



## AOFD-50

## 50W 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-50-24	AOFD-50-48		
<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]	2.2	1.1	-	-
	Rated Power	[W]	52.8	52.8	-	-
	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 220V	[A]	1.0 0.6	-	
	Efficiency Typ.	110V 220V	[%]	86 88	-	-
	Inrush Current Typ.	110V 220V	[A]	20 ( Ta=25°C, Io=100% at Cold Start ) 40 ( Ta=25°C, Io=100% at Cold Start )		
	Leakage Current	110V	[mA]	0.45 (Typ.)		
	1mA Max.	220V		0.75 (Typ.)		
<b>Function</b>	Over Voltage Protection	[V]	125% ~ 146% of rating			
	Over Current 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	30x130x125	/	570g	
<b>Safety</b>	-	-	UL, CE, CB		UL, CE, CB	
<b>Emission</b>	Conducted Emission	-	Complies with EN55022-B			
<b>PFHC</b>	-	-	-			

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

(\*2) Protection Mode : Current limited

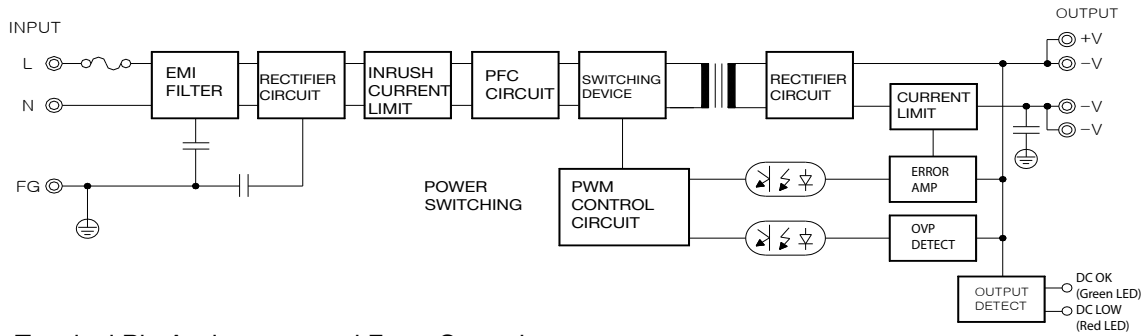




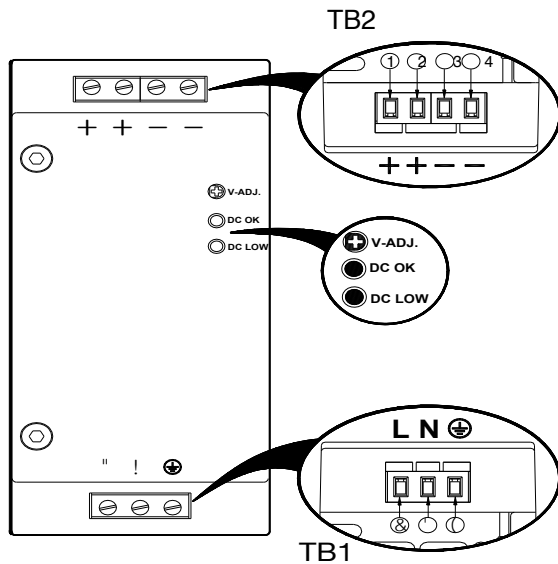
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### 1. BLOCK DIAGRAM



