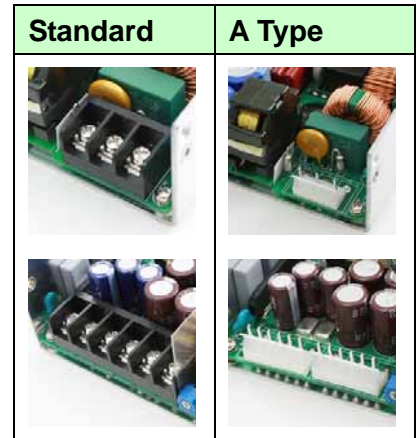


KEY FEATURES

- U Bracket Switching Power Supply
- Universal Input: 90-264 VAC
- Active P.F.C. Function, PF>0.95
- 300W Convection without FAN
- 480W Convection with 18CFM FAN
- Protections: Over Load / Over Voltage /
Over Temperature / Short Circuit
All by Auto-recovery
- Built-in Remote ON/OFF Control
- Built-in Remote Sense Function
- Built-in DC OK Signal
- Stand by 5V @ 0.6A
- High Efficiency up to 92%
- Ultra Compact Size: 7.0 x 4.2 x 1.78 Inches
- 2-Years Product Warranty


ELECTRICAL SPECIFICATIONS

Model No.	AQFV480U-12S	AQFV480U-24S	AQFV480U-36S	AQFV480U-48S
Max Output Wattage (Convection) (W)	280W	280W	300W	300W
Max Output Wattage (18CFM FAN) (W)	480W			
Input	Voltage			
	90-264 VAC or 120-370 VDC			
	Frequency (Hz)			
	47-63 Hz			
	Current (Full load)			
	< 5.5 A max. (115 VAC) / < 3.0 A max. (230 VAC)			
Output	Inrush Current (<2ms)			
	< 50 A max. (115 VAC) / < 70 A max. (230 VAC)			
	Leakage Current			
	< 1.5 mA max.(240VAC 63Hz)			
	Power Factor			
	PF>0.95 (115 VAC) / PF>0.90 (230 VAC) at Full Load			
	Voltage (V.DC.)			
	12V			
	Trim			
	10.8 ~ 13.2V			
	Voltage Accuracy			
	±2%			
	Current (Convection) (A) max			
	23.33			
Current (18CFM FAN) (A) max				
40				
Line Regulation (LL-HL) (typ.)				
±0.5%				
Load Regulation (5-100%) (typ.)				
±1%				
Minimum Load				
0%				
Maximum Capacitive Load				
180000 uF				
Ripple & Noise (max.)				
100mVp-p				
Efficiency (Convection) (%)				
Vin:115(V.AC)				
88%				
Vin:230(V.AC)				
90%				
Efficiency (18CFM FAN) (%)				
Vin:115(V.AC)				
85%				
Vin:230(V.AC)				
88%				
Hold-up Time				
10 ms min.				
Switching Frequency				
62.5 kHz ±10%				
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)			
	3000V			
	Input-FG (V.AC)			
1500V				
Output-FG (V.AC)				
500V				

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

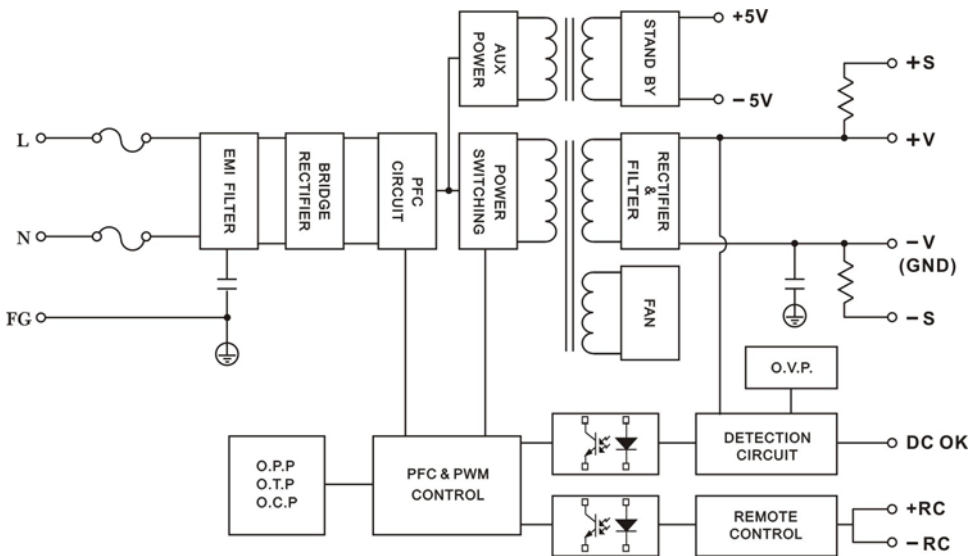
2. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.

