

## AD1024F Series

20~24Watts, Single Output



Dimensions: 75.5(D)x45(W)x96(H) mm

### Features

- High power density
- Universal input range
- Convection cooled
- RoHS compliance
- 3 year warranty
- Great reliability
- DIN Rail / Wall bracket mounting solution
- Over voltage protection
- Overload protection
- Short circuit protection

### Safety Standards



EN 60950 (Marking)



UL 508 (Certificate)  
CSA 22.2 (Certificate)

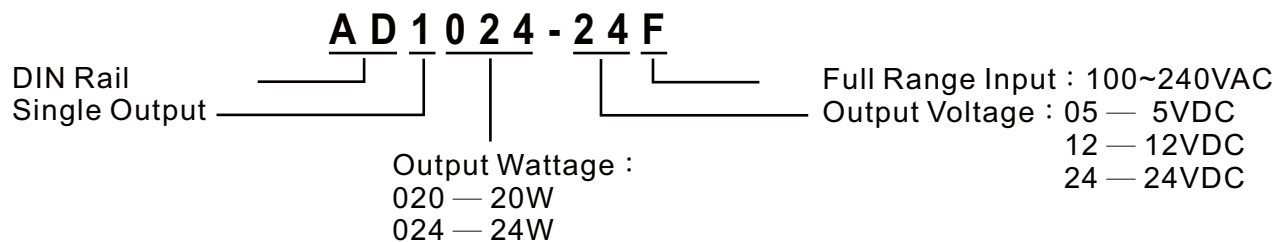
### EMC Standards

EN55011	Class B
EN55022	Class B
EN61000-4-2	Level 3
EN61000-4-3	Level 3
EN61000-4-4	Level 3
EN61000-4-5	Level 3
EN61000-4-6	Level 3
EN61000-4-8	Level 3
EN61000-4-11	Level 3

### Model List

Model	O/P Voltage Adjustment	Loading Min.	Rated	Max.	Ripple Noise	Efficiency	Over Voltage Protection
AD1020-05F	+5VDC±10%	0A	4.0A	4.0A	50mVp-p	78%	7VDC Max.
AD1024-12F	+12VDC±10%	0A	2.0A	2.0A	100mVp-p	80%	20VDC Max.
AD1024-24F	+24VDC±10%	0A	1.0A	1.0A	150mVp-p	83%	40VDC Max.

### Model Encoding



Website: <http://www.acro-powers.com/>  
E-mail: [service@acro-powers.com.tw](mailto:service@acro-powers.com.tw)  
Tel: +886-2-22675015 Fax: +886-2-22674939

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### Specification

General		
Switching Frequency	66kHz	
Isolation Voltage	Input-Output	3000VAC /4242VDC
	Input-FG	1500VAC/2121VDC
	Output-FG	500VAC/ 710VDC
Isolation Resistance	100MΩ when Input-Output @500VDC	
Operating Temperature	-40°C~50°C ambient	
Derating	2.5% per degree from 50°C to 70°C	
Storage Temperature	-40°C to +85°C	
Relative Humidity	5%~95% RH, Non-condensing.	
Temperature Coefficient	±0.04% of output voltage per°C	
MTBF	100,000hrs Min. Per MIL-HDBK-217F, 25°C GB	
Attitude During Operation	2000m	
Installation position	Vertical	
Vibration	Random Vibration, 10~500Hz. 3 axise	
Input		
Input Voltage	100~240VAC/120~370VDC	
Input Frequency	47~63Hz	
Inrush Current (cold start)	11A/115VAC	
	22A/230VAC	
Rated Input Current	1A Max., Vi=100~240VAC	
Leakage Current	Input-output 0.25mA, Input-FG 3.5mA, Vi=250VAC	
Output		
Output Voltage accuracy	±1%	
Minimun Load	0%	
Line Regulation	±1%, measuring from low line to high line rated load	
Load Regulation	±1%, measuring from 20% to 100% of rated load 230VAC input	
Voltage Trim Range	±10%(Min.)	
Rated Continuous Loading	4A@5VDC, 2A@12VDC, 1A@24VDC	
Hold Up Time	30mS Min., Full load@230VAC.	
Turn On Time	300mS	
Rise Time	10mS	
Fall Time	35mS	

