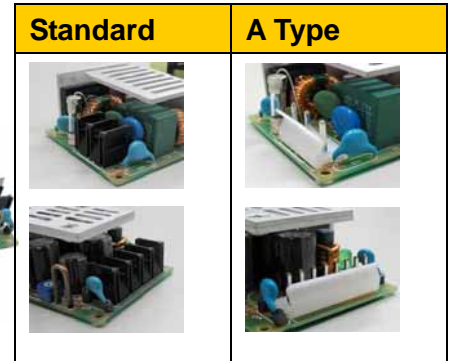


ZQF100 SERIES
100 Watts
KEY FEATURES

- Open Frame LED Power Supply
- Universal Input: 100-240 VAC (Up to 277 VAC)
- 3000 VAC Input to Output Isolation
- Built-in active PFC function, PF>0.95
- Low Cost & High reliability
- With Constant Current & Constant Voltage
- LED Power Application
- 2-Years Product Warranty


ELECTRICAL SPECIFICATIONS

Model No.	ZQF100-12S	ZQF100-15S	ZQF100-24S	ZQF100-36S	ZQF100-48S	
Max output wattage (W)	100W	100W	100W	100W	100W	
Input	Voltage					
	90-264 VAC or 120-370 VDC (H Type up to 277 VAC)					
	Frequency (Hz)					
	47-63 Hz					
	Power factor					
	PF>0.95 at Full Load (115 VAC / 230 VAC)					
	Current (Full load)					
2.0A max. (115 VAC) / 1.0A max. (230 VAC)						
Inrush current (<2ms)						
30 A max. (115 VAC) / 60 A max. (230 VAC)						
Leakage Current						
< 0.75 mA max						
External fuse (recommend)						
3.15 A slow blow type						
Output	Voltage (V.DC.)	12V	15V	24V	36V	48V
	Constant Current Range (V.DC.)	6 ~ 12V	7.5 ~ 15V	12 ~ 24V	18 ~ 36V	24 ~ 48V
	Voltage set accuracy	±2%				
	Current (mA) max	8333	6666	4166	2777	2083
	Voltage adjustment range	90% ~ 110%				
	Current adjustment range	75% ~ 105%		50% ~ 110%		
	Maximum capacitive load(uF)	56000	56000	12000	3900	1000
	Line regulation (Typ.)	0.5%				
	Load regulation(Typ.)	1%				
	Minimum load	15%				
	Ripple & Noise (max)	< 100mV				
	Efficiency (Vin:230V)	85%	86%	87%	88%	88%
	Hold-up time	60 ms				
	Switching frequency	60 KHz				
	Protection	Over current protection	Hiccup mode (automatic recovery)			
Over voltage protection		Zener diode clamp				
Short circuit protection		Hiccup mode (automatic recovery)				
Isolation	Input-Output (V.AC)	3000V				
	Input-FG (V.AC)	1500V				
	Output-FG (V.AC)	500V				
Environment	Operating temperature	-10°C...+70°C (with derating)				
	Storage temperature	-40°C...+100°C				
	Temperature coefficient	0.01%/°C				
	Humidity	95% RH				
	MTBF	>100,000 h @ 25°C (MIL-HDBK-217F)				
Physical	Dimension (L x W x H)	7.0 x 2.0 x 1.3 Inches (177.8 x 50.8 x 33.0 mm) Tolerance ±0.5 mm				
	Weight	280 g				
	Cooling method	Free air convection				
Safety	Agency Approvals	Design refer to UL60950 , CE (Pending)				
EMC	EMI (Conducted & Radiated Emission)	Design refer to EN 61000-6-3 · EN 55015 (Pending)				
	EMS (Noise Immunity)	Design refer to EN 55024 (Surge 4KV) (Pending)				

