



# 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	0.9	0.9	-	-
		220V	0.6	0.6	-	-
	Efficiency Typ.	110V	82	84	-	-
		220V	82	84	-	-
	Inrush Current Typ.	110V	20 ( Ta=25°C , Cold Start )			
220V		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 <sup>(*)</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				
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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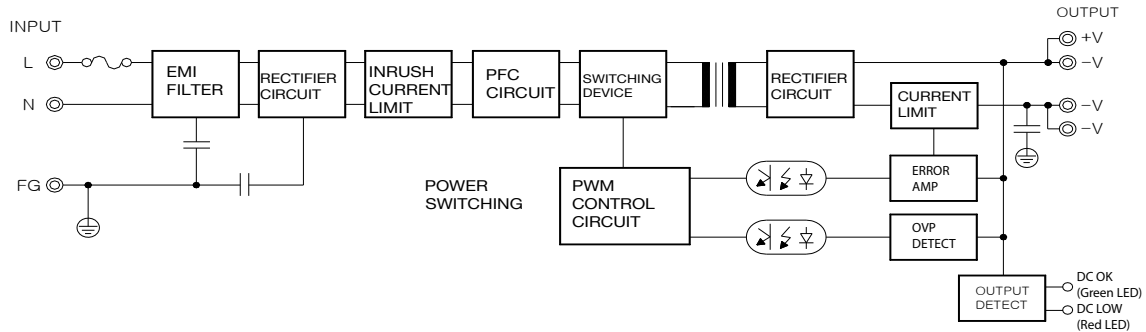
Toll-free (US only): 800-ETA-POWR (800-382-7697) Telephone: 408 778-2793 FAX: 408-779-2753



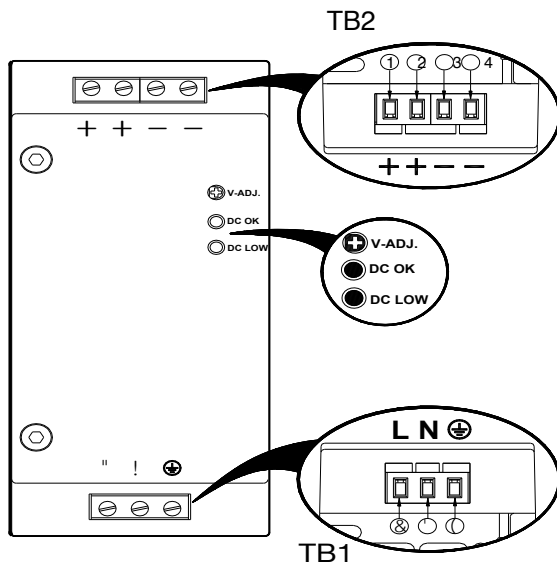
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### 1. BLOCK DIAGRAM



### 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 <sup>2</sup> ]	[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



