



## AOFD-70

## 70W Din Rail Mount



### FEATURES:

- Universal AC input 90~264 VAC and 127~370 VDC
- Flexible Din Rail Mount
- Industrial Temp Range -25 ~ +70°C range
- Rugged Design
- Warranty: 3 years**
- Installation on DIN rail 30mm only
- PFC as standard (180W-240W)
- Over voltage protection
- Over current protection
- LED Indicator for DC power ON
- LED Indicator for DC low



| MODEL/CHANNEL                         |                             | Unit                     | AOFD-70-24  | AOFD-70-48   |          |            |  |
|---------------------------------------|-----------------------------|--------------------------|---|--|----------|------------|--|
| <b>OUTPUT</b>                         | Norminal Voltage            | [V]                      | 24  | 48   | -        | -          |  |
|                                       | Setting Voltage Range       | [V]                      | 23.76 ~ 24.24   | 47.52 ~ 48.48  | -        | -          |  |
|                                       | Voltage ADJ. Range *note1   | [V]                      | 22.5 ~ 28.5   | 45 ~ 55  | -        | -          |  |
|                                       | Current                     | [A]                      | 3.0   | 1.5  | -        | -          |  |
|                                       | Rated Power                 | [W]                      | 72  | 72   | -        | -          |  |
|                                       | Line Regulations            | [mV]                     | 120   | 240  | -        | -          |  |
|                                       | Load Regulations            | [mV]                     | 240   | 480  | -        | -          |  |
|                                       | Temperature Drift           | [mV]                     | 360   | 720  | -        | -          |  |
|                                       | Ripple Max.                 | [mV]                     | 100   | 120  | -        | -          |  |
|                                       | Turn-on Time Typ.           | [ms]                     | 560 (AC IN 100V, Io=100%)   |  |          |            |  |
| Hold-up Time Typ.                     | [ms]                        | 20 (AC IN 100V, Io=100%) |   |  |          |            |  |
| <b>INPUT</b>                          | Voltage, Frequency          | [V]                      | AC100 - 240V(AC90 - 264V), 50/60Hz(47 - 63) or DC127~370V (Universal Input) |  |          |            |  |
|                                       | Current Typ.                | 110V<br>220V             | [A]   | 1.5<br>1.0   | -        | -          |  |
|                                       | Efficiency Typ.             | 110V<br>220V             | [%]   | 86<br>88   | 87<br>89 | -<br>-     |  |
|                                       | Inrush Current Typ.         | 110V<br>220V             | [A]   | 20 ( Ta=25°C, Io=100% at Cold Start )<br>40 ( Ta=25°C, Io=100% at Cold Start ) |          |            |  |
|                                       | Leakage Current<br>1mA Max. | 110V<br>220V             | [mA]  | 0.45 (Typ.)<br>0.75 (Typ.)   |          |            |  |
|                                       | <b>Function</b>             | OverVoltage Protection   | [V]   | 125% ~ 146% of rating  |          |            |  |
| Over Curent Protection <sup>(2)</sup> |                             | [A]                      | 110% of rating and recovers automatically                                   |  |          |            |  |
| DC_OK Lamp                            |                             | [A]                      | LED (GREEN)   |  |          |            |  |
| DC_LOW Lamp                           |                             | -                        | LED (RED)   |  |          |            |  |
| Parallel/Series Operation             |                             | -                        | Series Operation is possible  |  |          |            |  |
| Cooling / O.T.P                       |                             | -                        | Convection cooling  |  |          |            |  |
| <b>Electrical Isolation</b>           | (1) Input - Output          | -                        | AC 3.0KV 1min, cut-off: 20mA / DC 500V 100MΩ                                |  |          |            |  |
|                                       | (2) Input - F.G             | -                        | AC 2.0KV 1min, cut-off: 20mA / DC 500V 100MΩ                                |  |          |            |  |
|                                       | (3) Output - F.G            | -                        | AC 0.5KV 1min, cut-off:100mA / DC 500V 100MΩ                                |  |          |            |  |
| <b>Environment</b>                    | Operating temp. & Humidity  | -                        | -25 ~ +70°C(Required Derating), 20 ~ 90%RH (Non Condensing)                 |  |          |            |  |
|                                       | Storage temp. & Humidity    | -                        | -40 ~ 85°C, 20 ~ 90% RH (Non Condensing)                                    |  |          |            |  |
|                                       | Vibration                   | -                        | 10~55Hz at 1G 3minutes period, 30minutes along X,Y and Z axis               |  |          |            |  |
| <b>Dimension</b>                      | Size(WxHxD) / Weight        | mm/g                     | 33x130x125  |  | /        | 650g       |  |
| <b>Safety</b>                         | -                           | -                        | UL, CE, CB  |  |          | UL, CE, CB |  |
| <b>Emission</b>                       | Conducted Emission          | -                        | Complies with EN55011/EN55022-B, FCC-B                                      |  |          |            |  |
| <b>PFHC</b>                           | -                           | -                        | -   |  |          |            |  |