ELECTRICAL SPECIFICATIONS

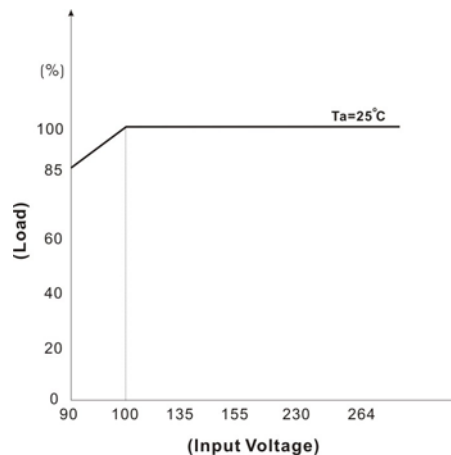
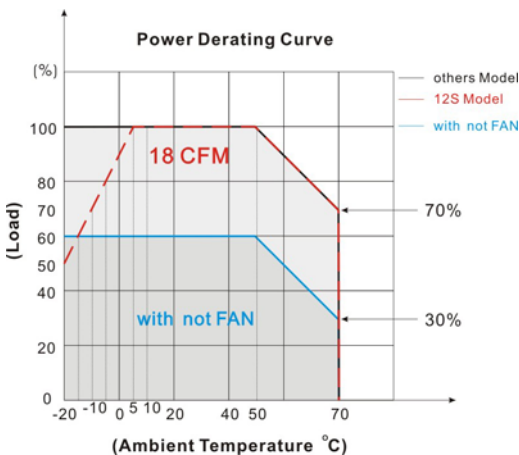
Model No.	AQFV480U-12S	AQFV480U-24S	AQFV480U-36S	AQFV480U-48S
Function	5V Stand by			
	DC OK Signal			
	Remote Control			
	FAN Control			
Environment	Operating Temperature			
	Storage Temperature			
	Temperature Coefficient			
	Humidity			
	MTBF			
Physical	Dimension (L x W x H)			
	Weight			
	Agency Approvals			
EMC	EMI (Conducted & Radiated Emission)			
	EMS (Noise Immunity)			

1. All specifications valid at nominal 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.

BLOCK DIAGRAM

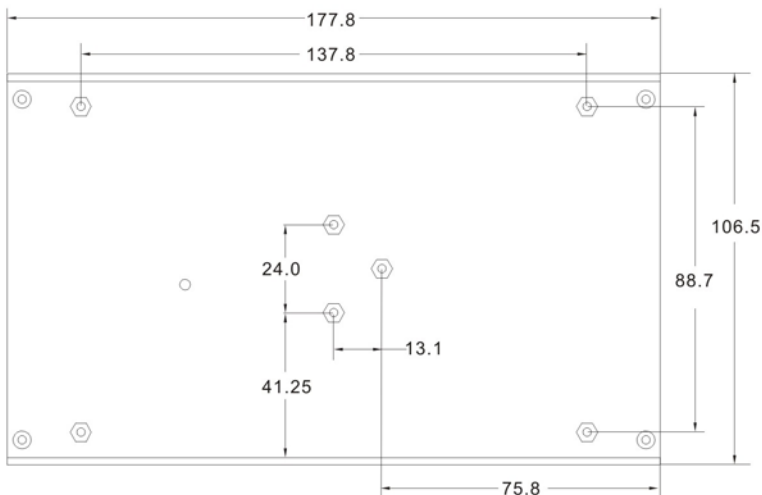
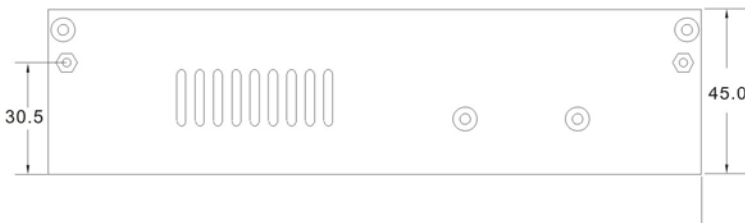
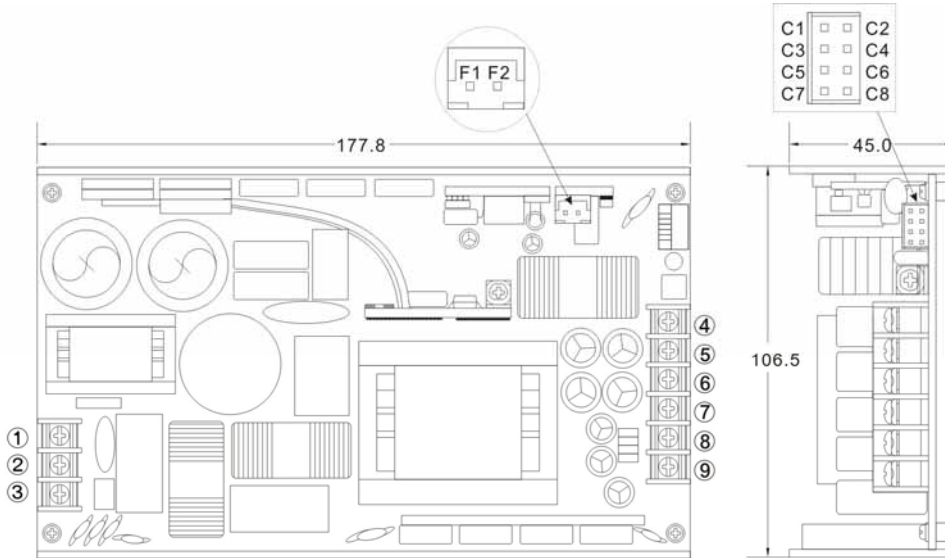


