

DELPHI SERIES



FEATURES

- ♦ High efficiency:
95% @ 12Vin, 5V/30A out (SIP)
- ♦ Small size and low profile:
50.8x12.7x14.0 mm (2.00"x0.50"x0.55")
- ♦ Standard footprint
- ♦ Pre-bias startup
- ♦ Output voltage tracking
- ♦ No minimum load required
- ♦ Voltage and resistor-based trim
- ♦ Output voltage programmable from
0.8Vdc to 5.5Vdc via external resistor
- ♦ Fixed frequency operation
- ♦ Input UVLO, Output OTP, OCP
- ♦ Remote ON/OFF
- ♦ Remote sense
- ♦ Current sharing (optional)
- ♦ ISO 9000, TL 9000, ISO 14001 certified
manufacturing facility
- ♦ UL/cUL 60950-1 (US & Canada), and TUV
(EN60950-1) pending

Delphi Series DNK12, Non-Isolated, Point of Load

**DC/DC Power Modules: 6~14Vin,
0.8V~5.5V/30Aout**

The Delphi series DNK12, 6V~14V 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 DNK12 series provides a programmable output voltage from 0.8V to 5.5V by using an external resistor. The DNK converters have flexible and programmable tracking and sequencing features to enable a variety of startup voltages as well as sequencing and tracking between power modules. This product family is available in a surface mount or SIP package and provides up to 30A of current in an industry standard footprint. With creative design technology and optimization of component placement, these converters possess outstanding electrical and thermal performance and extremely high reliability under highly stressful operating conditions.

APPLICATIONS

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

SPECIFICATIONS

GENERAL SPECIFICATIONS			OUTPUT SPECIFICATIONS		
Input Voltage	Typical	6V~14V	Voltage Adjustment	Typical	0.8V ~ 5.5V
Switching Frequency	Typical	350KHz	Line Regulation	Typical	0.2%
Turn-on time	Typical	7 mS	Load Regulation	Typical	0.4%
MTBF		TBD	Ripple & Noise	Typical	50 mV
Size	50.8x12.7x14.0mm (2.00" x 0.50" x 0.55")		Current Limits	Typical	180%

PART NUMBERING SYSTEM

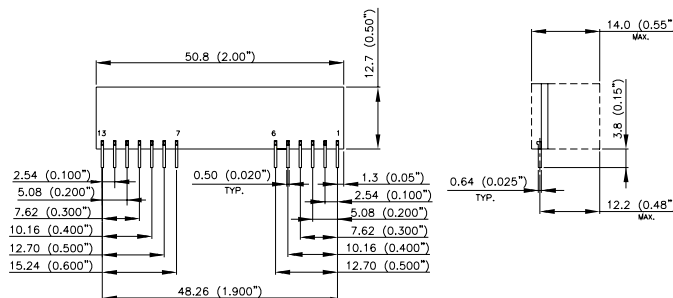
DNK	12	S	0A0	R	30	N	F	A
Product Family	Input Voltage	Number of Outputs	Output Voltage	Package Type	Output Current	On/Off Logic		Option Code
DNK - 30A	12 - 6.0V~14.0V	S - Single	0A0 - Programmable	R - SIP	30 - 30A	N - Negative	F - RoHS 6/6 (Lead Free) Space - RoHS 5/6	A - Standard Function w/o current sharing B - with current sharing

MODEL LIST

Model Name	Package	Input Voltage	Output Voltage	Output Current	Efficiency 12Vin @ full load
DNK12S0A0R30NFA	SIP	6.0V ~ 14Vdc	0.8V ~ 5.5Vdc	30A	95%
DNK12S0A0R30N A	SIP	6.0V ~ 14Vdc	0.8V ~ 5.0Vdc	30A	95%

MECHANICAL DRAWING

SIP PACKAGE



BACK VIEW

PIN#	Function	PIN#	Function	PIN#	Function
1	Vo	6	GND	11	SEQ
2	Vo	7	SHARE*	12	TRIM
3	SENSE(+)	8	GND	13	ON/OFF
4	Vo	9	Vin		
5	GND	10	Vin		

* Pin 7 is Optional

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.)

SIDE VIEW

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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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