(\*1) Terminated with 0.1uF & 47uF parallel capacitor(Bandwidth=20MHz), (Ta=0°C~70°C)

(\*2) Protection Mode : Current limited

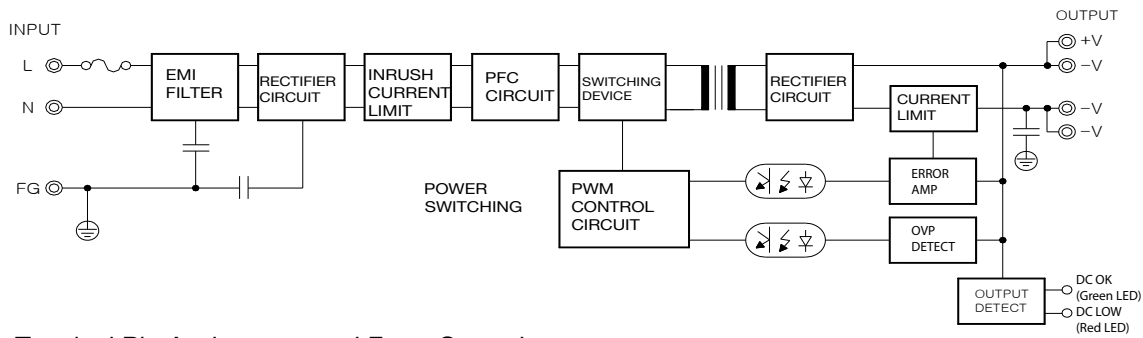




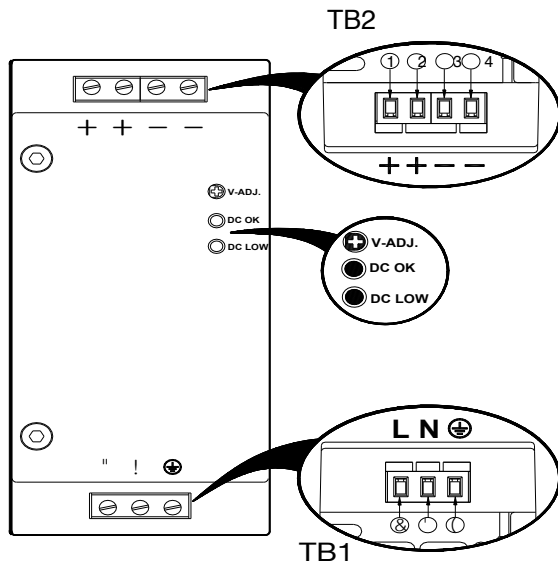
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### 1. BLOCK DIAGRAM



### 2. Terminal Pin Assignment and Front Controls



| Marking | No. | Assignment            |
|---------|-----|-----------------------|
| L       | ①   | AC(L) Input Terminals |
| N       | ②   | AC(N) Input Terminals |
| ⊕       | ③   | AC Grounding Terminal |

#### TB2 : Output Terminal Assignment

| Marking | No. | Assignment              |
|---------|-----|-------------------------|
| +       | ①   | DC (+) Output Terminals |
| +       | ②   |                         |
| -       | ③   | DC (-) Output Terminals |
| -       | ④   |                         |

