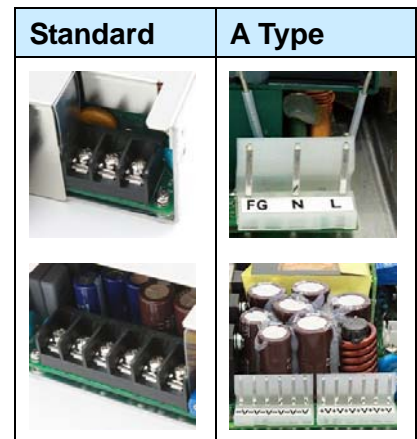


**KEY FEATURES**

- U Bracket Switching Power Supply
- Universal Input: 90-264 VAC
- With P.F.C. Function, PF>0.95
- Cooling by Built-in 12 VDC FAN
- 240W Convection without FAN
- Protections: Over Load / Over Voltage /  
Over Temperature / Short Circuit  
All by Auto-recovery
- Leakage Current <300uA
- High Power Density
- High Efficiency up to 93%
- RoHS Compliant Design
- Ultra Compact Size: 6.8 x 3.2 x 1.5 Inches
- 3-Year Product Warranty



Please refer to the types of terminal block; the pictures shown are for illustration purpose only, actual product may vary.


**ELECTRICAL SPECIFICATIONS**

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

Model No.	AQF360U-12S	AQF360U-24S	AQF360U-36S	AQF360U-48S	AQF360U-54S
Max Output Wattage (Convection) (W)	240W	240W	240W	240W	240W
Max Output Wattage (18CFM FAN) (W)	360W	360W	360W	360W	360W
Input	Voltage				
	90-264 VAC or 120-370 VDC				
	Frequency (Hz)				
	50-60 Hz				
	Current (Full load)				
	< 4.0 A max. (115 VAC) / < 2.0 A max. (230 VAC)				
Inrush Current (<2ms)					
< 30 A max. (115 VAC) / < 60 A max. (230 VAC)					
Leakage Current					
< 0.3 mA max.(240VAC 63Hz)					
Power Factor					
PF>0.98 (115 VAC) / PF>0.93 (230 VAC) at Full Load					
Output	Voltage (V.DC.)				
	12V	24V	36V	48V	54V
	Trim				
	±5% Output Voltage				
	Voltage Accuracy				
	±2%				
	Current (Convection) (A) max				
	20	10	6.66	5	4.44
	Current (18CFM FAN) (A) max				
	30	15	10	7.5	6.66
	Line Regulation (LL-HL) (typ.)				
	±1%				
	Load Regulation (5-100%) (typ.)				
	±1%				
Minimum Load					
1%					
Maximum Capacitive Load					
85000 uF	48000 uF	21000 uF	13000 uF	7000 uF	
Ripple & Noise (max.)					
120mVp-p		200mVp-p			
Efficiency (typ.)					
90%	92%	93%	93%	93%	
Hold-up Time					
12 ms min.					
FAN Supply					
12 VDC / 0.5A max.					
Protection	Over Power Protection				
	Auto recovery				
	Over Voltage Protection				
	Auto recovery				
Over Temperature					
Auto recovery					
Short Circuit Protection					
Auto-recovery					
Isolation	Input-Output (V.AC)				
	3000VAC or 4242VDC				
	Input-FG (V.AC)				
1500V					
Output-FG (V.AC)					
500V					

