

## KEY FEATURES

- Open Frame Switching Power Supply
- Universal Input: 85-265 VAC
- Single Output
- <0.3W No Load Input Power (48Vout <0.5W)
- 5 VDC to 48 VDC Output
- Ultra Compact Size: 4.05 x 2.04 x 1.36 Inches
- 3-Year Product Warranty



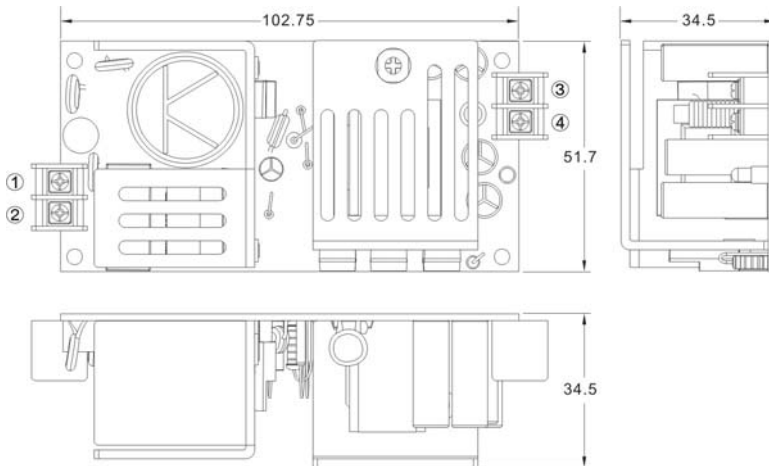
## ELECTRICAL SPECIFICATIONS

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

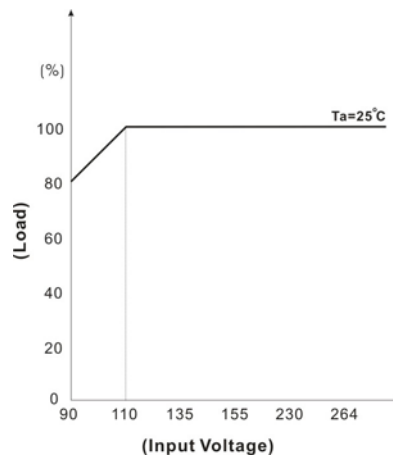
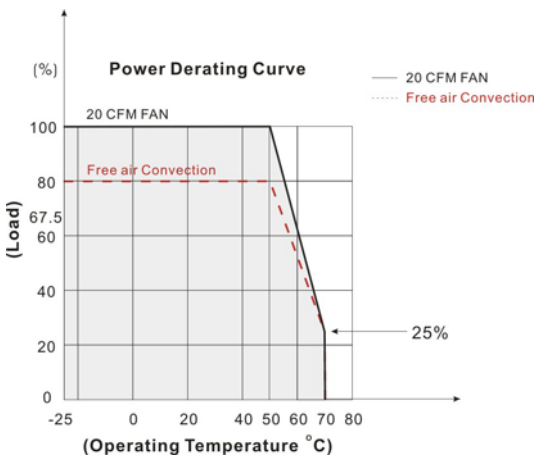
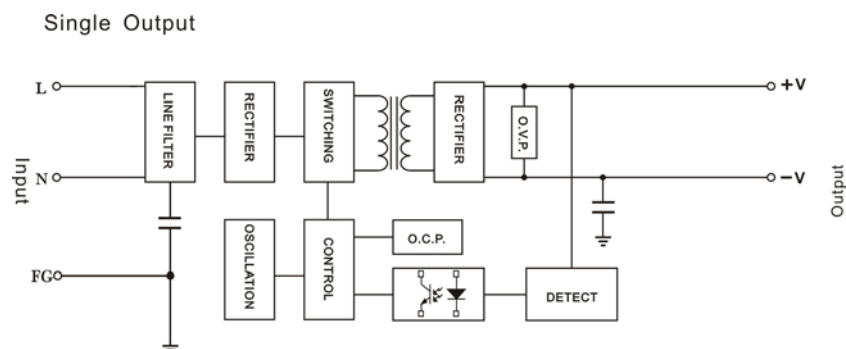
Model No.	SZA100-5S	SZA100-12S	SZA100-15S	SZA100-24S	SZA100-48S
Max Output Wattage (Free air Convection) (W)	80 W				
Max Output Wattage (with 20CFM FAN) (W)	100 W				
Input	Voltage				
	85-265 VAC or 120-370 VDC				
	Frequency (Hz)				
	47-63 Hz				
	Current (Full load)				
3 A max. (115 VAC) / 2 A max. (230 VAC)					
Inrush Current (<2ms)					
40 A max. (115 VAC) / 80 A max. (230 VAC)					
Leakage Current					
0.75 mA max.					
Output	Voltage (V.DC.)				
	5V				
	12V				
	15V				
	24V				
	48V				
	Voltage Accuracy				
	±2%				
	Current (Free air Convection) (mA) max				
	12,000				
	6,665				
	5,336				
3,336					
1,667					
Current (with 20CFM FAN) (mA) max					
18,000					
8,330					
6,670					
4,170					
2,084					
Line Regulation (LL-HL) (typ.)					
±1%					
Load Regulation (5-100%) (typ.)					
