



ETA-USA

The Power Professionals

AOFD-30

30W 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-30-12 | AOFD-30-24 | | | |
|-----------------------------|--|--------------|---|--|-------------|--------|--------|
| OUTPUT | Normal Voltage | [V] | 12 | 24 | - | - | |
| | Setting Voltage Range | [V] | 11.88 ~ 12.12 | 23.76 ~ 24.24 | - | - | |
| | Voltage ADJ. Range *note1 | [V] | 10.8 ~ 13.2 | 21.6 ~ 26.4 | - | - | |
| | Current | [A] | 2.5 | 1.3 | - | - | |
| | Rated Power | [W] | 30 | 31.2 | - | - | |
| | Line Regulations | [mV] | 60 | 120 | - | - | |
| | Load Regulations | [mV] | 120 | 240 | - | - | |
| | Temperature Drift. | [mV] | 180 | 360 | - | - | |
| | Ripple Max | [mV] | 120 | 120 | - | - | |
| | Ripple and Noise Max | [mV] | 150 | 150 | - | - | |
| | Turn-on Time Typ. | [mV] | | 100 (AC IN 100V, Io=100%) | | | |
| | Hold-up Time Typ. | [mV] | | 20 (AC IN 100V, Io=100%) | | | |
| INPUT | Voltage, Frequency | [V] | AC100 - 240V(AC90 - 264V), 50/60Hz(47 - 63) or DC127-370V (Universal Input) | | | | |
| | Current Typ. | 110V 220V | [A] | 0.9 0.6 | 0.9 0.6 | - - | - - |
| | Efficiency Typ. | 110V 220V | [%] | 82 82 | 84 84 | - - | - - |
| | Inrush Current Typ. | 110V 220V | [A] | 20 (Ta=25°C , Cold Start) 40 (Ta=25°C , Cold Start) | | | |
| | Leakage Current | 110V | | 0.35 (Typ.) | | | |
| | 1mA Max | 220V | [mA] | 0.75 (Typ.) | | | |
| Function | Over Voltage Protection | [V] | 115%~140% of rating | | | | |
| | Over Current Protection ^(*) | [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 | | | | |
| Electrical Isolation | (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 | | | | |
| Environment | Operating temp. & Humidity | - | -25 ~ +70°C(Required Derating), 20 ~ 90%RH (Non Condensing) | | | | |
| | Storage temp. & Humidity | - | -40 ~ +75°C, 20 ~ 90% RH (Non Condensing) | | | | |
| | Vibration | - | 10~55Hz at 1G 3minutes period, 30minutes along X,Y and Z axis | | | | |
| Dimension | Size(WxHxD) / Weight | mm/g | 36 x 108 x 95 / 250g | | | | |
| Safety | - | - | cUL, CE, CB | | cUL, CE, CB | | |
| Emission | Conducted Emission | - | Complies with EN55011/EN55022-B, FCC-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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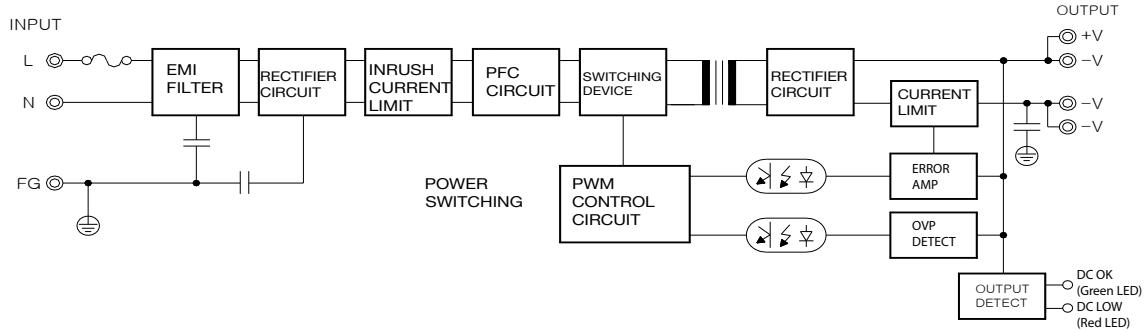
Toll-free (US only): 800-ETA-POWR (800-382-7697) Telephone: 408 778-2793 FAX: 408-779-2753



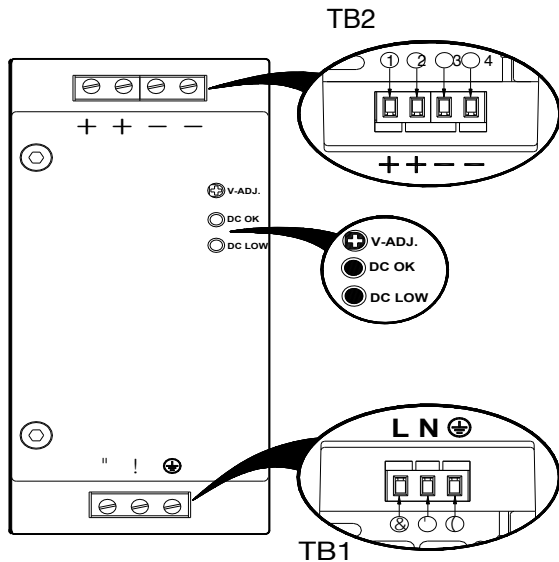
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1. BLOCK DIAGRAM



