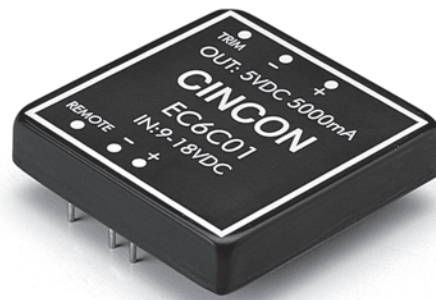


# EC6C

S E R I E S

## 25-30 WATT 2 : 1 INPUT DC-DC CONVERTERS



### Features

- 25-30W Isolated Output
- 2"x2" Six-Sided Shield Metal Case
- 2 : 1 Input Range
- Regulated Outputs
- Efficiency to 88%
- Remote ON/OFF Control
- CE Mark Meets 2004/108/EC
- UL60950-1 Approval

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT FULL LOAD	% EFF.	Capacitor Load max.
			MIN.	MAX.			
EC6C01	9-18 VDC	5 VDC	0 mA	5000 mA	2675 mA	84	5000uF
EC6C02		12 VDC	0 mA	2500 mA	3050 mA	88	2500uF
EC6C03		15 VDC	0 mA	2000 mA	3050 mA	88	2000uF
EC6C04		±5 VDC	±0 mA	±2500 mA	2675 mA	83	2500uF
EC6C05		±12 VDC	±0 mA	±1250 mA	3050 mA	88	1250uF
EC6C06		±15 VDC	±0 mA	±1000 mA	3050 mA	87	1000uF
EC6C07		5/±12 VDC	500/±100 mA	3500/±310 mA	2640 mA	81	T.B.D
EC6C08		5/±15 VDC	500/±100 mA	3500/±250 mA	2640 mA	82	T.B.D
EC6C09		3.3 VDC	0 mA	5000 mA	1860 mA	80	5000uF
EC6C11	18-36 VDC	5 VDC	0 mA	5000 mA	1336 mA	83	5000uF
EC6C12		12 VDC	0 mA	2500 mA	1525 mA	87	2500uF
EC6C13		15 VDC	0 mA	2000 mA	1525 mA	87	2000uF
EC6C14		±5 VDC	±0 mA	±2500 mA	1336 mA	82	2500uF
EC6C15		±12 VDC	±0 mA	±1250 mA	1470 mA	87	1250uF
EC6C16		±15 VDC	±0 mA	±1000 mA	1470 mA	86	1000uF
EC6C17		5/±12 VDC	500/±100 mA	3500/±310 mA	1320 mA	82	T.B.D
EC6C18		5/±15 VDC	500/±100 mA	3500/±250 mA	1320 mA	82	T.B.D
EC6C19		3.3 VDC	0 mA	5000 mA	920 mA	79	5000uF
EC6C21	36-72 VDC	5 VDC	0 mA	5000 mA	660 mA	83	5000uF
EC6C22		12 VDC	0 mA	2500 mA	765 mA	87	2500uF
EC6C23		15 VDC	0 mA	2000 mA	765 mA	87	2000uF
EC6C24		±5 VDC	±0 mA	±2500 mA	660 mA	82	2500uF
EC6C25		±12 VDC	±0 mA	±1250 mA	735 mA	87	1250uF
EC6C26		±15 VDC	±0 mA	±1000 mA	735 mA	87	470uF
EC6C27		5/±12 VDC	500/±100 mA	3500/±310 mA	655 mA	83	T.B.D
EC6C28		5/±15 VDC	500/±100 mA	3500/±250 mA	655 mA	82	T.B.D
EC6C29		3.3 VDC	0 mA	5000 mA	460 mA	79	5000uF

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 Surge Voltage(100ms max.).....	12V.....	25Vdc max.
	24V.....	50Vdc max.
	48V.....	100Vdc max.
Input Filter.....		Pi Type

### OUTPUT SPECIFICATIONS:

Voltage Accuracy		
Single Output.....		±2.0% max.
Dual +Output.....		±2.0% max.
Dual -Output.....		±3.0% max.
Triple, 5V.....		±2.0% max.
12V/15V.....		±5.0% max.
Voltage Balance (Dual)..... ±1.0% max.		
Transient Response:		
Single, 25% Step Load Change.....		< 500µs
Dual-FL-1/2L ±1% Error Band.....		< 500µs
External Trim Adj. Range.....		±10%
Ripple & Noise, 20MHz BW.....		10mV RMS max. 75mV pk-pk max.
Temperature Coefficient.....		± 0.02%/°C
Short Circuit Protection..... Continuous		
Line Regulation <sup>1</sup> Single/Dual.....		±0.5% max.
Triple.....		±1.0% max.
Load Regulation <sup>2</sup> Single/Dual.....		±1.0% max.
Triple.....		±5.0% max.
Start up time .....		900ms typ.

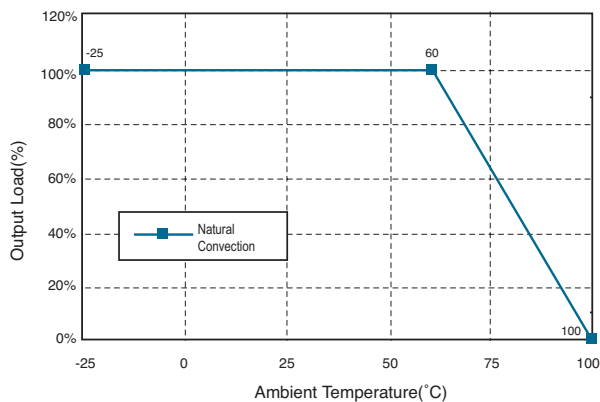
### GENERAL SPECIFICATIONS:

Efficiency.....	See Table
Isolation Voltage.....	500 VDC min.
Isolation Resistance.....	10 <sup>9</sup> ohm min.
Isolation Capacitance .....	500pF typ.
Switching Frequency.....	300KHz typ.
Case Grounding.....	Connected to Output Common
Operating Ambient Temperature Range .....	-25°C to +71°C
De-rating, Above 60°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
Humidity .....	95% RH max. Non condensing
MTBF .....	MIL-STD-217F, GB, 25°C, Full Load .....
EMI/RFI.....	Six-Sided Continuous Shield
Dimensions.....	2.00x2.00x0.40 inches (50.8x50.8x10.2 mm)
Case Material.....	Black Coated Copper with Non-Conductive Base
Weight.....	.65g

### 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.

## EC6C Series Derating Curve

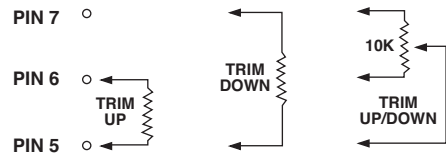


### Remote On/Off Control

Logic Compatibility	CMOS or Open Collector TTL
Ec-On	>+5.5 VDC to 75Vdc 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	0.50	3.5
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 25 watts but no output should be allowed to 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: x.xx= ±0.04, x.xxx= ±0.010  
Millimeters: x.x= ±1.0, x.xx= ±0.25

