

# DELPHI SERIES



## FEATURES

- ♦ High efficiency:  
94% @ 12Vin, 5V/40A out
- ♦ Size:  
36.8mm x 32.2mm x 13.0mm (Vertical)  
(1.45"x1.27"x0.51")  
36.8mm x 32.2mm x 14.0mm (Horizontal)  
(1.45"x1.27"x0.55")
- ♦ Resistor-based trim
- ♦ No minimum load required
- ♦ Output voltage programmable from 0.9-5.0V via external resistors
- ♦ Fixed frequency operation
- ♦ Input UVLO, output OVP (non-latch) and OCP (non-latch)
- ♦ Remote ON/OFF (default: positive)
- ♦ Remote sense
- ♦ Power good function
- ♦ ISO 9001, TL 9000, ISO 14001, QS9000, OHSAS18001 certified manufacturing facility
- ♦ UL/cUL 60950-1 (US & Canada) Recognized, and TUV (EN60950-1) Certified
- ♦ CE mark meets 73/23/EEC and 93/68/EEC directives

## Delphi ND Series Non-Isolated Point of Load DC/DC Modules: 8.0V~13.8Vin, 0.9V~5.0Vout, 40A

The Delphi ND40 Series, 8.0V~13.8V input, single output, non-isolated point of load DC/DC converters are the latest offering from a world leader in power systems technology and manufacturing - Delta Electronics, Inc. The ND40 series provides up to 40A of power in a vertical mounted through-hole package and the output can be resistor-trimmed from 0.9Vdc to 5.0Vdc. ND40 provides a very cost effective point of load solution. 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.

## APPLICATIONS

- ♦ DataCom
- ♦ Distributed power architectures
- ♦ Servers and workstations
- ♦ LAN/WAN applications
- ♦ Data processing applications

## SPECIFICATIONS

GENERAL SPECIFICATIONS			OUTPUT SPECIFICATIONS		
Input Voltage	Typical	8.0 ~ 13.8Vdc	Output	Programmable	0.9V~5.0V
Switching Frequency	Typ. For $2.2 \leq V_{o,set} \leq 5.0V$	500KHz	Voltage	Maximum	$\pm 1\%$ of $V_o$
	Typ. For $0.9 \leq V_{o,set} < 2.2V$	220KHz	Output Current	Maximum	40A
Operating Temperature	Ambient	0°C ~ +55°C	Ripple & Noise	Typ. For $3.5 \leq V_{o,set} \leq 5.0V$	50 mVp-p
Turn On Time	Maximum	7mS		Typ. For $0.9 \leq V_{o,set} < 3.5V$	25 mVp-p
MTBF	Telcordia SR-332	3.56 Mhr	Capacitive load	Min. (Equiv. ESR $\geq 2m\Omega$ )	300uF
Size (Vertical)	1.45"x1.27"x0.51"	36.8x32.2x13.0mm		Max.(Equiv. ESR $\geq 0.2m\Omega$ )	2000uF
Weight		20.5 grams	OCP	Typical	60Adc

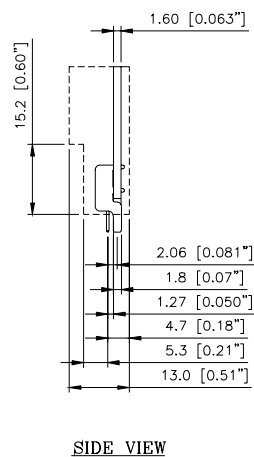
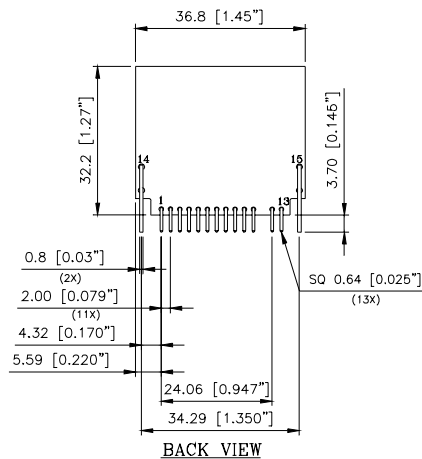
## PART NUMBERING SYSTEM