DERATING



MECHANICAL DIMENSION

Standard



AC Input Terminal Pin

PIN#	SINGLE
1	AC IN (N)
2	AC IN (L)
3	FG

DC Output Terminal Pin

PIN#	SINGLE
4~6	+DC OUT
7~9	-DC OUT

Connector Pin (CN4)

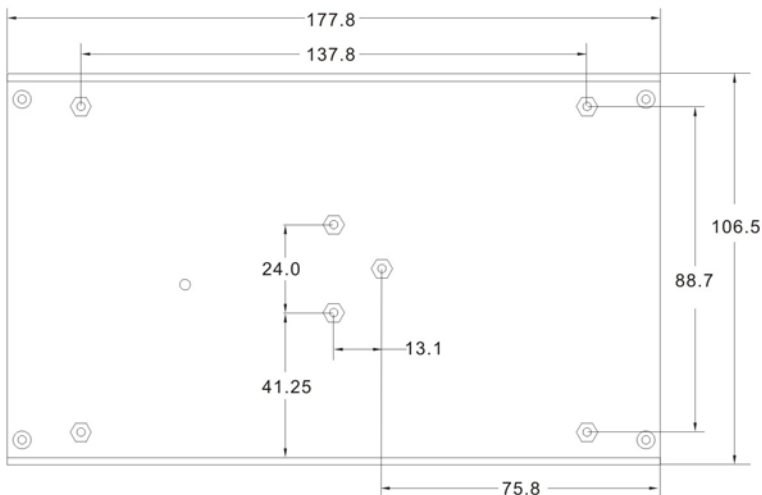
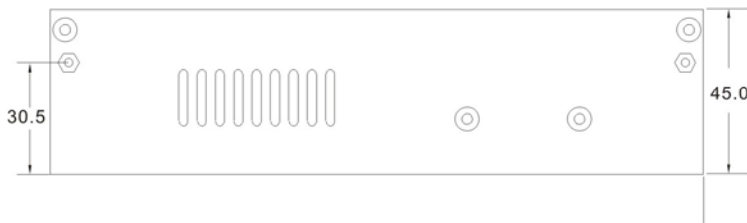
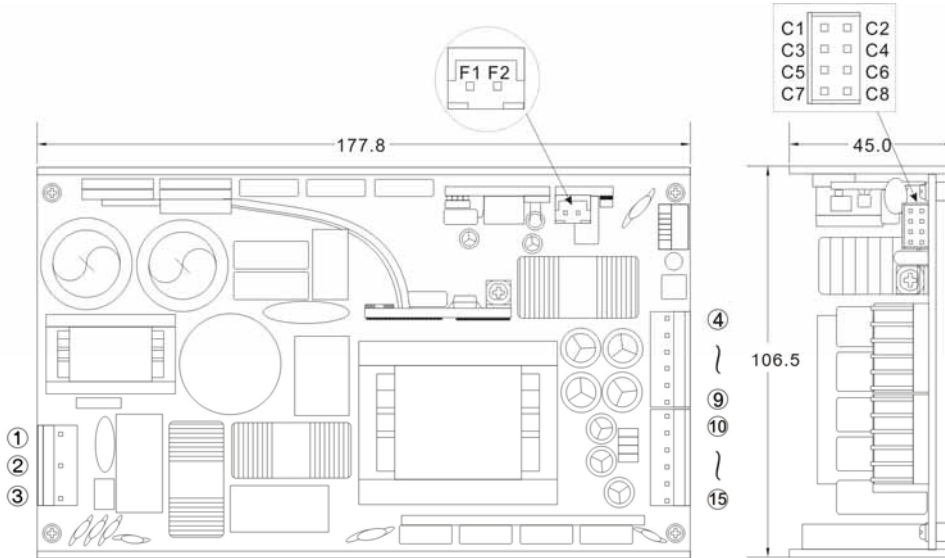
PIN#	SINGLE
C1	+S
C2	-S
C3	+RC
C4	-RC
C5	DC-OK
C6	GND
C7	+5V SB
C8	-5V SB

