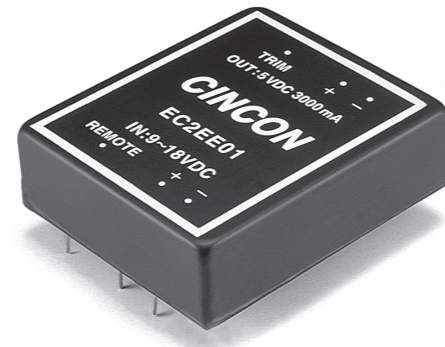


# EC2EE

S E R I E S

## 15 WATT DC-DC CONVERTERS



### Features

- 15W Isolated Output
- Six-Sided Shield Metal Case
- Regulated Outputs
- Efficiency to 84%
- Fixed 200KHz Switching Frequency
- Remote On/Off Control

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF.	SIZE
				NO LOAD	FULL LOAD		
EC2EE01	9-18 VDC	5 VDC	3000 mA	20 mA	1700 mA	77	2.56" x 3"
EC2EE02		12 VDC	1250 mA	20 mA	1600 mA	78	
EC2EE03		15 VDC	1000 mA	20 mA	1600 mA	78	
EC2EE04		±12 VDC	±625 mA	35 mA	1520 mA	82	
EC2EE05		±15 VDC	±500 mA	35 mA	1520 mA	82	
EC2EE06		5/±12 VDC	1500/±310 mA	30 mA	1600 mA	78	
EC2EE07		5/±15 VDC	1500/±250 mA	30 mA	1600 mA	78	
EC2EE08		+5/+12/-5 VDC	1500/310/500 mA	30 mA	1470 mA	78	
EC2EE11	18-36 VDC	5 VDC	3000 mA	25 mA	810 mA	77	2.56" x 3"
EC2EE12		12 VDC	1250 mA	25 mA	780 mA	80	
EC2EE13		15 VDC	1000 mA	25 mA	780 mA	80	
EC2EE14		±12 VDC	±625 mA	25 mA	750 mA	84	
EC2EE15		±15 VDC	±500 mA	25 mA	750 mA	84	
EC2EE16		5/±12 VDC	1500/±310 mA	25 mA	780 mA	80	
EC2EE17		5/±15 VDC	1500/±250 mA	25 mA	780 mA	80	
EC2EE18		+5/+12/-5 VDC	1500/310/500 mA	25 mA	715 mA	80	
EC2EE21	36-72 VDC	5 VDC	3000 mA	10 mA	410 mA	77	2.56" x 3"
EC2EE22		12 VDC	1250 mA	10 mA	390 mA	80	
EC2EE23		15 VDC	1000 mA	10 mA	390 mA	80	
EC2EE24		±12 VDC	±625 mA	15 mA	380 mA	82	
EC2EE25		±15 VDC	±500 mA	15 mA	380 mA	82	
EC2EE26		5/±12 VDC	1500/±310 mA	15 mA	380 mA	82	
EC2EE27		5/±15 VDC	1500/±250 mA	15 mA	380 mA	82	
EC2EE28		+5/+12/-5 VDC	1500/310/500 mA	15 mA	350 mA	82	

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		
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 <sup>1</sup> , Single/Dual.....	±0.2% max.	
Triple.....	±1.0% max.	
Load Regulation <sup>2</sup> , Single/Dual.....	±1.0% max.	
Triple.....	±5.0% max.	

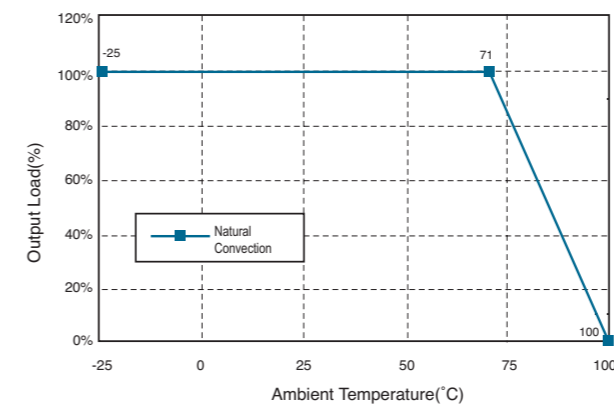
#### GENERAL SPECIFICATIONS:

Efficiency.....	See Table	
Isolation Voltage.....	500 VDC min.	
Isolation Resistance.....	10 <sup>9</sup> ohms	
Switching Frequency.....	200KHz, typ.	
Operating Ambient Temperature Range .....	-25°C to +71°C	
De-rating, Above 71°C .....	Linearly to Zero power at 100°C	
Case Temperature <sup>3</sup> .....	100°C max	
Cooling .....	Natural Convection	
Storage Temperature Range.....	-55°C to + 105°C	
EMI/RFI.....	Six-Sided Continuous Shield	
Dimensions.....	2.56 x 3.00 x 0.83 inches (65.0 x 76.2 x 21.1 mm)	
Case Material.....	Black Coated Copper with Non-Conductive Base	
Weight.....	173g	

#### 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 be exceeded 100°C.

### EC2EE Series Derating Curve

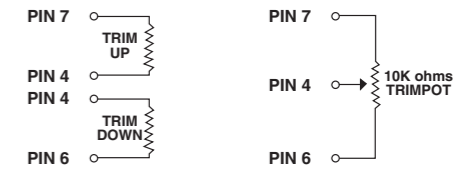


### Remote On/Off Control

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 Output	Dual Output	Tripe Output
1	+Input	+Input	+Input
2	-Input	-Input	-Input
3	No Pin	+Output	+Output
4	Output Trim	Common	Common
5	No Pin	-Output	-Output
6	+Output	No Pin	+5V Output
7	-Output	No Pin	No Pin
8	Remote On/Off Control		

### TRIPLE OUTPUT LOADING TABLE (1)

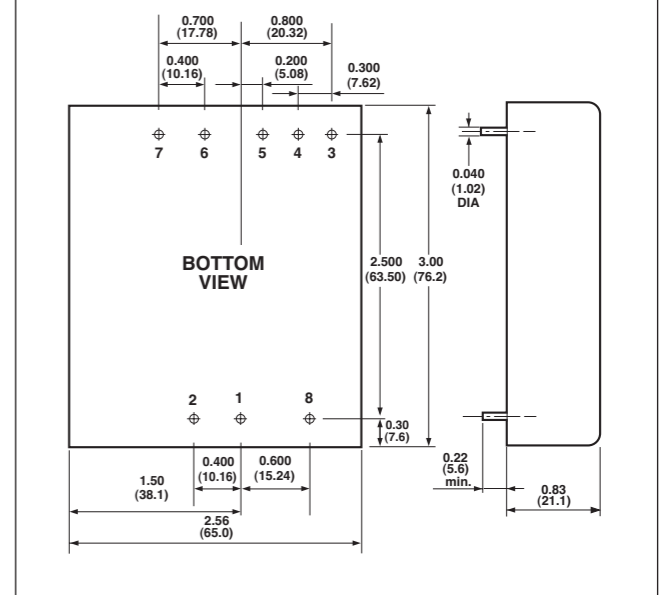
Output (Pin No.)	Voltage	Amperes	
		Min. (2)	Nom.
6	+5	0.25	1.5
3 & 5	+12 & -12	0.10	0.31
3 & 5	+15 & -15	0.10	0.25
3 & 5	+12 & -5	0.10 / 0.10	0.31/0.50

#### 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 E

All Dimensions In Inches(mm)  
Tolerance Inches: x.xx= ±0.04, x.xxx= ±0.010  
Millimeters: x.x= ±1.0, x.xx= ±0.25



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