

KEY FEATURES

- Enclosed ITE Switching Power Supply
- I/O Isolation 4300VAC
- 5000m Altitude Application (OVC III:2000m)
- Over-Voltage Category OVC III (New Edition)
- Remote ON/OFF Function
- Standby 5V@1A
- High Efficiency up to 93%
- With P.F.C. Function >0.9
- Ultra Compact Size: 7.66 x 4.02 x 1.62 Inches
- Safety Approval to UL / IEC / EN 62368-1
- 3-Year Product Warranty



ELECTRICAL SPECIFICATIONS

All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

Model No.	AQF1000-12S	AQF1000-24S	AQF1000-48S	
Max Output Wattage (W)	800W	1000W		
Input	Voltage (Note 5) 90-264 VAC			
	Frequency (Hz) 50 / 60 Hz			
	Current (Full load) < 11 A max. (115 VAC) / < 5.5 A max. (230 VAC)			
	Inrush Current (<2ms) (Cold Start) < 70 A max. (115 VAC) / < 105 A max. (230 VAC)			
	Leakage Current < 0.1 mA max. (Input-Output)			
	Power Factor (at 230 VAC) PF>0.9 at Full Load			
Output	Voltage (V.DC.)	12V	24V	48V
	Voltage Accuracy	±2%		
	Voltage Adj. Range (V.DC)	±5% Output Voltage		
	Current (A) (max.)	66.67	41.67	20.84
	Line Regulation (115-264 VAC)	±0.5%		
	Load Regulation (10-100%) (typ.)	±1%		
	Maximum Capacitive Load	7000 uF	3500 uF	1750 uF
	Ripple & Noise (typ.)	160mV	240mV	480 mV
	Efficiency (at 230 VAC)	89%	92%	93%
	Hold-up Time (at 115 VAC)	3 ms min.		
Protection	Over Power Protection	Auto recovery		
	Over Voltage Protection	Auto recovery		
	Overt Temperature Protection	Auto recovery		
	Short Circuit Protection	Auto recovery		
Isolation	Input-Output (V.AC)	4300VAC or 6000VDC		
	Input-PE (V.AC)	2000V		
	Output-PE (V.AC)	1500V		
Function	5V Stand by	5VSB: 5V@1A ; Tolerance ±10%		
	DC OK Signal (Power Good)	Turn ON: 3.7~5.7V ; Turn OFF: 0~1V		
	Remote Control	+RC / -RC: Power ON=open ; Power OFF=short		
Environment	Operating Temperature	-20°C...+70°C (with derating)		
	Storage Temperature	-35°C...+85°C		
	Temperature Coefficient	±0.03%/°C (0~50°C)		
		±0.06%/°C (-30~0°C)		
	Altitude During Operation	OVC II=5000m · OVC III=2000m		
	Humidity	95% RH		
	Atmospheric Pressure	56 kPa to 106 kPa		
	MTBF	>100,000 h @ 25°C (MIL-HDBK-217F)		
Vibration	IEC60068-2-6 (10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes)			
Shock	IEC60068-2-27			