FAN Molex Pin

PIN#	SINGLE
F1	-DC
F2	+DC

MECHANICAL DIMENSION

A Type



AC Input Terminal Pin

PIN#	SINGLE
1	AC IN (N)
2	AC IN (L)
3	FG

DC Output Terminal Pin

PIN#	SINGLE
4~9	+DC OUT
10~15	-DC OUT

Connector Pin (CN4)

PIN#	SINGLE
C1	+S
C2	-S
C3	+RC
C4	-RC
C5	DC-OK
C6	GND
C7	+5V SB
C8	-5V SB

FAN Molex Pin

PIN#	SINGLE
F1	-DC
F2	+DC

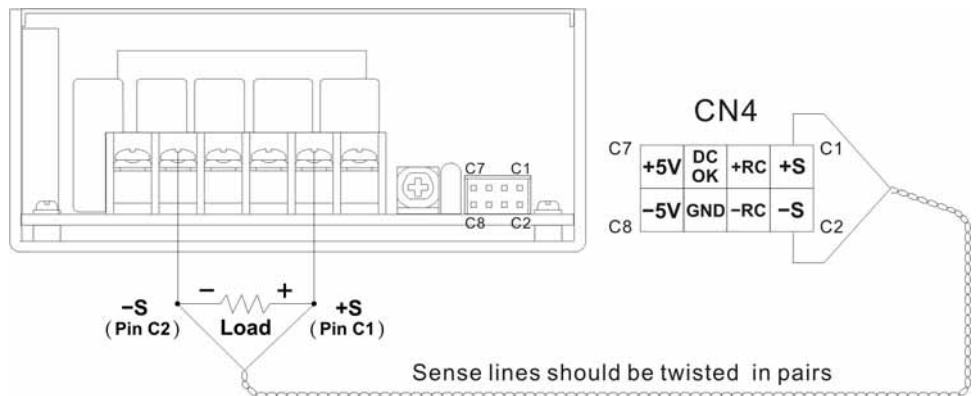
FUNCTION DESCRIPITON of CN4 :

Pin No.	Function	Description
C1	+S	Positive sensing. The +S signal should be connected to the positive terminal of the load. The +S and -S leads should be twisted in pair to minimize noise pick-up effect. The maximum line drop compensation is 0.5V. (max.)
C2	-S	Negative sensing. The -S signal should be connected to the negative terminal of the load. The -S and +S leads should be twisted in pair to minimize noise pick-up effect. The maximum line drop compensation is 0.5V. (max.)
C3	+RC	Turns the output on and off by electrical or dry contact between pin C4 (-RC), Short: Power OFF, Open: Power ON.
C4	-RC	Remote control ground.
C5	DC-OK	DC-OK Signal is a DC output, referenced to pinC6(DC-OK GND).
C6	GND	This pin connects to the negative terminal(-V). Return for DC-OK signal output.
C7	+5V SB	Stand by voltage output ground 4.5~5.5V, referenced to pin C8(-5V SB). The maximum load current is 0.6A.
C8	-5V SB	Stand by voltage output ground.

FUNCTION MANUAL :

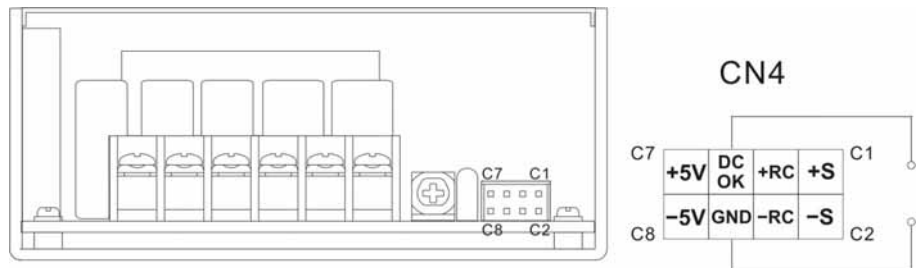
1. Remote Sense

The remote sensing compensates voltage drop on the load wiring up to 0.5V. (max.)



2. DC-OK Signal

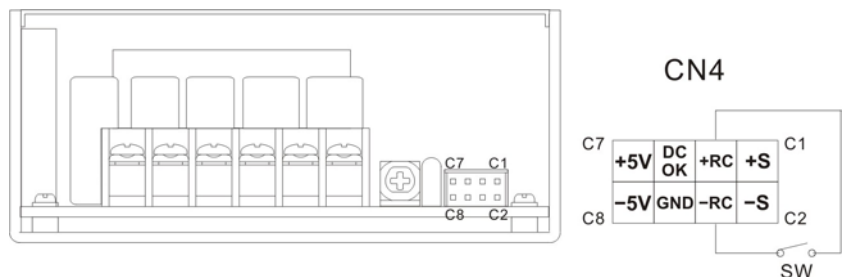
Between DC-OK(pinC5) and GND(pinC6)	Output Status
4~6V	ON
0~1V	OFF



3. Remote Control

It can be turned ON/OFF by using the "Remote Control" function.

