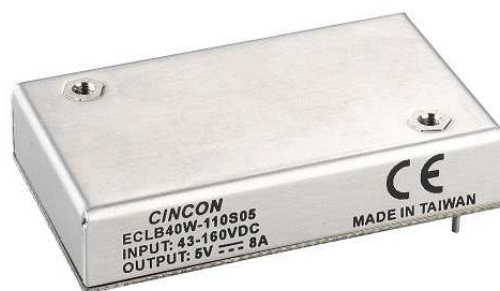




ECLB40W-110 SERIES 40 WATT 4:1 INPUT DC-DC CONVERTERS

FEATURES

- * 40W Isolated Output
- * Efficiency to 91%
- * 2.05" X1.2 X0.4" Six-Sided Shield Metal Case
- * 4:1 Input Range
- * Regulated Outputs
- * Fixed Switching Frequency
- * Input Under Voltage Protection
- * Over Current Protection
- * Remote On/Off
- * Low No Load Power Consumption
- * Continuous Short Circuit Protection
- * No Tantalum Capacitor Inside
- * CE Mark Meets 2004/108/EC
- * Safety Meets UL60950-1 (Basic Insulation)



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.	CAPACITOR LOAD MAX.
			MIN.	MAX.	NO LOAD	FULL LOAD		
ECLB40W-110S33	43-160 VDC	3.3 VDC	0 mA	10000 mA	6 mA	340 mA	88%	10000 μ F
ECLB40W-110S05	43-160 VDC	5 VDC	0 mA	8000 mA	6 mA	409 mA	88.5%	8000 μ F
ECLB40W-110S12	43-160 VDC	12 VDC	0 mA	3333 mA	6 mA	404 mA	90%	3300 μ F
ECLB40W-110S15	43-160 VDC	15 VDC	0 mA	2666 mA	6 mA	399 mA	91%	2700 μ F
ECLB40W-110D12	43-160 VDC	$\pm$ 12 VDC	0 mA	$\pm$ 1667 mA	6 mA	408 mA	88%	1650 μ F
ECLB40W-110D15	43-160 VDC	$\pm$ 15 VDC	0 mA	$\pm$ 1333 mA	6 mA	408 mA	88.5%	1350 μ F
ECLB40W-110D24	43-160 VDC	$\pm$ 24 VDC	0 mA	$\pm$ 833 mA	6 mA	408 mA	89%	850 μ F

NOTE:

1. Nominal Input Voltage 110 VDC

SPECIFICATIONS

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

INPUT SPECIFICATIONS:

Input Voltage Range 110V 43-160V
 Input Surge Voltage (100ms max.) 200Vdc max.
 Under Voltage Lockout Power up 40V
 Power down 38V

Positive Logic Remote On/Off (note4&5)

Input Filter Pi Type

OUTPUT SPECIFICATIONS:

Voltage Accuracy $\pm 1.5\%$ max.
 Voltage Balance (Dual Output) $\pm 1.0\%$ max.
 Transient Response: 25% Step Load Change
 Error Band $\pm 5\%$ Vout Nominal Recovery Time $< 250\mu\text{s}$
 External Trim Adj. Range (Single Output Models Only) $\pm 10\%$
 Ripple & Noise, 20MHz BW (Measured with 1uF MLCC)
 Vo= 3.3V&5V 100mV pk-pk max
 Vo=12V, 15V, $\pm 12\text{V}$ & $\pm 15\text{V}$ 150mV pk-pk max
 Vo= $\pm 24\text{V}$ 200mV pk-pk max
 Temperature Coefficient $\pm 0.02\%/^{\circ}\text{C}$ max.
 Short Circuit Protection Continuous
 Line Regulation (note1) $\pm 0.2\%$ max.
 Load Regulation (note2) Single $\pm 0.5\%$ max.
 Dual $\pm 1.0\%$ max.
 Cross Regulation (Dual output) Load cross variation 10%/100% $\pm 5.0\%$ max.
 Over Voltage Protection Zener or TVS Clamp
 Current Limit 110%-160% Nominal Output
 Start up time 15ms typ.

