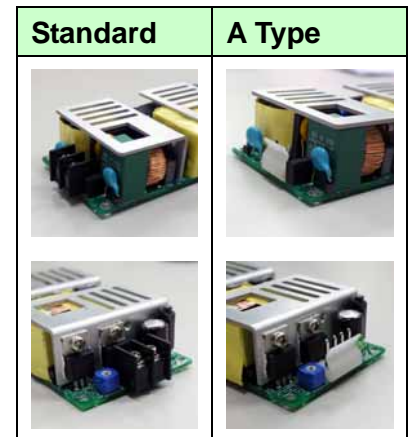


KEY FEATURES

- Open Frame 100W Power Supply in 4.0" x 2.0" Size
- High Efficiency up to 93% Typical
- Active PFC Function, >0.95 (230Vac), >0.99 (115Vac)
- Universal Input: 90-264 VAC
- 100W Full Load at 50°C Under Free Air Convection
- 120W with FAN (20CFM / 300LFM)
- Low Leakage Current, <250uA
- EN55022 Class B Meets
- Class I and Class II Construction
- Continuous Short Circuit Protection with Hiccup Mode and Auto Recover
- 3-Years Product Warranty


ELECTRICAL SPECIFICATIONS

Model No.	AQF1000-12S	AQF1000-15S	AQF1000-24S	AQF1000-48S
Max Output Wattage (Free air Convection) (W)	100 W			
Max Output Wattage (with 20CFM / 300LFM FAN) (W)	120 W			
Input	Voltage			
	90-264 VAC or 120-370 VDC			
	Frequency (Hz)			
	47-63 Hz			
	Current (Full load)			
	<2.0 A max. (115 VAC) / <1.0 A max. (230 VAC)			
Input	Inrush Current (<2ms)			
	< 30 A max. (115 VAC) / < 60 A max. (230 VAC)			
	Leakage Current			
	< 0.5 mA max.			
	Power Factor			
	PF>0.99 (115 VAC) / PF>0.95 (230 VAC) at Full Load			
Output	Voltage (V.DC.)			
	12V	15V	24V	48V
	Voltage Adj Range (V.DC.)			
	±5% Output Voltage			
	Voltage Accuracy			
	±2%			
	Current (Free air Convection) (A) max			
	8.4	6.7	4.2	2.1
	Current (with 20CFM / 300LFM FAN) (A) max			
	10	8	5	2.5
	Line Regulation			
	±1%			
	Load Regulation			
±1%				
Minimum Load				
0%				
Maximum Capacitive Load				
70,000μF	50,000μF	6,000μF	1,000μF	
Ripple & Noise max.				
120mV	150mV	200mV	240mV	
Efficiency (typ.)				
89%	89%	92%	93%	
Hold-up Time				
10 ms (110 VAC) min.				
Switching Frequency				
100 kHz				
Protection	Over Power Protection			
	Auto recovery, Hiccup mode			
	Over Voltage Protection			
Zener diode clamp				
Short Circuit Protection				
Auto recovery, Hiccup mode				
Isolation	Input-Output (V.AC)			
	3000V			
	Input-FG (V.AC)			
1500V				
Output-FG (V.AC)				
500V				
Environment	Operating Temperature			
	-25°C...+70°C (with derating)			
	Storage Temperature			
	-25°C...+85°C			
	Temperature Coefficient			
	±0.03%/°C (0~50°C)			
Humidity				
95% RH				
MTBF				
>250,000 h @ 25°C (MIL-HDBK-217F, Notice 1)				
Vibration				
10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes.				

