

AD1120CFR Series

120Watts, Single Output



Dimensions: 121(D)x75(W)x110(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
- Reverse polarity protection

Safety Standards



EN 60950 (Marking)

EMC Standards

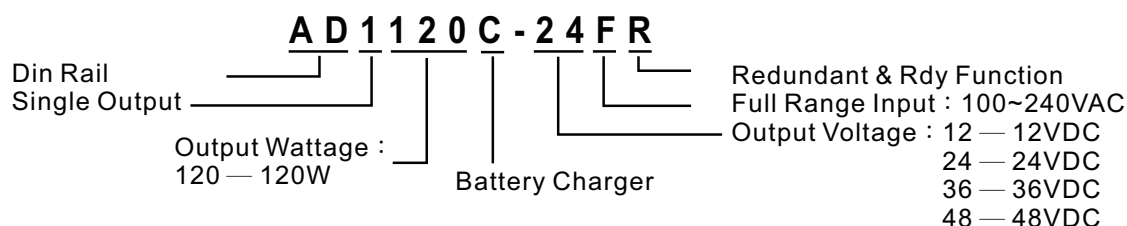
EN55011	Class B
EN55022	Class B
EN61000-4-2	Level 3
EN61000-4-3	Level 3
EN61000-4-4	Level 3
EN61000-4-5	Level 3
EN61000-4-6	Level 3
EN61000-4-8	Level 3
EN61000-4-11	Level 3

Model List

Model	Charging Voltage Boost	Voltage Float	Charging Current	Line Reg.	Load Reg.	Efficiency	Over Voltage Protection
AD1120C-12FR	14.7VDC	13.8VDC	10.0A Max.	±1%	±1%	80%	18~22VDC
AD1120C-24FR	29.6VDC	27.6VDC	5.0A Max.	±1%	±1%	81%	33~37VDC
AD1120C-36FR	44.1VDC	41.4VDC	3.3A Max.	±1%	±1%	83%	47~51VDC
AD1120C-48FR	58.8VDC	55.2VDC	2.5A Max.	±1%	±1%	83%	63~67VDC

- **NOTE:** 1. Line regulation is measured from low line to high line at rated load.
2. Load regulation is measured from 20% to 100% of rated load at 230VAC input.
3. Efficiency is measured at rated load and 230VAC input.

Model Encoding



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Specification**General**

Switching Frequency		85kHz
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
Storage Temperature		-40°C to +85°C
Relative Humidity		5%~95% RH, Non-condensing.
Temperature Coefficient		±0.04% of output voltage per °C
MTBF		60,000hrs 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)	22A/115VAC 44A/230VAC
Rated Input Current	2.7A Max., Vi=100~240VAC
Leakage Current	Input-output 0.25mA, Input-FG 3.5mA

Output

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
Rated Continuous Loading	8A@12VDC, 4A@24VDC, 2.5A@36VDC, 2A@48VDC
Turn On Time	1500mS
Efficiency	See model list, measuring at rated load and 230VAC input.

Protection

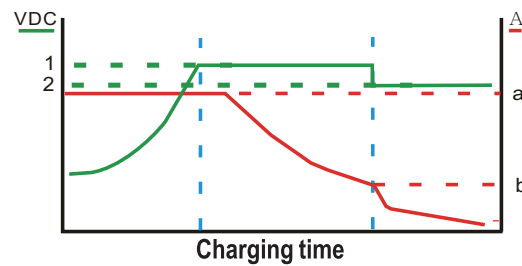
Input Fuse	3.15A/250V
Internal Surge Load Protection	Varistor, IEC6100-4-5
Degree of Protection	IP20
Short Circuit Protection	Autorecovery
Over Voltage Protection	Autorecovery
Rated Over Load Protection	100%
Overload protection	Power limited

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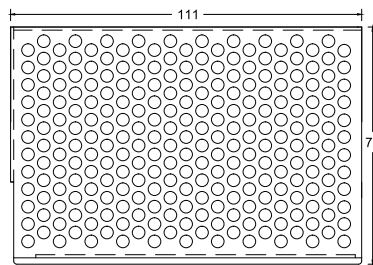
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Charging Curve

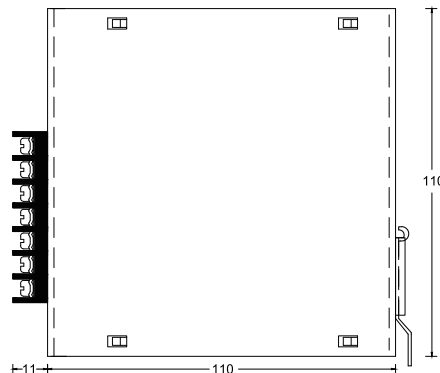
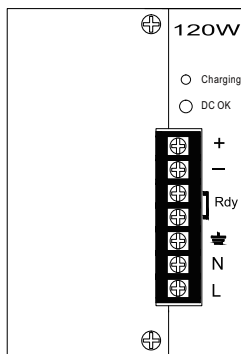
Code \ Type	12V	24V	36V	48V
a (A)	10	5	3.3	2.5
b (A)	0.6	0.6	0.6	0.6
1 (VDC)	14.7	29.6	44.1	58.8
2 (VDC)	13.8	27.6	41.4	55.2



Mechanical Details



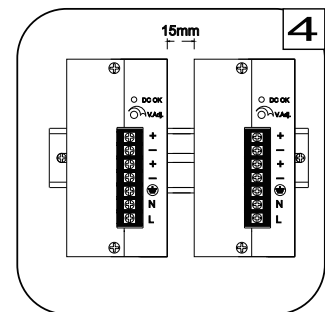
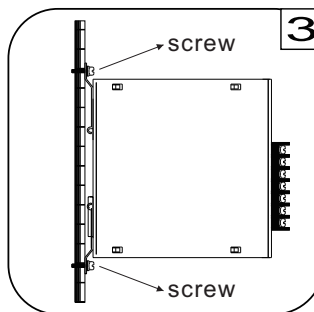
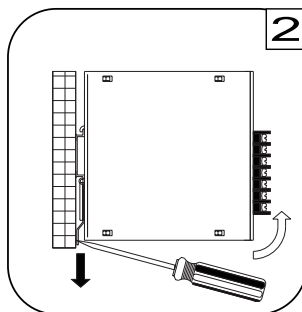
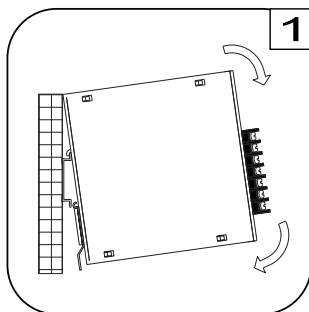
Case No.	AD120
Dimensions	121(D)x75(W)x110(H)mm
Case Material	Metal



Terminal Allocation

Designation	Description
DC OK	Green LED Indicator
V Adj.	O/P Voltage adjustment
+	Output Positive
-	Output Negative
Rdy	DC OK signal(Short)
⏏	Earth
N	Input Neutral
L	Input Line

Installation instruction



Place the top of the AD1120CFR Series rail mount over the top of the DIN rail. Tilt the bottom of the AD1120CFR toward the rail mount and tilt it the DIN rail until it snaps into place.

To remove the AD1120CFR 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 AD1120CFR on wall/plate, loosening screws on mounting bracket and pull both brackets out first. Then re-screwing the two brackets with screws onto wall/plate.

The left housing of AD1120CFR is designed as a heat sink, please keeping a minimum distance of 15mm from each other.

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