

# DELPHI SERIES



## FEATURES

- ♦ High Efficiency:  
94.0% @ 12Vin, 5V/20A out
- ♦ Size:  
Vertical: 30.5x15.5x12.0mm  
(1.20"x0.61"x0.47")  
Horizontal: 30.5x15.5x12.9mm  
(1.20"x0.61"x0.51")
- ♦ Wide input range: 4.5V~13.8V
- ♦ Output voltage programmable from 0.59Vdc to 5.1Vdc via external resistors
- ♦ Voltage and resistor-based trim
- ♦ No minimum load required
- ♦ Fixed frequency operation
- ♦ Input UVLO, output OCP, SCP
- ♦ Remote ON/OFF (Positive)
- ♦ ISO 9001, TL 9000, ISO 14001, QS9000, OHSAS18001 certified manufacturing facility
- ♦ UL/cUL 60950 (US & Canada), TUV (EN60950) -- pending

## Delphi NE Series Non-Isolated Point of Load DC/DC Modules: 4.5~13.8Vin, 0.59V-5.1Vout, 20A

The Delphi NE 20A Series, 4.5V to 13.8V wide input, wide trim single output, non-isolated point of load (POL) DC/DC converters are the latest offering from a world leader in power systems technology and manufacturing — Delta Electronics, Inc. The ND/NE product family is the second generation, non-isolated point-of-load DC/DC power modules for the datacom applications which cut the module size by almost 50% in most of the cases compared to the first generation NC series POL modules. The NE 20A product family provides an ultra wide input range to support 5V, 8V, 9.6V, and 12V bus voltage point-of-load applications and it offers 20A of output current in a vertically or horizontally mounted through-hole miniature package and the output can be resistor trimmed from 0.59Vdc to 5.1Vdc. It provides a very cost effective, high efficiency, and high density 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.

## OPTION

- ♦ Vertical or horizontal versions

## APPLICATIONS

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

## SPECIFICATIONS

GENERAL SPECIFICATIONS			OUTPUT SPECIFICATIONS		
Input Voltage		4.5V~13.8V	Output	Programmable	0.59V ~ 5.1V
Switching Frequency	Typical	500KHz	Voltage	Typical	±1.5% of Vo
Operating Temperature	Horizontal	0°C ~ + 130°C	Output Current	Maximum	20A
MTBF		TBD M hours	Ripple & Noise	12Vin, 2.5Vout	25 mVp-p
Size (Vertical)	(1.20"x0.61"x0.47")	30.5x15.5x12.0mm	Weight		8.8 g
Size (Horizontal)	(1.20"x0.61"x0.51")	30.5x15.5x12.9mm			

## PART NUMBERING SYSTEM

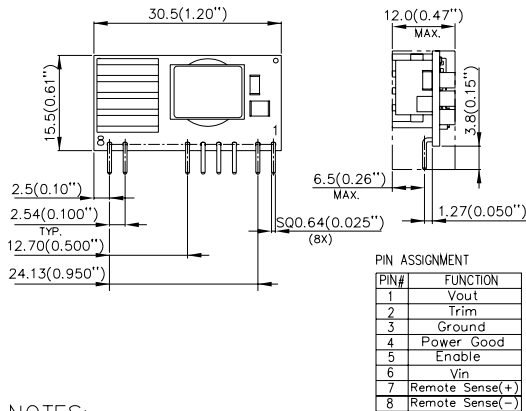
NE	12	S	0A0	V	20	P	N	F	A
Product Series	Input Voltage	Number of outputs	Output Voltage	Mounting	Output Current	ON/OFF Logic	Pin Length		Option Code
NE-Non-isolated Series	12- 4.5V~13.8V	S - Single output	0A0-programmable	V- Vertical H- Horizontal	20 - 20A	P - Positive	N - 0.150"	F - RoHS 6/6 (Lead Free)	A-standard

## MODEL LIST

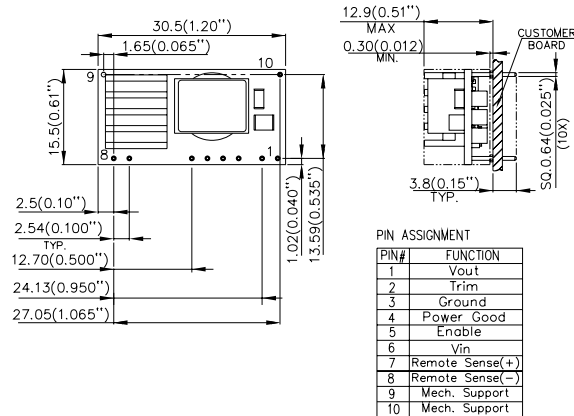
Model Name	Packaging	Input Voltage	Output Voltage	Output Current	Efficiency 12Vin/5Vo @ 100% load
NE12S0A0V20PNFA	Vertical	4.5V ~ 13.8Vdc	0.59 V ~ 5.1Vdc	20A	94%
NE12S0A0H20PNFA	Horizontal	4.5V ~ 13.8Vdc	0.59 V ~ 5.1Vdc	20A	94%

## MECHANICAL DRAWING

### VERTICAL



### HORIZONTAL



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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