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

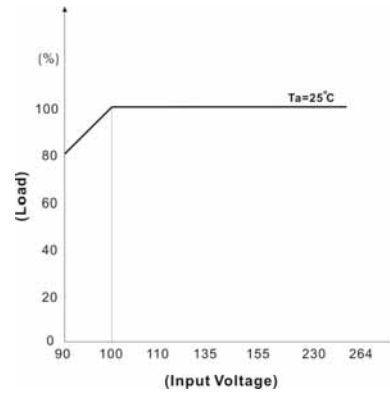
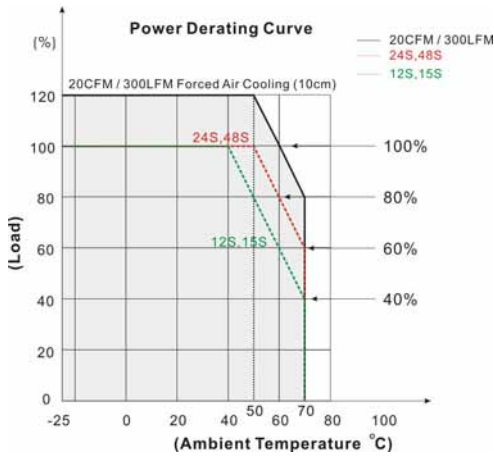
2.Ripple & Noise are measured at 20MHz of bandwidth with 0.1UF & 47UF parallel capacitor.

3.Hold-up Time measured at 90% Vout.

Model No.		AQF1000-12S	AQF1000-15S	AQF1000-24S	AQF1000-48S
Physical	Dimension (L x W x H)	4.1 x 2.05 x 0.98 Inches (103.9 x 52.1 x 25.0 mm) Tolerance ± 0.5 mm			
	Weight	200 g			
	Cooling Method	Free convection			
Safety	Agency Approvals	CE, UL60950-1			
EMC	EMI (Conducted & Radiated Emission)	EN61000-6-3 · EN 55022 class B (Conductive plane to be connected to safety earth)			
	EMS (Noise Immunity)	EN 55024 · EN61000-4-2,3,4,5,6,8,11			

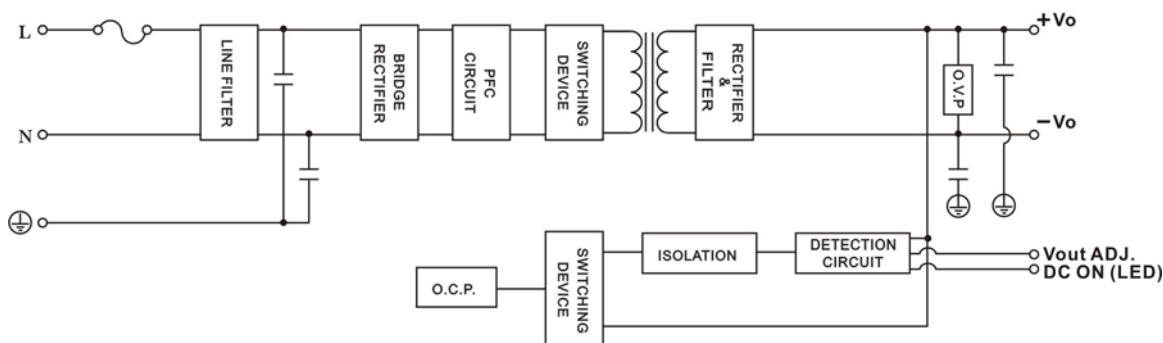
- 1.All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.
- 2.Ripple & Noise are measured at 20MHz of bandwidth with 0.1UF & 47UF parallel capacitor.
- 3.Hold-up Time measured at 90% Vout.