ND	12	S	0A0	V	40	P	N	F	A
Product Series	Input Voltage	Number of outputs	Output Voltage	Mounting	Output Current	ON/OFF Logic	Pin Length		Option Code
ND - Non-isolated Series	12 - 8.0~13.8V	S - Single Output	0A0 - Programmable	V - Vertical H - Horizontal	40 - 40A	P- Positive	N- 0.145"	F- RoHS 6/6 (Lead Free)	A- Standard Function

## MODEL LIST

Model Name	Packaging	Input Voltage	Output Voltage	Output Current	Efficiency 12Vin @ 5Vo Full load
ND12S0A0V40PNFA	Vertical	8.0V ~ 13.8Vdc	0.9V ~ 5.0V	40A	94%
ND12S0A0H40PNFA	Horizontal	8.0V ~ 13.8Vdc	0.9V ~ 5.0V	40A	94%

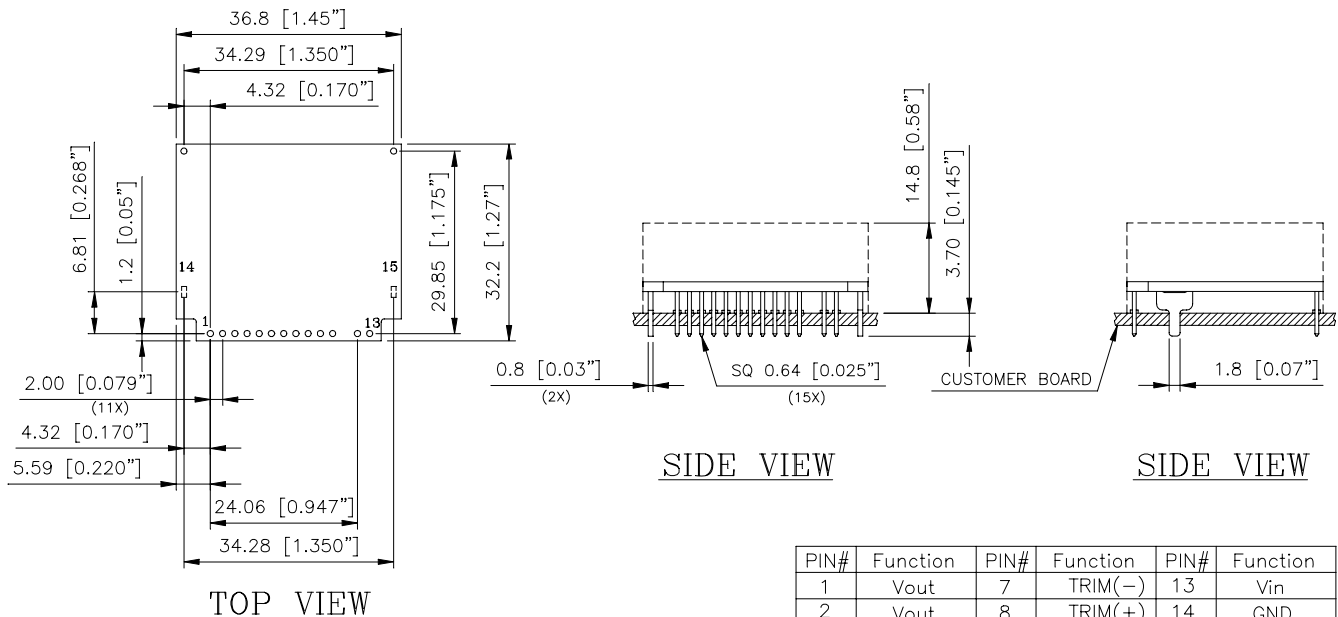
## MECHANICAL DRAWING (VERTICAL)



PIN#	Function	PIN#	Function
1	Vout	9	PG
2	Vout	10	SENSE(-)
3	Vout	11	SENSE(+)
4	GND	12	Vin
5	GND	13	Vin
6	ENABLE	14	GND
7	TRIM(-)	15	GND
8	TRIM(+)		

NOTES:  
 DIMENSIONS ARE IN MILLIMETERS AND (INCHES)  
 TOLERANCES: X.Xmm $\pm$ 0.5mm(X.XX in. $\pm$ 0.02 in.)  
 X.XXmm $\pm$ 0.25mm(X.XXX in. $\pm$ 0.010 in.)

## MECHANICAL DRAWING (HORIZONTAL)



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.)

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### WARRANTY

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