ELECTRICAL SPECIFICATIONS

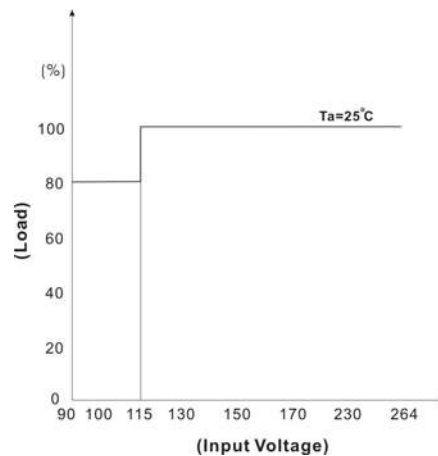
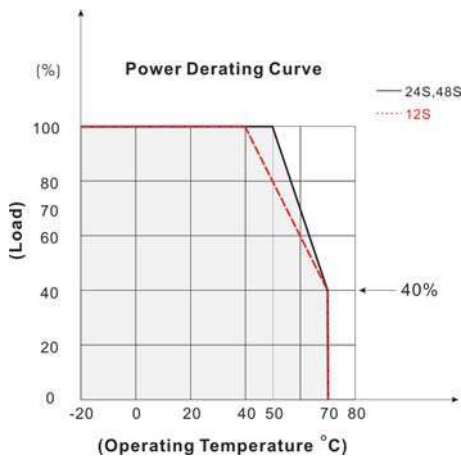
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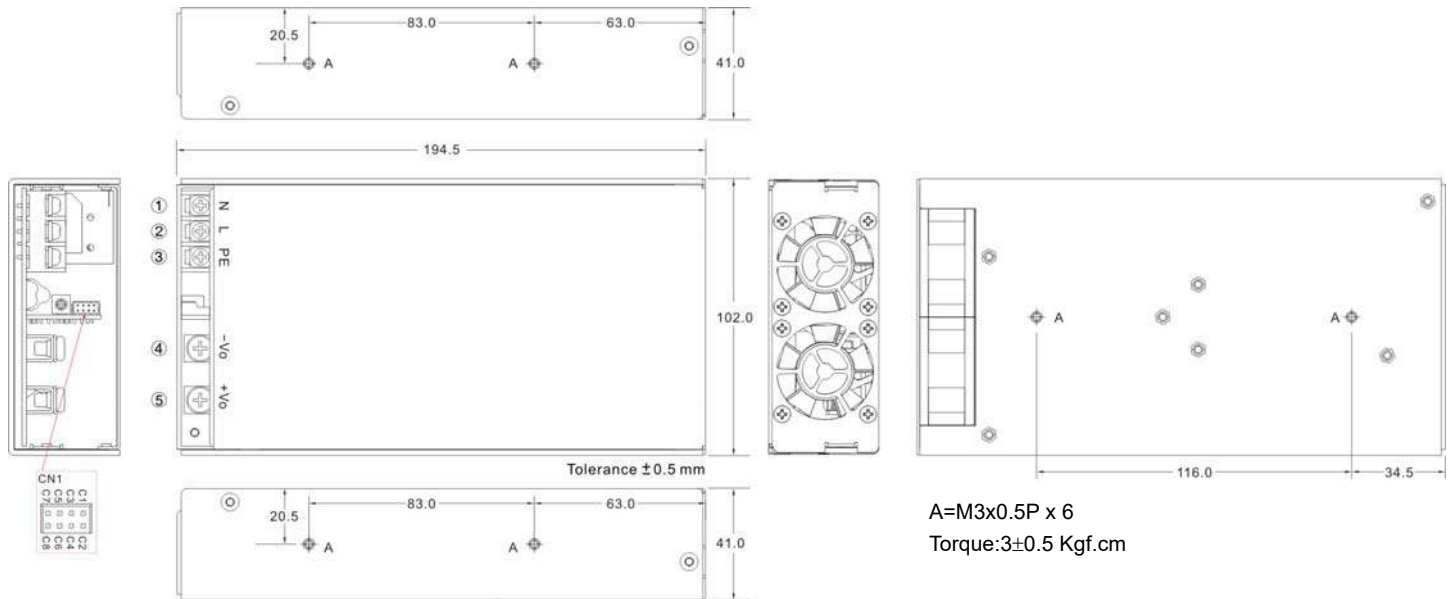
Model No.		AQF1000-12S	AQF1000-24S	AQF1000-48S
Physical	Dimensions (L x W x H)	7.66 x 4.02 x 1.62 Inches (194.5 x 102.0 x 41.0 mm) Tolerance ±0.5 mm		
	Weight	950 g		
Safety	Approval	UL / IEC / EN 62368-1		
EMC	Conducted and Radiated EMI	EN55032 (conducted class B, Radiated Class A)		
	EMS	EN55035		

NOTE

- Ripple & Noise are measured at 20MHz of bandwidth by using a 6" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.
- Hold-up Time measured at 90% Vout.
- Strongly recommend to conduct this test with DC Voltage. If customer wishes to test with AC Voltage, please disconnect all Y-Capacitors from Arch power supply.
- CAUTION: Double pole, neutral fusing. Disconnect mains before servicing.**
(ATTENTION : 2 poles avec fusible sur le neutre. Deconnecter le secteur avant intervention.)
- Please check the derating curve for more details.