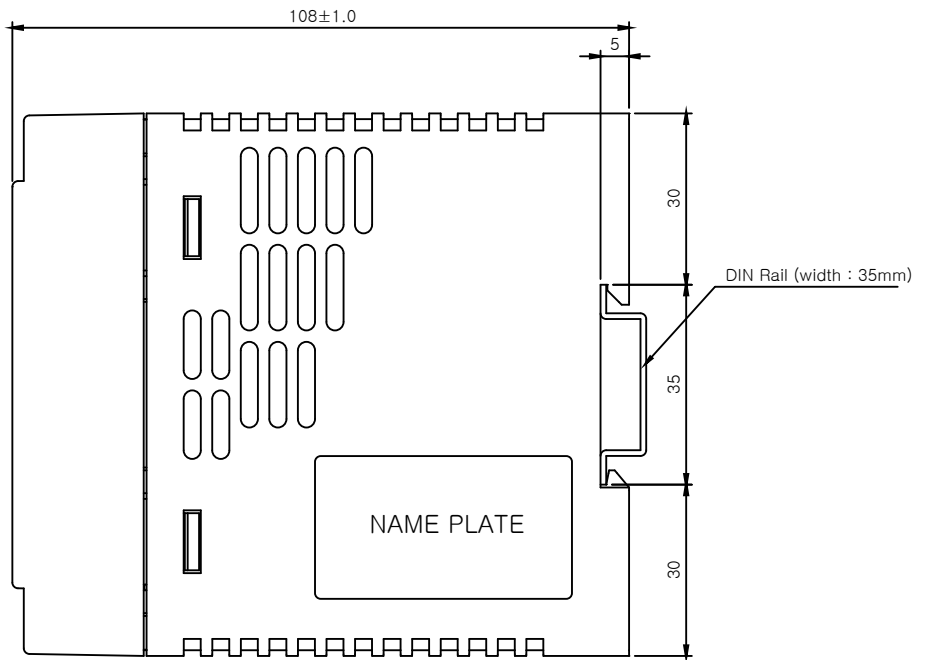
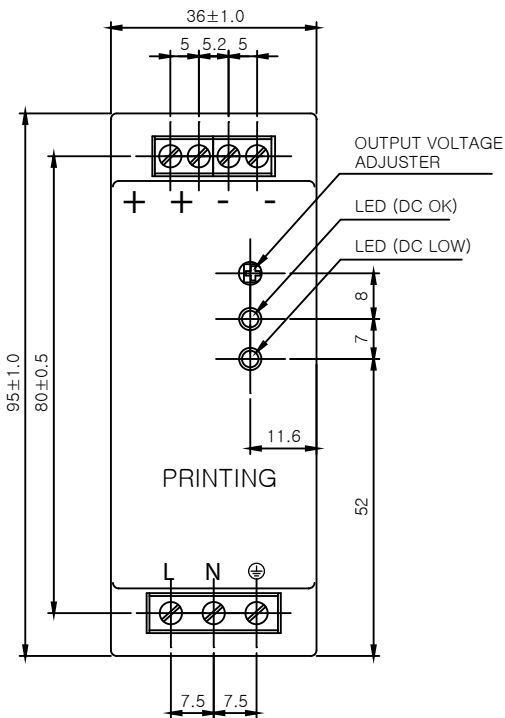
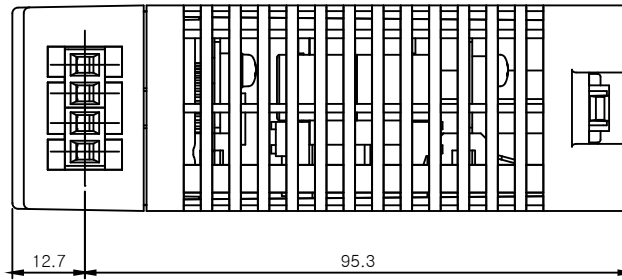


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### AOFD30-S

- \* Weight : 250g
- \* Tolerance :  $\pm 1$
- \* Dimensions in mm





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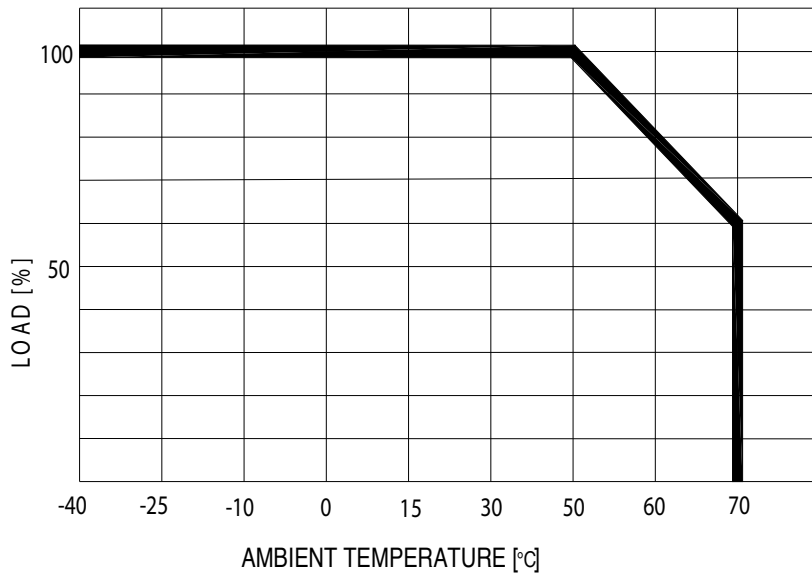
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## Output Derating Curve

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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