

COB75W

S E R I E S

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



Features

- 75W Isolated Output
- Efficiency up to 87%
- 300KHz Switching Frequency
- 4 : 1 Input Range
- Regulated Outputs
- Continuous Short Circuit Protection
- Industry Standard Quarter-Brick Package
- CE Mark Meets 2004/108/EC
- Safety Meets UL60950-1, EN60950-1, and IEC60950-1

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	12000µF
CQB75W-24S05	9-36 VDC	5.0 VDC	0 mA	12 A	50 mA	2976 mA	84	12000µF
CQB75W-24S12	9-36 VDC	12 VDC	0 mA	6.25 A	50 mA	3634 mA	86	6250µF
CQB75W-24S15	9-36 VDC	15 VDC	0 mA	5 A	50 mA	3634 mA	86	4400µF
CQB75W-24S24	9-36 VDC	24 VDC	0 mA	3.12 A	50 mA	3628 mA	86	1500µF
CQB75W-48S3V3	18-75VDC	3.3 VDC	0 mA	12 A	30 mA	1006 mA	82	12000µF
CQB75W-48S05	18-75VDC	5.0 VDC	0 mA	12 A	30 mA	1471 mA	85	12000µF
CQB75W-48S12	18-75VDC	12 VDC	0 mA	6.25 A	30 mA	1817 mA	86	6250µF
CQB75W-48S15	18-75VDC	15 VDC	0 mA	5 A	30 mA	1796 mA	87	4400µF
CQB75W-48S24	18-75VDC	24 VDC	0 mA	3.12 A	30 mA	1796 mA	87	1500µF

NOTE: 1. Nominal Input Voltage 24, 48 VDC

Specifications

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 (see note 4 & 5)		
Input Filter		PI Type

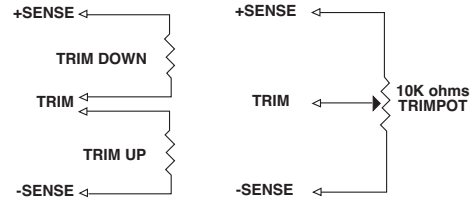
OUTPUT SPECIFICATIONS:

Voltage Accuracy :	±1.5% max.
Transient Response :75% to 100% Step Load Change	
Error Band.....	±5% Vout
Recover Time.....	< 500µs
External Trim Adj. Range	±10%
Ripple & Noise, 20MHz BW 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 ¹	±0.2% max.
Load Regulation ²	±0.2% max.
Over Voltage Protection trip Range ,% Vo nom.	115-140%
Current Limit	110% - 140% Nominal Output
Start up time	20ms typ.

GENERAL SPECIFICATIONS:

Efficiency.....	See Table
Isolation Voltage	Input/Output..... 1500VDC min.
	Input/Case..... 1500VDC 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-STD-217F, GB, 25°C, Full LoadT.B.D. hrs
Thermal Shutdown, Case Temp.	105°C typ.
Dimensions.....	1.45x2.28x0.50 inches (36.8x57.9x12.7 mm)
Case Material	Aluminum Base-plate with Plastic Case
Weight.....	63g

External Output Trim



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

NOTE:

1. Measured From High Line to Low Line
2. Measured From Full Load to Zero Load
3. Output Ripple and Noise measured with 10µF tantalum and 1µF Ceramic capacitor across output
4. Logic Compatibility Open Collector ref to -Input
Module ON >3.5Vdc to 75Vdc or Open Circuit
Module OFF < 1.8Vdc
5. Suffix "N" to the Model Number with Negative Logic Remote ON/OFF
Module ON < 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.)

SIZE QB

All Dimensions In Inches(mm)
Tolerance Inches: x.xx= ±0.02, x.xxx= ±0.010
Millimeters: x.x= ±0.5, x.xx= ±0.25

