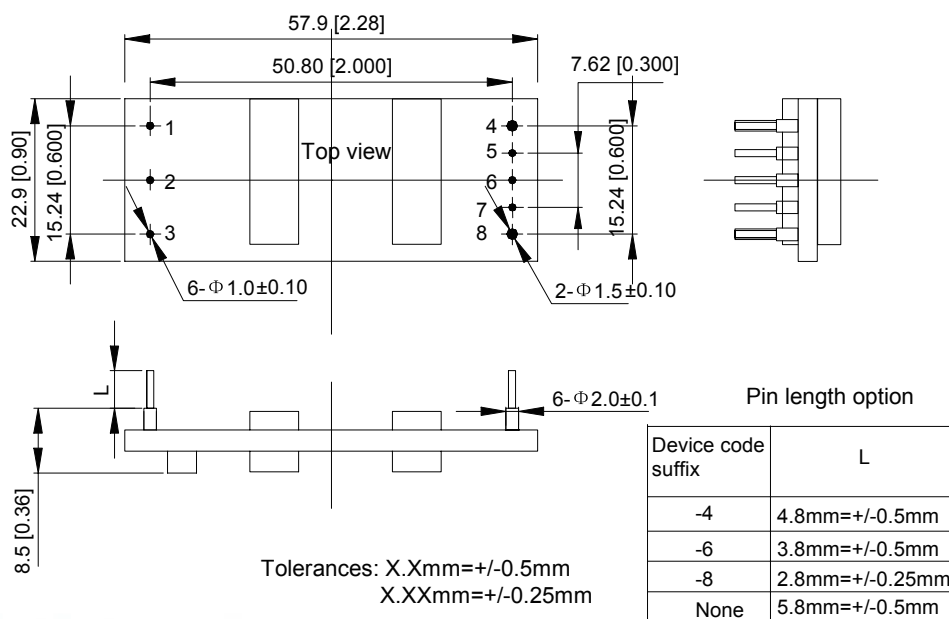
Standard version is negative enable

-6 = 3.8 mm pin length

-4 = 4.8 mm pin length

P = Positive enable

## Mechanical Drawings



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.

## Pin Assignments

| Pin # | Function | Function                |
|-------|----------|-------------------------|
| 1     | +Vin     | Positive input voltage  |
| 2     | CNT      | Remote control          |
| 3     | -Vin     | Negative input voltage  |
| 4     | +Vout    | Positive output voltage |
| 5     | +Sense   | Positive remote sense   |
| 6     | Trim     | Output voltage trim     |
| 7     | -Sense   | Negative remote sense   |
| 8     | -Vout    | Negative output voltage |

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