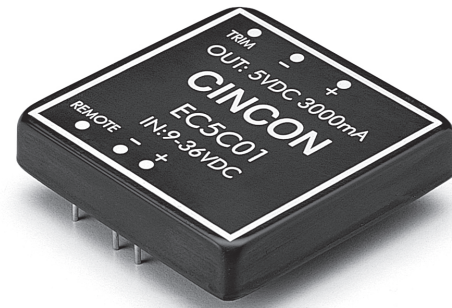


EC5C

S E R I E S



15 WATT 4:1 INPUT RANGE DC-DC CONVERTERS



Features

- 15W Isolated Output
- 2" x 2" Six-Sided Shield Metal Case
- 4 : 1 Input Range
- Regulated Outputs
- Efficiency to 82%
- Remote On/Off Control

| MODEL NUMBER | INPUT VOLTAGE | OUTPUT VOLTAGE | OUTPUT CURRENT | INPUT CURRENT | | % EFF. | SIZE |
|--------------|---------------|----------------|----------------|---------------|-----------|--------|---------|
| | | | | NO LOAD | FULL LOAD | | |
| EC5C01 | 9-36 VDC | 5 VDC | 3000 mA | 15 mA | 810 mA | 77 | 2" x 2" |
| EC5C02 | | 12 VDC | 1250 mA | 15 mA | 780 mA | 80 | |
| EC5C03 | | 15 VDC | 1000 mA | 15 mA | 780 mA | 80 | |
| EC5C04 | | ±5 VDC | ±1500 mA | 20 mA | 810 mA | 77 | |
| EC5C05 | | ±12 VDC | ±625 mA | 20 mA | 780 mA | 80 | |
| EC5C06 | | ±15 VDC | ±500 mA | 20 mA | 780 mA | 80 | |
| EC5C07 | | 5/±12 VDC | 1500/±310 mA | 20 mA | 780 mA | 80 | |
| EC5C08 | | 5/±15 VDC | 1500/±250 mA | 20 mA | 780 mA | 80 | |
| EC5C09 | | 3.3 VDC | 3000 mA | 15 mA | 545 mA | 76 | |
| EC5C11 | 18-72 VDC | 5 VDC | 3000 mA | 10 mA | 410 mA | 77 | 2" x 2" |
| EC5C12 | | 12 VDC | 1250 mA | 10 mA | 390 mA | 80 | |
| EC5C13 | | 15 VDC | 1000 mA | 10 mA | 390 mA | 80 | |
| EC5C14 | | ±5 VDC | ±1500 mA | 15 mA | 400 mA | 79 | |
| EC5C15 | | ±12 VDC | ±625 mA | 15 mA | 380 mA | 82 | |
| EC5C16 | | ±15 VDC | ±500 mA | 15 mA | 380 mA | 82 | |
| EC5C17 | | 5/±12 VDC | 1500/±310 mA | 15 mA | 380 mA | 82 | |
| EC5C18 | | 5/±15 VDC | 1500/±250 mA | 15 mA | 380 mA | 82 | |
| EC5C19 | | 3.3 VDC | 3000 mA | 10 mA | 270 mA | 76 | |

NOTE: 1. Nominal Input Voltage 24 or 48 VDC

Specifications

INPUT SPECIFICATIONS:

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

OUTPUT SPECIFICATIONS:

| | | |
|---|--|---------------------------------|
| Voltage Accuracy | | |
| Single Output..... | | ±1.0% max. |
| Dual +Output..... | | ±1.0% max. |
| -Output..... | | ±3.0% max. |
| Triple, 5V..... | | |
| | | ±2.0% max. |
| 12V/15V..... | | |
| | | ±3.0% max. |
| Voltage Balance (Dual)..... | | |
| | | ±1.0% max. |
| Transient Response: | | |
| Single, 25% Step Load Change..... | | |
| | | <500µ sec. |
| Dual-FL-1/2L ±1% Error Band..... | | |
| | | <500µ sec. |
| External Trim Adj. Range..... | | |
| | | ±10%. |
| Ripple & Noise, 20MHz BW..... | | |
| | | 10mV RMS, max. 75mV p-p max. |
| Temperature Coefficient..... | | |
| | | ±0.02%/°C |
| Short Circuit Protection..... | | |
| | | Continuous |
| Line Regulation ¹ , Single/Dual..... | | |
| | | ±0.2% max. |
| Triple..... | | |
| | | ±1.0% max. |
| Load Regulation ² , Single/Dual..... | | |
| | | ±1.0% max. |
| Triple..... | | |
| | | ±5.0% max. |