## ELECTRICAL SPECIFICATIONS

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

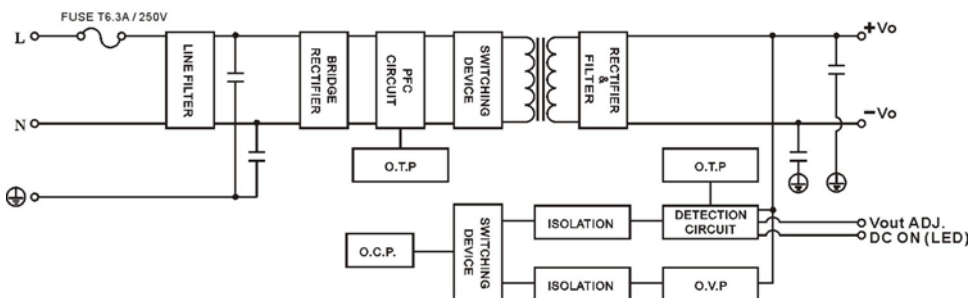
Model No.	AQF360U-12S	AQF360U-24S	AQF360U-36S	AQF360U-48S	AQF360U-54S
Environment	Operating Temperature				
	-25°C...+70°C (with derating)				
	Storage Temperature				
	-25°C...+85°C				
	Temperature Coefficient				
	±0.03%/°C ( 0~50°C )				
Physical	Humidity				
	95% RH				
	MTBF				
	>120,000 h @ 25°C (MIL-HDBK-217F)				
	Vibration				
	10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes.				
Safety	Dimensions (L x W x H)				
	6.8 x 3.2 x 1.5 Inches (172.7 x 81.3 x 38.0 mm ) Tolerance ±0.5 mm				
	Weight				
668 g					
EMC	Cooling Method				
	240W Convection without FAN				
EMC	Agency Approvals				
	CE, UL60950, CB				
	EMI (Conducted & Radiated Emission)				
EN 55032 class B					
EMC	EMS (Noise Immunity)				
	EN 55024				

## NOTE

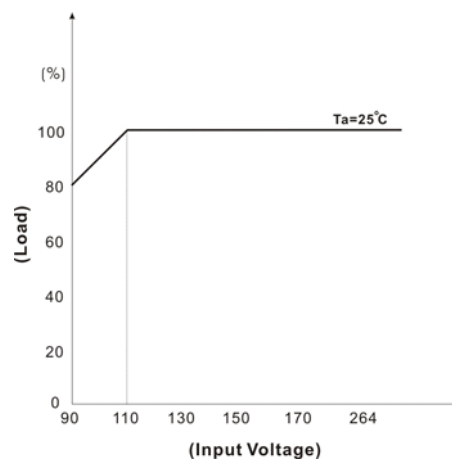
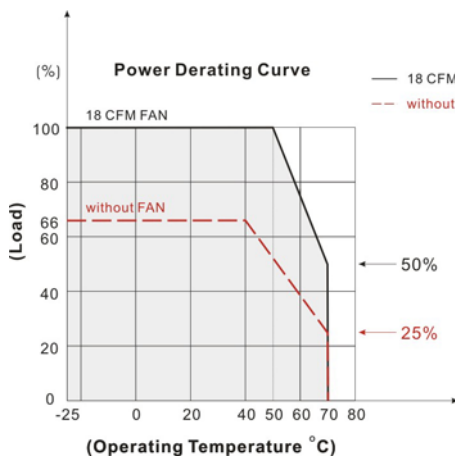
1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
2. Strongly recommend to conduct this test with DC Voltage. If customer wishes to test with AC Voltage, please disconnect all Y-Capacitors from Arch power supply.