DERATING



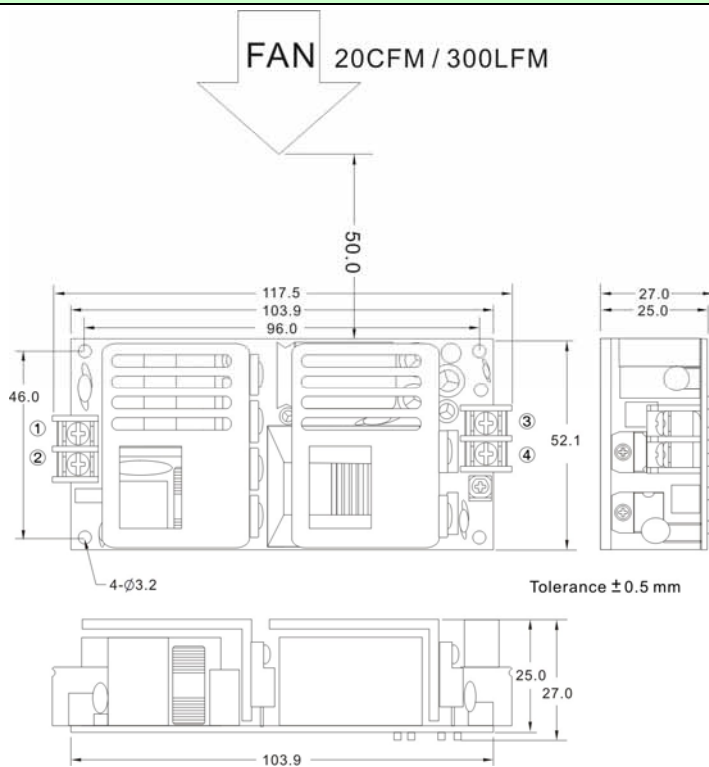
BLOCK DIAGRAM

Single Output



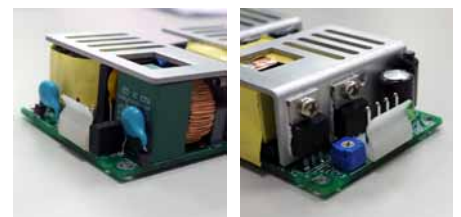
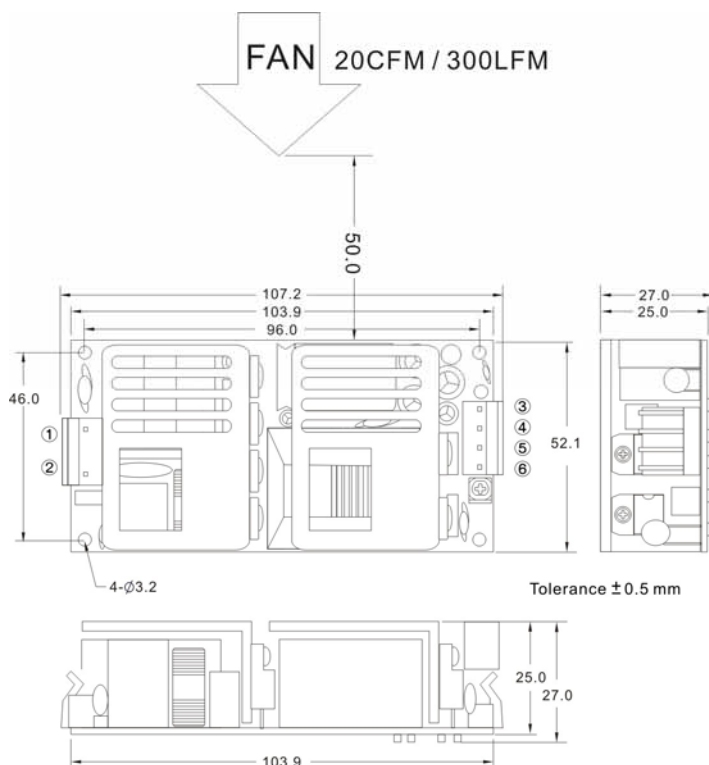
MECHANICAL DIMENSION (Top View)

Standard : Terminal Block



PIN#	SINGLE
1	AC IN (N)
2	AC IN (L)
3	+DC OUT
4	-DC OUT

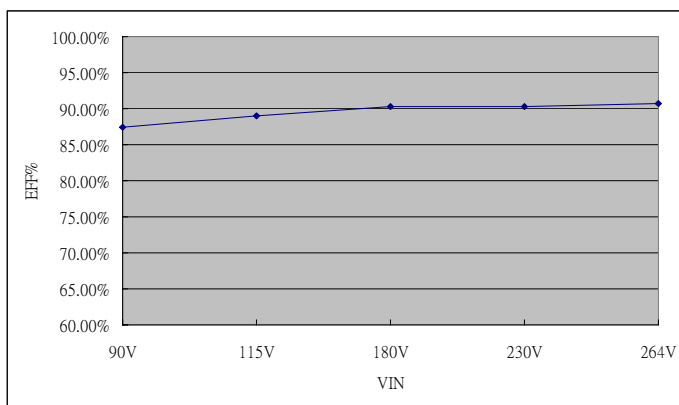
A Type : Molex Series 8673 (Alex Connector Co., ltd)



