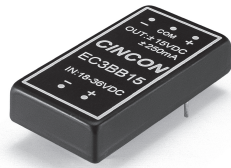


EC3BB

S E R I E S

7.5 WATT EN55022 CLASS B DC-DC CONVERTERS



Features

- 7.5W Isolated Output
- 2" x 1" Case
- Regulated Outputs
- Efficiency to 82%
- Pi Input Filter
- Continuous Short Circuit Protection
- Meets EN55022 Class B, Conducted
- Remote On/Off Control (Option)

| MODEL NUMBER | INPUT VOLTAGE | OUTPUT VOLTAGE | OUTPUT CURRENT | INPUT CURRENT | | % EFF. | SIZE |
|--------------|---------------|----------------|----------------|---------------|-----------|--------|---------|
| | | | | NO LOAD | FULL LOAD | | |
| EC3BB01 | 9-18 VDC | 5 VDC | 1500 mA | 7.5 mA | 820 mA | 76 | 2" x 1" |
| EC3BB02 | | 12 VDC | 625 mA | 7.5 mA | 780 mA | 80 | |
| EC3BB03 | | 15 VDC | 500 mA | 7.5 mA | 780 mA | 80 | |
| EC3BB04 | | ±12 VDC | ±310 mA | 12 mA | 775 mA | 80 | |
| EC3BB05 | | ±15 VDC | ±250 mA | 12 mA | 780 mA | 80 | |
| EC3BB06 | | ±5 VDC | ±750 mA | 7.5 mA | 820 mA | 76 | |
| EC3BB07 | | 3.3 VDC | 1500 mA | 7.5 mA | 557 mA | 74 | |
| EC3BB11 | 18-36 VDC | 5 VDC | 1500 mA | 5 mA | 400 mA | 78 | 2" x 1" |
| EC3BB12 | | 12 VDC | 625 mA | 5 mA | 380 mA | 82 | |
| EC3BB13 | | 15 VDC | 500 mA | 5 mA | 380 mA | 82 | |
| EC3BB14 | | ±12 VDC | ±310 mA | 7.5 mA | 385 mA | 81 | |
| EC3BB15 | | ±15 VDC | ±250 mA | 7.5 mA | 385 mA | 81 | |
| EC3BB16 | | ±5 VDC | ±750 mA | 7.5 mA | 400 mA | 78 | |
| EC3BB17 | | 3.3 VDC | 1500 mA | 5 mA | 271 mA | 76 | |
| EC3BB21 | 36-72 VDC | 5 VDC | 1500 mA | 2 mA | 200 mA | 78 | 2" x 1" |
| EC3BB22 | | 12 VDC | 625 mA | 2 mA | 192 mA | 81 | |
| EC3BB23 | | 15 VDC | 500 mA | 2 mA | 192 mA | 81 | |
| EC3BB24 | | ±12 VDC | ±310 mA | 3 mA | 192 mA | 81 | |
| EC3BB25 | | ±15 VDC | ±250 mA | 3 mA | 192 mA | 81 | |
| EC3BB26 | | ±5 VDC | ±750 mA | 3 mA | 200 mA | 78 | |
| EC3BB27 | | 3.3 VDC | 1500 mA | 3 mA | 136 mA | 76 | |

NOTE: 1. Nominal Input Voltage 12, 24 or 48 VDC

Specifications

INPUT SPECIFICATIONS:

| | | |
|--------------------------|----------|--------|
| Input Voltage Range..... | 12V..... | 9-18V |
| | 24V..... | 18-36V |
| | 48V..... | 36-72V |
| Input Filter..... | Pi Type | |

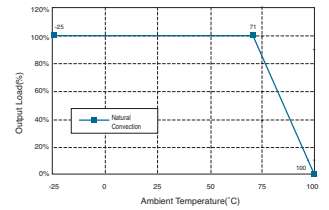
OUTPUT SPECIFICATIONS:

| | | | |
|-----------------------------------|--------------|----------------|-------------|
| Voltage Accuracy..... | ±2.0% max. | | |
| Voltage Balance (Dual)..... | ±1.0% max. | | |
| Temperature Coefficient..... | ±0.05%/°C | | |
| Ripple and Noise, 20MHz BW..... | 3.3V/5V..... | 100mV p-p max. | |
| | 12V/15V..... | 1% p-p max. | |
| Short Circuit Protection..... | Continuous | | |
| Line Regulation, Single/Dual..... | ± 0.5% max. | | |
| Load Regulation, Single..... | ± 0.5% max. | | |
| | Dual..... | | ± 1.0% max. |

GENERAL SPECIFICATIONS:

| | | |
|--|---|--|
| Efficiency..... | See Table | |
| Isolation Voltage..... | 1500 VDC min. | |
| Isolation Resistance..... | 10 ⁹ Ohms | |
| Switching Frequency..... | 100kHz, min. | |
| Operating Ambient Temperature Range..... | -25°C to +71°C | |
| De-rating, Above 71°C..... | Linearly to Zero power at 100°C | |
| Case Temperature..... | 100°C max | |
| Cooling..... | Natural Convection | |
| Storage Temperature Range..... | -40°C to +100°C | |
| EMI / RFI..... | Conductive EMI Meet EN55022 Class B | |
| Dimensions..... | 2.00 x 1.00 x 0.40 inches (50.8 x 25.4 x 10.2mm) | |
| Case Material..... | Black Coated Copper With Non-Conductive Base | |
| Weight..... | 32.5g | |

EC3BB Series Derating Curve



NOTE:

1. Measured From High Line to Low Line
2. Measured From Full Load to 1/4 Load
3. Measured From Full Load to 1/4 Load
4. Suffix "T" to the Model Number with Remote ON/OFF
5. Maximum case temperature under any operating condition should not exceed 100°C.

Remote On/Off Control

| | |
|-----------------------|----------------------------|
| Logic Compatibility | CMOS or Open Collector TTL |
| Ec-On | >+5.5 VDC or Open Circuit |
| Ec-Off | <1.8 VDC |
| Shutdown Idle Current | 10mA |
| Control Common | Referenced to Input Minus |

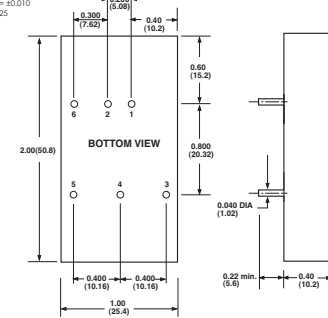
PIN CONNECTION

| Pin | Function |
|-----|--------------------|
| 1 | + Input |
| 2 | - Input |
| 3 | + Output |
| 4 | Common/NP |
| 5 | - Output |
| 6 | NP (Remote ON/OFF) |

*NP=NO PIN

CASE B

All Dimensions in Inches (mm)
Tolerances: x.xx=±0.04, x.xxx=±0.010
Millimeters: x.xx=±1, x.xxx=±0.25



All Specifications Typical At Nominal Line, Full Load and 25°C Unless Otherwise Noted.