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

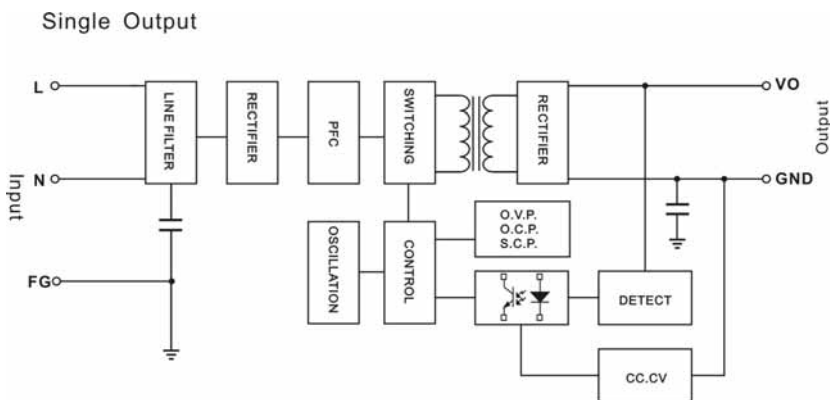
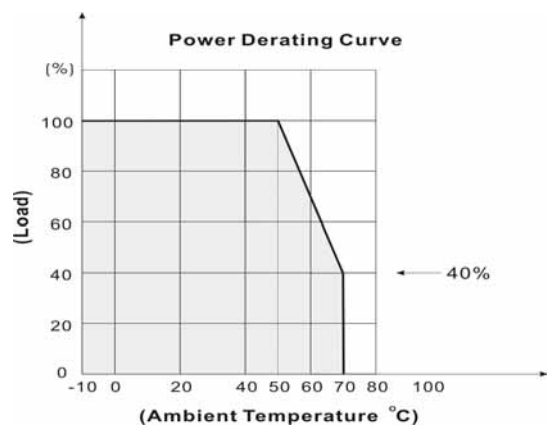
2. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.

MECHANICAL DIMENSION (Top View)
Standard

PIN#	SINGLE
1	AC IN (L)
2	AC IN (N)
3	+DC OUT
4	+DC OUT
5	-DC OUT
6	-DC OUT
VR1	VO Adj.
VR2	IO Adj.

A Type

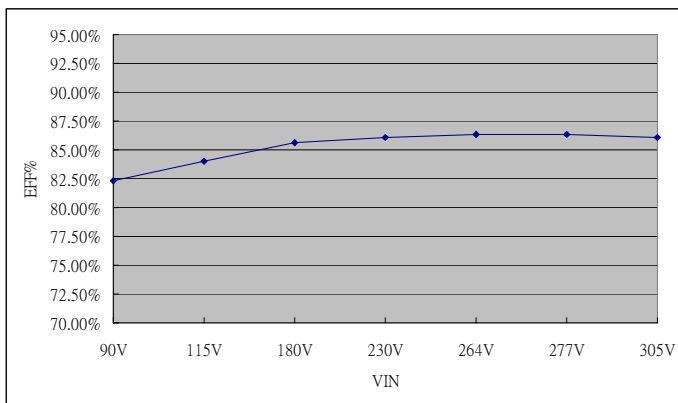
PIN#	SINGLE
1	AC IN (L)
2	AC IN (N)
3	FG
4-7	+DC OUT
8-11	-DC OUT
VR1	VO Adj.
VR2	IO Adj.

BLOCK DIAGRAM

DERATING


EFFICIENCY VERSUS LOAD
ZQF100-12S
VIN VS Efficiency

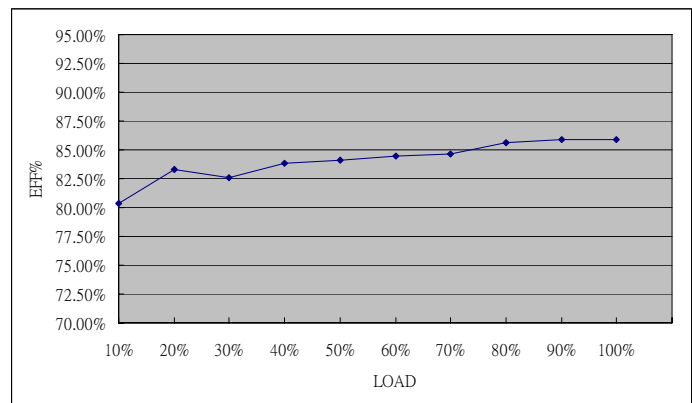
Input Voltage (V)	90	115	180	230	264
Efficiency (%)	82.30	84.00	85.59	86.04	86.34

