



EC8AW SERIES

15 WATT 4:1 INPUT RANGE

DC-DC CONVERTERS

FEATURES

- * 15W Isolated Output
- * DIP-24 Package
- * Very High Efficiency Up to 90%
- * Low Input Current At No Load
- * 4 :1 and 2 :1 Input Range
- * Regulated Outputs
- * Conductive EMI Meet EN55022 Class A
- * Continuous Short Circuit Protection
- * No Tantalum Capacitor Inside
- * CE Mark Meets 2004/108/EC
- * Safety Meets UL60950-1, EN60950-1 and IEC60950-1



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.		Capacitive Load max.
			MIN.	MAX.	NO LOAD	FULL LOAD	(2)	(3)	
EC8AW-24S33	9-36 VDC	3.3 VDC	0 mA	4000 mA	8 mA	625 mA	88	88	4000 μ F
EC8AW-24S05	9-36 VDC	5 VDC	0 mA	3000 mA	8 mA	694 mA	90	90	3000 μ F
EC8AW-24S12	9-36 VDC	12 VDC	0 mA	1250 mA	8 mA	694 mA	90	90	1250 μ F
EC8AW-24S15	9-36 VDC	15 VDC	0 mA	1000 mA	8 mA	694 mA	90	90	1000 μ F
EC8AW-24D12	9-36 VDC	\pm 12 VDC	0 mA	\pm 625 mA	8 mA	702 mA	89	89	625 μ F
EC8AW-24D15	9-36 VDC	\pm 15 VDC	0 mA	\pm 500 mA	8 mA	694 mA	90	90	500 μ F
EC8AW-48S33	18-75 VDC	3.3 VDC	0 mA	4000 mA	6 mA	309 mA	89	89	4000 μ F
EC8AW-48S05	18-75 VDC	5 VDC	0 mA	3000 mA	6 mA	351 mA	89	89	3000 μ F
EC8AW-48S12	18-75 VDC	12 VDC	0 mA	1250 mA	6 mA	347 mA	90	90	1250 μ F
EC8AW-48S15	18-75 VDC	15 VDC	0 mA	1000 mA	6 mA	347 mA	90	90	1000 μ F
EC8AW-48D12	18-75 VDC	\pm 12 VDC	0 mA	\pm 625 mA	6 mA	351 mA	89	89	625 μ F
EC8AW-48D15	18-75 VDC	\pm 15 VDC	0 mA	\pm 500 mA	6 mA	347 mA	90	90	500 μ F

NOTE: 1. Nominal Input Voltage 12, 24 or 48VDC
 2. Measure at 12VDC for 24 Vin, 24VDC for 48 Vin
 3. Measure at Nominal Input Voltage

SPECIFICATIONS

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

INPUT SPECIFICATIONS:

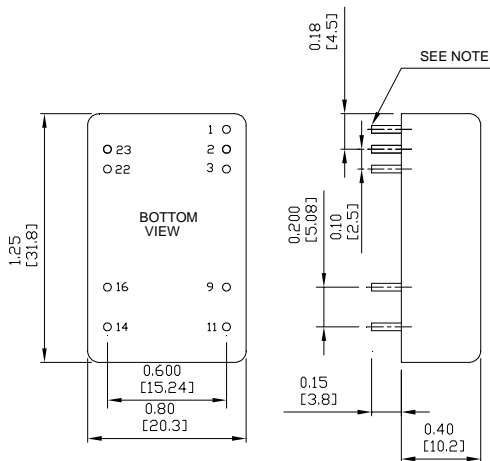
Input Voltage Range	24V	9-36V
	48V	36-75V
Input Surge Voltage (100ms max.)	24V	50Vdc max.
	48V	100Vdc max.
Under voltage lockout	24Vin power up	8.8V.
	24Vin power down	8V
	48Vin power up	17V
	48Vi power down	16V
Input Filter	PI Type	
Remote on/off Control		
Logic Compatibility	CMOS or Open Collector TTL, ref. to -Vin	
	Module On	>3.5VDC to Vin or Open Circuit
	Module Off	<1.2VDC

OUTPUT SPECIFICATIONS:

Voltage Accuracy	±1.5% max.
Voltage Balance (Dual)	±1.0% max.
Transient Response: 75% - 100% Step Load Change	
Error Band	±5% Vout Nominal
Recovery Time	< 250us
Ripple & Noise, 20MHz BW (Note3)	75mV pk-pk max.
Temperature Coefficient	±0.03%/°C
Line Regulation (Note1)	Single ±0.2% max.
	Dual ±0.5% max.
Load Regulation (Note2)	Single ±0.5% max.
	Dual ±1.0% max.
Cross Regulation (Dual Output) Load Cross Variation 10%/100%	±5% max.
Output Short Circuit Protection	Continuous
Over voltage Protection (Zener Diode Clamp, Single Output Only)	
3.3V	3.9Vdc typ., 5V
12V	15Vdc typ., 15V
Start up time	15ms typ.

Case A Dimensions:

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



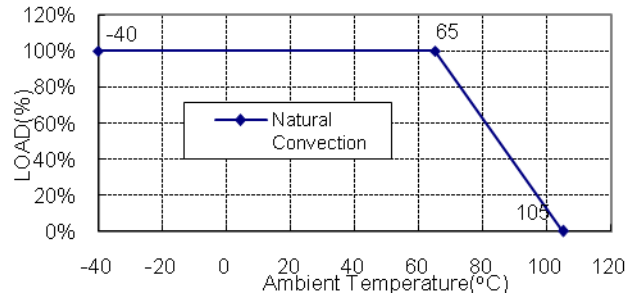
GENERAL SPECIFICATIONS:

Efficiency	See Table
Isolation Voltage	Input/Output 1500VDC min.
Isolation Resistance	10 ⁹ ohm min.
Isolation Capacitance	1000pF typ.
Switching Frequency	300KHz typ.
EMI/RFI	Conductive EMI Meet EN55022 Class A
Operating Ambient Temperature	-40°C to +85°C
De-rating, Above 65°C	Linearly to Zero power at 105°C
Case Temperature (Note4)	105°C max.
Cooling	Natural Convection
Storage Temperature	-40°C to +125°C
Humidity	95% RH max. Non condensing
MTBF	MIL-STD-217F, GB, 25°C, Full Load TBD hrs
Dimensions	1.25x0.80x0.40 inches (31.8x20.3x10.2 mm)
Case Material	Black Coated Copper with Non-Conductive Base
Weight	18.4g

NOTE :

1. Measured From High Line to Low Line.
2. Measured From Full Load to 10% Load.
3. Measured with 0.1uF MLCC.
4. Maximum case temperature under any operating condition should not be exceeded 105°C.

Typical Derating curve for Natural Convection



PIN CONNECTION		
Pin	Single Output	Dual Output
1	Remote on/off	Remote on/off
2,3	-V Input	-V Input
4,5	NP	NP
9	NP	Common
10	NP	NP
11	NC	-V Output
12	NP	NP
13	NP	NP
14	+V Output	+V Output
15	NP	NP
16	-V Output	Common
20,21,24	NP	NP
22,23	+V Input	+V Input

* NC-NO CONNECTION WITH PIN
 * NP-NO PIN