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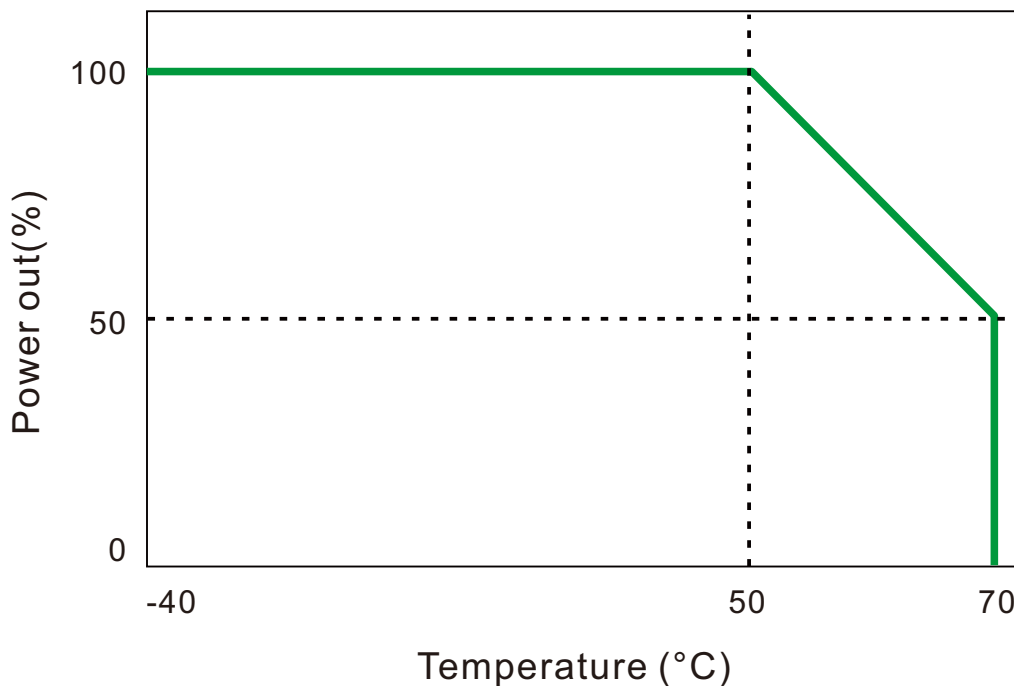
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## Specification

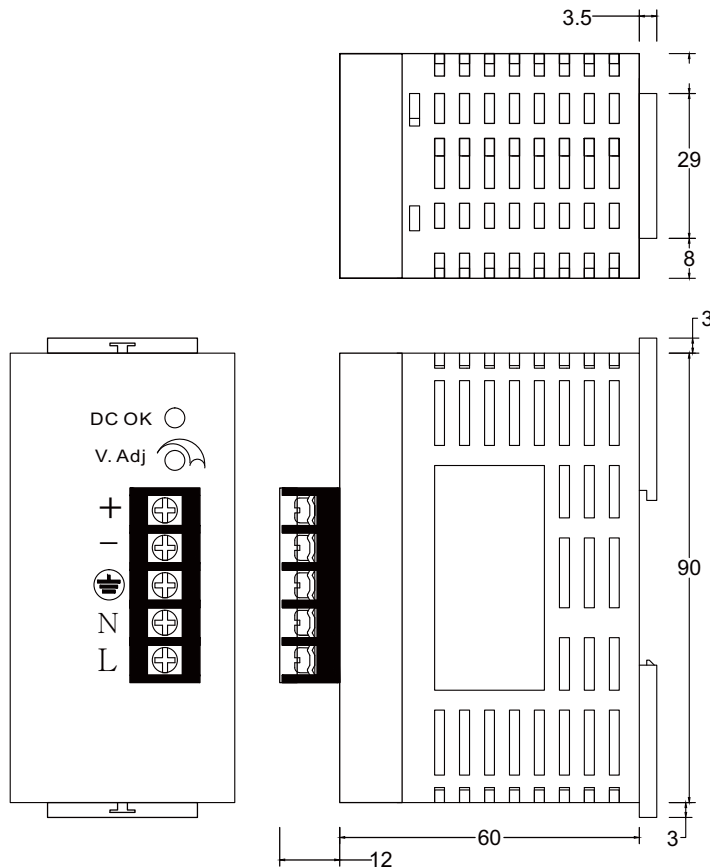
Output		
Transient Response	Recovery Time	2mS, Load change 50% to 100%
	Voltage Deviation	5%, Load change 50% to 100%
Efficiency		See model list, measuring at rated load and 230VAC input
Ripple and Noise		See model list, measuring by using a 0.1 $\mu$ F/630V metalize capacitor and a 47 $\mu$ F electrolytic capacitor parallel on the test point, at rated load and 230VAC input.