Input Voltage (V)	277	305
Efficiency (%)	86.34	86.03


LOAD VS Efficiency

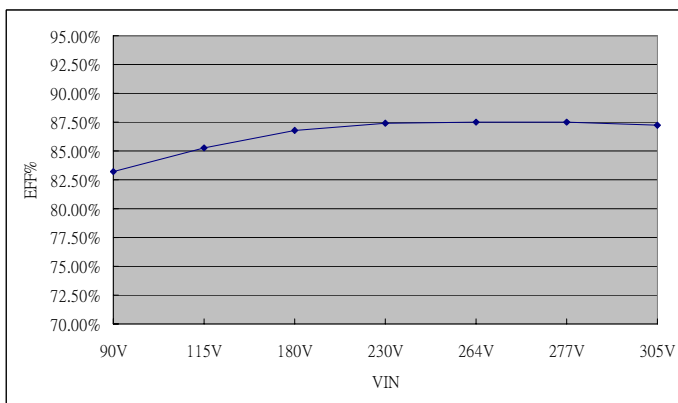
Load (%)	10	20	30	40	50
230V (%)	80.37	83.31	82.57	83.80	84.15

Load (%)	60	70	80	90	100
230V (%)	84.42	84.60	85.62	85.87	85.91


ZQF100-15S
VIN VS Efficiency

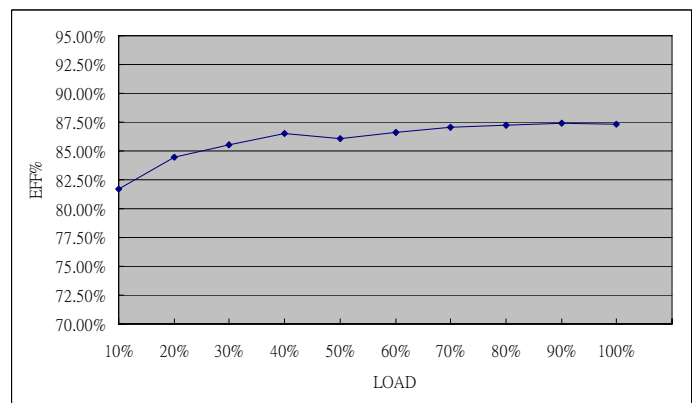
Input Voltage (V)	90	115	180	230	264
Efficiency (%)	83.19	85.26	86.76	87.37	87.46

Input Voltage (V)	277	305
Efficiency (%)	87.46	87.24


LOAD VS Efficiency

Load (%)	10	20	30	40	50
230V (%)	81.66	84.43	85.56	86.54	86.03

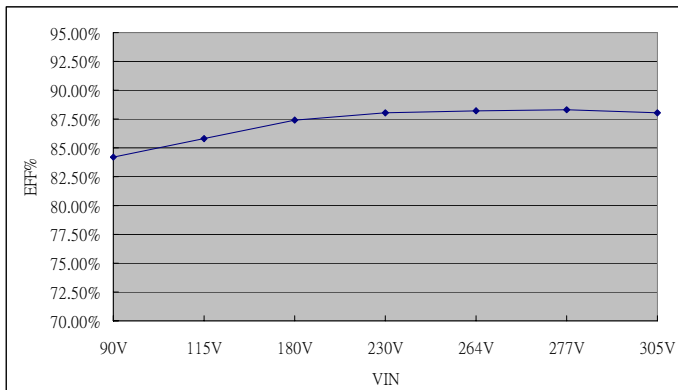
Load (%)	60	70	80	90	100
230V (%)	86.57	87.05	87.25	87.43	87.32



EFFICIENCY VERSUS LOAD
ZQF100-24S
VIN VS Efficiency

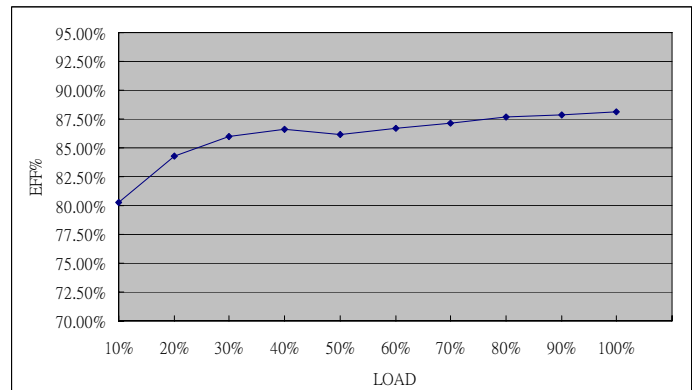
Input Voltage (V)	90	115	180	230	264
Efficiency (%)	84.18	85.77	87.42	88.04	88.20

