



Dimensions: 121(D)x56(W)x110(H) mm

## AD1072FR Series

72Watts, Single Output, Rdy

### 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
- Redundant & Rdy Function

### Safety Standards



EN 60950 (Marking)



UL 508 (Certificate)  
CSA 22.2 (Certificate)

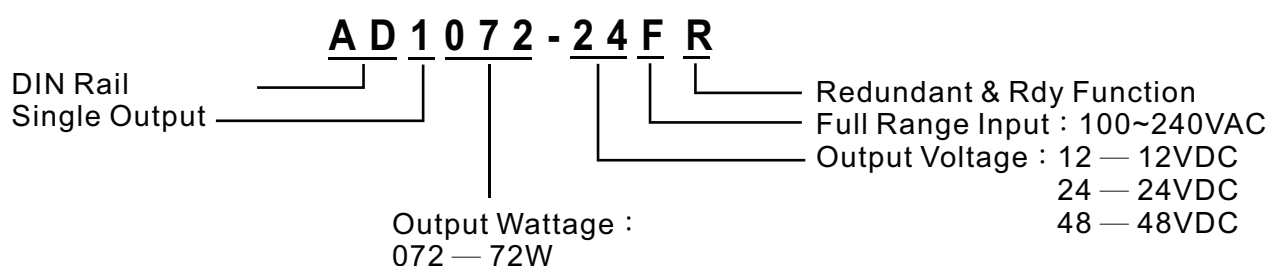
### EMC Standards

|              |         |
|--------------|---------|
| 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 | Min. | Loading Rated | Max. | Ripple Noise | Efficiency | Over Voltage Protection |
|-------------|------------------------|------|---------------|------|--------------|------------|-------------------------|
| AD1072-12FR | +12VDC $\pm$ 10%       | 0A   | 6.0A          | 6.0A | 100mVp-p     | 78%        | 15~17VDC                |
| AD1072-24FR | +24VDC $\pm$ 10%       | 0A   | 3.0A          | 3.0A | 150mVp-p     | 81%        | 27~30VDC                |
| AD1072-48FR | +48VDC $\pm$ 10%       | 0A   | 1.5A          | 1.5A | 250mVp-p     | 82%        | 52~57VDC                |

### Model Encoding



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**ACRO**  
ENGINEERING INC.

**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                                         |
| 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                           |              | 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<br>(cold start) |              | 22A/115VAC<br>44A/230VAC                                   |
| Rated Input Current            |              | 1.5A 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       |              | 6A@12VDC, 3A@24VDC, 1.5A@48VDC                             |
| Hold Up Time                   |              | 25mS Min., Full load@230VAC.                               |
| Turn On Time                   |              | 1300mS                                                     |
| Rise Time                      |              | 10mS                                                       |
| Fall Time                      |              | 35mS                                                       |

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### Specification

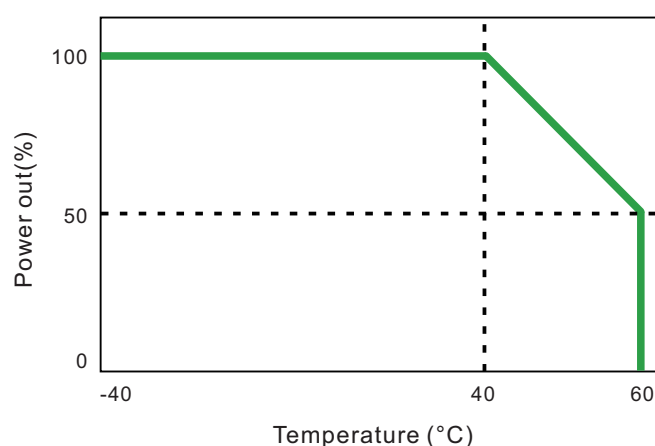
#### Output

|                           |                   |                                                                                                                                                                              |
|---------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Transient Response</b> | Recovery Time     | 2mS, Load change 50% to 100%                                                                                                                                                 |
|                           | Voltage Deviation | 5%, Load change 50% to 100%                                                                                                                                                  |
| <b>Efficiency</b>         |                   | See model list, measuring at rated load and 230VAC input                                                                                                                     |
| <b>Ripple and Noise</b>   |                   | 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. |

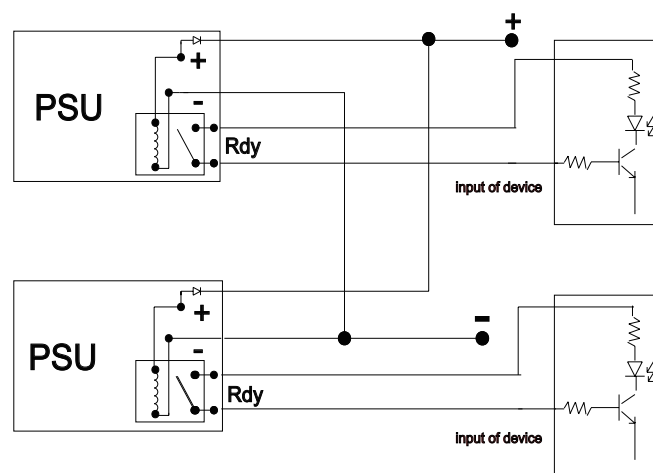
#### Protection

|                                       |                       |
|---------------------------------------|-----------------------|
| <b>Input Fuse</b>                     | 3.15A/250V            |
| <b>Internal Surge Load Protection</b> | Varistor, IEC6100-4-5 |
| <b>Degree of Protection</b>           | IP20                  |
| <b>Short Circuit Protection</b>       | Autorecovery          |
| <b>Over Voltage Protection</b>        | Autorecovery          |
| <b>Rated Over Load Protection</b>     | 160~200%              |
| <b>Overload protection</b>            | Power limited         |