#### Front Controls Assignment

| Marking | Assignment                         |
|---------|------------------------------------|
| V-ADJ.  | DC Output voltage adjustment       |
| DC OK   | DC Output indication LED (Green)   |
| DC LOW  | DC Output Low indication LED (Red) |

### 3. Connection / Connecting Cable

| Terminals        | Solid or Stranded Wires |           | Torque<br>[Nm] | Stripping Length<br>L [mm] |
|------------------|-------------------------|-----------|----------------|----------------------------|
|                  | [mm]                    | [AWG]     |                |                            |
| Input Terminals  | (TB1)                   | 0.5 ~ 2.5 | 30 ~ 12        | 0.5~0.6 8                  |
| Output Terminals | (TB2)                   | 0.5 ~ 2.5 | 30 ~ 12        | 0.5~0.6 8                  |



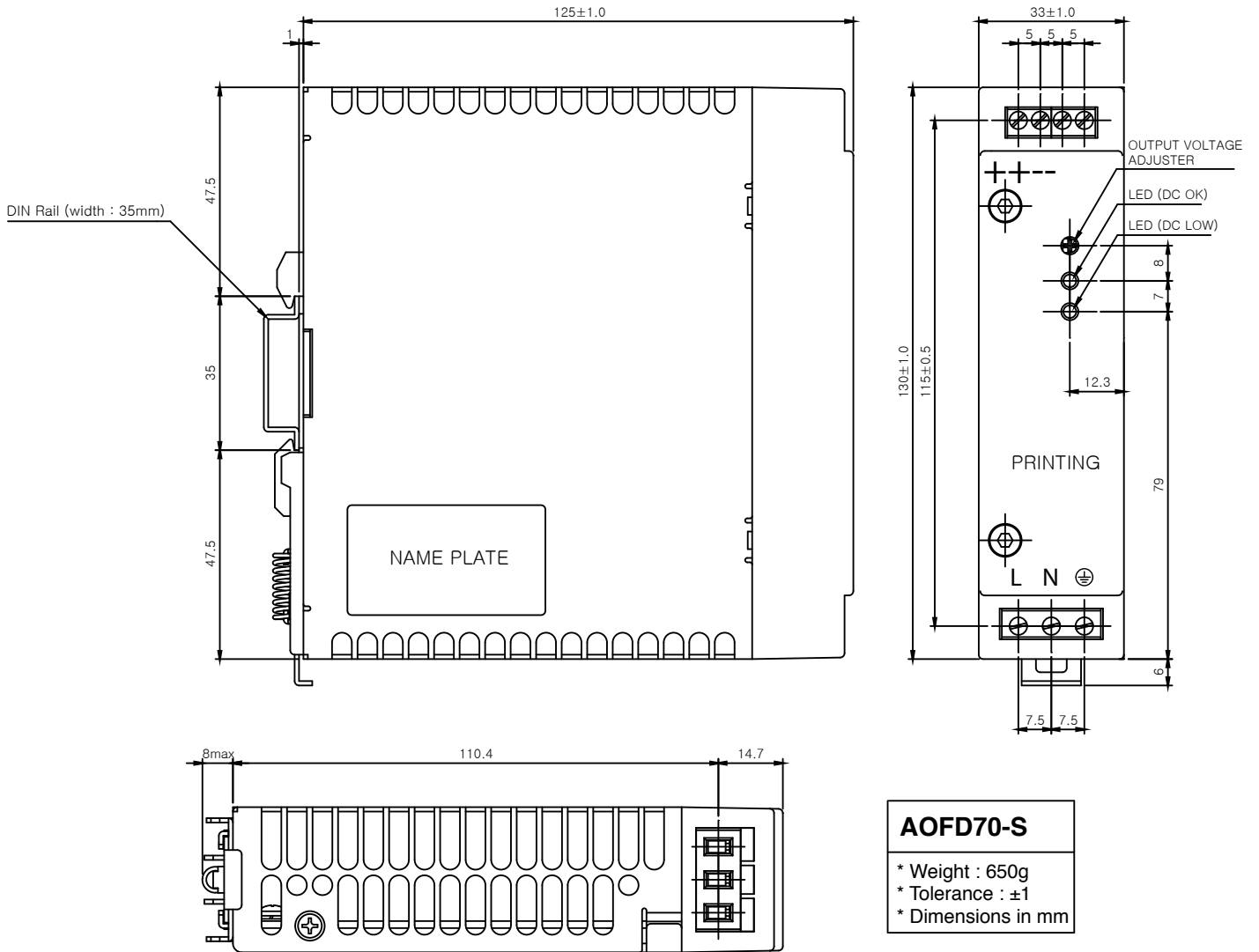


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## 70W Din Rail Mount



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16170 Vineyard Blvd. Suite 180 Morgan Hill, CA 95037 <http://www.eta-usa.com>  
Toll-free (US only): 800-ETA-POWR (800-382-7697) Telephone: 408 778-2793 FAX: 408-779-2753



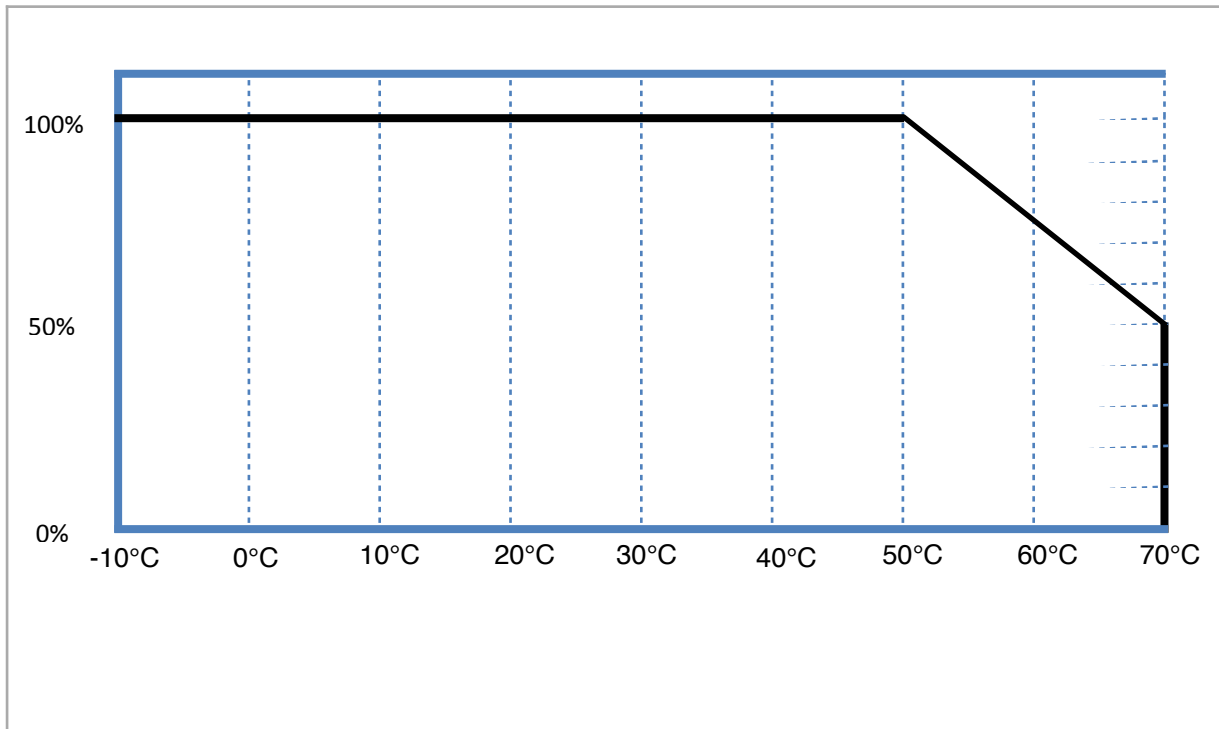
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## Output Derating Curve



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