±1%					
Maximum Capacitive Load (at 230VAC)					
35,000µF					
24,640µF					
13,860µF					
5,600µF					
1,638µF					
Ripple					
150mV					
100mV					
100mV					
110mV					
150mV					
Noise					
150mV					
150mV					
150mV					
200mV					
280mV					
Efficiency (at 230V)					
80%					
86%					
86%					
88%					
88%					
Trim					
±10%					
Hold-up Time					
10 ms min.					
Protection	Over Power Protection				
	Auto recovery				
	Over Voltage Protection				
Zener diode clamp					
Short Circuit Protection					
Auto recovery					
Isolation	Input-Output (V.AC)				
	3000VAC or 4242VDC				
	Input-FG (V.AC)				
1500V					
Output-FG (V.AC)					
500V					
Environment	Operating Temperature				
	-25°C...+70°C (with derating)				
	Storage Temperature				
	-40°C...+85°C				
	Temperature coefficient				
	±0.02%/°C				
Humidity					
95% RH					
MTBF					
>130,000 h @ 25°C (MIL-HDBK-217F)					
Vibration					
10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes.					
Physical	Dimension (L x W x H)				
	4.05 x 2.04 x 1.36 Inches ( 102.75 x 51.7 x 34.5 mm ) Tolerance ±0.5 mm				
	Weight				
220 g					
Cooling Method					
Free air convection					
EMC	EMI (Conducted & Radiated Emission)				
	EN 55022 Class B (Pending)				
EMS (Noise Immunity)					
EN 55024 (Pending)					