### Derating Curve

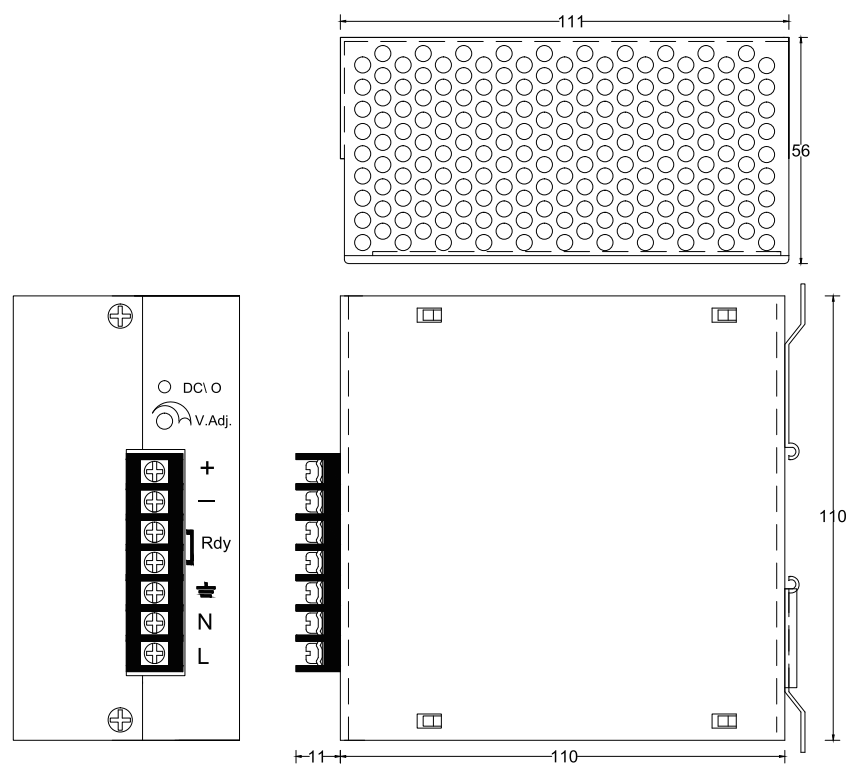


### Rdy & Redundant connection



**P.S. Please adjust output voltage of each unit as close as possible to balance the loading.**

Mechanical Details

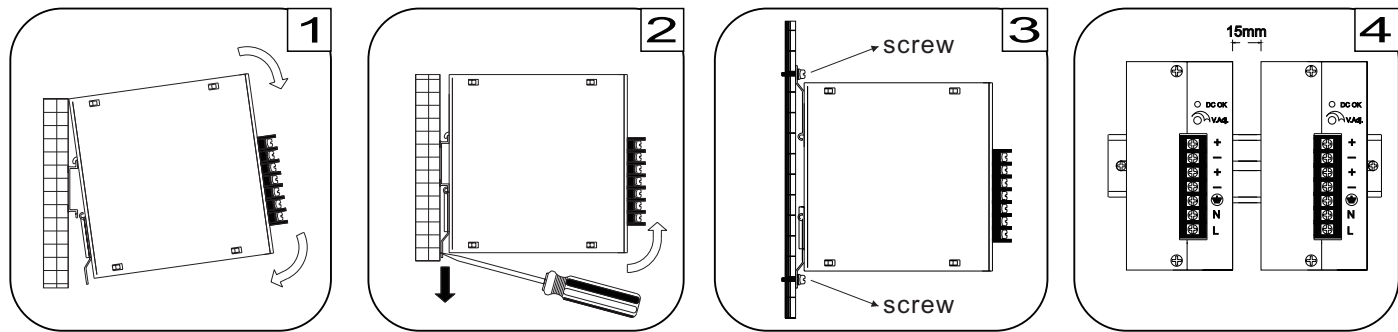


|               |                       |         |
|---------------|-----------------------|---------|
| Case No.      | AD072                 |         |
| Dimensions    | 121(D)x56(W)x110(H)mm |         |
| Case Material | Metal                 |         |
| Weight        | AD1072-12FR           | 595.6 g |
|               | AD1072-24FR           | 607.2 g |
|               | AD1072-48FR           | 594.8 g |

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 AD1072FR rail mount over the top of the DIN rail. Tilt the bottom of the AD1072F toward the DIN rail until it snaps into place.

To remove the AD1072FR 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 AD1072FR 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 AD1072FR is designed as a heat sink, please keeping a minimum distance of 15mm from each other.