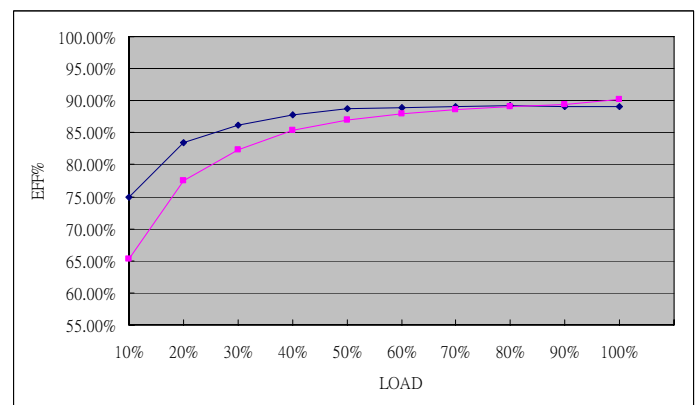
PIN#	SINGLE
1	AC IN (N)
2	AC IN (L)
3	+DC OUT
4	+DC OUT
5	-DC OUT
6	-DC OUT

EFFICIENCY VERSUS LOAD
AQF1000-12S
VIN VS Efficiency

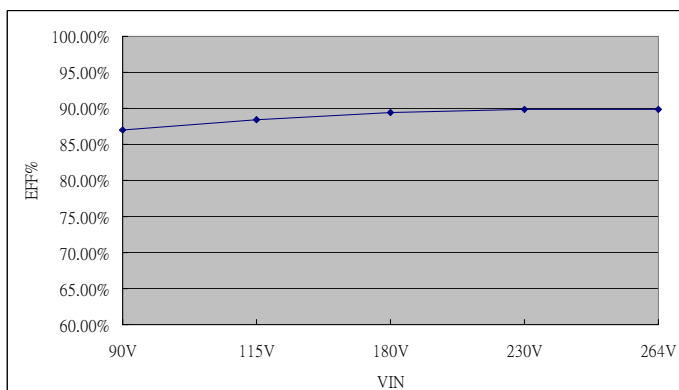
Input Voltage (V)	90	115	180	230	264
Efficiency (%)	87.38	89.03	90.31	90.22	90.66


LOAD VS Efficiency

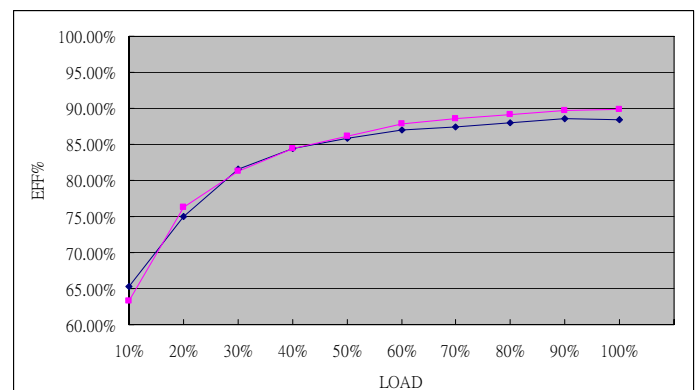
Load (%)	10	20	30	40	50
115V (%)	74.98	83.50	86.13	87.83	88.70
230V (%)	65.30	77.58	82.39	85.30	87.01
Load (%)	60	70	80	90	100
115V (%)	88.87	89.11	89.20	89.13	89.03
230V (%)	87.95	88.63	89.14	89.46	90.22


AQF1000-15S
VIN VS Efficiency

Input Voltage (V)	90	115	180	230	264
Efficiency (%)	87.03	88.49	89.45	89.81	89.89