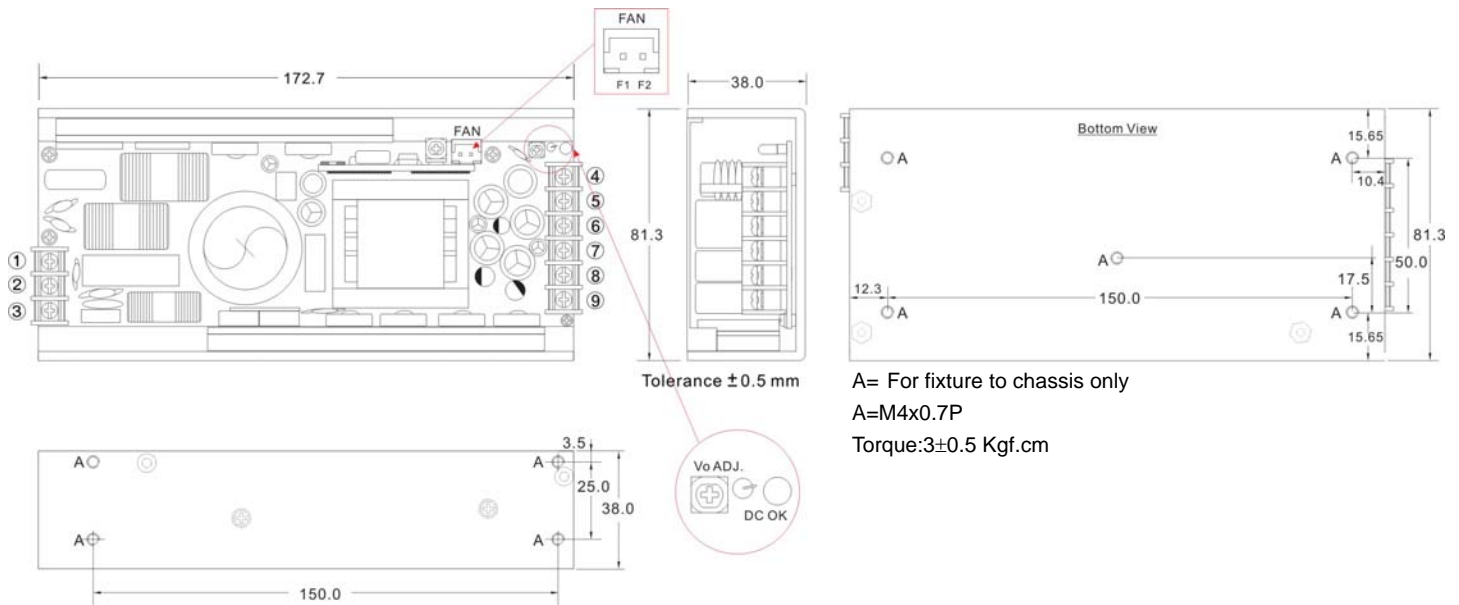
## BLOCK DIAGRAM

Single Output



## DERATING



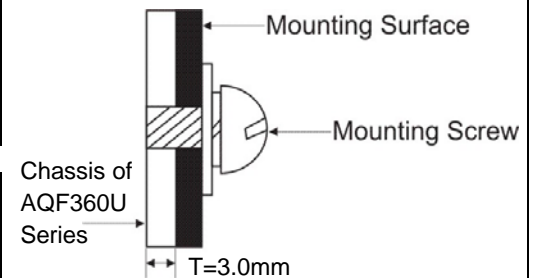
**MECHANICAL DIMENSIONS ( Top View )**
**Standard**


Brands		
PIN#	Single	Terminal
1	FG	DINKLE DT-2C-B07W-03
2	AC IN (N)	
3	AC IN (L)	
4~6	+DC OUT	DINKLE DT-2C-B07W-06
7~9	-DC OUT	

