

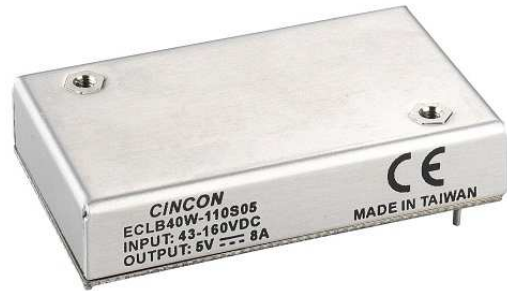


# ECLB40W-110 SERIES 40 WATT 4:1 INPUT DC-DC CONVERTERS



## 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
- \* UL60950-1 2nd (Basic Insulation) Approval
- \* Meets EN50155 with External Circuits
- \* Fire & Smoke Meets EN45545-2
- \* 3000m Operating Altitude
- \* Full Load Operation Up to 69°C with Heat-Sink M-C655 Natural Convection



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 $\mu$ F
ECLB40W-110S05	43-160 VDC	5 VDC	0 mA	8000 mA	6 mA	409 mA	88.5%	8000 $\mu$ F
ECLB40W-110S12	43-160 VDC	12 VDC	0 mA	3333 mA	6 mA	404 mA	90%	3300 $\mu$ F
ECLB40W-110S15	43-160 VDC	15 VDC	0 mA	2666 mA	6 mA	399 mA	91%	2700 $\mu$ F
ECLB40W-110D12	43-160 VDC	$\pm$ 12 VDC	0 mA	$\pm$ 1667 mA	6 mA	408 mA	88%	1650 $\mu$ F
ECLB40W-110D15	43-160 VDC	$\pm$ 15 VDC	0 mA	$\pm$ 1333 mA	6 mA	408 mA	88.5%	1350 $\mu$ F
ECLB40W-110D24	43-160 VDC	$\pm$ 24 VDC	0 mA	$\pm$ 833 mA	6 mA	408 mA	89%	850 $\mu$ 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 ..... ±1.5% max.
- Voltage Balance (Dual Output) ..... ±1.0% max.
- Transient Response: 25% Step Load Change
- Error Band ..... ±5% Vout Nominal Recovery Time ..... <250μs
- External Trim Adj. Range (Single Output Models Only) ..... ±10%
- Ripple & Noise, 20MHz BW (Measured with 1uF MLCC)
  - Vo= 3.3V&5V ..... 100mV pk-pk max
  - Vo=12V, 15V, ±12V&±15V ..... 150mV pk-pk max.
  - Vo=±24V ..... 200mV pk-pk max.
- Temperature Coefficient ..... ±0.02%/°C max.
- Short Circuit Protection ..... Continuous
- Line Regulation (note1) ..... ±0.2% max.
- Load Regulation (note2) ..... Single ..... ±0.5% max.  
Dual ..... ±1.0% max.
- Cross Regulation (Dual output) Load cross variation 10%/100% ..... ±5.0% max.
- Over Voltage Protection ..... Zener or TVS Clamp
- Current Limit ..... 110%-165% Nominal Output
- Start up time ..... 15ms typ.

## GENERAL SPECIFICATIONS:

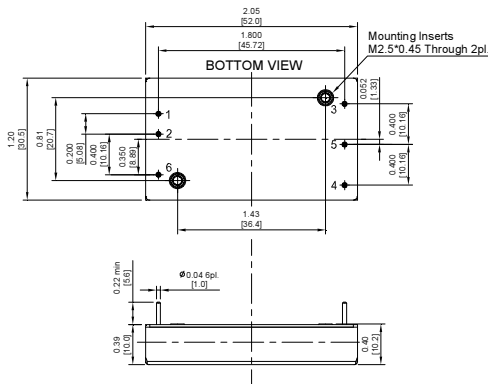
- Efficiency ..... See Table
- Isolation Voltage ..... Input/Output ..... 3000VDC min.  
Input/Case, Output/Case ..... 1600VDC min.
- Isolation Resistance ..... 10<sup>9</sup> Ohms min.
- Isolation Capacitance ..... 1500pF typ.
- Case grounding ..... Output/case ..... 1000pF typ.
- Switching Frequency ..... 250KHz typ.
- EMI/RFI ..... Six-Sided Continuous Shield
- Operating Ambient Temperature Range ..... -40°C to +85°C
- De-rating, Above 45°C ..... Linearly to Zero Power at +105°C
- Case Temperature (note5) ..... 105°C max.
- Cooling ..... Natural Convection
- Storage Temperature Range ..... -55°C to +125°C
- Thermal Shutdown, Case Temp. ..... 110°C typ.
- Humidity ..... 95% RH max. Non-Condensing
- MTBF ..... MIL-HDBK-217F, GB, 25°C, Full Load ..... 905Khrs 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 :