Between RC+(pinC3) and RC-(pinC4)	Output Status
SW ON (Short)	OFF
SW OFF (Open)	ON



EFFICIENCY VERSUS LOAD (without FAN)

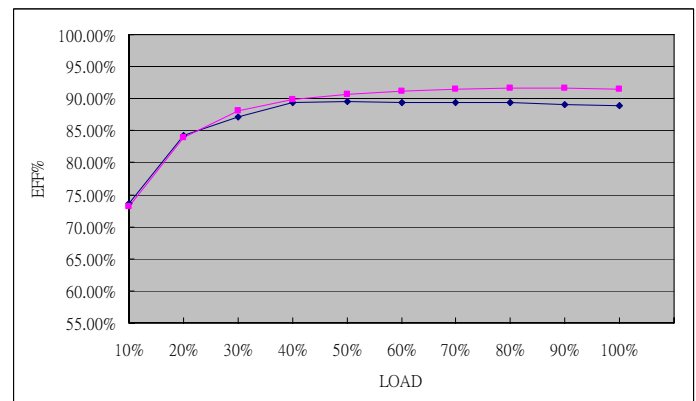
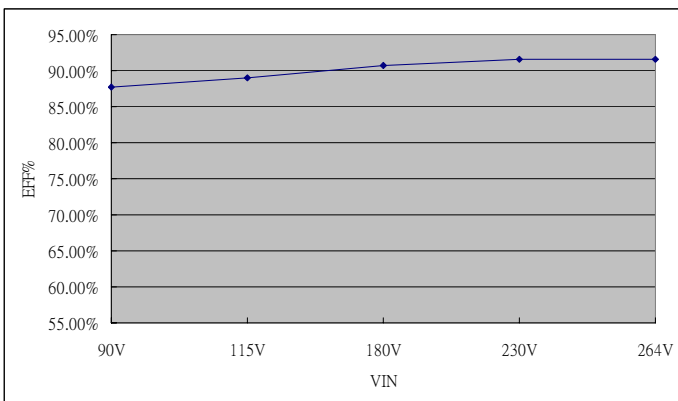
AQFV480U-12S

VIN VS Efficiency

Input Voltage (V)	90	115	180	230	264
Efficiency (%)	87.70	88.97	90.68	91.55	91.63

LOAD VS Efficiency

Load (%)	0	10	20	30	40	50
115V (%)	0	73.70	84.20	87.18	89.37	89.51
230V (%)	0	73.11	83.95	88.09	89.80	90.63
Load (%)	60	70	80	90	100	
115V (%)	89.46	89.35	89.37	89.07	88.97	
230V (%)	91.18	91.54	91.59	91.62	91.55	



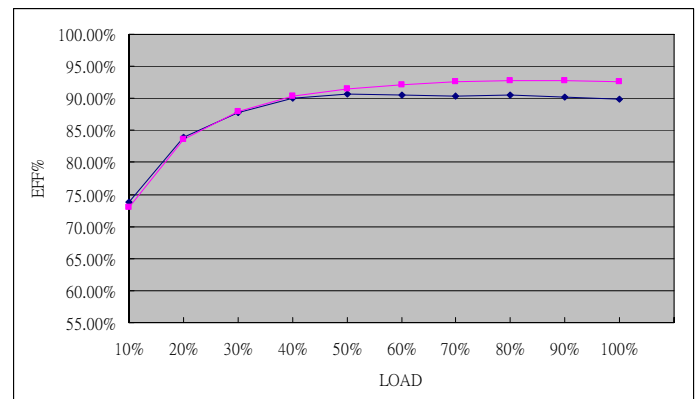
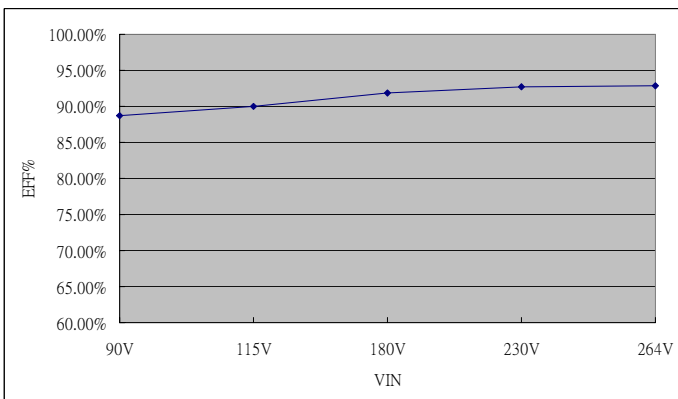
AQFV480U-24S