**ASSEMBLY INSTRUCTIONS**

\*U Case T=3.0mm

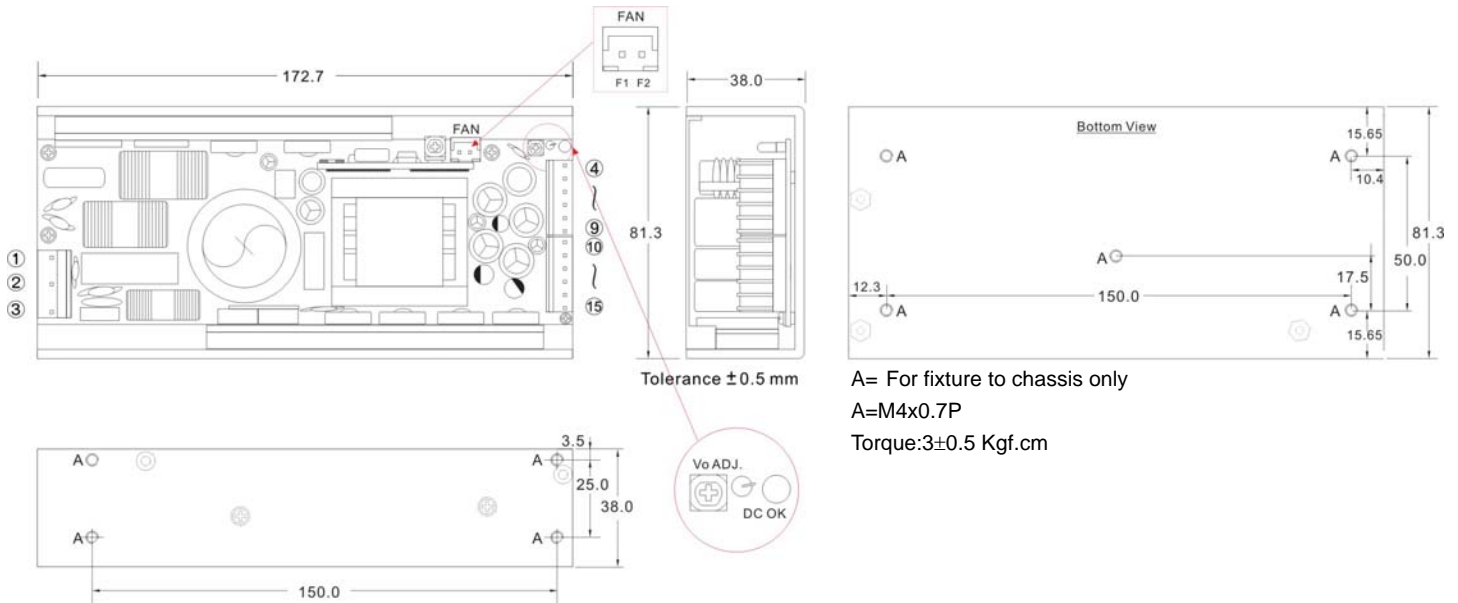
Customer is advised to screw into the threads no more than 3.0mm



Connector Pin (FAN)					
Brands		Cherng Weei		JST	
PIN#	Single	Mating Housing	Terminal	Mating Housing	Terminal
F1	-DC	CX-H250-02	CX-T2501	XHP-2	SXH-002T-P0.6
F2	+DC				

**Standard**


Please refer to the types of terminal block; the pictures shown are for illustration purpose only, actual product may vary.

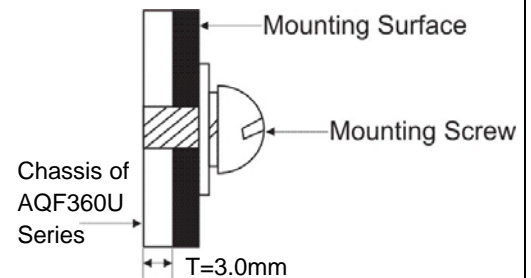
**MECHANICAL DIMENSIONS ( Top View )**
**A Type**


Brands		Alex		Molex	
PIN#	Single	Mating Housing	Terminal	Mating Housing	Terminal
1	FG	8639-05N2 8095-05N2	23T or 24T series 94T or 95T series	5195-05	5194T
2	AC IN (N)				
3	AC IN (L)	8639-06N2 8095-06N2	23T or 24T series 94T or 95T series	5195-06	5194T
4~9	+DC OUT				
10~15	-DC OUT				