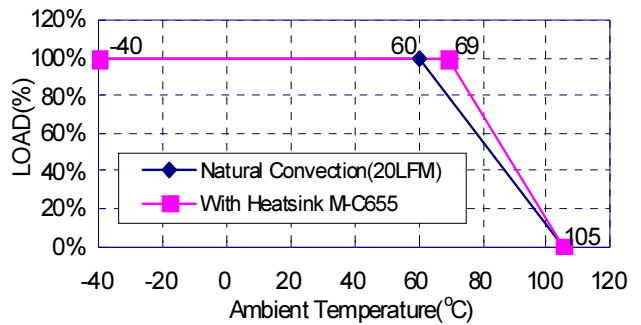
1. Measured from high line to low line.
2. Measured from full load to min. load.
3. Logic Compatibility ... CMOS or open collector TTL, referenced to -Vin.  
Module on ..... >3.5VDC to 75VDC or open circuit  
Module off ..... 0 to <1.2VDC
4. Suffix "N" to the model number with negative logic remote on/off  
Module on ..... 0 to < 1.2 VDC  
Module off ..... >3.5VDC to 75VDC or open circuit
5. Maximum case temperature under any operating condition should not be Exceeded 105°C.
6. For information about EN50155 and RIA12, refer to application note.

## SIZE LB Dimensions:

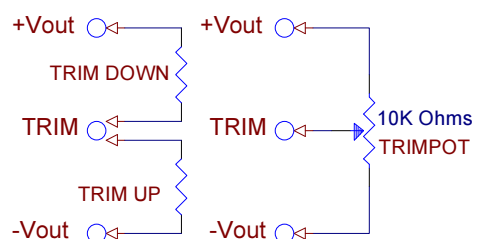
NOTE: Pin Size is 0.04±0.004 Inch (1.0±0.1 mm)DIA  
All Dimensions in Inches[mm]  
Tolerance Inches:x.xx=±0.02 ,x.xxx=±0.010  
Millimeters:x.x=±0.5 , x.xx=±0.25



ECLB40W-110S15 Typical Derating Curve



## External Output Trimming



## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Isolated DC/DC Converters](#) category:*

*Click to view products by [Cincon](#) manufacturer:*

Other Similar products are found below :

[ESM6D044440C05AAQ](#) [FMD15.24G](#) [PSL486-7LR](#) [Q48T30020-NBB0](#) [JAHW100Y1](#) [SPB05C-12](#) [SQ24S15033-PS0S](#) [18952](#) [19-130041](#)  
[CE-1003](#) [CE-1004](#) [GQ2541-7R](#) [RDS180245](#) [MAU228](#) [J80-0041NL](#) [DFC15U48D15](#) [XGS-0512](#) [XGS-1205](#) [XGS-1212](#) [XGS-2412](#) [XGS-2415](#) [XKS-1215](#) [06322](#) [NCT1000N040R050B](#) [SPB05B-15](#) [SPB05C-15](#) [L-DA20](#) [DCG40-5G](#) [QME48T40033-PGB0](#) [XKS-2415](#) [XKS-2412](#)  
[XKS-1212](#) [XKS-1205](#) [XKS-0515](#) [XKS-0505](#) [XGS-2405](#) [XGS-1215](#) [XGS-0515](#) [PS9Z-6RM4](#) [73-551-5038I](#) [AK1601-9RT](#) [VI-N61-CM](#) [VI-R5022-EXWW](#) [PSC128-7iR](#) [RPS8-350ATX-XE](#) [DAS1004812](#) [PQA30-D24-S24-DH](#) [VI-M5F-CQ](#) [VI-LN2-EW](#) [VI-PJW01-CZY](#)