

# 4BE

## 10 WATT WIDE INPUT DC-DC CONVERTERS

### Features:

- 10W Isolated output
- Efficiency to 82%
- 2:1 Input Range
- Pi Input Filter
- Continuous Short Circuit Protection
- Conductive EMI Meet EN55022 Class A

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.	CASE
			MIN.	MAX.	NO LOAD	FULL LOAD		
4BE01		5 VDC	100 mA	2000 mA	30 mA	1100 mA	76	
4BE02		12 VDC	45 mA	830 mA	30 mA	1065 mA	78	
4BE03	9-18 VDC	15 VDC	35 mA	666 mA	30 mA	1065 mA	78	B
4BE04		±12 VDC	±25 mA	±415 mA	40 mA	1065 mA	78	
4BE05		±15 VDC	±20 mA	±333 mA	40 mA	1065 mA	78	
4BE06		±5 VDC	±50 mA	±1000 mA	40 mA	1065 mA	78	
4BE11		5 VDC	100 mA	2000 mA	20 mA	535 mA	78	
4BE12		12 VDC	45 mA	830 mA	20 mA	520 mA	80	
4BE13	18-36 VDC	15 VDC	35 mA	666 mA	20 mA	520 mA	80	B
4BE14		±12 VDC	±25 mA	±415 mA	20 mA	520 mA	80	
4BE15		±15 VDC	±20 mA	±333 mA	20 mA	520 mA	80	
4BE16		±5 VDC	±50 mA	±1000 mA	20 mA	520 mA	80	
4BE21		5 VDC	100 mA	2000 mA	10 mA	260 mA	80	
4BE22		12 VDC	45 mA	830 mA	10 mA	254 mA	82	
4BE23	36-72 VDC	15 VDC	35 mA	666 mA	10 mA	254 mA	82	B
4BE24		±12 VDC	±25 mA	±415 mA	10 mA	254 mA	82	
4BE25		±15 VDC	±20 mA	±333 mA	10 mA	254 mA	82	
4BE26		±5 VDC	±50 mA	±1000 mA	10 mA	254 mA	82	

NOTE: 1. Nominal Input Voltage 12,24 or 48 VDC



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# Specifications

# 4DE SERIES

### 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.
Dual - Output.....		±1.0% max.
Voltage Balance (Dual).....		±1.0% max.
Transient Response		
Single 25% Step Load Change.....		<500µ s.
Dual FL. 1/2L ±1% Error Band.....		<500µ s.
Ripple and Noise, 20MHz BW.....		100mV p-p max.
Temperature Coefficient.....		±0.02%/°C max.
Short Circuit Protection.....		Continuous
Line Regulation <sup>1</sup> Single/Dual Output.....		±0.2% max.
Load Regulation <sup>2</sup> Single/Dual Output.....		±1.0% max.

### GENERAL SPECIFICATIONS:

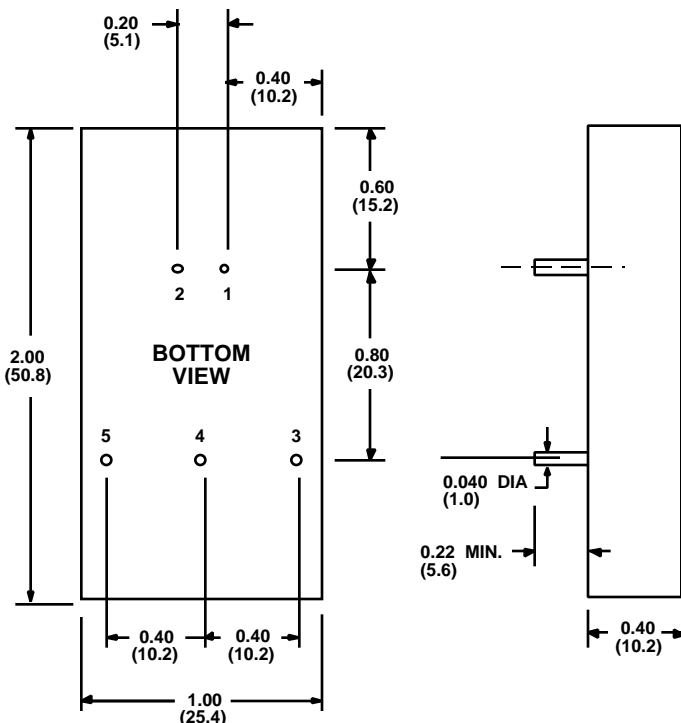
Efficiency.....		See Table
Isolation Voltage.....		500 VDC min.
Isolation Resistance.....		10 <sup>9</sup> ohms
Switching Frequency.....		200kHz, min.
Operating Temperature Range.....		-25°C to + 71°C
Case Temperature.....		100°C max.
Cooling.....		Free-Air Convection
Storage Temperature Range.....		-40°C to + 100°C
EMI/RFI.....		Six sided Continuous Shield
Dimensions.....		2 x 1 x 0.4 inches (50.8 x 25.4 x 10.2 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
3. A Minimum Load On the Output is Necessary to Maintain Regulation

## CASE B

All Dimensions In Inches(mm)



PIN CONNECTION	
Pin	Function

- |    |           |
|----|-----------|
| 1. | + Input   |
| 2. | - Input   |
| 3. | + Output  |
| 4. | Common/NP |
| 5. | - Output  |

NP\*-NO PIN ON SINGLE OUTPUT

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