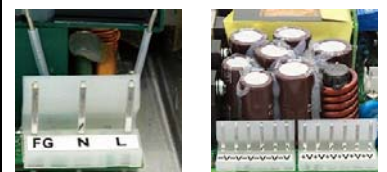
**ASSEMBLY INSTRUCTIONS**

\*U Case T=3.0mm

Customer is advised to screw into the threads no more than 3.0mm



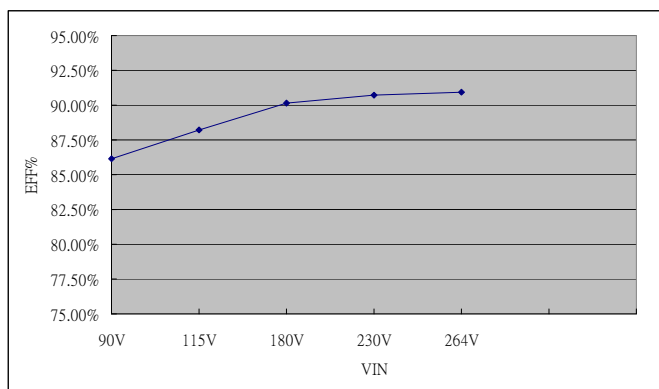
Connector Pin (FAN)					
Brands		Cherng Weei		JST	
PIN#	Single	Mating Housing	Terminal	Mating Housing	Terminal
F1	-DC	CX-H250-02	CX-T2501	XHP-2	SXH-002T-P0.6
F2	+DC				

**A Type**


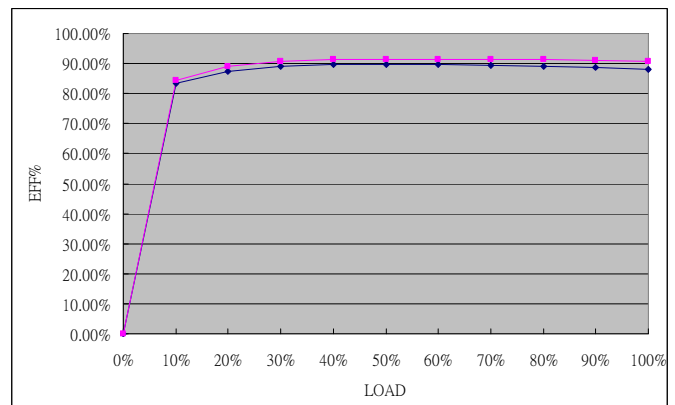
Please refer to the types of terminal block; the pictures shown are for illustration purpose only, actual product may vary.

**EFFICIENCY VERSUS LOAD**
**AQF360U-12S**
**VIN VS Efficiency**

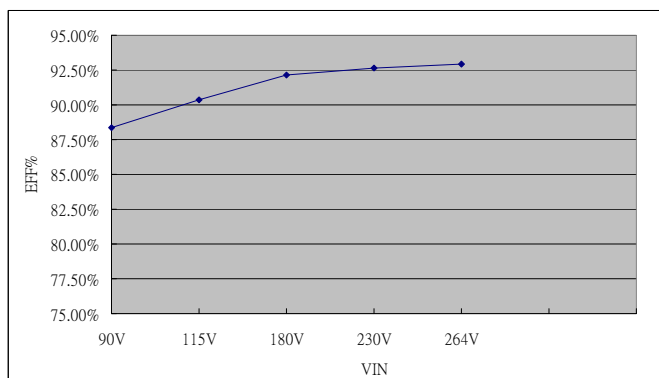
Input Voltage (V)	90	115	180	230	264
Efficiency (%)	86.12	88.20	90.15	90.69	90.95


