

S E R I E S EC3CB

15 WATT WIDE INPUT DC-DC CONVERTERS



Features

- 15W Isolated Output
- 2:1 Input Range
- Efficiency to 82%
- Six-Sided Shield
- 200KHz Switching Frequency
- Regulated Outputs
- Pi Input Filter
- Continuous Short Circuit Protection
- Meets EN55022 Class B, Conducted

| MODEL NUMBER | INPUT VOLTAGE | OUTPUT VOLTAGE | OUTPUT CURRENT | INPUT CURRENT | | % EFF. | CASE |
|--------------|---------------|----------------|----------------|---------------|-----------|--------|------|
| | | | | NO LOAD | FULL LOAD | | |
| EC3CB01 | | 5 VDC | 3000 mA | 30 mA | 1660 mA | 75 | |
| EC3CB02 | | 12 VDC | 1250 mA | 30 mA | 1625 mA | 78 | |
| EC3CB03 | | 15 VDC | 1000 mA | 30 mA | 1625 mA | 78 | |
| EC3CB04 | 9-18 VDC | ±12 VDC | ±625 mA | 35 mA | 1620 mA | 77 | C/S |
| EC3CB05 | | ±15 VDC | ±500 mA | 35 mA | 1620 mA | 77 | |
| EC3CB06 | | ±5 VDC | ±1500 mA | 35 mA | 1620 mA | 77 | |
| EC3CB07 | | 3.3 VDC | 3000 mA | 30 mA | 1178 mA | 70 | |
| EC3CB11 | | 5 VDC | 3000 mA | 15 mA | 812 mA | 78 | |
| EC3CB12 | | 12 VDC | 1250 mA | 20 mA | 772 mA | 81 | |
| EC3CB13 | | 15 VDC | 1000 mA | 20 mA | 772 mA | 81 | |
| EC3CB14 | 18-36 VDC | ±12 VDC | ±625 mA | 25 mA | 780 mA | 80 | C/S |
| EC3CB15 | | ±15 VDC | ±500 mA | 25 mA | 780 mA | 80 | |
| EC3CB16 | | ±5 VDC | ±1500 mA | 25 mA | 780 mA | 80 | |
| EC3CB17 | | 3.3 VDC | 3000 mA | 15 mA | 557 mA | 74 | |
| EC3CB21 | | 5 VDC | 3000 mA | 10 mA | 390 mA | 80 | |
| EC3CB22 | | 12 VDC | 1250 mA | 15 mA | 381 mA | 82 | |
| EC3CB23 | | 15 VDC | 1000 mA | 15 mA | 381 mA | 82 | |
| EC3CB24 | 36-72 VDC | ±12 VDC | ±625 mA | 20 mA | 386 mA | 81 | C/S |
| EC3CB25 | | ±15 VDC | ±500 mA | 20 mA | 386 mA | 81 | |
| EC3CB26 | | ±5 VDC | ±1500 mA | 20 mA | 386 mA | 81 | |
| EC3CB27 | | 3.3 VDC | 3000 mA | 20 mA | 271 mA | 76 | |

NOTE: 1. Nominal Input Voltage 12, 24 or 48 VDC
2. Alternative pin-out version. To order, suffix a "S" to the standard model number.

Specifications

INPUT SPECIFICATIONS:

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

OUTPUT SPECIFICATIONS:

| | | |
|--|--|---------------------------------|
| Voltage Accuracy | | |
| Single Output..... | | ±1.0% max. |
| Dual + Output..... | | ±1.0% max. |
| Dual - Output..... | | ±3.0% max. |
| Voltage Balance Dual Output at Full Load..... | | ±1.0% max. |
| Transient Response | | |
| Single 25% Step Load Change..... | | <500µ sec. |
| Dual FL-1/2L ±1% Error Band..... | | <500µ sec. |
| Ripple & Noise 20MHz BW..... | | 10mV RMS. max. 75mV p-p max. |
| Temperature Coefficient..... | | ±0.02%/°C |
| Short Circuit Protection..... | | Indefinite & Current Limit |
| Line Regulation ¹ Single/Dual Output..... | | ±0.2% max. |
| Load Regulation ² Single/Dual Output..... | | ±1.0% max. |

GENERAL SPECIFICATIONS:

| | | |
|----------------------------------|--|---|
| Efficiency..... | | See Table |
| Isolation Voltage..... | | 500 VDC min. |
| Isolation Resistance..... | | 10 ⁹ ohms |
| Switching Frequency..... | | 200KHz, typ. |
| Operating Temperature Range..... | | -25°C to + 71°C |
| Case Temperature..... | | 100°C max. |
| Cooling..... | | Free-Air Convection |
| Storage Temperature Range..... | | -40°C to + 100°C |
| EMI/RFI..... | | Conductive EMI Meet EN55022 Class B |
| Dimensions..... | | 2 x 2 x 0.4 inches (50.8 x 50.8 x 10.2mm) |
| Case Material..... | | Black Coated Copper With Non-Conductive Base |
| Weight..... | | 57g |

NOTE:

1. Measured From High Line to Low Line
2. Measured From Full Load to 1/4 Full Load
3. Determine the Correct Fuse Size by Calculating the Maximum DC Current Drain at Low Line Input, Maximum Load and Then Adding 20 to 25% to Get Desired Fuse Size.
4. Alternative Pin Configuration Suffix "S"

CASE C

All Dimensions In Inches(mm)
Tolerance .xx= ±.04, .xxx= ±0.10

