



American Power Design, Inc.

"The best high voltage design solution"

S5 SERIES 5 WATT HIGH VOLTAGE DC/DC CONVERTERS



FEATURES

- * Customer Selects Output Voltage
- * Outputs to 1000 Vdc
- * Low Profile
- * Single and Dual Outputs
- * Ultra Wide Input Ranges
- * 1000 Vdc Output Isolation
- * Continuous Short Circuit Protection
- * Economical

The S5 Series low profile high voltage DC/DC converter offers a 1000 Vdc isolated single or dual high voltage output in a six-sided copper case. Their small size, wide input, and excellent regulation make them ideally suited for applications that demand a high degree of performance. All models will tolerate a short circuit indefinitely.

ELECTRICAL SPECIFICATIONS

| | | | |
|------------------------|---------------------------|--------------------------------|-------------------|
| Voltage Accuracy | +/-5% | Input Filter | Low ESR Capacitor |
| Line Regulation | +/- 1% | Efficiency | 75% (typ.) |
| Load Regulation | +/- 3% (20% to full load) | Short Circuit Protection | Continuous |
| Output Ripple | < 0.5% | Switching Frequency | 100 kHz |
| | | Isolation | 1000 Vdc |

* 20-60Vdc Input add suffix /B
 * 36-72Vdc Input add suffix /C

GENERAL SPECIFICATIONS

| | | | |
|--------------------------------|---------------|----------------|---------------------|
| Temp. Stability | +/-0.02%/°C | EMI/RFI..... | Six Sided Shield |
| Temp. (Operating , Case) | -25 to +70°C | Derating | None |
| Temp. (Storage) | -40 to +125°C | Cooling | Free-Air Convection |

* All models designed to meet UL 60950
 * For RoHS Compliant part, add suffix /Y

PHYSICAL SPECIFICATIONS

| | | | |
|------------------|---------------------|---------------------|--|
| Dimensions | 1 x 2 x 0.41 inches | Case Material | Nickel Plated Copper (With Non-Conductive Base Plate) |
| Weight | 1.2 Oz | | |



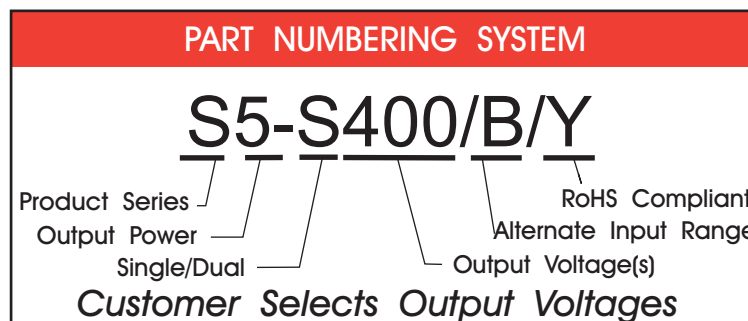
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| REPRESENTATIVE MODEL LISTING | | | | | | | | |
|------------------------------|---------|-------|------------------|---------|-------------------|-----------|-------------------|-----------|
| OUTPUT SPECIFICATIONS | | | MODEL NUMBER | | | | | |
| VOLTAGE | CURRENT | | INPUT 9V - 36Vdc | | INPUT 20V - 60Vdc | | INPUT 36V - 72Vdc | |
| | Single | Dual | Single | Dual | Single | Dual | Single | Dual |
| 24Vdc | 208mA | 104mA | S5-S24 | S5-D24 | S5-S24/B | S5-D24/B | S5-S24/C | S5-D24/C |
| 48Vdc | 104mA | 52mA | S5-S48 | S5-D48 | S5-S48/B | S5-D48/B | S5-S48/C | S5-D48/C |
| 100Vdc | 50mA | 25mA | S5-S100 | S5-D100 | S5-S100/B | S5-D100/B | S5-S100/C | S5-D100/C |
| 150Vdc | 33mA | 16mA | S5-S150 | S5-D150 | S5-S150/B | S5-D150/B | S5-S150/C | S5-D150/C |
| 200Vdc | 25mA | 12mA | S5-S200 | S5-D200 | S5-S200/B | S5-D200/B | S5-S200/C | S5-D200/C |
| 300Vdc | 16mA | 8mA | S5-S300 | S5-D300 | S5-S300/B | S5-D300/B | S5-S300/C | S5-D300/C |
| 400Vdc | 12mA | 6mA | S5-S400 | S5-D400 | S5-S400/B | S5-D400/B | S5-S400/C | S5-D400/C |
| 500Vdc | 10mA | 5mA | S5-S500 | S5-D500 | S5-S500/B | S5-D500/B | S5-S500/C | S5-D500/C |
| 1000Vdc | 5mA | N/A | S5-S1000 | N/A | S5-S1000/B | N/A | S5-S1000/C | N/A |