Input Voltage (V)	277	305
Efficiency (%)	88.27	88.03


LOAD VS Efficiency

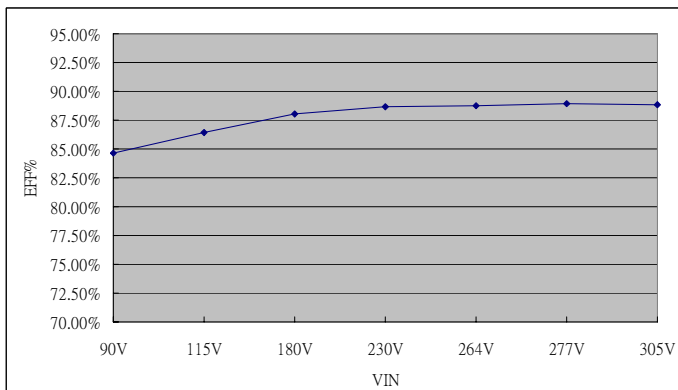
Load (%)	10	20	30	40	50
230V (%)	80.23	84.28	85.94	86.60	86.13

Load (%)	60	70	80	90	100
230V (%)	86.67	87.16	87.70	87.88	88.15


ZQF100-36S
VIN VS Efficiency

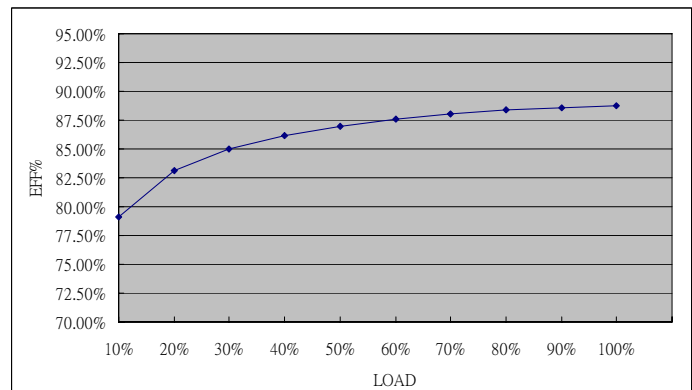
Input Voltage (V)	90	115	180	230	264
Efficiency (%)	84.63	86.41	88.01	88.63	88.79

Input Voltage (V)	277	305
Efficiency (%)	88.95	88.87


LOAD VS Efficiency

Load (%)	10	20	30	40	50
230V (%)	79.10	83.15	84.96	86.20	86.96

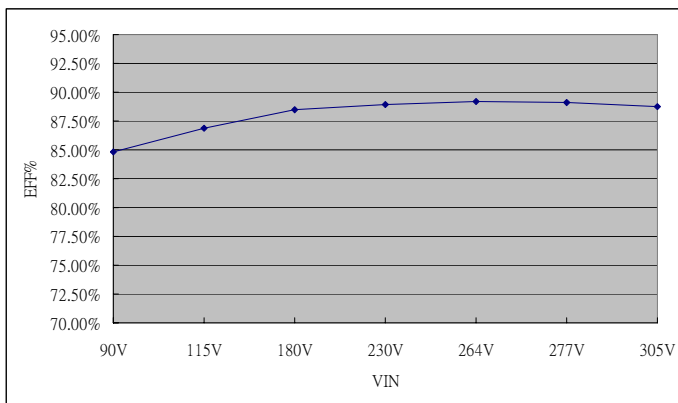
Load (%)	60	70	80	90	100
230V (%)	87.61	88.06	88.39	88.59	88.79



EFFICIENCY VERSUS LOAD
ZQF100-48S
VIN VS Efficiency

Input Voltage (V)	90	115	180	230	264
Efficiency (%)	84.84	86.90	88.44	88.92	89.23

Input Voltage (V)	277	305
Efficiency (%)	89.15	88.76


LOAD VS Efficiency

Load (%)	10	20	30	40	50
230V (%)	75.86	81.69	84.15	85.95	86.78

Load (%)	60	70	80	90	100
230V (%)	87.59	88.27	88.64	88.98	89.16

