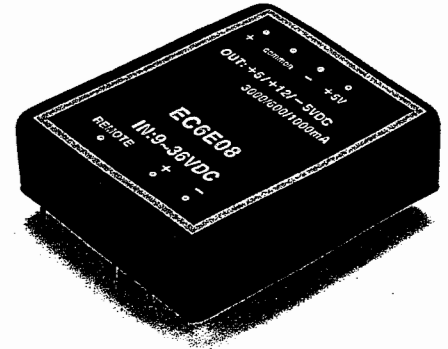


# EC6E

S E R

Contact: B. J. Wolfe Enterprises, Inc  
 Phone: (800) 554-1224, (818) 889-8412  
 Fax: (818) 889-8417, email: info@bjwe.com



## 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	Input Voltage Range	Output Voltage	Output Current	Quiescent Current	Efficiency (%)	Notes
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

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## 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.....±1.0% max.  
 12V/15V.....±5.0% max.  
 -5V.....±2.0% 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  
 Weight.....175g

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

### NOTE:

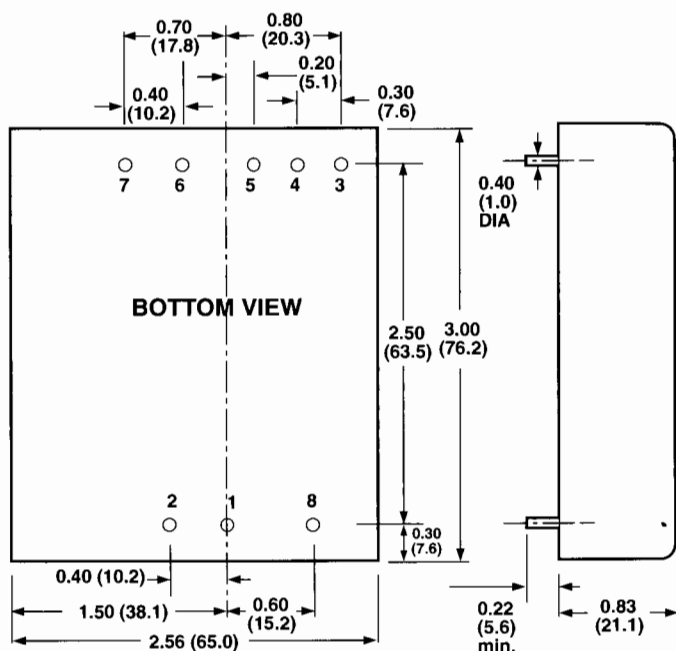
- Maximum total power from all outputs is limited to 30 watts but no output should be allowed to exceed its maximum current.
- Minimum current on each output is required to maintain specified regulation.

### NOTE:

- Measured From High Line to Low Line
- Measured From Full Load to 1/4 Load

## CASE E

All Dimensions In Inches(mm)  
 Tolerance .xx= ±.04, .xxx= ±.010



### 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  
 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.