- * 20-60Vdc Input add suffix /B
- * 36-72Vdc Input add suffix /C
- * RoHS Compliant add suffix /Y

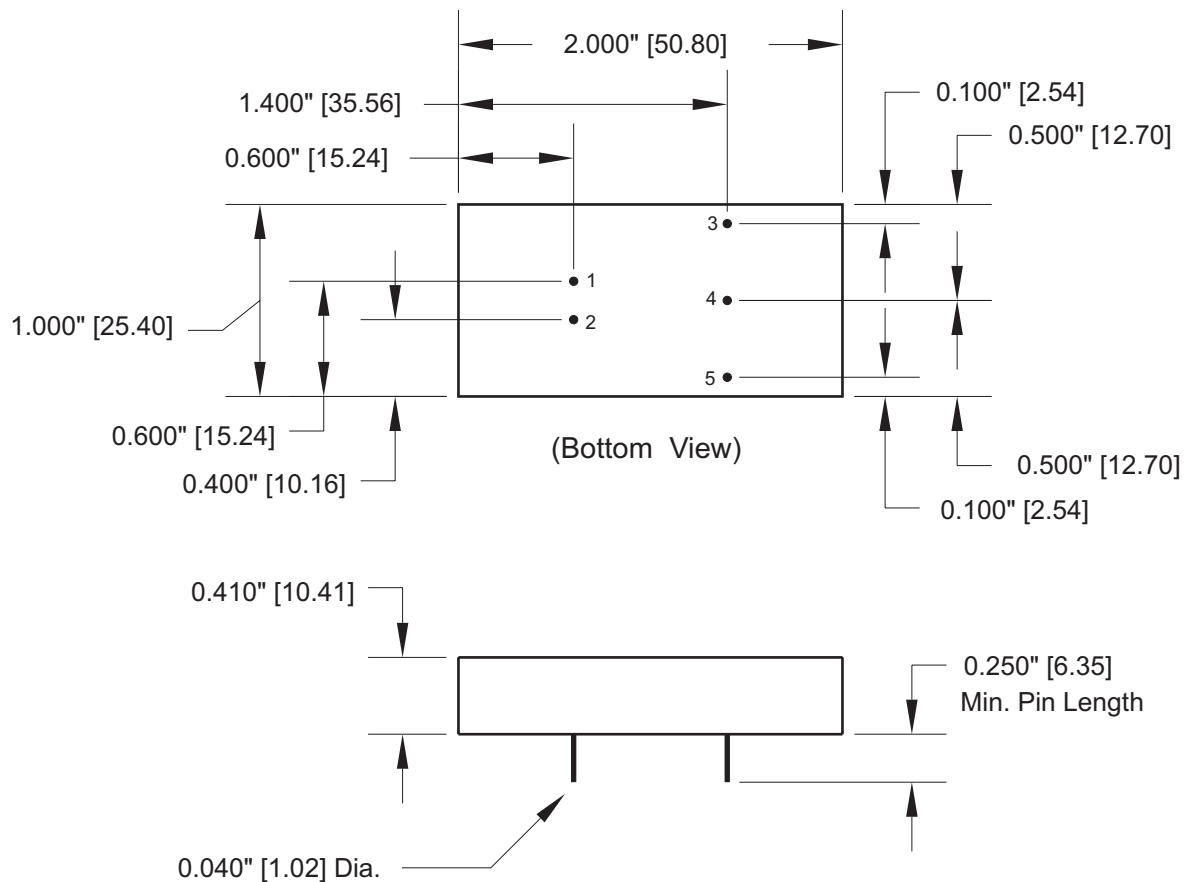




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| Pin # | Single | Dual |
|-------|----------|----------|
| 1 | + INPUT | + INPUT |
| 2 | - INPUT | - INPUT |
| 3 | + OUTPUT | + OUTPUT |
| 4 | No Pin | COM |
| 5 | - OUTPUT | - OUTPUT |

*Dimensions are in Inches
[Metric equivalents in brackets]*