

# DELPHI SERIES



## FEATURES

- High efficiency: 90.5% @ 3.3V/35A
- Industry standard quarter brick footprint
- Size: 57.9x36.8x9.5mm(2.28"x1.45"x0.37") (w/o heatspreader)  
57.9x36.8x12.7mm(2.28"x1.45"x0.50") (with heatspreader)
- Fixed frequency operation
- Input UVLO, Output OTP, OCP, OVP
- Output voltage trim +10%, -20%
- Monotonic startup into normal and pre-biased loads
- Outstanding dynamic response: 30mV for 25% load step
- Very low output ripple
- No minimum load required
- Basic insulation
- Frequency synchronization from external signal
- ISO 9001, TL 9000, ISO 14001, QS 9000, OHSAS 18001 certified manufacturing facility
- UL/cUL 60950 (US & Canada), TUV (EN60950) and CE mark pending

## Delphi Series Q48SX, 35A Quarter Brick DC/DC Power Modules: 48V in, 3.3V and 5.0V out

The Delphi Series Q48SX (XENA™ 100), Quarter Brick, 48V input, single output, isolated DC/DC converters are the latest offering from a world leader in power systems technology and manufacturing — Delta Electronics, Inc. The Q48SX product family provides up to 125 watts of power or 35A of output current in an industry standard quarter brick footprint and pinout. The open frame construction is optimized for convection cooling over a wide operational ambient temperature range. 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. The output trim pin also serves as a synchronization function that can greatly reduce output ripple/noise when multiple Q48SX modules are used and linked together. This is a big boost to those applications that are extremely noise sensitive. All Q48SX 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

- Surface mount version
- Positive on/off logic

## APPLICATIONS

- Telecom/Datacom
- Wireless Networks
- Optical Network Equipment
- Server and Data Storage
- Industrial/Test Equipment
- Medical Systems

## SPECIFICATIONS

GENERAL SPECIFICATIONS			OUTPUT SPECIFICATIONS		
Input Voltage		36~75V	Voltage Accuracy	Typical (3.3V)	±1%
Switching Frequency	Typical (3.3V)	300KHz	Line Regulation	Typical (3.3V)	±0.05%
Isolation Voltage	In/Out	1500 Vdc	Load Regulation	Typical (3.3V)	±0.05%
MTBF	Bellcore (3.3V)	1.9M hours	Ripple & Noise	Typical (3.3V)	18 mV
OTP	Typical	110°C	Current Limits	Typical (3.3V)	110%
Size (w/o heatspreader)	(2.28"x1.45"x0.37")	57.9x36.8x9.5mm	Voltage Trim		+10%, -20%
Size (with heatspreader)	(2.28"x1.45"x0.50")	57.9x36.8x12.7mm			

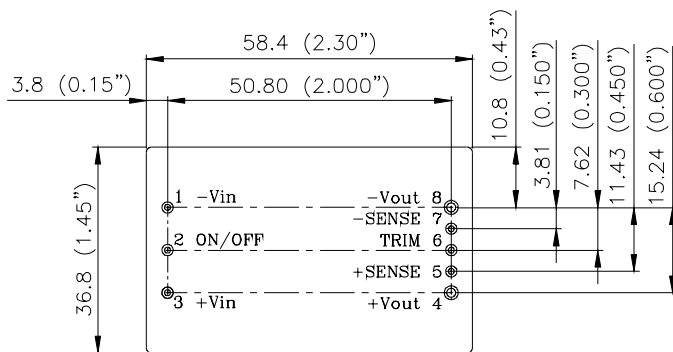
## PART NUMBERING SYSTEM

Q	48	S	X	3R3	35	N	R		A
Type of Product	Input Voltage	Number of Outputs	Product Series	Output Voltage	Output Current	ON/OFF Logic	Pin Length/type		Option Code
Q - Quarter Brick	48V	S - Single	X - Xena	3R3 - 3.3V 050 - 5.0V	25 - 25A 35 - 35A	N - Negative P - Positive	R - 0.170" N - 0.145" K - 0.110" M - SMD	Space-RoHS 5/6 F- RoHS 6/6 (Lead Free)	A - Standard H - Heatspreader

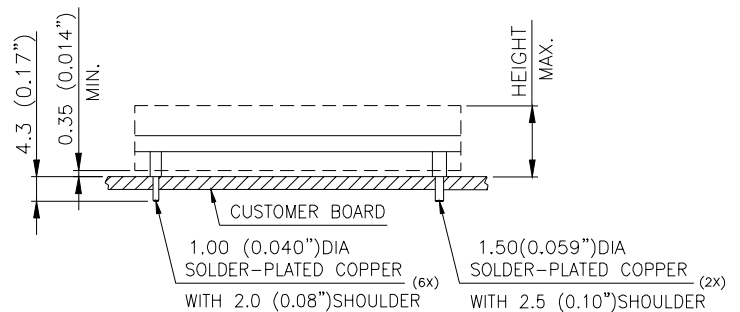
## MODEL LIST

MODEL NAME	INPUT		OUTPUT		EFF @ 100% LOAD
Q48SX3R335NR A	36V~75V	4.2A	3.3V	35A	90.5%
Q48SX05025NR A	36V~75V	4.5A	5.0V	25A	91.0%

## MECHANICAL DRAWING



BOTTOM VIEW



SIDE VIEW

### 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.)

PACKAGE	HEIGHT MAX.
W/O HEAT SPREADER	9.5 (0.37")
WITH HEAT SPREADER	12.7 (0.50")

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