VIN VS Efficiency

Input Voltage (V)	90	115	180	230	264
Efficiency (%)	88.70	89.95	91.82	92.66	92.85

LOAD VS Efficiency

Load (%)	0	10	20	30	40	50
115V (%)	0	73.81	83.92	87.82	90.05	90.66
230V (%)	0	73.06	83.67	88.00	90.34	91.51
Load (%)	60	70	80	90	100	
115V (%)	90.55	90.42	90.48	90.20	89.95	
230V (%)	92.14	92.60	92.84	92.84	92.66	



EFFICIENCY VERSUS LOAD (without FAN)

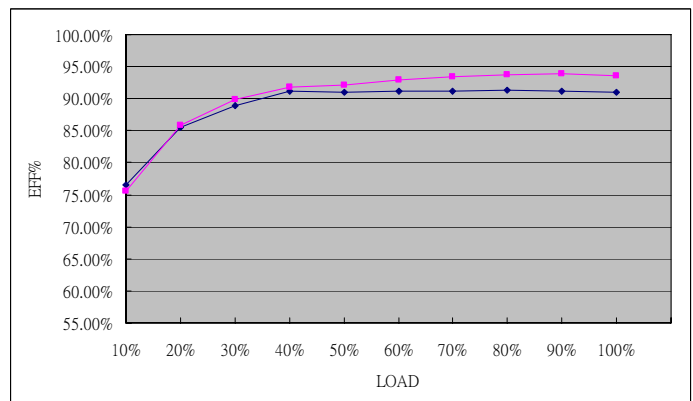
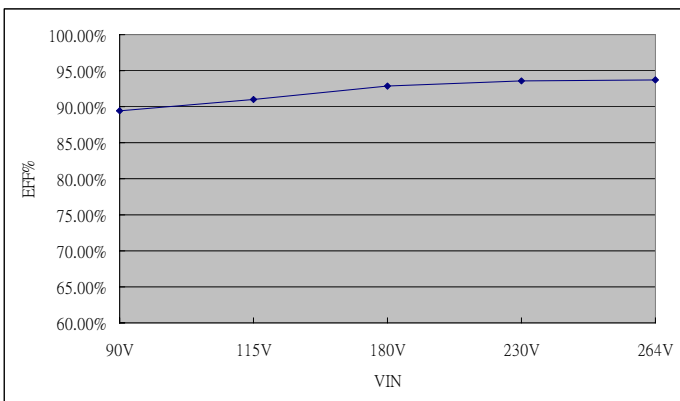
AQFV480U-36S

VIN VS Efficiency

Input Voltage (V)	90	115	180	230	264
Efficiency (%)	89.44	90.93	92.86	93.51	93.67

LOAD VS Efficiency

Load (%)	0	10	20	30	40	50
115V (%)	0	76.49	85.57	88.88	91.19	91.04
230V (%)	0	75.50	85.84	89.81	91.73	92.09
Load (%)	60	70	80	90	100	
115V (%)	91.16	91.20	91.39	91.21	90.93	
230V (%)	92.91	93.48	93.80	93.94	93.51	



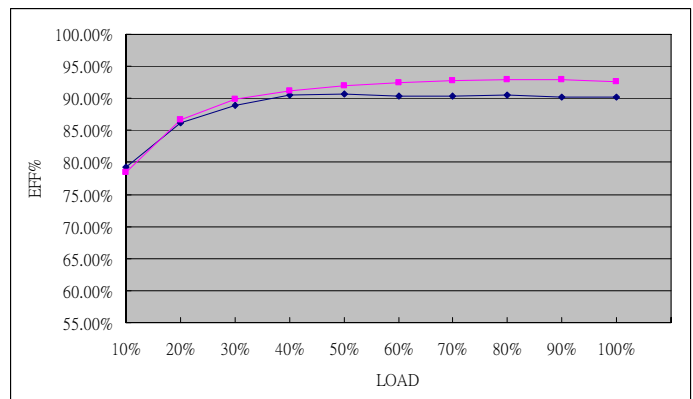
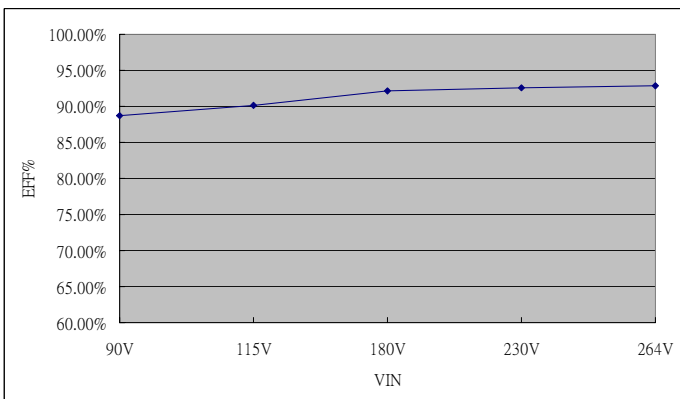
AQFV480U-48S