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 [Nm] | Stripping Length L [mm] |
|------------------|-------------------------|-----------|----------------|----------------------------|
| | [mm ²] | [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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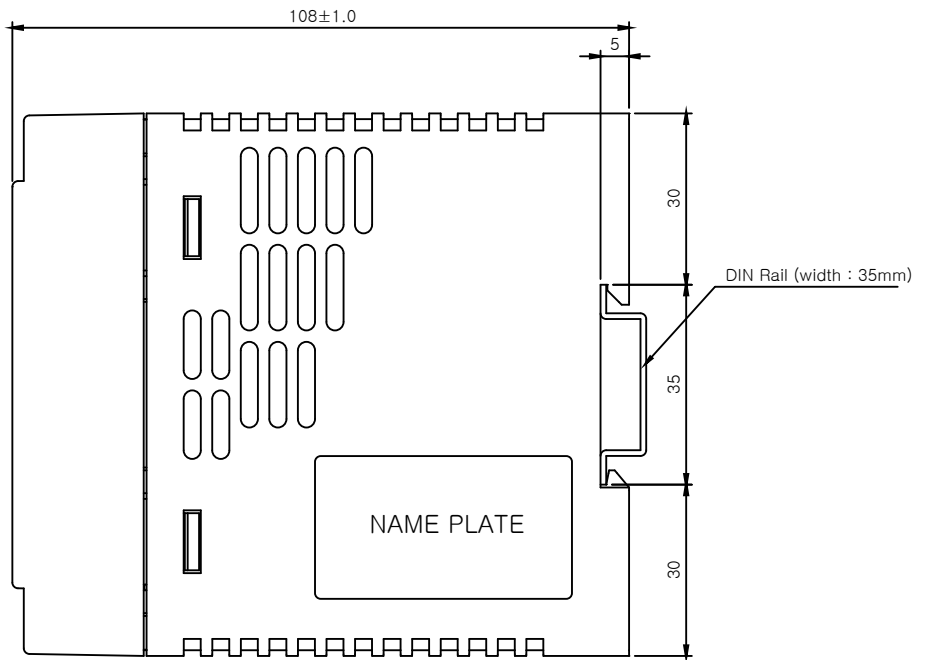
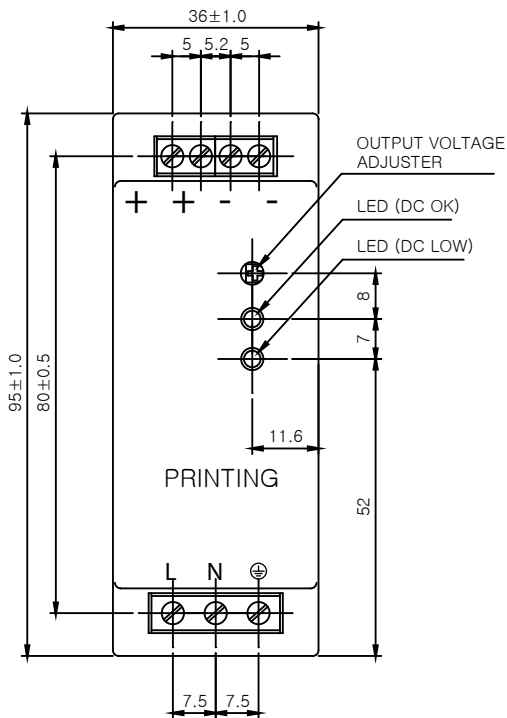
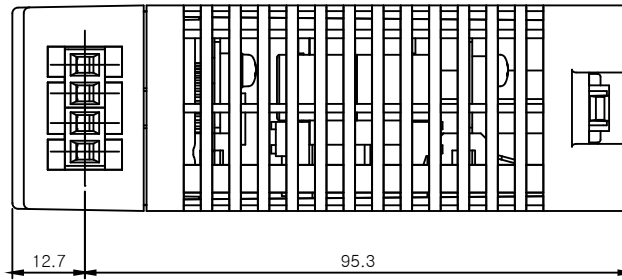
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AOFD30-S

- * Weight : 250g
- * Tolerance : ± 1
- * Dimensions in mm



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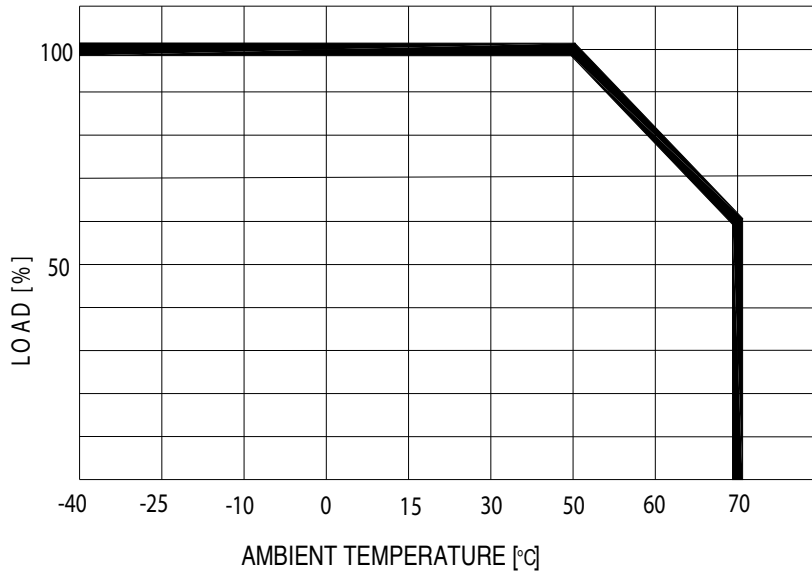
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Output Derating Curve

Note: When using the product between $-25^{\circ}\text{C} \sim 0^{\circ}\text{C}$, the output ripple and noise could exceed its specification.



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