



CQB150W-110S SERIES

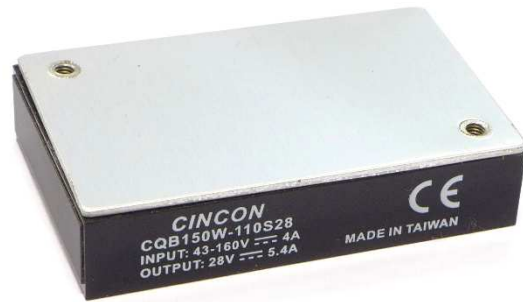
150 WATT 4:1 INPUT

DC-DC CONVERTERS

SINGLE OUTPUT

FEATURES

- * 150W Isolated Output
- * Efficiency to 92%
- * Fixed Switching Frequency
- * 4:1 Input Range
- * Regulated Outputs
- * Remote On/Off
- * Low No Load Power Consumption
- * Over Temperature Protection
- * Over Voltage/Current Protection
- * Continuous Short Circuit Protection
- * Quarter Brick Size Meet Industrial Standard
- * CE Mark Meets 2014/30/EU
- * UL60950-1 2nd (Basic Insulation) Approval
- * CB Test Certificate IEC60950-1
- * Meets EN50155 with External Circuits
- * Shock & Vibration Meets EN50155 (EN61373)
- * Fire & Smoke Meets EN45545-2
- * 3000m Operating Altitude



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.	CAPACITIVE LOAD MAX.
			MIN.	MAX.	NO LOAD	FULL LOAD		
CQB150W-110S05	43-160 VDC	5.0 VDC	0 mA	30 A	10mA	1.50A	91	30000 μ F
CQB150W-110S12	43-160 VDC	12 VDC	0 mA	12.5 A	10mA	1.48A	92	12500 μ F
CQB150W-110S24	43-160 VDC	24 VDC	0 mA	6.3 A	10mA	1.54A	89	6300 μ F
CQB150W-110S28	43-160 VDC	28 VDC	0 mA	5.4 A	10mA	1.54A	89	5400 μ F
CQB150W-110S48	43-160 VDC	48 VDC	0 mA	3.2 A	10mA	1.54A	90.5	1000 μ F

NOTE: 1. Nominal Input Voltage 110VDC

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.)	110V	200Vdc max.
Under voltage lockout	110Vin power up	41.5V
	110Vin power down	38V
Positive Logic Remote On/Off (see note 4 & 5)		
Input Filter		PI Type

OUTPUT SPECIFICATIONS:

Voltage Accuracy	±1.0% max.
Transient Response: 25% Step Load Change	<250us
External Trim Adj. Range	±10%
Ripple & Noise, 20MHz BW (note3)	
5V	40mV RMS, 100mV pk-pk max.
12V	60mV RMS, 150mV pk-pk max.
24V&28V	100mV RMS, 280mV pk-pk max.
48V	200mV RMS, 480mV pk-pk max.
Temperature Coefficient	±0.02%/°C max.
Short Circuit Protection	Continuous
Line Regulation (note1)	±0.2% max.
Load Regulation (note2)	±0.2% max.
Over Voltage Protection trip Range, % Vo nom.	115-140%
Current Limit	110%-160% Nominal Output
Start up Time	60ms typ.

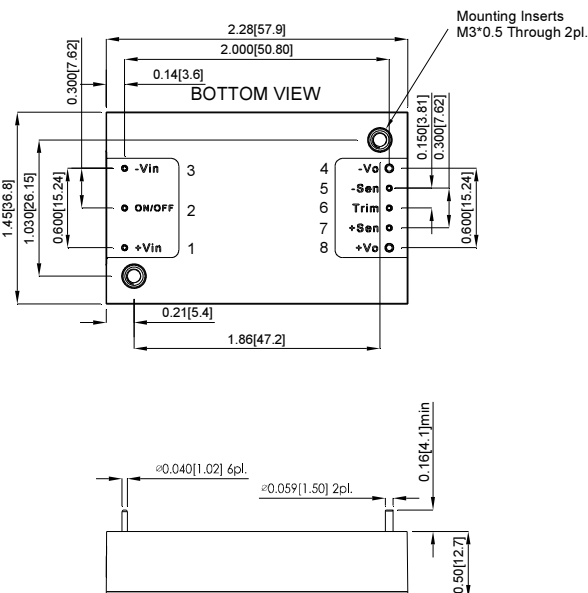
GENERAL SPECIFICATIONS:

Efficiency	See Table
Isolation Voltage	
Input/Output	3000VDC min.
Input/Case	2250VDC min.
Output/Case	500VAC min.
Isolation Resistance	10 ⁸ ohm min.
Isolation Capacitance	1500pF typ.
Switching Frequency	300KHz typ.
Operating Case Temperature	-40°C to +105°C
Storage Temperature	-55°C to +125°C
Thermal Shutdown, Case Temperature	110°C typ.
Humidity	95% RH max. Non condensing
MTBF ... MIL-HDBK-217F, GB, 25°C, Full Load ... 5V/12V	720Khrs typ.
Others	.840Khrs typ.
Dimensions	2.28×1.45×0.50 inches (57.9×36.8×12.7 mm)
Safety	UL60950-1 2 nd (Basic Insulation)
EMC (note8)	EN50155(EN50121-3-2) with External Filter
Shock/Vibration	EN50155(EN61373)
Environmental	EN50155(EN60068-2-1)
Case Material	Aluminum Base Plate with Plastic Case
Weight	68g

NOTE:

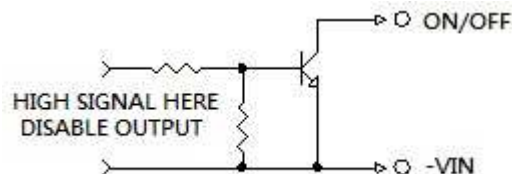
1. Measured from high line to low line.
2. Measured from full load to zero load.
3. Output ripple and noise measured with 10uF aluminum and 1uF ceramic capacitor across output for 48Vout and with 10uF tantalum and 1uF ceramic capacitor for others.
4. Logic compatibility open collector ref to -Input
 Module on >3.5Vdc to 160Vdc or open circuit
 Module off 0 to < 1.2Vdc
5. Suffix "N" to the model number with negative logic remote on/off
 Module on 0 to < 1.2Vdc
 Module off >3.5Vdc to 160Vdc or open circuit
6. Suffix "-C" to the model number with clear mounting insert (3.2mm DIA.).
7. An external input capacitor 220uF for all models are recommended to reduce input ripple voltage.
8. For information about EN50155 and RIA12, refer to application note.

All Dimensions In Inches(mm)
 Tolerances Inches: X.XX= ±0.02, X.XXX= ±0.010
 Millimeters: X.X= ±0.5, X.XX=±0.25



PIN CONNECTION	
PIN	Function
1	+V Input
2	On/Off
3	-V Input
4	-V Output
5	-Sense
6	Trim
7	+Sense
8	+V Output

REMOTE ON/OFF CONTROL



EXTERNAL OUTPUT TRIM