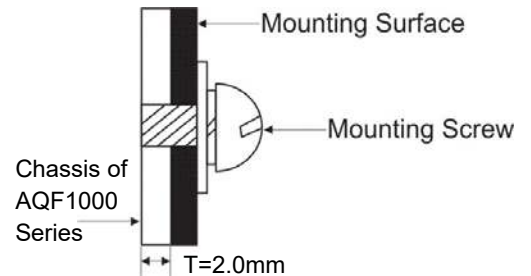
DERATING



MECHANICAL DIMENSIONS (External View)

ASSEMBLY INSTRUCTIONS

*U Case T=2.0mm

Customer is advised to screw into the threads no more than 2.0mm

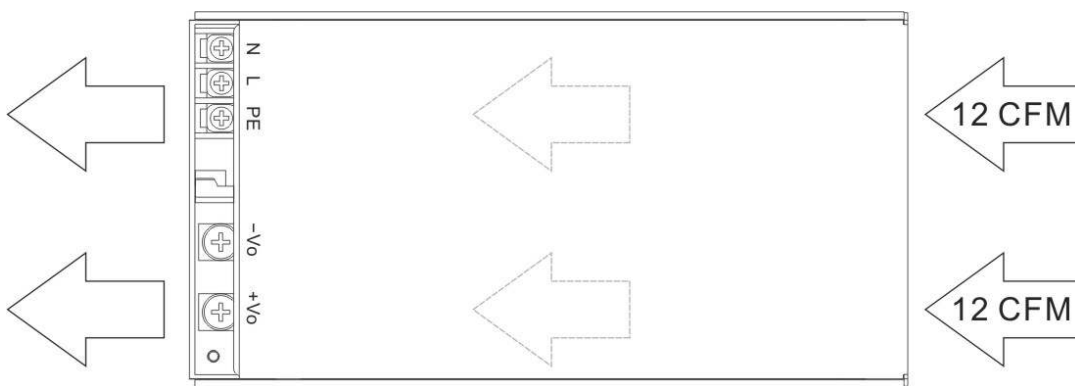


Brands		
PIN#	Single	Terminal
1	AC IN (N)	DINKLE DT-49-B01W-03
2	AC IN (L)	
3	PE	
4	-DC OUT	M5 Pan HD screw in 2 positions Torque to 8 lbs-in(90 cNm) max.
5	+DC OUT	

Connector Pin (CN1)					
Brands		Cheng Weei		JST	
PIN#	Single	Mating Housing	Terminal	Mating Housing	Terminal
C1	+S	PHD-H20-2X4P	PHD-T20	PHDR-08VS	SPHD-001T-P0.5
C2	-S				
C3	NC				
C4	-5V SB				
C5	GND / -RC				
C6	+RC				
C7	PG				
C8	+5V SB				

FUNCTION DESCRIPITON of CN1

Pin No.	Function	Description
C1	+S	Remote sensing (+)
C2	-S	Remote sensing (-)
C3	NC	
C4	-5V SB	This pin connects to the negative terminal(-V)
C5	GND / -RC	This pin connects to the negative terminal(-V). Return for DC-OK signal output.
C6	+RC	Turns the output on and off by electrical or dry contact between pin C5 (GND / -RC), Short: Power OFF, Open: Power ON.
C7	+PG	DC-OK Signal is a DC output. (DC-OK)
C8	+5V SB	Stand by voltage output ground 4.4~5.5V, referenced to pin C4 or C5(GND). The maximum load current is 1A.

AIR FLOW DIRECTION

BLOCK DIAGRAM
