

DELPHI SERIES



FEATURES

- ◆ Input voltage range: 38V~55V
- ◆ High efficiency: 96.0% @ 12V/20A
- ◆ Size: 63.5mm x 31.8mm x 11.4mm
(2.50" x 1.25" x 0.45")
- ◆ Industry standard pinout
- ◆ Fully protected: Input UVLO, OVP, Output OCP and OTP
- ◆ Parallelable for higher output power
- ◆ 2250V isolation
- ◆ Basic insulation
- ◆ Monotonic startup
- ◆ No minimum load required
- ◆ ISO 9001, TL 9000, ISO 14001, QS 9000, OHSAS 18001 certified manufacturing facility
- ◆ UL/cUL 60950 (US & Canada), and TUV (EN60950) - pending
- ◆ CE mark meets 73/23/EEC and 93/68/EEC - pending

Delphi Series Q48SB, 240W Bus Converter DC/DC Power Modules: 48V in, 12V/20A out

The Delphi Series Q48SB, 48V input, single output, vertically mounted quarter brick, 240W bus converter is the latest offering from a world leader in power systems technology and manufacturing — Delta Electronics, Inc. This product family supports intermediate bus architectures and powers multiple downstream non-isolated point-of-load (POL) converters and devices. The Delphi Series Q48SB operates from a nominal 48V input and provides up to 240W of power or 20A of output current in an industry standard vertically mounted quarter brick footprint. Typical efficiency for the 12V/20A module is 96%. With optimized component placement, creative design topology, and numerous patented technologies, the Q48SB bus converter delivers outstanding electrical and thermal performance. An optional heatsink is available for harsh thermal requirements.

OPTIONS

- ◆ Positive On/Off logic
- ◆ Heatsink available for extended operation
- ◆ OTP and OCP mode (Auto restart or latch)

APPLICATIONS

- ◆ Datacom / Networking
- ◆ Wireless Networks
- ◆ Optical Network Equipment
- ◆ Server and Data Storage
- ◆ Industrial/Testing Equipment

SPECIFICATIONS

GENERAL SPECIFICATIONS			OUTPUT SPECIFICATIONS		
Input Voltage		38~55V	Voltage Set Point	Typical	11.85
Switching Frequency	Typical	200KHz	Load Regulation	Typical	370mV
Isolation Voltage	In/Out	2250V	Total Output Range		8.8V~13.7V
Isolation Capacitance	Typical	1000pF	Ripple & Noise	Typical	80 mV
Isolation Resistance	Minimum	10M ohm	OCP	Typical	130% of load
Size	2.50" x 1.25" x 0.45"	63.5 x 31.8 x 11.4mm	OTP	Typical	118°C

PART NUMBERING SYSTEM

Q	48	S	B	120	20	N	V	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	38V~55V	S - Single	B - Bus Converter	120 - 12V	20 - 20A	N- Negative	V-Vertical	F- RoHS 6/6 (Lead Free)	A - Standard Functions

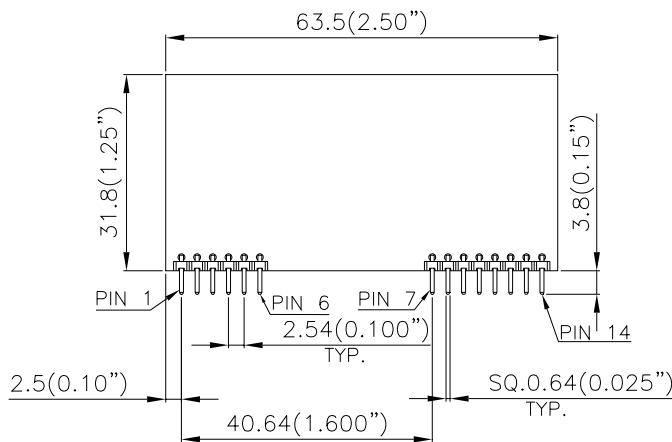
MODEL LIST

MODEL NAME	INPUT		OUTPUT		EFF @ 100% LOAD
Q48SB12020NVFA	38V~55V	6A	12V	20A	96%

MECHANICAL DRAWING

TOP VIEW

SIDE VIEW



PIN ASSIGNMENT

PIN#	FUNCTION
1	ON/OFF
2	NC
3	VIN+
4	VIN-
5	VIN+
6	VIN-
7	VOUT-
8	VOUT+
9	VOUT-
10	VOUT+
11	VOUT-
12	VOUT+
13	VOUT-
14	VOUT+

NOTES:

DIMENSIONS ARE IN MILLIMETERS AND (INCHS)
 TOLERANCE: X.X mm±0.5 mm(X.XX in.±0.02 in.)
 X.XX mm±0.25 mm(X.XXX in.±0.010 in.)

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WARRANTY

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