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 2nd edition
- IEC60950-1 2nd 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

EMERSON
Network Power

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 octive when Vout = 18.5 vdc ± 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: ADN10: ADN20: ADN40:	15 mm in front, 25 mm above and below 15 mm in front, 25 mm above and below 25 mm in front, left and right; 70 mm above and below 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^2) for solid conductors Output: Connector size range: 16-10 AWG (1.5-6 mm^2) for ADN5, ADN10 and ADN20 solid conductors; 6-7 AWG for ADN40	

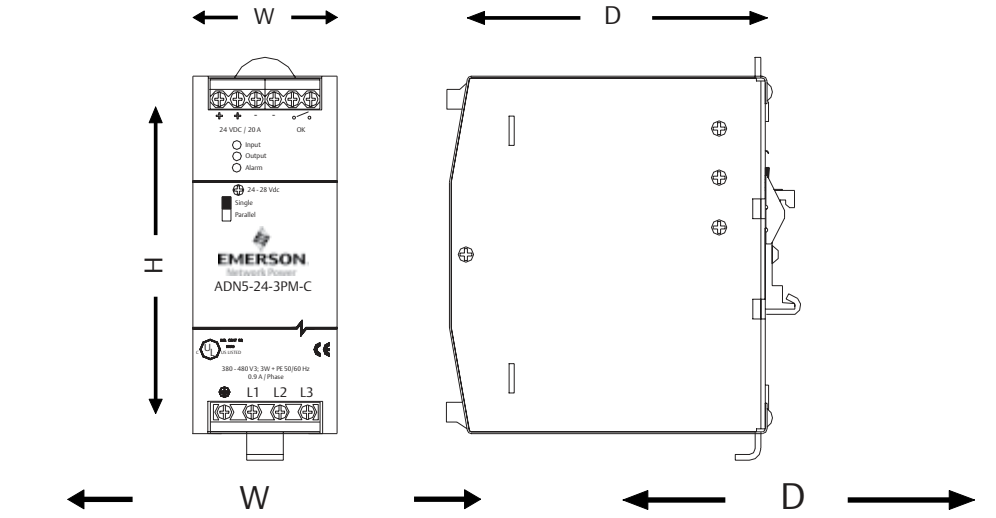
Ordering Information

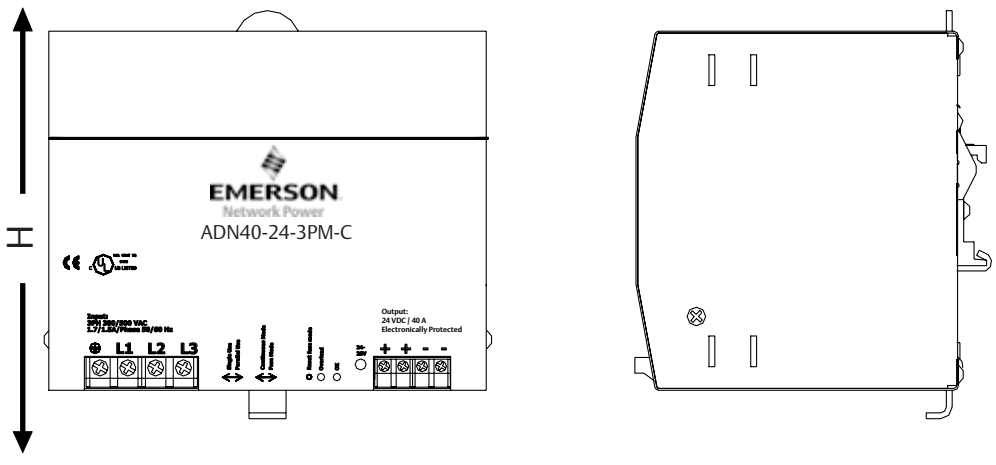
Model Number	Power	Input Voltage	Weight	Current	Efficiency	Case Type	MTBF
ADN5-24-3PM-C	120 W	320 - 540 Vac 450-760 Vdc	1.15 lbs (520 g)	5 A @ 24 Vdc	85.0%	Metal	> 500,000 hours Nominal voltage, full load, Tamb=25 °C
ADN10-24-3PM-C	240 W		1.54 lbs (700 g)	10 A @ 24 Vdc	91.2%		
ADN20-24-3PM-C	480 W		2.8 lbs (1300 g)	20 A @ 24 Vdc	93.0%		
ADN40-24-3PM-C	960 W	320 - 540 Vac	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 (123 mm)

Mechanical Drawing





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