



EC3SCW SERIES

20-30 WATT 4:1 INPUT RANGE

DC-DC CONVERTERS



FEATURE

- * 20-30W Isolated Output
- * 2" X 1.6" Six-Sided Shield Metal Case
- * High Efficiency Up to 91%
- * Fixed 300KHz Switching Frequency
- * 4 : 1 Wide Input Range
- * Regulated Outputs
- * Continuous Short Circuit Protection
- * Industry Standard Pin-Out
- * 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.	Capacitor Load max.
			MIN.	MAX.	NO LOAD	FULL LOAD		
EC3SCW-24S3V3	9-36 VDC	3.3VDC	0mA	7500mA	50mA	1172mA	88	7500uF
EC3SCW-24S05	9-36 VDC	5 VDC	0mA	6000mA	60mA	1404mA	89	6000uF
EC3SCW-24S12	9-36 VDC	12 VDC	0mA	2500mA	80mA	1374mA	91	2500uF
EC3SCW-24S15	9-36 VDC	15 VDC	0mA	2000mA	50mA	1374mA	91	2000uF
EC3SCW-48S3V3	18-75 VDC	3.3VDC	0mA	7500mA	30mA	586mA	88	7500uF
EC3SCW-48S05	18-75 VDC	5 VDC	0mA	6000mA	30mA	694mA	90	6000uF
EC3SCW-48S12	18-75 VDC	12 VDC	0mA	2500mA	40mA	687mA	91	2500uF
EC3SCW-48S15	18-75 VDC	15 VDC	0mA	2000mA	50mA	687mA	91	2000uF

NOTE: 1. Nominal Input Voltage 24, 48VDC

SPECIFICATIONS

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

INPUT SPECIFICATIONS:

Input Voltage Range	24V	9-36V
	48V	18-75V
Input Surge Voltage (100ms max.)	24V	50Vdc max.
	48V	100Vdc max.
Under voltage lockout	24Vin power up	8.8V typ.
	24Vin power down	8.0V typ.
	48Vin power up	17V typ.
	48Vin power down	16V typ.
Positive Logic Remote ON/OFF (note 3 & 4)		
Input Filter		PI Type

OUTPUT SPECIFICATIONS:

Voltage Accuracy:	±1.5% max.
Transient Response: 75% - 100% Step Load Change	
Error Band	±5% Vout nominal
Recovery Time	< 300us
External Adjustment Range, %Vo	±10%
Ripple & Noise, 20MHz BW (Measured with 0.1uF MLCC)	
3.3V & 5V	20mV RMS, max. 75mV pk-pk, max.
12V & 15V	20mV RMS, max. 100mV pk-pk, max.
Temperature Coefficient	±0.02%/°C
Line Regulation (note 1)	±0.5% max.
Load Regulation (note 2)	±0.5% max.
Output Over voltage Protection (Zener or TVS Clamp)	
3.3V	3.9V
5V	6.2V
12V	15V
15V	18V
Output Current Limit, % Nominal Output	110% ~150%
Output Short Circuit Protection	Continuous (hiccup mode)
Start up time	8ms Typ.

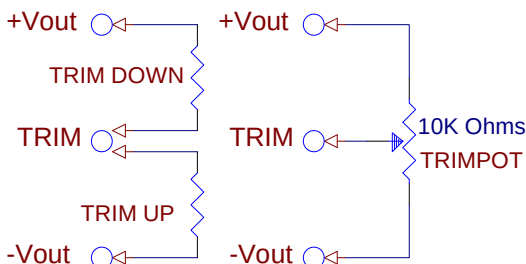
GENERAL SPECIFICATIONS:

Efficiency	See Table
Isolation Voltage	Input/Output 1500VDC max.
Isolation Resistance	10 ⁸ ohm min.
Isolation Capacitance	1000pF Typ.
Switching Frequency	24Vin 300KHz, Typ.
	48Vin 250KHz, Typ.
Operating Ambient Temperature	-40°C to +85°C
De-rating, Above 60°C	Linearly to Zero power at 100°C
Case Temperature (Note5)	100°C max.
Cooling	Natural Convection
Storage Temperature	-55°C to +125°C
Humidity	95% RH max. Non condensing
MTBF	MIL-STD-217F, GB, 25°C, Full Load 650KHrs Typ.
Thermal Shutdown, Case Temp.	110°C Typ.
Dimensions	2.00x1.60x0.40 inches(50.8x40.6x10.2 mm)
Case Material	Black Coated Copper with Non-Conductive Base
Weight	50g

NOTE :

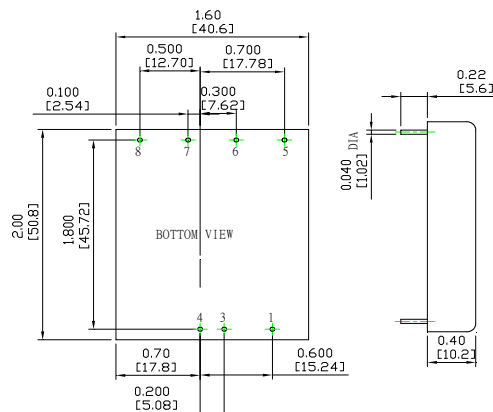
1. Measured From High Line to Low Line
2. Measured From Full Load to 10% Load
3. Logic Compatibility CMOS or Open Collector TTL, ref. to -Vin
 - Module ON >3.5Vdc to 75Vdc or Open Circuit
 - Module OFF <1.2Vdc
4. Suffix "N" to the Model Number with Negative Logic Remote ON/OFF
 - Module ON <1.2Vdc,
 - Module OFF >3.5Vdc to 75Vdc or Open Circuit
5. Maximum case temperature under any operating condition should not be exceeded 100°C

EXTERNAL OUTPUT TRIM

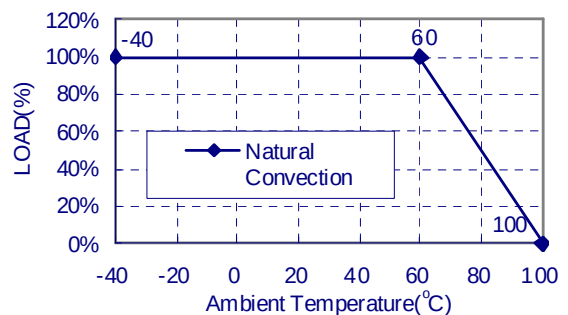


Case SC Dimensions:

All Dimensions In Inches(mm)
 Tolerance Inches: .XX=±0.04, .XXX=±0.010
 Millimeters: .X=±1.0, .XX=±0.25



Typical Derating curve for Natural Convection



PIN CONNECTIONS	
Pin	Function
1	On/Off Control
3	-Vin
4	+Vin
5	Trim
6	-Vout
7	+Vout
8	No Pin

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