**LOAD VS Efficiency**

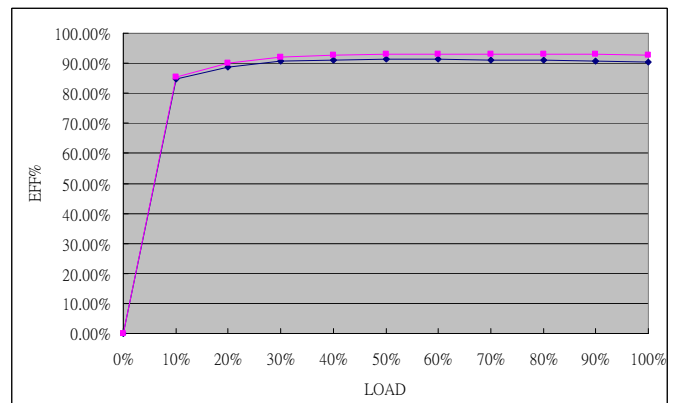
Load (%)	0	10	20	30	40	50
115V (%)	0	83.25	87.43	89.02	89.67	89.80
230V (%)	0	84.38	88.94	90.75	91.24	91.49
Load (%)	60	70	80	90	100	
115V (%)	89.64	89.39	89.00	88.65	88.20	
230V (%)	91.46	91.38	91.22	91.02	90.09	


**AQF360U-24S**
**VIN VS Efficiency**

Input Voltage (V)	90	115	180	230	264
Efficiency (%)	88.36	90.35	92.13	92.67	92.96

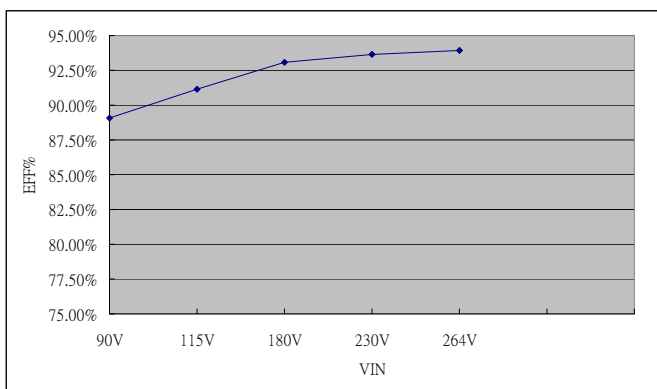

**LOAD VS Efficiency**

Load (%)	0	10	20	30	40	50
115V (%)	0	84.77	88.62	90.54	91.14	91.33
230V (%)	0	85.54	90.08	92.06	92.62	92.99
Load (%)	60	70	80	90	100	
115V (%)	91.32	91.18	90.98	90.70	90.35	
230V (%)	93.08	93.08	93.02	92.91	92.67	

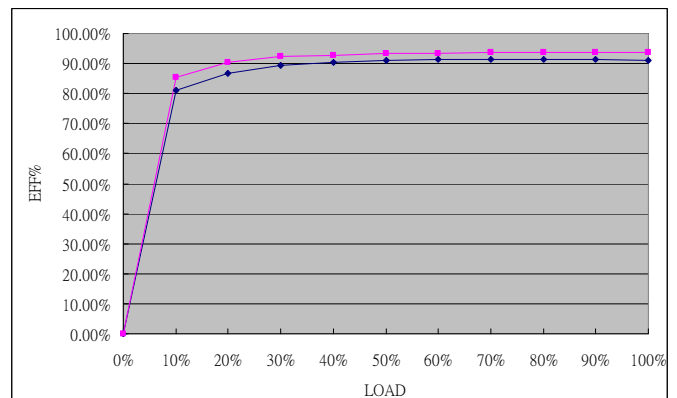


**EFFICIENCY VERSUS LOAD**
**AQF360U-36S**
**VIN VS Efficiency**

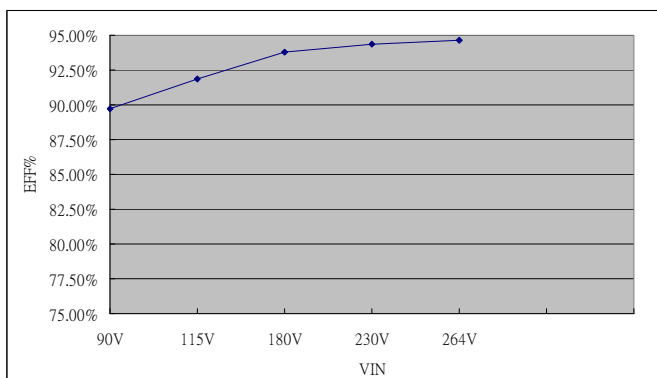
Input Voltage (V)	90	115	180	230	264
Efficiency (%)	89.04	91.17	93.06	93.64	93.93


