# NXA66 Series



## Single output (Non-Isolated)

DC-DC CONVERTERS

66 W Non-isolated DC-DC Converters

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- Transient response from 0 A to rated full load (up to 30 A/μs), recovery within 250 μs
- Democratic current sharing, no need for master/slave configuration
- Programmable output voltage
- Remote enable pin
- Power good signal
- True double ended differential remote sense
- Available RoHS compliant

The NXA66 non-isolated dc-dc converter is targeted at computing applications that require point of load power conversion. The NXA66 is designed to meet the precise voltage and fast transient requirements of today's high performance applications such as workstations, file servers, desktop computers, telecommunications equipment, adapter cards, DSP and data processing. Employing synchronous rectification and democratic current sharing, the NXA66 can be used in a stand-alone configuration, or paralleled as a building block to achieve higher output currents or redundancy. The current sharing specifications are met during static conditions, and transient conditions. The advanced democratic current sharing technique employed by the NXA66 removes the need for cumbersome master/slave combinations. The NXA66 uses gold plated edge tab fingers for a convenient, low impedance interconnect scheme. This also allows system designers to easily accommodate future expansion in their systems.









**2 YEAR WARRANTY** 

All specifications are typical at nominal input, full load at 25 °C unless otherwise stated

**SPECIFICATIONS** 

### **OUTPUT SPECIFICATIONS**

Voltage adjustability		Vout prog to 2	rammable V5 or 3V3
Total error band	3V3 output 2V5 output		4.5% 4.5%
Ripple and noise	(20 MHz bandwid	dth) 150 mV pl	k-pk max.
Transient response peak dev. settling time	50% to 75% and to 1.0%, no exte		150 mV 400 µs
Short circuit protection lsc = 25 A rms			ontinuous recovery

INPL	IT C	DEC	$\lambda TIC$	MC
	JIO	FEU	110	

OFF

Input voltage range	12 Vin nominal	10.8-13.2 Vdc
Input current	No load Remote OFF	100 mA typ. 10 mA max.
UVLO turn ON voltage UVLO turn OFF voltage		10.4 V max. 8.2 V min.
Start-up time	Nominal line	15 ms
Active high remote ON/C	)FF	Ref to -input

Open circuit voltage

10.8 Vdc min.

0.8 Vdc max.

### **GENERAL SPECIFICATIONS**

Efficiency	3V3 output 2V5 output	86% 82%
Switching frequency	Fixed	300 kHz
Approvals and standards		EN60950 Bi-national UL1950 CSA C22.2 No. 234/950
Weight		42.6 g (1.5 oz)
MTBF	Bellcore 332	3,500,000 hours

### **ENVIRONMENTAL SPECIFICATIONS**

Maximum temperature shock	Operating	5 °C/10 min.
Temperature shock	Operating Non-operating	10 °C/hour 20 °C/hour
Humidity	Operating Storage	85% RH 95% RH
Altitude	Operating Storage	10,000 feet max. 50,000 feet max.
Shock	Operational and non-operational	50 G 11ms half sine wave
Vibration (See Note 3)	Operational and non-operational	0.02 G²/Hz max.
Electrostatic discharge	Operating (See Note 4) non-operating	ESD 15 kV ESD 25 kV

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INPUT	NOMINAL OUTPUT	NOMINAL OUTPUT	MINIMUM	MODEL
VOLTAGE	VOLTAGE	CURRENT	EFFICIENCY	NUMBER <sup>(5,6)</sup>
12 Vdc	3.3/2.5 Vdc	20 A	86/82%	NXA66-12P3V3CY

#### Notes

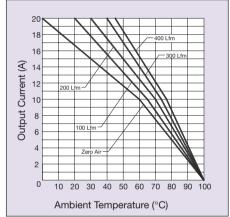
- 1 In this view, row B of the edge connector is visible. The leftmost pin is pin 50, and the rightmost pin is pin 26. Row A of the connector is on the opposite side of the unit. Pin 1 is behind pin 50, pin 25 is behind pin 26. See below for pinout.
- 2 Recommended mating connector is AMP 145432 or equivalent. Pin 44 is absent and is used for electrical key. AMP keying plug PN 65025-2 may be placed in the mating connector between pins 33 and 34, and between pins 17 and 18. This keying plug serves as a mechanical key.
- 3 From 5 Hz to 20 Hz, maintaining 0.02 G²/Hz from 20 Hz to 500 Hz, all axes.

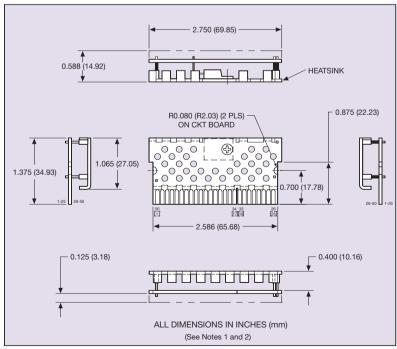
PIN CONNECTIONS				
PIN NO. ROW A ROW B PIN NO.				
12 Vin	RTN	50		
12 Vin	RTN	49		
12 Vin	RTN	48		
12 Vin	RTN	47		
12 Vin	RTN	46		
Reserved	RTN	45		
VSP				
PWRGD	Reserved	43		
OUTEN	Ishare	42		
Reserved	Reserved	41		
Vo-sense	Vo-sense rtn	40		
Vout	Return	39		
Vout	Return	38		
Vout	RTN	37		
Vout	RTN	36		
Vout	RTN	35		
Vout	RTN	34		
Vout	RTN	33		
Vout	RTN	32		
Vout	RTN	31		
Vout	RTN	30		
Vout	RTN	29		
Vout	RTN	28		
Vout	RTN	27		
Vout	RTN	26		
	ROW A  12 Vin  12 Vin  12 Vin  12 Vin  12 Vin  Reserved  VSP  PWRGD  OUTEN  Reserved  Vo-sense  Vout  Vout	ROW A ROW B  12 Vin RTN  Reserved RTN  VSP  PWRGD Reserved  OUTEN Ishare  Reserved Reserved  Vo-sense Vo-sense rtn  Vout Return  Vout RTN  Vout RTN		

#### **Notes Cond.**

- Initilization level; ESD event shall cause no out-of-regulation conditions.

  The 'Y' suffix indicates that these parts are TSE RoHS 5/6 (non Ph-free).
- 5 The 'Y' suffix indicates that these parts are TSE RoHS 5/6 (non Pb-free) compliant.
- 6 NOTICE: Some models do not support all options. Please contact your local Artesyn representative or use the on-line model number search tool at http://www.artesyn.com/powergroup/products.htm to find a suitable alternative





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