

# EC6E

## 25 TO 30 WATT WIDE INPUT DC-DC CONVERTERS



### Features

- 30W Isolated Output
- 4:1 Input Range
- Six-Sided Shield
- Remote ON/OFF Control
- Efficiency to 84%
- 200KHz Switching Frequency

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF.	CASE
				NO LOAD	FULL LOAD		
EC6E01		5 VDC	5000 mA	20 mA	1350 mA	77	
EC6E02		12 VDC	2500 mA	20 mA	1560 mA	80	
EC6E03		15 VDC	2000 mA	20 mA	1560 mA	80	
EC6E04	9-36 VDC	±12 VDC	±1250 mA	25 mA	1560 mA	80	E
EC6E05		±15 VDC	±1000 mA	25 mA	1560 mA	80	
EC6E06		5/±12 VDC	3000/±625 mA	25 mA	1650 mA	76	
EC6E07		5/±15 VDC	3000/±500 mA	25 mA	1650 mA	76	
EC6E08		+5/+12/-5 VDC	3000/600/1000 mA	25 mA	1450 mA	78	
EC6E11		5 VDC	5000 mA	15 mA	670 mA	78	
EC6E12		12 VDC	2500 mA	15 mA	770 mA	81	
EC6E13		15 VDC	2000 mA	15 mA	770 mA	81	
EC6E14	18-72 VDC	±12 VDC	±1250 mA	20 mA	750 mA	84	E
EC6E15		±15 VDC	±1000 mA	20 mA	750 mA	84	
EC6E16		5/±12 VDC	3000/±625 mA	20 mA	790 mA	79	
EC6E17		5/±15 VDC	3000/±500 mA	20 mA	780 mA	80	
EC6E18		+5/+12/-5 VDC	3000/600/1000 mA	20 mA	725 mA	78	

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.....		±1.0% max.
Single Output.....		±1.0% max.
Dual +Output.....		±3.0% max.
-Output.....		±1.0% max.
Triple, 5V.....		±5.0% max.
12V/15V.....		±2.0% max.
-5V.....		±1.0% 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 Temperature Range.....	-25°C to + 71°C
Case Temperature.....	100°C max.
Cooling.....	Free-Air Convection
Storage Temperature Range.....	-55°C to + 105°C
EMI/RFI.....	Six-Sided Continuous Shield
Dimensions.....	2.56 x 3.0 x 0.83 inches (65 x 76.2 x 21.1 mm)
Case Material.....	Black Coated Copper with Non-Conductive Base

#### NOTE:

1. Measured From High Line to Low Line
2. Measured From Full Load to 1/4 Load

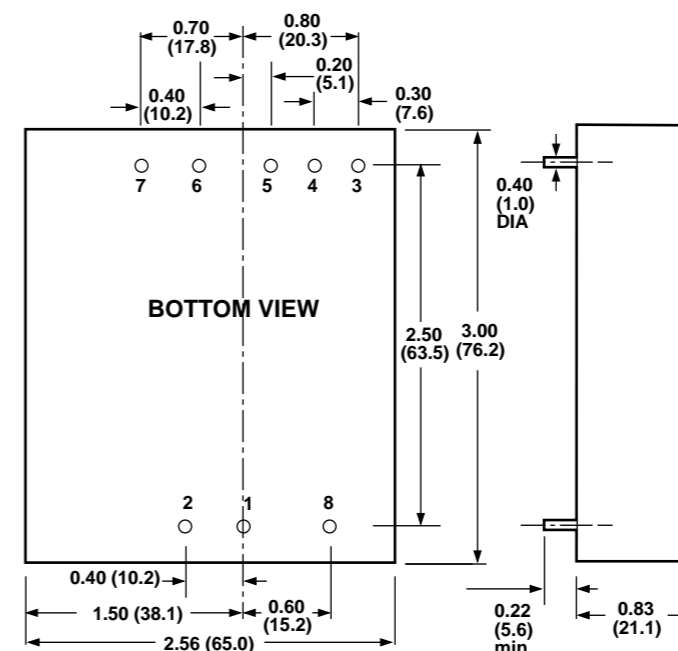
Output (Pin No.)	Voltage	Amperes	
		Min.(2)	Nom.
6	+5	0.5	3.0
3 & 5	+12 or -12	0.10	0.625
3 & 5	+15 or -15	0.10	0.500
3 & 5	+12 & -5	0.10/0.10	0.60/1.0

#### NOTE:

1. Maximum total power from all outputs is limited to 30 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 E

All Dimensions In Inches(mm)  
Tolerance .xx= ±0.04, .xxx= ±0.10



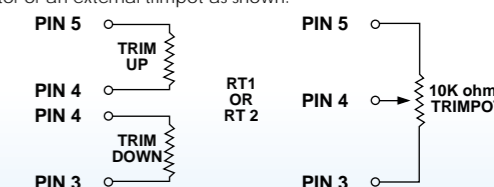
PIN CONNECTION			
Pin	Single Output	Dual Output	Triple Output
1.	+Input	+Input	+Input
2.	-Input	-Input	-Input
3.	+Sense	+Output	+Output
4.	Output Trim	Common	Common
5.	-Sense	-Output	-Output
6.	+Output	No Pin	+5V Output
7.	-Output	No Pin	No Pin
8.	Remote On/Off Control		

#### Remote On/Off Control

Logic Compatibility	CMOS or Open Collector TTL
EC-On	>+5.5VDC or Open Circuit
EC-Off	<1.8 VDC
Shutdown Idle Current	10 mA
Input Resistance	100K ohms (Ein 0 VDC to 9 VDC)
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.



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