**LOAD VS Efficiency**

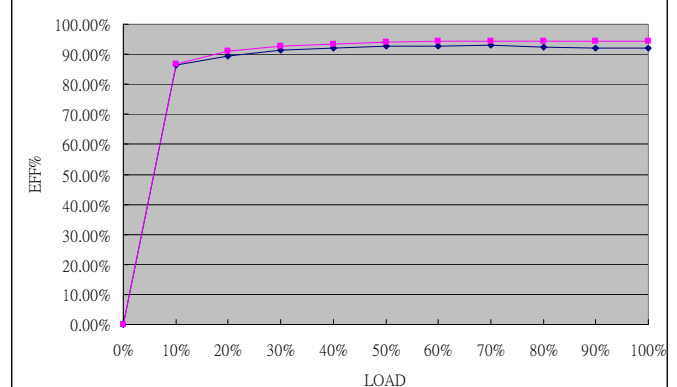
Load (%)	0	10	20	30	40	50
115V (%)	0	80.96	86.76	89.39	90.51	91.01
230V (%)	0	85.51	90.25	92.24	92.82	93.39
Load (%)	60	70	80	90	100	
115V (%)	91.21	91.36	91.37	91.31	91.17	
230V (%)	93.46	93.68	93.76	93.68	93.64	


**AQF360U-48S**
**VIN VS Efficiency**

Input Voltage (V)	90	115	180	230	264
Efficiency (%)	89.75	91.89	93.79	94.36	94.67

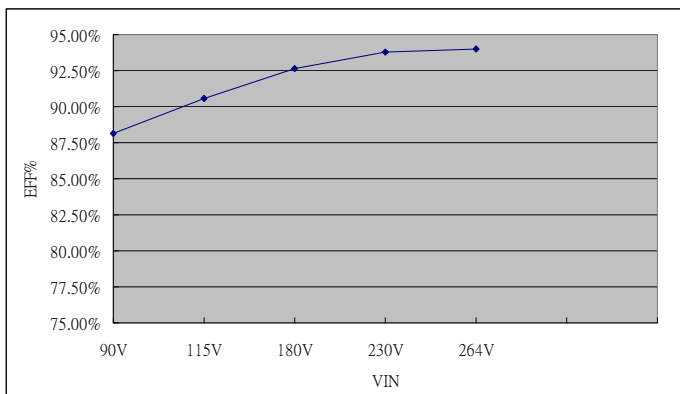

**LOAD VS Efficiency**

Load (%)	0	10	20	30	40	50
115V (%)	0	86.43	89.33	91.43	92.17	92.58
230V (%)	0	86.80	90.87	92.74	93.47	94.02
Load (%)	60	70	80	90	100	
115V (%)	92.58	93.00	92.38	92.18	91.89	
230V (%)	94.02	94.23	94.24	94.40	94.36	



**EFFICIENCY VERSUS LOAD**
**AQF360U-54S**
**VIN VS Efficiency**

Input Voltage (V)	90	115	180	230	264
Efficiency (%)	88.12	90.58	92.65	93.79	93.99


**LOAD VS Efficiency**

Load (%)	0	10	20	30	40	50
115V (%)	0.00	86.37	88.87	89.82	90.28	90.91
230V (%)	0.00	88.59	91.67	92.80	93.35	93.66
Load (%)	60	70	80	90	100	
115V (%)	90.98	90.96	90.95	90.87	90.58	
230V (%)	93.79	93.83	93.86	93.80	93.79	