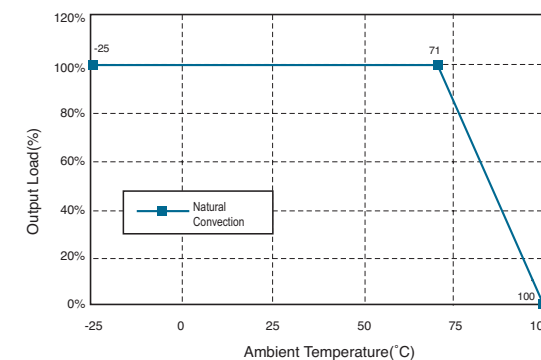
GENERAL SPECIFICATIONS:

Efficiency.....See Table
 Isolation Voltage.....500 VDC min.
 Isolation Resistance.....10⁹ohms
 Switching Frequency.....300KHz, typ.
 Case Grounding.....Connected to Output Common
 Operating Ambient Temperature Range -25°C to +71°C
 De-rating, Above 71°C Linearly to Zero power at 100°C
 Case Temperature³100°C max
 CoolingNatural Convection
 Storage Temperature Range.....-55°C to + 105°C
 EMI/RFI.....Six-Sided Continuous Shield
 Dimensions.....2.00 x 2.00 x 0.40 inches
 (50.8 x 50.8 x 10.2 mm)
 Case Material.....Black Coated Copper with
 Non-Conductive Base
 Weight.....59g

NOTE:

1. Measured From High Line to Low Line
2. Measured From Full Load to 1/4 Load
3. Maximum case temperature under any operating condition should not exceed 100°C.

EC5C Series Derating Curve

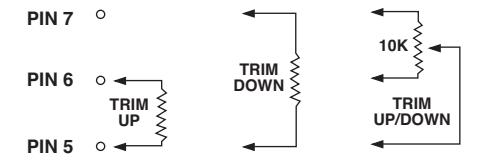


Remote On/Off Control

| | |
|-----------------------|----------------------------|
| 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 |

External Output Trimming

Output may optionally be externally trimmed (±10%) with a fixed resistor or an external trimpot as shown.



PIN CONNECTION

| Pin | Single | Dual | Tripe |
|-----|-----------------------|--------|-----------|
| 1 | Remote On/Off Control | | |
| 2 | No Pin | No Pin | No Pin |
| 3 | -Vin | -Vin | -Vin |
| 4 | +Vin | +Vin | +Vin |
| 5 | Trim | Trim | -Aux. Out |
| 6 | -Vout | -Vout | Common |
| 7 | +Vout | Common | +5V out |
| 8 | No Pin | +Vout | +Aux. Out |

TRIPLE OUTPUT LOADING TABLE (1)

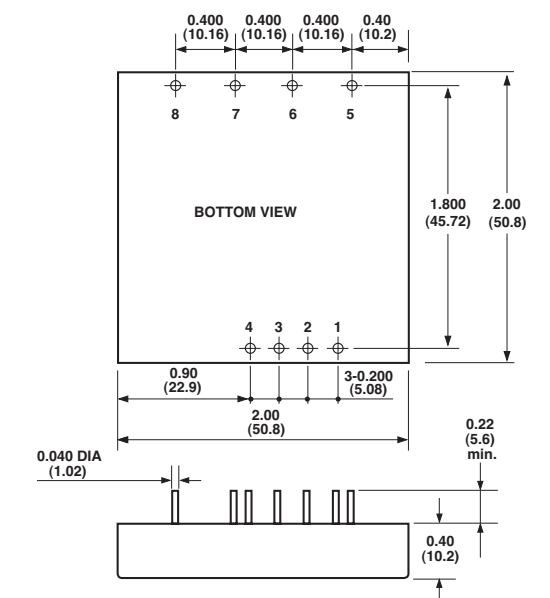
| Output (Pin No.) | Voltage | Amperes | |
|------------------|-----------|----------|------|
| | | Min. (2) | Nom. |
| 7 | +5 | 0.25 | 1.5 |
| 8 & 5 | +12 & -12 | 0.10 | 0.31 |
| 8 & 5 | +15 & -15 | 0.10 | 0.25 |

NOTE:

1. Maximum total power from all outputs is limited to 15 watts but no output should exceed its maximum current.
2. Minimum current on each output is required to maintain specified regulation.

CASE C

All Dimensions In Inches(mm)
 Tolerance Inches: .xx= ±0.04, .xxx= ±0.10
 Millimeters: .x= ±1.0, .xx= ±0.25



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