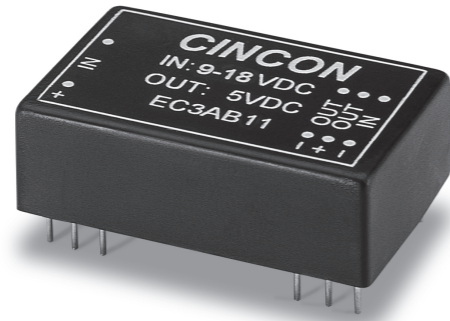


# EC3AB

S E R I E S

## 3 WATT EN55022 CLASS B DC-DC CONVERTERS



### Features

- 3W Isolated Output
- DIP-24 / SMD Package
- Regulated Outputs
- Efficiency to 80%
- Meets EN55022 Class B, Conducted
- Pi Input Filter
- Continuous Short Circuit Protection
- Remote On/Off Control (Option)

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF.	CASE
				NO LOAD	FULL LOAD		
EC3AB11	9-18 VDC	5 VDC	600 mA	7.5 mA	329 mA	76	DIP-24
EC3AB12		12 VDC	250 mA	7.5 mA	316 mA	79	
EC3AB13		15 VDC	200 mA	7.5 mA	321 mA	78	
EC3AB14		±5 VDC	±300 mA	12 mA	329 mA	76	
EC3AB15		±12 VDC	±125 mA	12 mA	325 mA	77	
EC3AB16		±15 VDC	±100 mA	12 mA	329 mA	76	
EC3AB17		3.3 VDC	600 mA	7.5 mA	229 mA	72	
EC3AB21	18-36 VDC	5 VDC	600 mA	5 mA	162 mA	77	DIP-24
EC3AB22		12 VDC	250 mA	5 mA	156 mA	80	
EC3AB23		15 VDC	200 mA	5 mA	156 mA	80	
EC3AB24		±5 VDC	±300 mA	7.5 mA	164 mA	76	
EC3AB25		±12 VDC	±125 mA	7.5 mA	156 mA	80	
EC3AB26		±15 VDC	±100 mA	7.5 mA	162 mA	77	
EC3AB27		3.3 VDC	600 mA	5 mA	111 mA	74	
EC3AB31	36-72 VDC	5 VDC	600 mA	2 mA	81 mA	77	DIP-24
EC3AB32		12 VDC	250 mA	2 mA	81 mA	77	
EC3AB33		15 VDC	200 mA	2 mA	81 mA	77	
EC3AB34		±5 VDC	±300 mA	3 mA	80 mA	78	
EC3AB35		±12 VDC	±125 mA	3 mA	82 mA	76	
EC3AB36		±15 VDC	±100 mA	3 mA	82 mA	76	
EC3AB37		3.3 VDC	600 mA	3 mA	58 mA	71	

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
Positive Logic Remote ON/OFF ( see note 6 )		
Input Filter.....		Pi Type

#### OUTPUT SPECIFICATIONS:

Voltage Accuracy.....	±2.0% max.	
Voltage Balance (Dual).....	±1.0% max.	
Temperature Coefficient.....	±0.05%/°C	
Ripple and Noise, 20MHz BW.....	3.3V/5V.....	100mV p-p max.
	12V/15V.....	1% p-p max.
Short Circuit Protection.....	Continuous	
Line Regulation, Single/Dual <sup>1</sup> .....	± 0.5% max.	
Load Regulation, Single <sup>2</sup> .....	± 0.5% max.	
	Dual <sup>3</sup> .....	± 1.0% max.

#### GENERAL SPECIFICATIONS:

Efficiency.....	See Table	
Isolation Resistance.....	10 <sup>9</sup> ohms	
Switching Frequency.....	100KHz, min	
Operating Ambient Temperature Range .....	-25°C to +71°C	
De-rating, Above 71°C(Plastic Case).....	Linearly to Zero power at 95°C	
De-rating, Above 71°C (Copper Case).....	Linearly to Zero power at 100°C	
Case Temperature (Plastic case <sup>3</sup> ) .....	95°C max	
(Copper case <sup>3</sup> ) .....	100°C max	
Cooling .....	Natural Convection	
Storage Temperature Range.....	-40°C to + 100°C	
EMI / RFI.....	Conductive EMI Meet EN55022 Class B	
Dimensions.....	DIP.....	1.25 x 0.80 x 0.50 inches(31.8 x 20.3 x 12.7mm)
	SMD.....	1.25 x 0.80 x 0.55 inches(31.8 x 20.3 x 14.0mm)
Weight.....	15g	