VIN VS Efficiency

Input Voltage (V)	90	115	180	230	264
Efficiency (%)	88.71	90.17	92.11	92.60	92.82

LOAD VS Efficiency

Load (%)	0	10	20	30	40	50
115V (%)	0	79.27	86.24	88.90	90.50	90.68
230V (%)	0	78.44	86.67	89.83	91.11	91.94
Load (%)	60	70	80	90	100	
115V (%)	90.41	90.36	90.48	90.21	90.17	
230V (%)	92.44	92.70	92.90	92.89	92.60	



EFFICIENCY VERSUS LOAD (with 18CFM FAN)

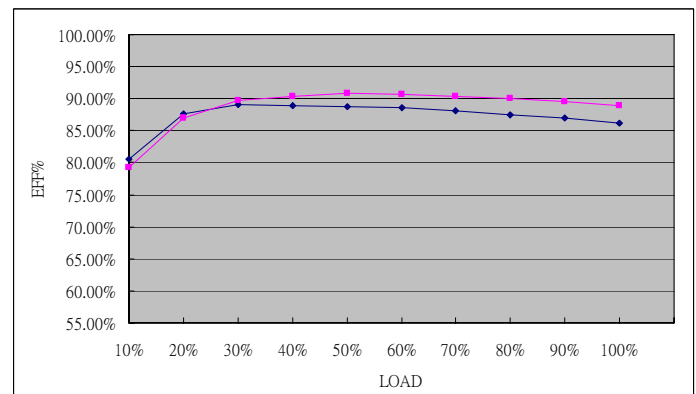
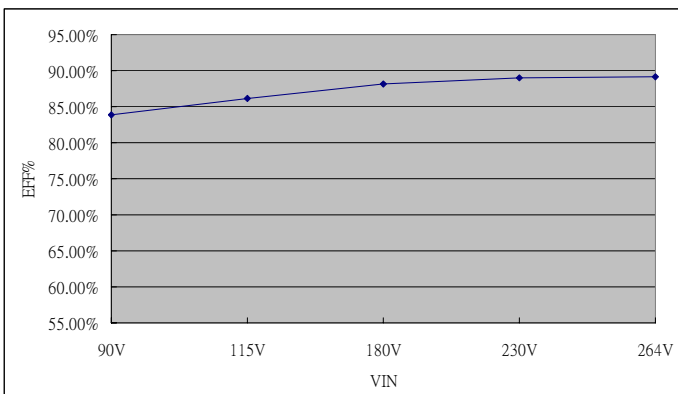
AQFV480U-12S

VIN VS Efficiency

Input Voltage (V)	90	115	180	230	264
Efficiency (%)	83.90	86.17	88.12	88.97	89.15

LOAD VS Efficiency

Load (%)	0	10	20	30	40	50
115V (%)	0	80.55	87.57	89.04	88.85	88.71
230V (%)	0	79.24	87.06	89.66	90.39	90.81
Load (%)	60	70	80	90	100	
115V (%)	88.59	88.16	87.53	86.93	86.17	
230V (%)	90.62	90.38	89.98	89.55	88.97	



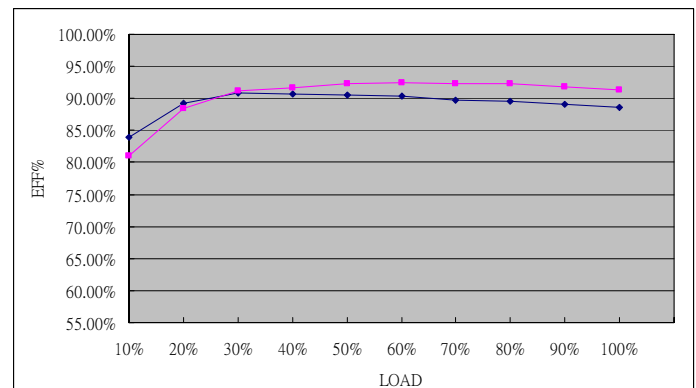
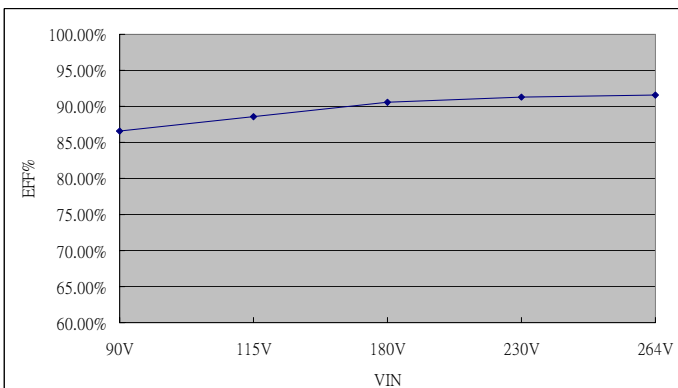
AQFV480U-24S

