

## ADN-C Series 3-Phase

120-960 Watts

**Total Power:** 120-960 Watts  
**Input Voltage:** 380-480 Vac  
**# Outputs:** Single



### Special Features

- Slim form factor
- **Five year warranty**
- High Efficiency up to 94%
- Full Power at 60 °C
- Power Boost™
- Industrial Grade Design
  - Metal case
- MTBF > 500,000h
- Adjustable output
- Overvoltage protection with auto recovery
- Continuous short circuit and overload protection
- New visual diagnostic LED
- 3 Status LEDs
  - Input
  - Output
  - Alarm
- DC OK Relay
- Parallel Operation Capability
- Screw terminal connections
- RoHS Compliant
- No tools required for mounting

### Safety

- UL508, cULus Listed
- UL 60950-1, cURus 2<sup>nd</sup> edition
- IEC60950-1 2<sup>nd</sup> edition
- Class I, Div 2 Hazardous Locations
- IP20
- CE

## Electrical Specifications

### Input

Nominal voltage:	380 - 480 Vac
AC Input range:	320 - 540 Vac
DC Input range:	450 - 760 Vdc for ADN5, ADN10 & ADN20
Frequency:	50 - 60 Hz
Efficiency:	Up to 94%
PFC:	Active power factor correction for ADN20 & ADN40; meet EN61000-3-2 Class A
Phase input	ADN5 and ADN10 will operate with single phase input at 100% load Derate to 75% and 50% for ADN20 and ADN40 respectively under loss of 1 phase Units will shut down if thermal threshold is exceeded under this condition

### Output

Nominal voltage:	24 V (24.0 - 28.0 Vdc Adj.)
Hold-up time:	> 20 ms for ADN5, ADN10, & ADN20; > 15 ms for ADN40
Voltage regulation:	< ± 2% overall
Ripple:	< 100 mVpp
Current limit:	PowerBoost™
Peak current:	2x nominal current for < 2 sec for ADN5 & ADN10; 1.5x nominal current for 4 seconds minimum while holding voltage > 20 Vdc for ADN20 & ADN40
Parallel operation:	Single or parallel operation selectable via front switch. For redundant operation use of external diode module is preferred; ADN40 uses active paralleling
Power back immunity:	< 35 V
Overvoltage protection:	> 30.5 Vdc, but < 33 Vdc, auto recovery

### General Specifications

EMC Emissions:	EN61000-6-3:2001, Class B EN55011, EN55022 Radiated and Conducted including Annex. A, EN61000-3-2
EMC Immunity:	EN61000-6-1:2001, EN61000-6-2:2001, EN61000-4-2 Level 4, EN61000-4-3 Level 3, EN61000-4-6 Level 3, EN61000-4-4 Level 4 input and level 3 output. EN61000-4-5 Isolation class 4, EN61000-4-11, Semi F47 sag immunity
Warranty:	5 Years
General protection safety:	Protected against continuous short-circuit, overload, open-circuit. Protection Class 1 (IEC536), degree of protection IP20 (IEC 60529) Safe low voltage: SELV (acc. EN60950)
Status Indicators:	Visual: 3 status LEDs (Input, Output, Alarm) Relay: SSR or dry relay contact, signal active when $V_{out} = 18.5 \text{ vdc} \pm 5\%$

### LED Diagnostics

LED	OK	Loss of Ac	Low Ac	No Dc	High Load	Overload	Hot	Too Hot
• Input	Green	---	Yellow	Green	Green	Green	Green	Green
• Output	Green	---	Green	---	Yellow	Yellow	Green	---
• Alarm	---	---	---	Red	Yellow	Red	Yellow	Yellow

## Environmental Specifications

Storage/shipment:	-40 °C to + 85 °C
Operation (convection):	Full Load -25 °C to + 60 °C derate to 50% load at +70 °C Up to 50% load permissible with horizontal or on top mounting orientation
Humidity:	< 90% RH, non-condensing IEC 60068-2-2, 68-2-3

## Other Features

Fusing:	Input externally fused; output not fused, output is capable of providing high currents (PowerBoost) for motor load startup
Mounting orientation:	Standard: Vertical, Optional: Horizontal or on Top Simple snap-on to DIN TS35/7.5 or TS35/15 rail system
Ventilation:	Normal convection, No fan required
Cooling Spacing	ADN5: 15 mm in front, 25 mm above and below ADN10: 15 mm in front, 25 mm above and below ADN20: 25 mm in front, left and right; 70 mm above and below ADN40: 15 mm in front, 70 mm above and below, 25 mm left and right
Connections:	Input: Screw terminals, connector size range: 16-10 AWG (1.5-6 mm <sup>2</sup> ) for solid conductors Output: Connector size range: 16-10 AWG (1.5-6 mm <sup>2</sup> ) for ADN5, ADN10 and ADN20 solid conductors; 6-7 AWG for ADN40

### Ordering Information

Model Number	Power	Input Voltage	Weight	Current	Efficiency	Case Type	MTBF
ADN5-24-3PM-C	120 W	320 - 540 Vac 450-760 Vdc	1.15 lbs (520 g)	5 A @ 24 Vdc	85.0%	Metal	> 500,000 hours Nominal voltage, full load, Tamb=25 °C
ADN10-24-3PM-C	240 W		1.54 lbs (700 g)	10 A @ 24 Vdc	91.2%		
ADN20-24-3PM-C	480 W		2.8 lbs (1300 g)	20 A @ 24 Vdc	93.0%		
ADN40-24-3PM-C	960 W		5.3 lbs (2400 g)	40 A @ 24 Vdc	94.0%		

### Dimensions

	Height	Width	Depth
ADN5-24-3PM-C	4.85 in (123 mm)	1.97 in (50 mm)	4.36 (111 mm)
ADN10-24-3PM-C		2.36 in (60 mm)	4.36 (111 mm)
ADN20-24-3PM-C		3.34 in (85 mm)	4.68 (119 mm)
ADN40-24-3PM-C		7.09 in (180 mm)	4.85 in (123 mm)

### Mechanical Drawing



### Americas

5810 Van Allen Way  
Carlsbad, CA 92008  
USA  
Telephone: +1 760 930 4600  
Facsimile: +1 760 930 0698

### Europe (UK)

Waterfront Business Park  
Merry Hill, Dudley  
West Midlands, DY5 1LX  
United Kingdom  
Telephone: +44 (0) 1384 842 211  
Facsimile: +44 (0) 1384 843 355

### Asia (HK)

14/F, Lu Plaza  
2 Wing Yip Street  
Kwun Tong, Kowloon  
Hong Kong  
Telephone: +852 2176 3333  
Facsimile: +852 2176 3888

For global contact, visit:

[www.Emerson.com/EmbeddedPower](http://www.Emerson.com/EmbeddedPower)  
[techsupport.embeddedpower@emerson.com](mailto:techsupport.embeddedpower@emerson.com)

While every precaution has been taken to ensure accuracy and completeness in this literature, Emerson Network Power assumes no responsibility, and disclaims all liability for damages resulting from use of this information or for any errors or omissions.

**Emerson Network Power.**  
The global leader in enabling  
business-critical continuity.

- AC Power
- Connectivity
- DC Power
- Embedded Computing
- **Embedded Power**
- Monitoring
- Outside Plant
- Power Switching & Controls
- Precision Cooling
- Racks & Integrated Cabinets
- Services
- Surge Protection

### EmersonNetworkPower.com

Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co.  
©2011 Emerson Electric Co.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.