#### ISOLATION VOLTAGE:

500 VDC min.....	Standard Models	
3K VDC min <sup>4</sup> .....	Suffix "H" Models	
1.5K VDC min.....	Suffix "HM" Models	

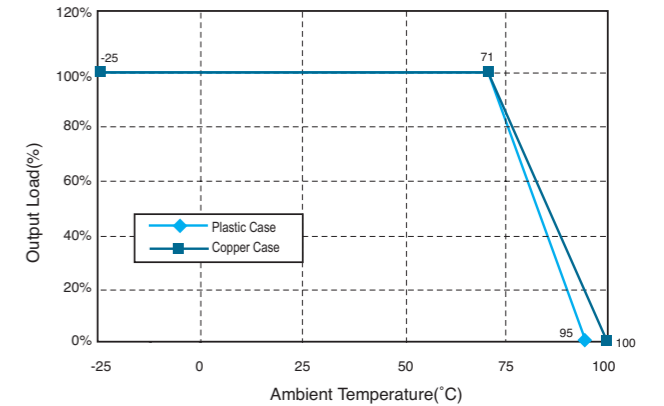
#### CASE MATERIAL:

Standard Models .....	Non-Conductive Black Plastic	
Suffix "M" Models <sup>5</sup> .....	Black Coated Copper with Non-Conductive Base	

#### NOTE:

- Measured From High Line to Low Line
- Measured From Full Load to 10% Load
- Measured From Full Load to 1/4 Load
- Non-Conductive Black Plastic Only
- Suffix "T" to the Model Number with Remote On/Off for "H"/"HM" Versions Only
- Logic Compatibility.....CMOS or Open Collector TTL, ref. to-Vin  
Module ON .....>5.5Vdc or Open Circuit  
Module OFF.....<1.8Vdc.  
Shutdown Idle.....10mA  
Control Common.....Referenced to Input Minus
- Suffix "S" to the Model Number with SMD Packages
- Maximum case temperature under any operating condition should not exceed 95°C (Plastic Case), 100°C (Copper Case).

### EC3AB Series Derating Curve



Ambient Temperature(°C)

### PIN CONNECTION

		500 VDC				1.5K & 3K VDC				
Pin		Single Output		Dual Output		Pin	Single Output		Dual Output	
		DIP	SMD	DIP	SMD		DIP	SMD	DIP	SMD
1,24	+V Input			+V Input		1,24	NP	NC	NP	NC
2,23	NC			-V Output		2,3	-V Input		-V Input	
3,22	NC			Common		4	NP	NC	NP	NC
4	NP	NC	NP	NC		5	NP/ Remote On/Off	NC/ Remote On/Off	NP/ Remote On/Off	NC/ Remote On/Off
5	NP	NC	NP	NC		9	NC		Common	
9	NP	NC	NP	NC		10,15	NC		NC	
10,15	-V Output			Common		11	NC		-V Output	
11,14	+V Output			+V Output		12,13	NP	NC	NP	NC
12,13	-V Input			-V Input		14	+V Output		+V Output	
16	NP	NC	NP	NC		16	-V Output		Common	
20	NP	NC	NP	NC		20,21	NP	NC	NP	NC
21	NP	NC	NP	NC		22,23	+V Input		+V Input	

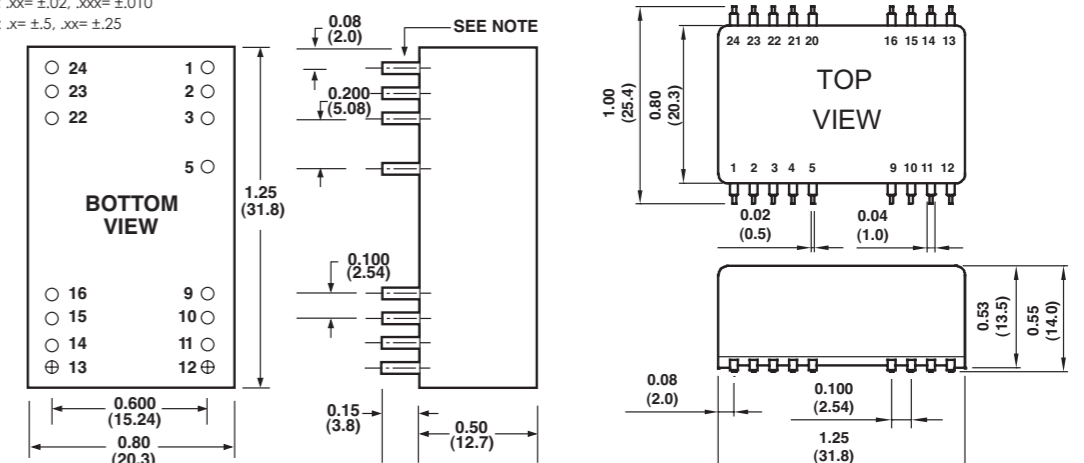
\*NP-NO PIN

\*Remote On/Off (Option)

\*NC-NO CONNECTION WITH PIN

### CASE A

NOTE: Pin Size is 0.02" Inch (0.5mm) DIA  
All Dimensions In Inches (mm)  
Tolerance Inches: xx= ±.02, xxx= ±.010  
Millimeters: .x= ±.5, .xx= ±.25



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