VIN VS Efficiency

Input Voltage (V)	90	115	180	230	264
Efficiency (%)	86.51	88.60	90.58	91.32	91.56

LOAD VS Efficiency

Load (%)	0	10	20	30	40	50
115V (%)	0	83.91	89.22	90.81	90.61	90.53
230V (%)	0	81.02	88.37	91.11	91.72	92.35
Load (%)	60	70	80	90	100	
115V (%)	90.36	89.66	89.56	89.10	88.60	
230V (%)	92.48	92.36	92.23	91.74	91.32	

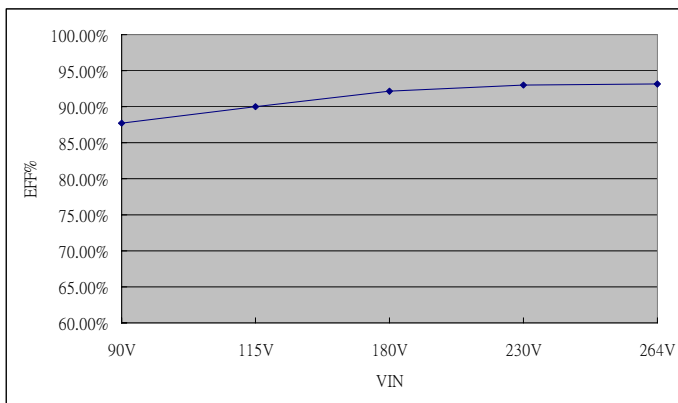


EFFICIENCY VERSUS LOAD (with 18CFM FAN)

AQFV480U-36S

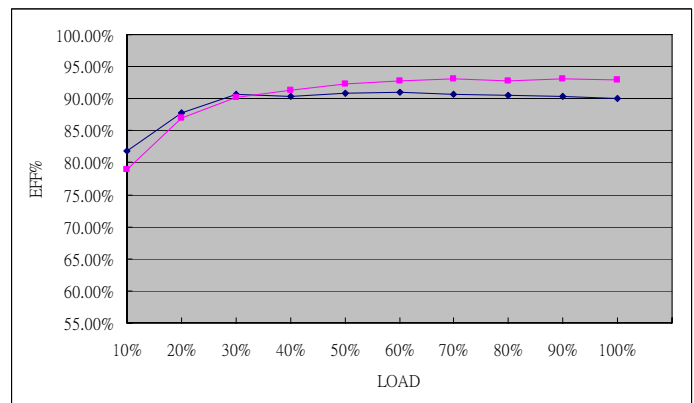
VIN VS Efficiency

Input Voltage (V)	90	115	180	230	264
Efficiency (%)	87.75	89.98	92.19	92.96	93.21



LOAD VS Efficiency

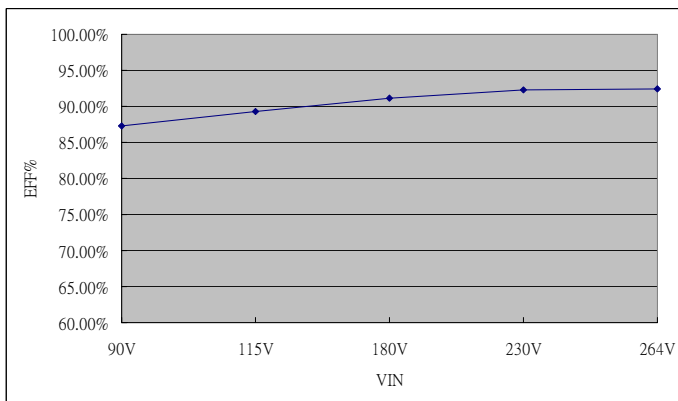
Load (%)	0	10	20	30	40	50
115V (%)	0	81.77	87.84	90.61	90.36	90.80
230V (%)	0	78.91	87.02	90.20	91.32	92.36
Load (%)	60	70	80	90	100	
115V (%)	91.05	90.75	90.49	90.30	89.98	
230V (%)	92.80	93.04	92.80	93.03	92.96	



AQFV480U-48S

VIN VS Efficiency

Input Voltage (V)	90	115	180	230	264
Efficiency (%)	87.25	89.33	91.21	92.26	92.48



LOAD VS Efficiency

Load (%)	0	10	20	30	40	50
115V (%)	0	81.82	87.48	89.68	89.51	90.09
230V (%)	0	79.23	86.44	90.02	90.77	91.90
Load (%)	60	70	80	90	100	
115V (%)	89.92	90.07	89.75	89.78	89.33	
230V (%)	91.94	92.33	92.18	92.37	92.26	

