

# DELPHI SERIES



## FEATURES

- ◆ High efficiency: 90% @  $\pm 12V/2.7A$
- ◆ Size: 57.9mm x 36.8mm x 8.5mm (2.28" x 1.45" x 0.33")
- ◆ Industry standard pin out
- ◆ Fixed frequency operation
- ◆ Input UVLO, Output OCP, OVP, OTP
- ◆ Basic insulation
- ◆ No minimum load required
- ◆ Adjustable output voltage
- ◆ ISO 9001, TL 9000, ISO 14001, QS 9000, OHSAS 18001 certified manufacturing facility
- ◆ UL/cUL 60950 (US & Canada) Recognized, and TUV (EN60950) Certified
- ◆ CE mark meets 73/23/EEC and 93/68/EEC directives

## Delphi Series Q48DB, 65W Quarter Brick Dual Output DC/DC Power Modules: 48V in, $\pm 12V$ Output

The Delphi Series Q48DB Quarter Brick, 48V input, positive and negative bipolar dual output, and isolated DC/DC converters are the latest offering from a world leader in power system and technology and manufacturing — Delta Electronics, Inc. This product family provides positive and negative bipolar output (output voltage is 12V) and up to 65 watts of power in an industry standard quarter brick package size. Both output channels can be used independently. With creative design technology and optimization of component placement, these converters possess outstanding electrical and thermal performance, as well as extremely high reliability under highly stressful operating conditions. All models are fully protected from abnormal input/output voltage, current, and temperature conditions. The Delphi Series converters meet all safety requirements with basic insulation.

## OPTIONS

- ◆ Positive On/Off logic
- ◆ Short pin lengths available

## APPLICATIONS

- ◆ Telecom/DataCom
- ◆ Wireless networks
- ◆ Optical network equipment
- ◆ Server and data storage
- ◆ Industrial/Test Equipment

## SPECIFICATIONS

GENERAL SPECIFICATIONS			OUTPUT SPECIFICATIONS		
Input Voltage		36~75V	Voltage Accuracy	Typical	±1.5%
Switching Frequency	Typical	300KHz	Line Regulation	Typical (balance load)	±0.5%
Isolation Voltage	In/Out	1500V	Load & Cross Regulation	Typical (balance load)	±1%
Isolation Capacitance	Typical	2000 pF	Ripple & Noise	Typical	50 mV
Isolation Resistance	Minimum	10M Ohms	Current Limits	Typical	135%
MTBF	Bellcore	1.17M hours	Over Voltage	Typical	130%
OTP	Typical	130°C	Voltage Trim		+10%, -10%
Size	(2.28"×1.45"×0.33")	57.9x36.8x8.5mm			

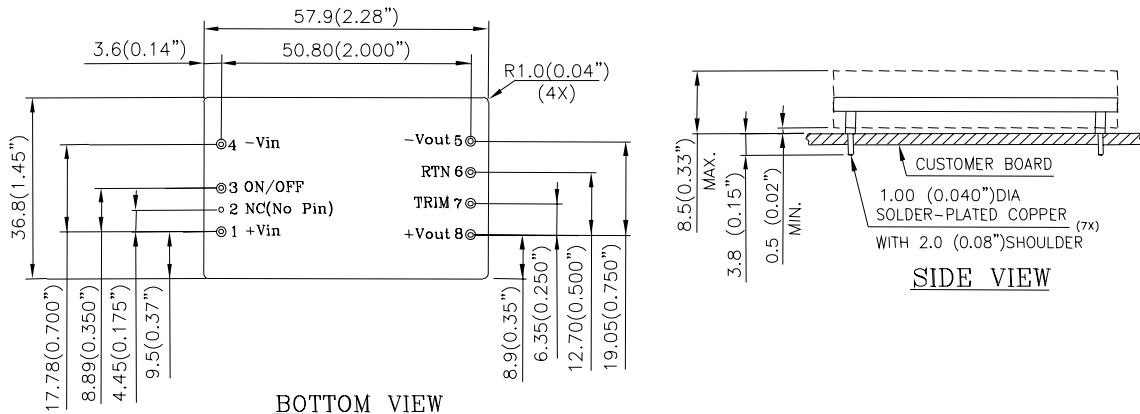
## PART NUMBERING SYSTEM

Q	48	D	B	120	03	N	R	F	A
Type of Product	Input Voltage	Number of Outputs	Product Series	Output Voltage	Output Current	ON/OFF Logic	Pin Length		Option Code
Q - Quarter Brick	48V	D - Dual Output	B - Bipolar output	120 - 12V	03-2.7A	N- Negative P- Positive	R- 0.150" N- 0.145" K- 0.110"	F- RoHS 6/6 (Lead Free)	A- Standard Functions

## MODEL LIST

MODEL NAME	INPUT		OUTPUT		Efficiency @ Full Load
Q48DB12003NRFA	36V~75V	2.4A	±12V	2.7A	90%

## MECHANICAL DRAWING



NOTES:  
 DIMENSIONS ARE IN MILLIMETERS AND (INCHES)  
 TOLERANCES: X.Xmm±0.5mm(X.XX in.±0.02 in.)  
 X.XXmm±0.25mm(X.XXX in.±0.010 in.)  
 ON/OFF: NEGATIVE LOGIC ENABLE (OPEN=OFF, -Vin=ON)

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## WARRANTY

Delta offers a two (2) year limited warranty. Complete warranty information is listed on our web site or is available upon request from Delta.

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