

## 15 Watt, ZB15 Series, DC-DC Converter (Single & Dual Output)



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- Wide 2:1 & Extra Wide 4:1 Input Ranges
- Remote on/off Control
- 1600V Input to Output Isolation
- Compact 2x1" Encapsulated Metal Case
- PCB Mounting, Option of Chassis & Screw Terminals.
- Very Competitive Prices
- High Efficiency up to 87%
- Wide Operational Temperature Range
- CE Marked and UL Listed



### Specification (typical values shown)

|                               |                                                           |
|-------------------------------|-----------------------------------------------------------|
| Input Ranges.....             | (2:1) 9~18, 18~36, & 36~75 Volts (4:1) 9~36 & 18~75 Volts |
| Outputs.....                  | Single or dual outputs available (see table below)        |
| Line Regulation.....          | +/-0.5%                                                   |
| Load Regulation.....          | +/-1%                                                     |
| Output Ripple.....            | <0.2% of Vout                                             |
| Output Noise.....             | <0.5% of Vout                                             |
| Efficiency.....               | See table for each model                                  |
| Short Circuit Protection..... | Current limit, auto-recovery                              |
| Isolation Voltage.....        | 1600 VDC                                                  |
| Operating Temperature.....    | -25 to +70 °C – see derating curve                        |
| Storage Temperature.....      | -55 to +105 °C                                            |
| Case Material.....            | 5 sided shielded Aluminium, non conductive base           |
| Switching Frequency.....      | 300 kHz typical                                           |
| MTBF.....                     | >800,000 hrs @ 25°C (MIL-HDBK-217F)                       |
| Warranty.....                 | 3 Years                                                   |

### Models and Ratings

| Model<br>(9~18V Input) | Model<br>(18~36V Input) | Model<br>(36~75V Input) | Output<br>(VDC)   | Output<br>Current | Efficiency |
|------------------------|-------------------------|-------------------------|-------------------|-------------------|------------|
| Single Output Models   |                         |                         |                   |                   |            |
| ZB15-12-3.3S           | ZB15-24-3.3S            | ZB15-48-3.3S            | 3.3 V             | 3000 mA           | 77% to 79% |
| ZB15-12-5S             | ZB15-24-5S              | ZB15-48-5S              | 5.0 V             | 3000 mA           | 80% to 83% |
| ZB15-12-12S            | ZB15-24-12S             | ZB15-48-12S             | 12 V              | 1250 mA           | 82% to 86% |
| ZB15-12-15S            | ZB15-24-15S             | ZB15-48-15S             | 15 V              | 1000 mA           | 84% to 87% |
| ZB15-12-24S            | ZB15-24-24S             | ZB15-48-24S             | 24 V              | 625 mA            | 84% to 87% |
| Dual Output Models     |                         |                         |                   |                   |            |
| ZB15-12-5D             | ZB15-24-5D              | ZB15-48-5D              | +/-5 V            | +/-1500 mA        | 78%        |
| ZB15-12-12D            | ZB15-24-12D             | ZB15-48-12D             | +/-12 V           | +/-625 mA         | 79%        |
| ZB15-12-15D            | ZB15-24-15D             | ZB15-48-15D             | +/-15 V           | +/-500 mA         | 79%        |
| 4:1 Input Versions     |                         |                         |                   |                   |            |
| Model<br>(9~36V Input) | Model<br>(18~75V Input) | Output<br>(VDC)         | Output<br>Current | Efficiency        |            |
| ZB15-24F-3.3S          | ZB15-48F-3.3S           | 3.3 V                   | 3000 mA           | 70% to 71%        |            |
| ZB15-24F-5S            | ZB15-48F-5S             | 5.0 V                   | 3000 mA           | 76% to 78%        |            |
| ZB15-24F-12S           | ZB15-48F-12S            | 12 V                    | 1250 mA           | 77% to 79%        |            |
| ZB15-24F-15S           | ZB15-48F-15S            | 15 V                    | 1000 mA           | 75% to 79%        |            |

Note : Efficiency of units are within the ranges above, each model depends on Input and Output Voltage

**For mechanical data and pinout, please see next page**

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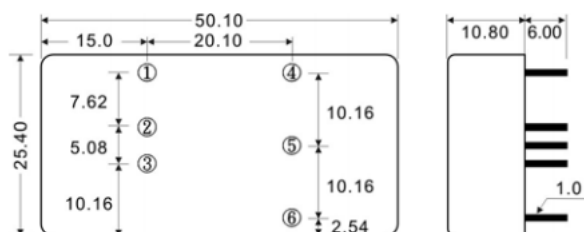
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## Mechanical Details and Pin-Out

### Top View



| Pin                           | Function   |            |
|-------------------------------|------------|------------|
|                               | Single O/P | Dual O/P   |
| 1                             | On/Off R/C | On/Off R/C |
| 2                             | -V in      | -V in      |
| 3                             | +V in      | +V in      |
| 4                             | -V out     | -V out     |
| 5                             | No Pin     | Common     |
| 6                             | +V out     | +V out     |
| Pin 1 = Remote On/Off Control |            |            |

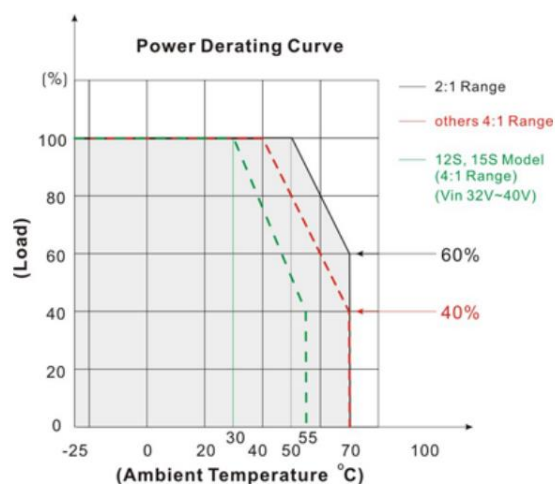
Standard units are supplied with **Remote On/Off** control pin,  
 This pin need not be used for normal operation or can be removed (cropped off) if preferred.  
 Leave pin 1 (CTRL) open / not connected for Output ON  
 Short pin 1 (CTRL) to pin 2 -V in for Output OFF  
 Or positive Logic control (with respect to pin 2 -Vin)  
 4 to 6 Volts on pin 1 = Output On  
 0 to 0.1 Volt on pin 1 = Output Off

### Chassis mounting version with screw terminal connections.

Total size 96 x 53.9 x 18.3mm

Please contact ALL PSU sales office for more details.

### Derating Curve



Specifications may change without notice, E&OE. ALL PSU Terms & Conditions apply.

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