

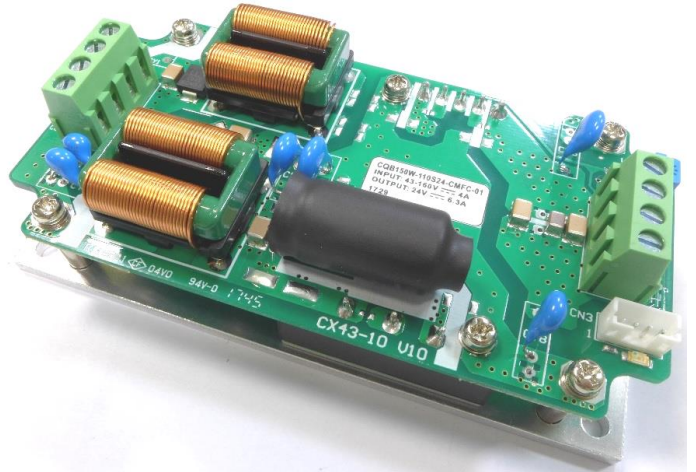


CHASSIS MOUNT CQB150W-110S SERIES 150 WATT 4:1 INPUT DC-DC CONVERTERS



FEATURES

- * 150W Isolated Output
- * Efficiency to 91%
- * 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
- * Shock & Vibration Meets EN50155 (EN61373)
- * Safety Meets UL60950-1, EN60950-1 and IEC60950-1
- * UL60950-1 2nd (Basic Insulation) Approval for DC Modules
- * EN50155:2007 for EMC, Environmental and Characteristic
- * Build-In EMI Filter
- * Fire & Smoke Meets EN45545-2



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.	CAPACITOR LOAD MAX.
			MIN.	MAX.	NO LOAD	FULL LOAD		
CQB150W-110S3V3□-CMFC CQB150W-110S3V3□-CMFD	43-160 VDC	3.3 VDC	0 mA	30.0 A	15 mA	1.03 A	87.5	30000µF
CQB150W-110S05□-CMFC CQB150W-110S05□-CMFD	43-160 VDC	5 VDC	0 mA	30.0 A	15 mA	1.53 A	89	30000µF
CQB150W-110S12□-CMFC CQB150W-110S12□-CMFD	43-160 VDC	12 VDC	0 mA	12.5 A	15 mA	1.50 A	91	12500µF
CQB150W-110S15□-CMFC CQB150W-110S15□-CMFD	43-160 VDC	15 VDC	0 mA	10.0 A	15 mA	1.50 A	91	10000µF
CQB150W-110S24□-CMFC CQB150W-110S24□-CMFD	43-160 VDC	24 VDC	0 mA	6.3 A	15 mA	1.56 A	88	6300µF
CQB150W-110S28□-CMFC CQB150W-110S28□-CMFD	43-160 VDC	28 VDC	0 mA	5.4 A	15 mA	1.56 A	88	5400µF
CQB150W-110S48□-CMFC CQB150W-110S48□-CMFD	43-160 VDC	48 VDC	0 mA	3.2 A	15 mA	1.56 A	89.5	1000µF

NOTE:

1. Nominal Input Voltage 110VDC
2. □ = N or None.
3. VR1 is used for Output Voltage Adjustment.
4. Refer to Application Note for Thermal Resistance and Derating Informations.
5. TVS is Included for Input Surge Voltage Protection.
6. Recommend an External Fuse for Input Reverse Polarity Protection (Shunt Diode is Included Inside).

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 38.5V
- Positive Logic Remote On/Off (see note 4&5)

OUTPUT SPECIFICATIONS:

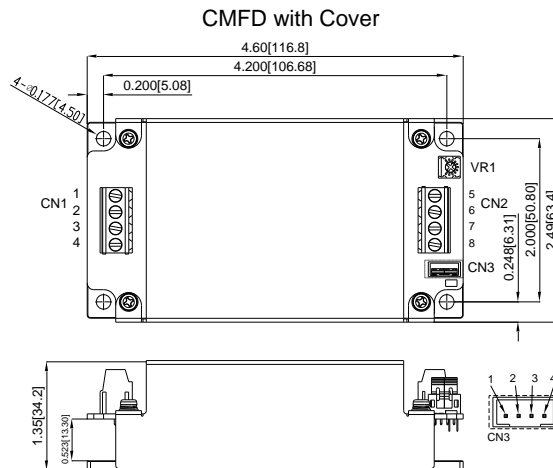
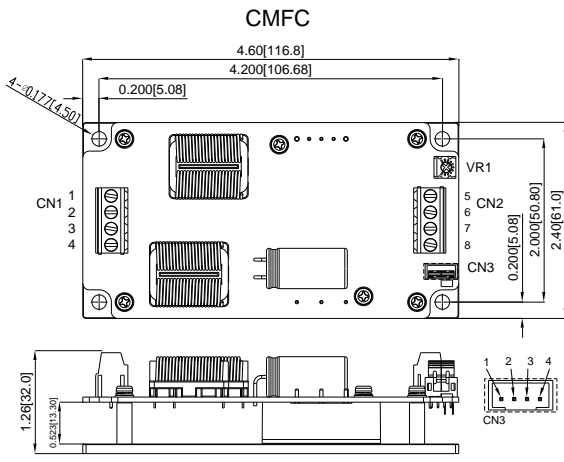
- Voltage Accuracy ±1.0% max.
- Transient Response: 25% Step Load Change <250usec
- Trim Adj. Range (By VR1) ±10%
- Ripple & Noise, 20MHz BW
 - 3V3/5V/12V/15V 40mV RMS, 100mV pk-pk max.
 - 24V&28V 100mV RMS, 200mV pk-pk max.
 - 48V 150mV RMS, 300mV pk-pk max.
- Temperature Coefficient ±0.02%/°C max.
- Short Circuit Protection Continuous
- Line Regulation (note 1) ±0.2% max.
- Load Regulation (note 2) 5V ±0.5% max.
- Others ±0.2% max.
- Over Voltage Protection Trip Range, % Vo nom. 115-140%
- Current Limit 110%-160% Nominal Output
- Start up Time 100ms typ.
- Hold up Time See Application Note

NOTE:

1. Measured from high line to low line.
2. Measured from full load to zero load.
3. Output ripple and noise measured with 1uF ceramic capacitor across output.
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. Output connector CN3 wafer with TAIWAN KING PIN TERMINAL P110I series and mate with JST housing PH series or equivalent.
7. CN1 & CN2 connection: DINKLE EK500V-04P series or equivalent, suitable electric wire: 24~12AWG(IEC 0.5~2.5mm²).

Case Dimensions:

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



**CN1&CN2
PIN CONNECTION**

Pin	Function
1	+V Input
2	-V Input
3	Remote
4	Case
5	+V Output
6	+V Output
7	-V Output
8	-V Output

**CN3
PIN CONNECTION**

Pin	Function
1	-V Output
2	-Sense
3	+Sense
4	+V Output

GENERAL SPECIFICATIONS:

- Efficiency See Table
- Isolation Voltage
 - Input/Output 3000VDC min.
 - Input/Case 2250VDC min.
 - Output/Case 500VAC min.
- Isolation Resistance 10⁸ Ohm min.
- Isolation Capacitance(DC Module) 1500pF typ.
- Switching Frequency 300KHz typ.
- Operating Case Temperature -40°C to +100°C
- Storage Temperature -40°C to +105°C
- Thermal Shutdown, Case Temperature(DC Module) 110°C typ.
- Humidity 95% RH max. Non Condensing
- MTBF MIL-HDBK-217F, GB, 25°C, Full Load 600Khrs typ.
- Safety Meets UL60950-1
- EMC Meets EN50155(EN50121-3-2:2008)
 with External Output Filter Meets EN50155(EN50121-3-2:2015)
- Shock/Vibration Meets EN50155(EN61373)
- Environmental EN50155(EN60068-2-1,2,30)
- Case Material -CMFC Aluminum Base
- CMFD Aluminum Base and Aluminum Cover
- Dimensions -CMFC 4.60x2.40x1.26 Inches (116.8x61.0x32.0 mm)
- CMFD 4.60x2.49x1.35 Inches (116.8x63.4x34.2 mm)
- Weight -CMFC215g
- CMFD300g