Protection	
Input Fuse	2A/250V
Internal Surge Load Protection	Varistor, IEC6100-4-5
Degree of Protection	IP20
Short Circuit Protection	Autorecovery
Over Voltage Protection	Autorecovery
Rated Over Load Protection	150~250%
Overload protection	Power limited

## Derating Curve



## Mechanical Details

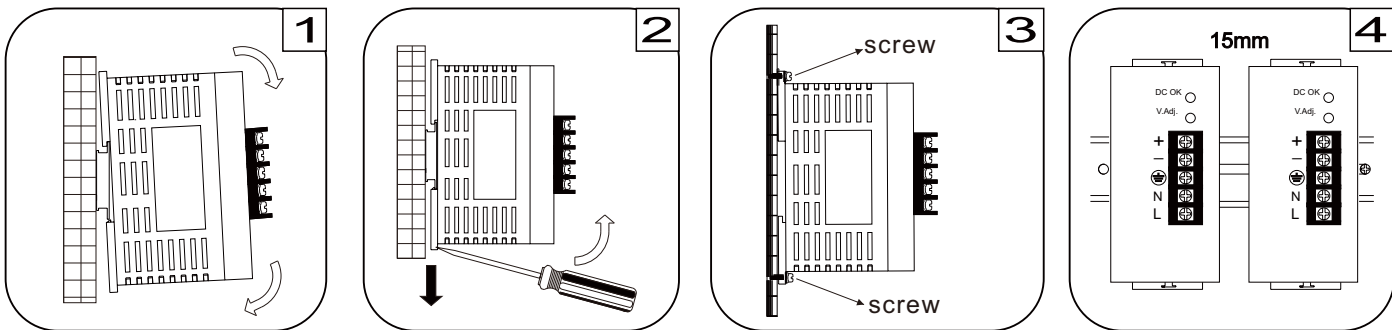


Case No.	AD024	
Dimensions	75.5(D)x45(W)x96(H)mm	
Case Material	Plastic	
Weight	AD1020-05F	200.5g
	AD1024-12F	192g
	AD1024-24F	184.2g

## Terminal Allocation

Designation	Description
DC OK	Green LED Indicator
V Adj.	O/P Voltage adjustment
+	Output Positive
-	Output Negative
⊕	Earth
N	Input Neutral
L	Input Line

## Installation instruction



Place the top of the AD1024F rail mount over the top of the DIN rail. Tilt the bottom of the AD1024F toward the DIN rail until it snaps into place.

To remove AD1024F from the DIN rail, use a flathead screwdriver to pull down the bottom of the rail mount and tilt it away from the DIN rail.

To install AD1024F on wall/plate, pulling both mounting brackets out first. Then screwing the two brackets with screws onto wall/plate.

The vents of housing is designed for dissipating heat, please keeping a minimum distance of 15mm from each other.