GENERAL SPECIFICATIONS:

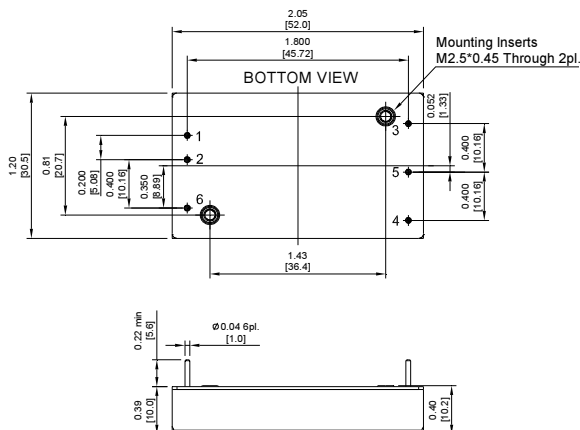
Efficiency See Table
 Isolation Voltage Input/Output 3000VDC min.
 Input/Case, Output/Case 1600VDC min.
 Isolation Resistance 10^9 Ohms min.
 Isolation Capacitance 1500pF typ.
 Case grounding Output/case 1000pF typ.
 Switching Frequency 250KHz typ.
 EMI/RFI Six-Sided Continuous Shield
 Operating Ambient Temperature Range -40°C to $+85^{\circ}\text{C}$
 De-rating, Above 60°C Linearly to Zero Power at $+105^{\circ}\text{C}$
 Case Temperature (note5) 105°C max.
 Cooling Natural Convection
 Storage Temperature Range -55°C to $+125^{\circ}\text{C}$
 Thermal Shutdown, Case Temp. 110°C typ.
 Humidity 95% RH max. Non-Condensing
 MTBF MIL-STD-217F, GB, 25°C , Full Load 90SKhrs typ.
 Safety meet UL60950-1 2nd (Basic insulation)
 EMC(note6) meet EN50155(EN50121-3-2) with external filter
 Shock/Vibration meet EN50155(EN61373)
 Dimensions 2.05x1.20x0.40inches (52x30.5x10.2mm)
 Case Material Aluminum with Non-Conductive Base
 Weight 36g

NOTE :

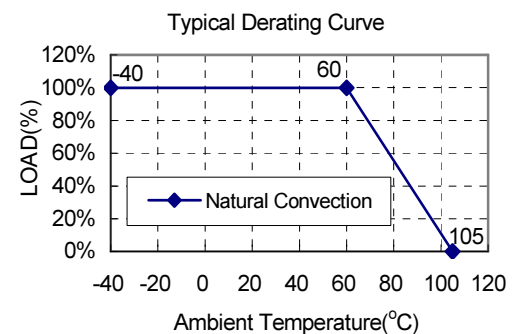
1. Measured from high line to low line.
2. Measured from full load to min. load.
3. Logic Compatibility ... CMOS or open collector TTL, referenced to -Vin.
 Module on $> 3.5\text{VDC}$ to 75VDC or open circuit
 Module off $< 1.2\text{VDC}$
4. Suffix "N" to the model number with negative logic remote on/off
 Module on $< 1.2\text{VDC}$
 Module off $> 3.5\text{VDC}$ to 75VDC or open circuit
5. Maximum case temperature under any operating condition should not be Exceeded 105°C .
6. Design meet EN50155 and RIA12 refer to Application Note

SIZE LB Dimensions:

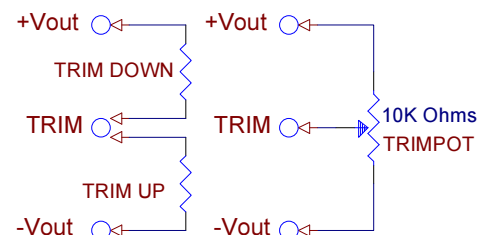
NOTE: Pin Size is 0.04 ± 0.004 Inch (1.0 ± 0.1 mm) DIA
 All Dimensions in Inches[mm]
 Tolerance Inches: x.xx= ± 0.02 , x.xxx= ± 0.010
 Millimeters: x.x= ± 0.5 , x.xx= ± 0.25



PIN CONNECTION		
PIN	Single Output	Dual Output
1	+V Input	+V Input
2	-V Input	-V Input
3	+V Output	+V Output
4	Trim	-V Output
5	-V Output	Common
6	Remote On/Off	



External Output Trimming



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