



CQB75W SERIES

75 WATT 4:1 INPUT DC-DC CONVERTERS SINGLE OUTPUT



FEATURES

- * 39.6-75W Isolated Output
- * Efficiency to 87%
- * Fixed Switching Frequency
- * 4:1 Input Range
- * Regulated Outputs
- * Continuous Short Circuit Protection
- * Industry Standard Quarter-Brick Package
- * UL60950-1 2nd Approval



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.	CAPACITOR LOAD MAX.
			MIN.	MAX.	NO LOAD	FULL LOAD		
CQB75W-24S3V3	9-36 VDC	3.3 VDC	0 mA	12 A	50 mA	2037 mA	81	12000uF
CQB75W-24S05	9-36 VDC	5.0 VDC	0 mA	12 A	50 mA	2976 mA	84	12000uF
CQB75W-24S12	9-36 VDC	12 VDC	0 mA	6.25 A	50 mA	3634 mA	86	6250uF
CQB75W-24S15	9-36 VDC	15 VDC	0 mA	5 A	50 mA	3634 mA	86	4400uF
CQB75W-24S24	9-36 VDC	24 VDC	0 mA	3.12 A	50 mA	3628 mA	86	1500uF
CQB75W-48S3V3	18-75 VDC	3.3 VDC	0 mA	12 A	30 mA	1006 mA	82	12000uF
CQB75W-48S05	18-75 VDC	5.0 VDC	0 mA	12 A	30 mA	1471 mA	85	12000uF
CQB75W-48S12	18-75 VDC	12 VDC	0 mA	6.25 A	30 mA	1817 mA	86	6250uF
CQB75W-48S15	18-75 VDC	15 VDC	0 mA	5 A	30 mA	1796 mA	87	4400uF
CQB75W-48S24	18-75 VDC	24 VDC	0 mA	3.12 A	30 mA	1796 mA	87	1500uF

NOTE: 1. Nominal Input Voltage 24, 48VDC

SPECIFICATIONS

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

INPUT SPECIFICATIONS:

Input Voltage Range.....	24V.....	9-36V
	48V.....	18-75V
Input Surge Voltage (100ms max.)	24V	50Vdc max.
	48V	100Vdc max.
Under voltage lockout	24Vin Power Up	8.8V
	24Vin Power Down	8.0V
	48Vin Power Up	17V
	48Vin Power Down	16V

Positive Logic Remote On/Off (note 4&5)

Input Filter PI Type

OUTPUT SPECIFICATIONS:

Voltage Accuracy:	±1.0% max.	
	24(48)S33	±1.5% max.

Transient Response :75% to 100% Step Load Change	
Error Band	±5% Vout
Recover Time	<500us

External Trim Adj. Range ±10%

Ripple & Noise, 20MHz BW(note 3)	
3.3V & 5V	40mV RMS, max.
	100mV pk-pk, max.
12V & 15V	60mV RMS, max.
	150mV pk-pk, max.
24V	100mV RMS, max.
	240mV pk-pk, max.

Temperature Coefficient ±0.03%/°C max.

Short Circuit Protection Continuous

Line Regulation (note 1) ±0.2% max.

Load Regulation (note 2) ±0.2% max.

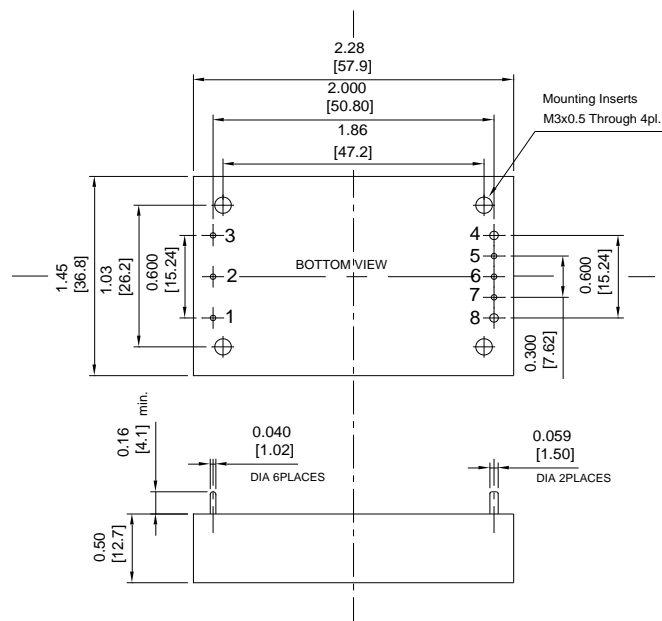
Over Voltage Protection trip Range ,% Vo nom. 115-140%

Current Limit 110%-150% Nominal Output

Start up Time 20ms typ.

CASE QB

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

GENERAL SPECIFICATIONS:

Efficiency	See Table
Isolation Voltage	Input/Output 1500VDC min.
	Input/Case1500VDC min.
	Output/Case 1500VDC min.
Isolation Resistance	10 ⁷ Ohm min.
Isolation Capacitance	1000pF typ.
Switching Frequency	300KHz typ.
Operating Case Temperature	-40°C to 100°C
Storage Temperature	-55°C to +105°C
Humidity	95% RH max. Non Condensing
MTBF	MIL-HDBK-217F, GB, 25°C, Full Load 850Khrs typ.
Thermal Shutdown, Case Temp.	105°C typ.

Dimensions	1.45 x 2.28 x 0.50 Inches(36.8 x 57.9 x 12.7 mm)
Case Material	Aluminum Base-plate with Plastic Case
Weight	63g

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 tantalum and 1uF ceramic capacitor across output.
4. Logic Compatibility Open Collector ref. to -Input
Module on >3.5Vdc to 75Vdc or Open Circuit
Module off 0 to < 1.8Vdc
5. Suffix "N" to the model number with negative logic remote on/off
Module on 0 to < 1.8Vdc
Module off >3.5Vdc to 75Vdc or open circuit
6. Suffix "-C" to the model number with clear mounting insert (3.1mm DIA.).

External Output Trim

