

EC7B

S E R I E S

20 WATT DC-DC CONVERTERS



Features

- 20W Isolated Output
- 2" x 1" Case
- Regulated Outputs
- Efficiency to 90%
- Pi Input Filter
- 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				
EC7B-12D12	9-18 VDC	±12 VDC	42mA	±835mA	40mA	1856mA	90	2" x 1"		
EC7B-12D15		±15 VDC	33mA	±670mA	40mA	1861mA	90			
EC7B-24S18	18-36 VDC	1.8 VDC	0mA	6000mA	30mA	523mA	86	2" x 1"		
EC7B-24S25		2.5 VDC	0mA	6000mA	30mA	710mA	88			
EC7B-24S33		3.3 VDC	0mA	5000mA	40mA	764mA	90			
EC7B-24S05		5 VDC	0mA	4000mA	60mA	926mA	90			
EC7B-24S12		12 VDC	0mA	1670mA	20mA	928mA	90			
EC7B-24S15		15 VDC	0mA	1330mA	20mA	924mA	90			
EC7B-24D12		±12 VDC	42mA	±835mA	20mA	928mA	90			
EC7B-24D15		±15 VDC	33mA	±670mA	20mA	930mA	90			
EC7B-48S18		36-75 VDC	1.8 VDC	0mA	6000mA	30mA	262mA		86	2" x 1"
EC7B-48S25			2.5 VDC	0mA	6000mA	30mA	359mA		87	
EC7B-48S33			3.3 VDC	0mA	5000mA	30mA	386mA		89	
EC7B-48S05			5 VDC	0mA	4000mA	40mA	463mA		90	
EC7B-48S12	12 VDC		0mA	1670mA	15mA	469mA	89			
EC7B-48S15	15 VDC		0mA	1330mA	15mA	472mA	88			
EC7B-48D12	±12 VDC		42mA	±835mA	10mA	464mA	90			
EC7B-48D15	±15 VDC		33mA	±670mA	10mA	471mA	89			

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 lockout: 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.....33V

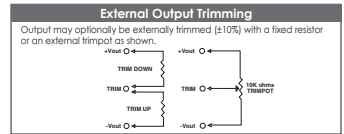
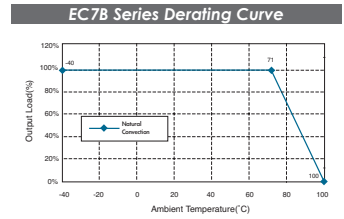
Positive Logic Remote ON/OFF (see note 3 & 4).....Pi Type
 Input Filter.....Pi Type

OUTPUT SPECIFICATIONS:

Voltage Accuracy.....±1.5% max.
 Voltage Balance (Dual).....±2.0% max.
 Transient Response: 75% - 100% Step Load Change
 Error Band.....±5% Vout Nominal, Recovery Time.....<500µs
 Ripple & Noise: 20kHz BW (Measured with 0.1µF MLCC).....75mV pk-pk, max.
 Temperature Coefficient.....±0.03%/°C
 Line Regulation.....Single.....±0.2% max.
 Dual.....±0.5% max.
 Load Regulation.....Single/Dual.....±1.0% max.
 Over Voltage Protection.....Zener or TVS Clamp
 Output Short Circuit Protection.....Continuous
 External Trim Adj. Range.....Single.....±10%

GENERAL SPECIFICATIONS:

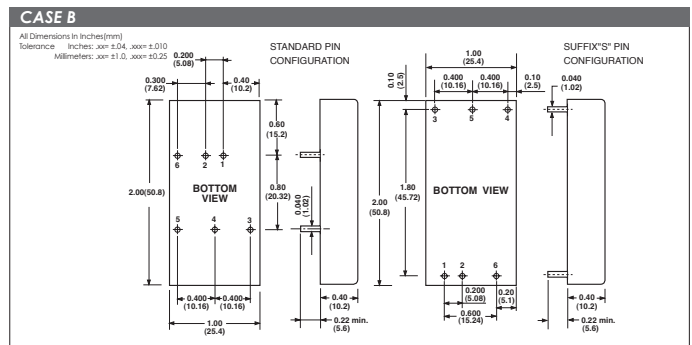
Efficiency.....See Table
 Isolation Voltage.....Input/Output.....1500VDC max.
 Isolation Resistance.....10⁹ Ohms min.
 Switching Frequency.....350kHz, Typical
 EMI/RFI.....Six Sided Continuous Shield
 Operating Ambient Temperature.....-40°C to +85°C
 De-Rating: Above 71°C.....Linearly to Zero Power at 100°C
 Case Temperature.....-55°C to +125°C max.
 Storage Temperature.....Natural Convection
 Dimensions.....2.00 x 1.00 x 0.40 inches (50.8 x 25.4 x 10.2mm)
 Case Material.....Black Coated Copper with Non-Conductive Base
 Weight.....35g



- 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.....+5.5VDC or Open Circuit
 Module OFF.....<1.2VDC
 4. Suffix 'N' to the Model Number with Negative Logic Remote ON/OFF
 Module ON.....+5.5VDC or Open Circuit
 Module OFF.....<1.2VDC
 5. Suffix 'S' to the Model Number with Alternative Pin Configuration. Single output models only
 6. Maximum case temperature under any operating condition should not exceed 100°C.

PIN CONNECTION

Pin	Single Output	Dual Output
1	+V Input	+V Input
2	-V Input	-V Input
3	+V Output	+V Output
4	Trim	Common
5	-V Output	-V Output
6	Remote ON/OFF	



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