



EC4AB SERIES

5-6 WATT 2:1 INPUT RANGE

DC-DC CONVERTERS



FEATURES

- * 5-6W Isolated Output
- * DIP-24/SMD Package
- * Efficiency to 84%
- * Regulated Outputs
- * Pi Input Filter
- * Continuous Short Circuit Protection
- * Meets EN55022 Class B, Conducted
- * Remote ON/OFF (Option)



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF.	CASE
				NO LOAD	FULL LOAD		
EC4AB01	9-18VDC	5VDC	1000 mA	7.5 mA	548 mA	76	DIP-24
EC4AB02	9-18VDC	12VDC	470 mA	7.5 mA	588 mA	80	DIP-24
EC4AB03	9-18VDC	15VDC	400 mA	7.5 mA	617 mA	81	DIP-24
EC4AB04	9-18VDC	±12VDC	±230 mA	12 mA	568 mA	81	DIP-24
EC4AB05	9-18VDC	±15VDC	±190 mA	12 mA	586 mA	81	DIP-24
EC4AB06	9-18VDC	±5VDC	±500 mA	12 mA	548 mA	76	DIP-24
EC4AB07	9-18VDC	3.3VDC	1000 mA	7.5 mA	382 mA	72	DIP-24
EC4AB11	18-36VDC	5VDC	1000 mA	5 mA	264 mA	79	DIP-24
EC4AB12	18-36VDC	12VDC	470 mA	5 mA	283 mA	83	DIP-24
EC4AB13	18-36VDC	15VDC	400 mA	5 mA	298 mA	84	DIP-24
EC4AB14	18-36VDC	±12VDC	±230 mA	7.5 mA	284 mA	81	DIP-24
EC4AB15	18-36VDC	±15VDC	±190 mA	7.5 mA	290 mA	82	DIP-24
EC4AB16	18-36VDC	±5VDC	±500 mA	7.5 mA	264 mA	79	DIP-24
EC4AB17	18-36VDC	3.3VDC	1000 mA	5 mA	188 mA	73	DIP-24
EC4AB21	36-72VDC	5VDC	1000 mA	2 mA	132 mA	79	DIP-24
EC4AB22	36-72VDC	12VDC	470 mA	2 mA	143 mA	82	DIP-24
EC4AB23	36-72VDC	15VDC	400 mA	2 mA	154 mA	81	DIP-24
EC4AB24	36-72VDC	±12VDC	±230 mA	3 mA	142 mA	81	DIP-24
EC4AB25	36-72VDC	±15VDC	±190 mA	3 mA	148 mA	80	DIP-24
EC4AB26	36-72VDC	±5VDC	±500 mA	3 mA	132 mA	79	DIP-24
EC4AB27	36-72VDC	3.3VDC	1000 mA	3 mA	94 mA	73	DIP-24

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

SPECIFICATIONS

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

INPUT SPECIFICATIONS:

Input Voltage Range	12V	9-18V
	24V	18-36V
	48V	36-72V

Positive Logic Remote ON/OFF (see note6)

Input Filter Pi Type

OUTPUT SPECIFICATIONS:

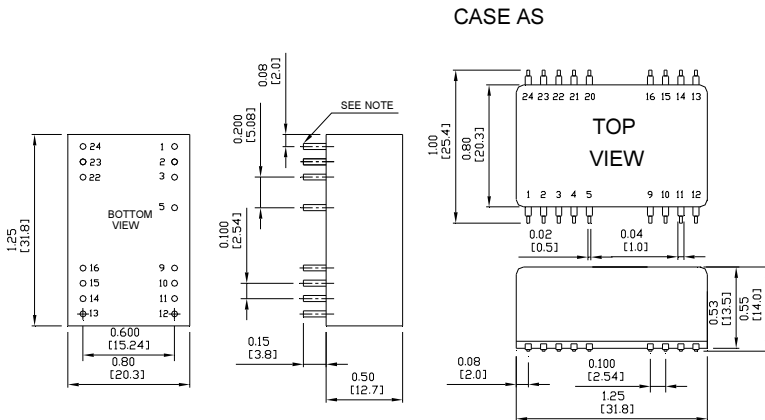
Voltage Accuracy	±2.0% max.
Voltage Balance (Dual)	±1.0% max.
Temperature Coefficient	±0.05%/°C
Ripple & Noise, 20MHz BW	3.3V/5V 100mV pk-pk max.
	12V/15V 1% pk-pk max.
Short Circuit Protection	Continuous
Line Regulation (note1) Single/Dual	±0.5% max.
Load Regulation (note2) Single	±0.5% max.
	Dual (note3) ±1.0% max.

GENERAL SPECIFICATIONS:

Efficiency	See Table
Isolation Resistance	10 ⁹ ohm min.
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 note8)	95°C max.
	(Copper case note8) 100°C max.
Cooling	Natural Convection
Storage Temperature Range	-40°C to +100°C
EMI/RFI	Conductive EMI Meet EN55022 Class B
Dimensions	DIP 1.25x0.80x0.50 inches(31.8x20.3x12.7 mm)
	SMD 1.25x0.80x0.55 inches(31.8x20.3x14.0 mm)
Weight	15g

Case A Dimensions:

NOTE: Pin Size is 0.02±0.002 Inch (0.5±0.05 mm) DIA
 All Dimensions In Inches (mm)
 Tolerances Inches: X.XX= ±0.02 , X.XXX= ±0.010
 Millimeters: X.X= ±0.5 , X.XX=±0.25



ISOLATION VOLTAGE:

500 VDC min.	Standard Models
3K VDC min. (note4)	Suffix "H" Models
1.5K VDC min.	Suffix "HM" Models

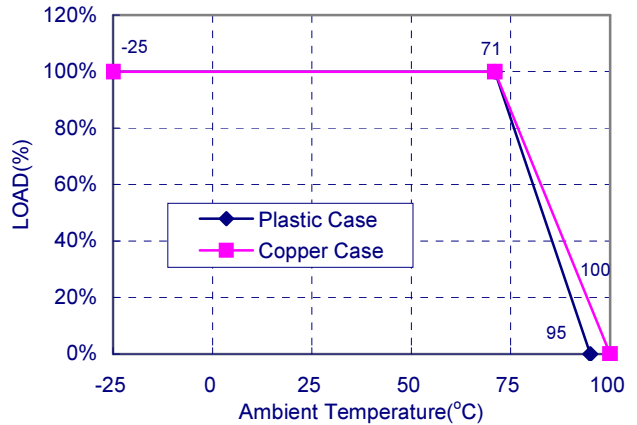
CASE MATERIAL:

Standard Models	Non-Conductive Black Plastic
Suffix "M" Models	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 be exceeded 95°C (Plastic Case), 100°C (Copper Case).

Typical Derating curve for Natural Convection



PIN CONNECTION									
Pin	500 VDC				1.5K & 3K VDC				
	Single Output		Dual Output		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			
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	

* NC-NO CONNECTION WITH PIN
 * NP-NO PIN
 * Remote On/Off (Option)