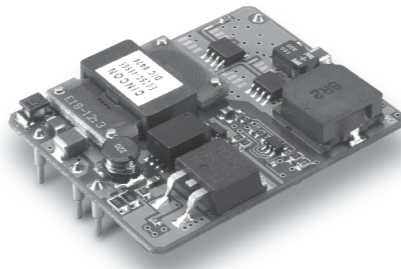
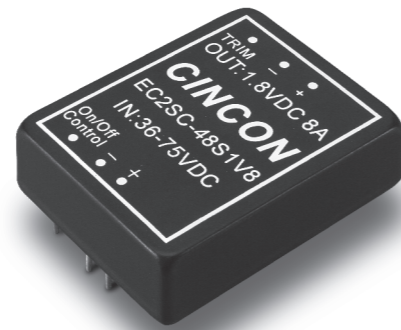


# EC2SC

## 14.4-25 WATT DC-DC CONVERTERS



### Features

- 14.4-25W Isolated Output
- 2" x 1.6" Six-Sided Shield Metal Case or Open Frame Design
- Regulated Outputs
- Efficiency to 90%
- Fixed 300KHz Switching Frequency
- Continuous Short Circuit Protection
- Remote On/Off Control

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.	SIZE
			MIN.	MAX.	NO LOAD	FULL LOAD		
EC2SC-12S18	9-18 VDC	1.8 VDC	0mA	8000mA	95mA	1411mA	85	2"x1.6"
EC2SC-12S25		2.5 VDC		8000mA	95mA	1894mA	88	
EC2SC-12S33		3.3 VDC		6000mA	100mA	1875mA	88	
EC2SC-12S05		5.0 VDC		5000mA	105mA	2431mA	89	
EC2SC-12S12		12 VDC		2000mA	60mA	2299mA	87	
EC2SC-12S15		15 VDC		1600mA	85mA	2325mA	86	
EC2SC-24S18	18-36 VDC	1.8 VDC	0mA	8000mA	60mA	714mA	84	2"x1.6"
EC2SC-24S25		2.5 VDC		8000mA	55mA	947mA	88	
EC2SC-24S33		3.3 VDC		6000mA	55mA	927mA	89	
EC2SC-24S05		5.0 VDC		5000mA	60mA	1157mA	90	
EC2SC-24S12		12 VDC		2000mA	30mA	1149mA	87	
EC2SC-24S15		15 VDC		1600mA	50mA	1162mA	86	
EC2SC-48S18	36-75 VDC	1.8 VDC	0mA	8000mA	30mA	357mA	84	2"x1.6"
EC2SC-48S25		2.5 VDC		8000mA	30mA	473mA	88	
EC2SC-48S33		3.3 VDC		6000mA	40mA	463mA	89	
EC2SC-48S05		5.0 VDC		5000mA	40mA	579mA	90	
EC2SC-48S12		12 VDC		2000mA	20mA	568mA	88	
EC2SC-48S15		15 VDC		1600mA	20mA	574mA	87	

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

### Specifications

#### INPUT SPECIFICATIONS:

Input Voltage Range.....	12V.....	9-18V
	24V.....	18-36V
	48V.....	36-75V
Under Voltage locket.....	12Vin Power Up.....	8.8V
	12Vin Power Down.....	8.0V
	24Vin Power Up.....	17V
	24Vin Power Down.....	16V
	48Vin Power Up.....	34V
	48Vin Power Down.....	32V
Positive Logic Remote ON/OFF (see note 3 & 4)		
Input Filter.....		Pi Type

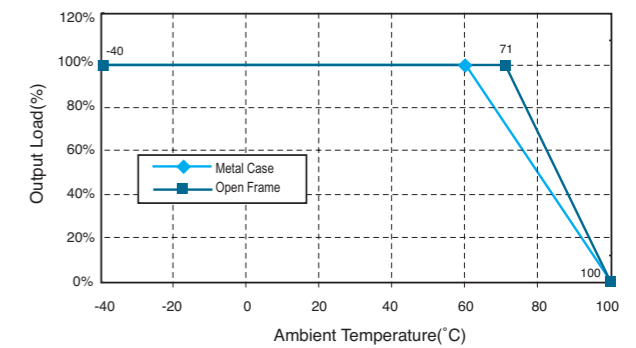
#### OUTPUT SPECIFICATIONS:

Voltage Accuracy.....	±1.0% max.
Transient Response: 75% - 100% Step Load Change	
Error Band.....	±5% Vout Nominal, Recovery Time.....<300us
Output Voltage Adjustment Range.....	90% - 110%Vo
Ripple & Noise, 20MHz BW (Measured with 0.1µF MLCC)	
1.8V & 2.5V & 3.3V & 5V.....	20mVrms max., 75mVpk-pk max.
12V & 15V.....	20mVrms max., 100mVpk-pk max.
Temperature Coefficient.....	±0.02%/°C
Line Regulation <sup>1</sup> .....	±0.5% max.
Load Regulation <sup>2</sup> .....	±0.5% max.
Over Voltage Protection (Zener Diode Clamp)	
1.8V.....	3.3VDC Typ., 2.5V.....3.3VDC Typ.
3.3V.....	3.9VDC Typ., 5V.....6.2VDC Typ.
12V.....	15VDC Typ., 15V.....18VDC Typ.
Output Current Limit, % Nominal Output.....	110% ~ 150%
Output Short Circuit Protection.....	Continuous (Hiccup Mode)

#### GENERAL SPECIFICATIONS:

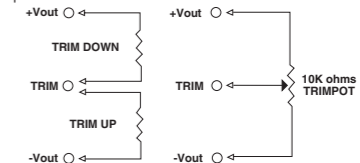
Efficiency.....	See Table
Isolation Voltage.....	Input/Output.....1500VDC max.
Isolation Resistance.....	10 <sup>9</sup> Ohm min.
Switching Frequency.....	300KHz, Typical
Operating Ambient Temperature .....	-40°C to + 85°C
De-Rating:	
Metal Case: Above 71°C.....	Linearly to Zero Power at 100°C
Open Frame: Above 60°C.....	Linearly to Zero Power at 100°C
Case Temperature <sup>3</sup> .....	100°C max.
Cooling .....	Natural Convection
Storage Temperature.....	-55°C to + 125°C
Thermal Shutdown, Case Temperature.....	110°C Typical
Dimensions:	
Metal Case.....	2.00 x 1.60 x 0.45 inches(50.8 x 40.6 x 11.4mm)
Open Frame.....	1.95 x 1.55 x 0.40 inches(49.5 x 39.4 x 10.2mm)
Metal Case Material..	Black Coated Copper with Non-Conductive Base
Weight.....	Metal Case: 55g , Open Frame: 25g

### EC2SC Series Derating Curve



### External Output Trimming

Output may optionally be externally trimmed (±10%) with a fixed resistor or an external trimpot as shown.



#### 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.....<1.8VDC
4. Suffix 'N' to the Model Number with Negative Logic Remote ON/OFF  
Module ON.....>3.5VDC to 75VDC or Open Circuit  
Module OFF.....<1.8VDC
5. Suffix 'O' to the Model Number with Open Frame Type.
6. Maximum case temperature under any operating condition should not exceed 100°C.

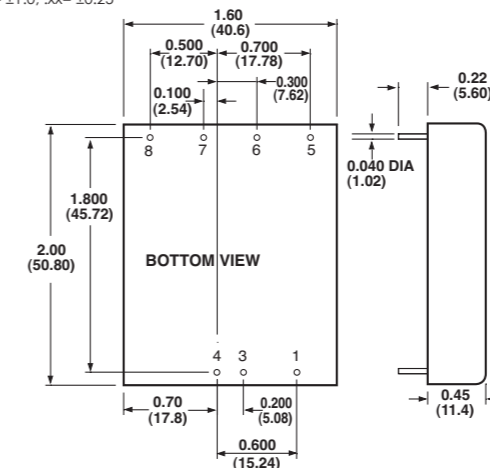
### PIN CONNECTION

Pin	Function
1	On/Off Control
3	-V Input
4	+V Input
5	Trim
6	-V Output
7	+V Output
8	No Pin

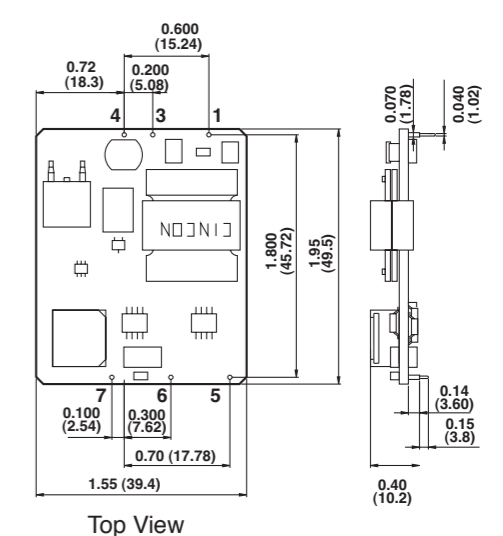
### CASE SC

All Dimensions in Inches(mm)  
Tolerance Inches: .xx= ±0.04, .xxx= ±0.010  
Millimeters: .x= ±1.0, .xx= ±0.25

#### Standard (Metal Case)



#### Open Frame (Suffix "O")



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