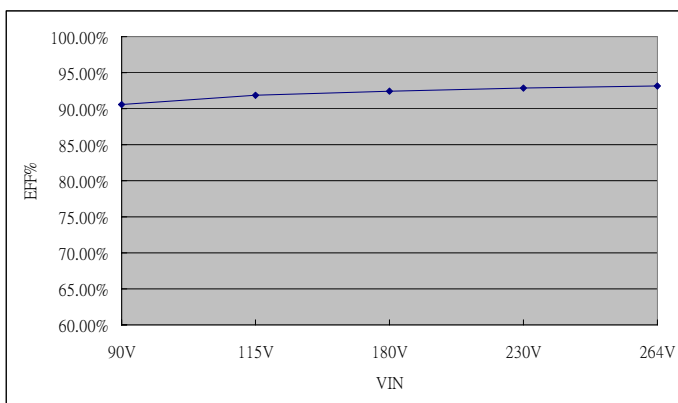

LOAD VS Efficiency

Load (%)	10	20	30	40	50
115V (%)	65.23	75.04	81.54	84.42	85.92
230V (%)	63.23	76.35	81.29	84.36	86.12
Load (%)	60	70	80	90	100
115V (%)	87.07	87.47	87.96	88.51	88.49
230V (%)	87.88%	88.51%	89.17%	89.77%	89.81%

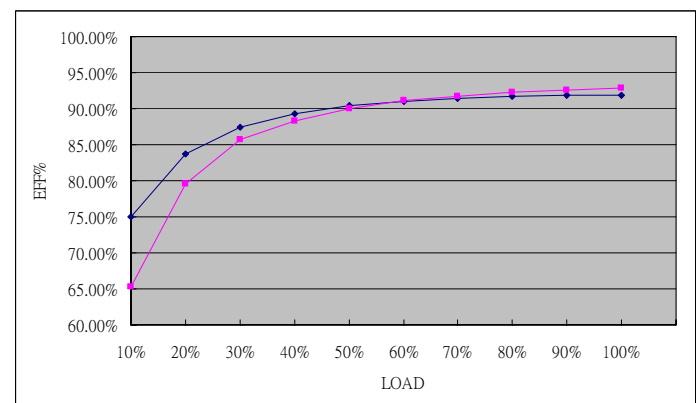


EFFICIENCY VERSUS LOAD
AQF1000-24S
VIN VS Efficiency

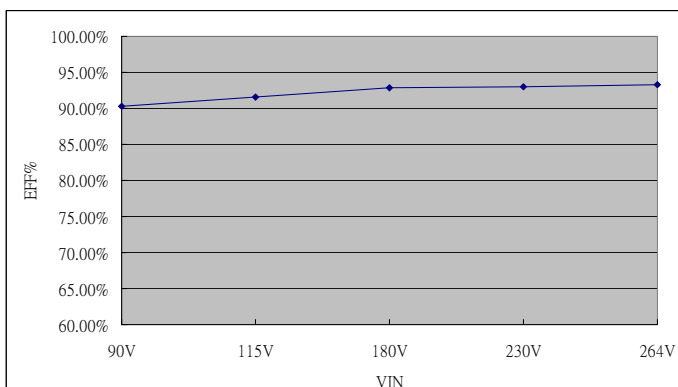
Input Voltage (V)	90	115	180	230	264
Efficiency (%)	90.53	91.90	92.44	92.85	93.13


LOAD VS Efficiency

Load (%)	10	20	30	40	50
115V (%)	74.99	83.78	87.43	89.22	90.44
230V (%)	65.32	79.51	85.76	88.32	90.04
Load (%)	60	70	80	90	100
115V (%)	90.99	91.43	91.72	91.89	91.90
230V (%)	91.08	91.76	92.23	92.64	92.85


AQF1000-48S
VIN VS Efficiency

Input Voltage (V)	90	115	180	230	264
Efficiency (%)	90.27	91.64	92.81	93.03	93.35


LOAD VS Efficiency

Load (%)	10	20	30	40	50
115V (%)	73.93	83.86	87.18	89.22	90.34
230V (%)	66.76	79.70	84.80	87.75	89.62
Load (%)	60	70	80	90	100
115V (%)	90.82	91.28	91.53	91.64	91.64
230V (%)	90.77	91.47	92.09	92.49	93.03

