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### ADN-C Series 120 - 480 Watts

Total Power: Input Voltage: # of Outputs:

120-480 Watts 85-264 Vac, 90-375 Vdc Single



### **Special Features**

- Slim form factor
- Five year warranty
- High Efficiency > 90% Typ.
- Full Power at 60 °C
- Power Boost ™
- Industrial Grade Design
  Patented metal mounting clip
  Metal case
- MTBF > 450,000h demonstrated at 40 °C
- Active PFC > 0.92
- Adjustable output
- Overvoltage protection with autorecovery
- Continuous short circuit and overload protection
- SEMI F47 Sag Immunity
- 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
- IEC60950-1Class I, Div 2 Hazardous Locations
- IP20
- CE

# **Electrical Specifications**

Input				
AC Input range:	Nominal: 115 - 230 Vac 85 - 264 Vac			
DC Input range:	90-375 Vdc			
Frequency:	47-67 Hz, 400 Hz			
Efficiency:	> 90%			
Inrush current:	ADN5-24-1PM-C: ADN10-24-1PM-C: ADN20-24-1PM-C:	< 15 A < 30 A < 40 A		
PFC:	Active, better than 0.92			
Output				
Nominal voltage:	ADN5-24-1PM-C & ADN10-24-1PM-C: ADN20-24-1PM-C:	24 Vdc (22.5 - 28.5 Vdc Adj) 24 Vdc (24-28 Vdc Adj)		
Initial Voltage Setting:	24.5 V ± 1%			
Hold-up time:	> 20 ms at full load (100 Vac Input @ Tamb = +25 °C)			
Voltage regulation:	< ± 2% (combination line, load, time and temperature related changes)			
Ripple:	ADN5-24-1PM-C & ADN10-24-1PM-C: ADN20-24-1PM-C:	< 50 mVpp < 100 mVpp		
Back EMF immunity:	< 35 Vdc			
Power Boost™:	1.5 x Nominal current for 4 seconds.			
Short circuit current:	1.5 x Nominal current at near zero volts at short circuit condition			
Parallel operation:	Switch selectable single unit or parallel unit operation. Units will not be damaged by parallel operation (regardless of switch position setting)			
Ouput Noise suppression:	Radiated EMI values below EN61000-6-	2		
Overvoltage protection:	> 30.5 Vdc but < 33 Vdc, auto recovery			
Line and Load regulation:	< 0.5%			
Time and Temperature Drift:	< 1%			



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General Specifications				
EMC Emissions:	EN61000-6-2:2001, 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, IEC 61000-4-34 voltage dip immunity standard			
Warranty:	5 Years			
General protection safety:	Protected against continuous short-circuit, continuous overload, continous open circuit. Protection Class 1 (IEC536), degree of protection IP20 (IEC60529) Safe low voltage: SELV (acc. IEC60950-1)			
Status Indicators:	Visual: 3 status LEDs (Input, Output, Alarm) Relay: N.O. contact rated 200 mA/50 Vdc			

LED Diagnostics								
LED	ОК	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:		-25 °C to + 85 °C	
			Full Load -10 °C to + 60 °C derate to 50% load at +70 °C Full Load -25 °C to + 60 °C derate to 50% load at +70 °C	
, , , ,	Up to 50% load permissable with horizontal or on top mounting orientation			

### **Other Features**

External fusing:	Not required. Unit provides internal fuse (not accessible)		
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	ADN5-24-1PM-C & ADN10-24-1PMC: ADN20-24-1PMC:	15 mm in front, 25 mm above and below, 10 mm left and right 15 mm in front, 40 mm above and below, 10 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: Two terminals per output, connector size range: 16-10 AWG (1.5-6 mm <sup>2</sup> ) for solid conductors		

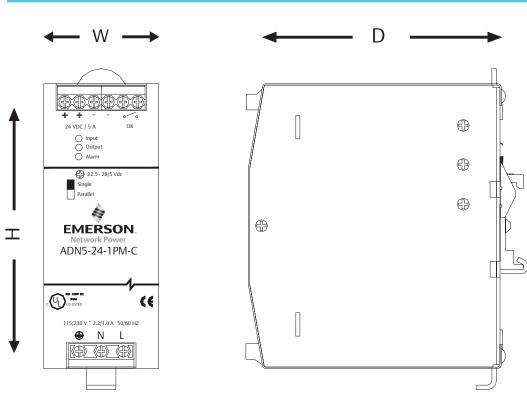
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#### Ordering Information MTBF Model Number Weight Power Input Voltage Current Case Type Demonstrated at 40 °C Metal with ADN5-24-1PM-C 120 W 1.65 lbs (750 g) 5A @ 24 Vdc 550,000 hours 85-264 Vac patented ADN10-24-1PM-C 240 W 1.98 lbs (900 g) 10 A @ 24 Vdc 90-375 Vdc\* mounting ADN20-24-1PM-C 480 W 2.6 lbs (1200 g) 20 A @ 24 Vdc 450,000 hours clip \*No UL listed for DC input

Dimensions						
	Height	Width	Depth			
ADN5-24-1PM-C		1.97 in (50 mm)	4.27 (111 mm)			
ADN10-24-1PM-C	4.85 in (123 mm)	2.36 in (60 mm)	4.37 (111 mm)			
ADN20-24-1PM-C		3.42 in (87 mm)	4.96 in (126 mm)			

#### **Mechanical Drawing**



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