### 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 [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



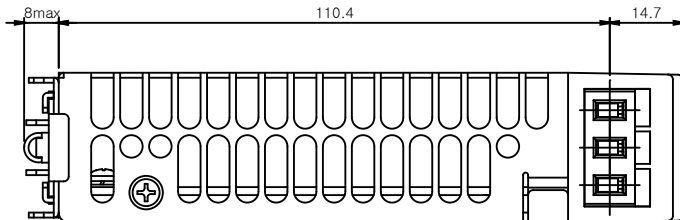
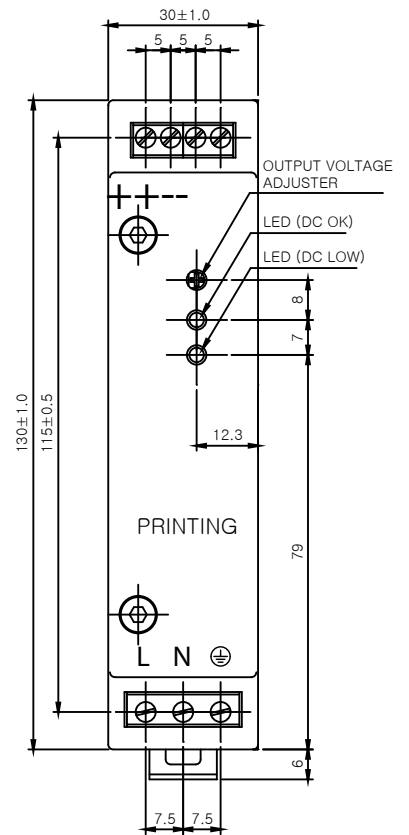
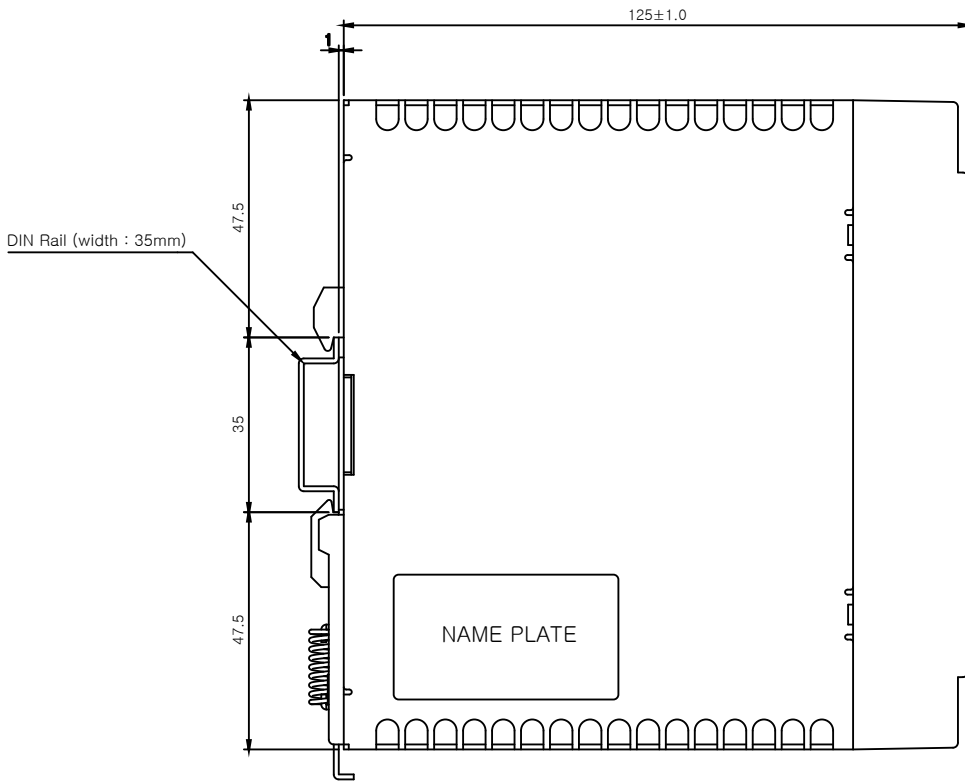


# ETA-USA

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## AOFD-50

## 50W Din Rail Mount



### AOFD50-S

- \* Weight : 570g
- \* Tolerance : ±1
- \* Dimensions in mm



# ETA-USA

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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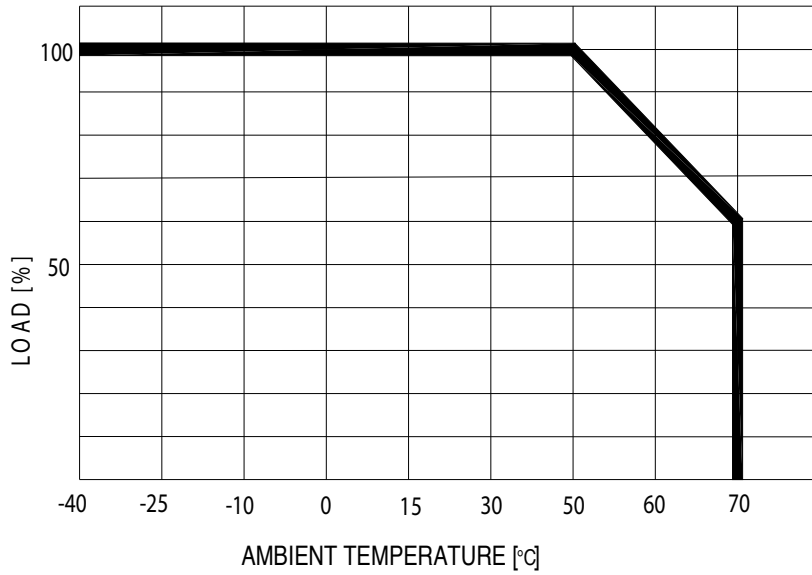
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## Output Derating Curve

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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