

EC1SC

S E R I E S



20 WATT 4:1 INPUT RANGE DC-DC CONVERTERS



Features

- 20W Isolated Output
- 2" x 1.6" Case
- 4 : 1 Input Range
- Regulated Outputs
- Efficiency to 84%
- Pi Input Filter
- Continuous Short Circuit Protection
- Meets EN55022 Class A, Conducted
- Remote On/Off Control

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF.	SIZE
				NO LOAD	FULL LOAD		
EC1SC01	9-36VDC	5 VDC	4000mA	15 mA	1029 mA	81	2" x 1.6"
EC1SC02		12 VDC	1670mA	15 mA	1006 mA	83	
EC1SC03		15 VDC	1330mA	15 mA	1004 mA	83	
EC1SC04		±12 VDC	±833mA	20 mA	1004 mA	83	
EC1SC05		±15 VDC	±666mA	20 mA	1004 mA	83	
EC1SC06		±5 VDC	±2000mA	20 mA	1004 mA	83	
EC1SC07		3.3 VDC	4000mA	15 mA	705 mA	78	
EC1SC11	18-72VDC	5 VDC	4000mA	10 mA	508 mA	82	2" x 1.6"
EC1SC12		12 VDC	1670mA	10 mA	497 mA	84	
EC1SC13		15 VDC	1330mA	10 mA	496 mA	84	
EC1SC14		±12 VDC	±833mA	15 mA	496 mA	84	
EC1SC15		±15 VDC	±666mA	15 mA	496 mA	84	
EC1SC16		±5 VDC	±2000mA	15 mA	496 mA	84	
EC1SC17		3.3 VDC	4000mA	10 mA	353 mA	78	

NOTE: 1. Nominal Input Voltage 24 or 48 VDC

Specifications

INPUT SPECIFICATIONS:

Input Voltage Range.....24V.....9-36V
 48V.....18-72V
 Input Filter.....Pi Type
 Positive Logic Remote ON/OFF Control.....See Note3

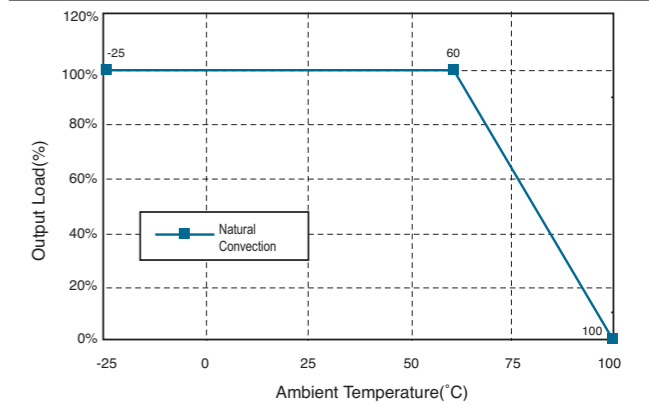
OUTPUT SPECIFICATIONS:

Voltage Accuracy Single Output.....±1.0% max.
 Voltage Accuracy Dual + Output.....±1.0% max.
 Voltage Accuracy Dual - Output.....±2.0% max.
 Voltage Balance, Dual Output at Full Load.....±1.0% max.
 Transient Response
 Single 25% Step Load Change<500µ sec.
 Dual -FL-1/2L ±1% Error Band<500µ sec.
 External Trim Adj. Range±10%
 Ripple & Noise, 20MHz BW.....20mV RMS, max.
 75mV p-p max.
 Temperature Coefficient.....±0.02%/°C max.
 Short Circuit Protection.....Continuous
 Line Regulation¹, Single / Dual Output±0.5% max.
 Load Regulation², Single / Dual Output.....±0.5% max.

GENERAL SPECIFICATIONS:

Efficiency.....See Table
 Isolation Voltage.....1500 VDC min.
 Isolation Resistance.....10⁸ Ohms min.
 Switching Frequency300KHz Typ.
 Operating Ambient Temperature Range.....-25°C to +71°C
 De-rating, Above 60°C.....Linearly to Zero Power at 100°C
 Case Temperature⁴.....100°C max.
 Cooling.....Natural Convection
 Storage Temperature Range.....-55°C to +105°C
 EMI / RFI.....Six Sided Continuous Shield
 Dimensions2.00 x 1.60 x 0.45 inches
 (50.8 x 40.6 x 11.4mm)
 Case Material ...Black Coated Copper with Non-Conductive Base
 Weight.....53g

EC1SC Series Derating Curve

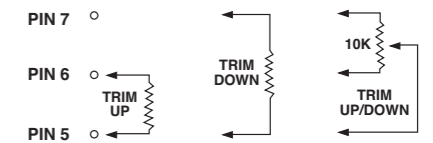


NOTE:

1. Measured From High Line to Low Line.
2. Measured From Full Load to 1/4 Load.
3. Remote On/Off Control:
 Logic Compatibility.....CMOS or Open Collector TTL
 EC-ON.....>+5.5VDC or Open Circuit
 EC-OFF.....< 1.8 VDC
 Control Common.....Referenced to Input Minus
4. Maximum case temperature under any operating condition should not exceed 100°C.

External Output Trimming

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

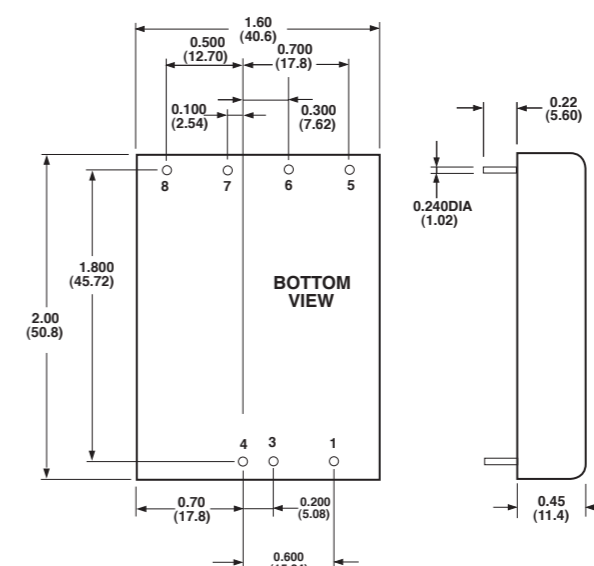


PIN CONNECTION

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

CASE SC

All Dimensions In Inches(mm)
 Tolerance Inches: .xx= ±0.04, .xxx= ±0.10
 Millimeters: .xx= ±1.0, .xxx= ±0.25



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