**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 within Arch power supply.

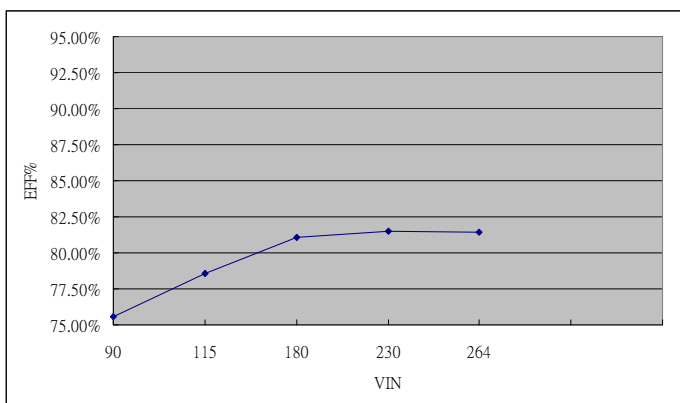
**MECHANICAL DIMENSION ( Top View )**


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

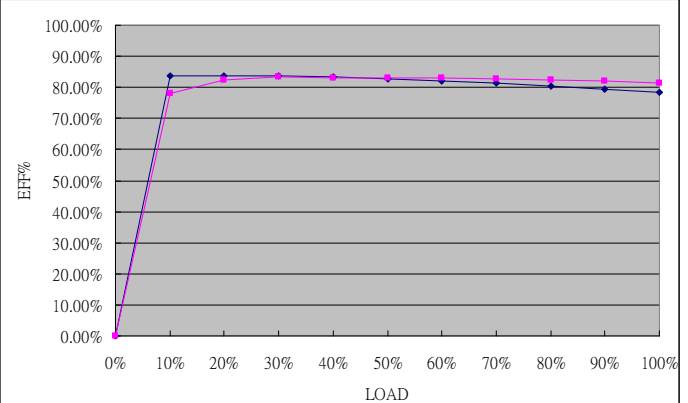
**DERATING**

**BLOCK DIAGRAM**


**EFFICIENCY VERSUS LOAD**
**SZA100-5S**
**VIN VS Efficiency**

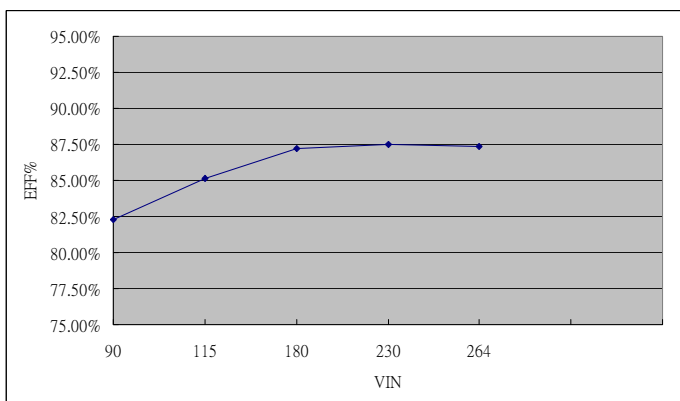
Input Voltage (V)	90	115	180	230	264
Efficiency (%)	75.60	78.58	81.09	81.50	81.43


**LOAD VS Efficiency**

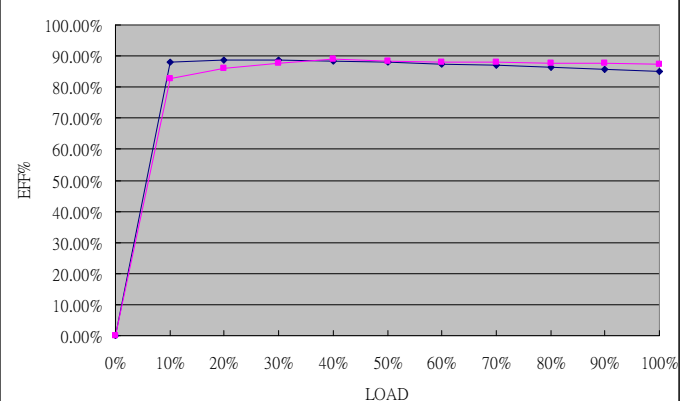
Load (%)	0	10	20	30	40	50
115V (%)	0.00	83.88	83.88	83.71	83.37	82.84
230V (%)	0.00	78.14	82.48	83.49	83.11	83.19
Load (%)	60	70	80	90	100	
115V (%)	82.12	81.28	80.44	79.53	78.52	
230V (%)	83.09	82.76	82.40	81.95	81.47	


**SZA100-12S**
**VIN VS Efficiency**

Input Voltage (V)	90	115	180	230	264
Efficiency (%)	82.29	85.11	87.22	87.47	87.33

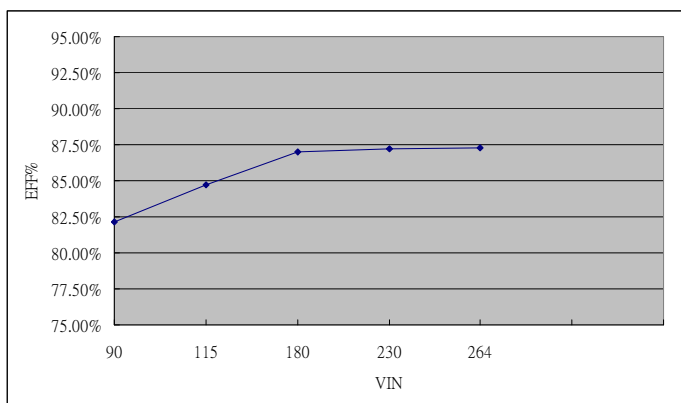

**LOAD VS Efficiency**

Load (%)	0	10	20	30	40	50
115V (%)	0.00	88.05	88.72	88.73	88.25	88%
230V (%)	0.00	82.84	86.09	87.70	88.90	88.32
Load (%)	60	70	80	90	100	
115V (%)	87.54	86.90	86.40	85.75	85%	
230V (%)	88%	87.95	87.85	87.67	87.38	

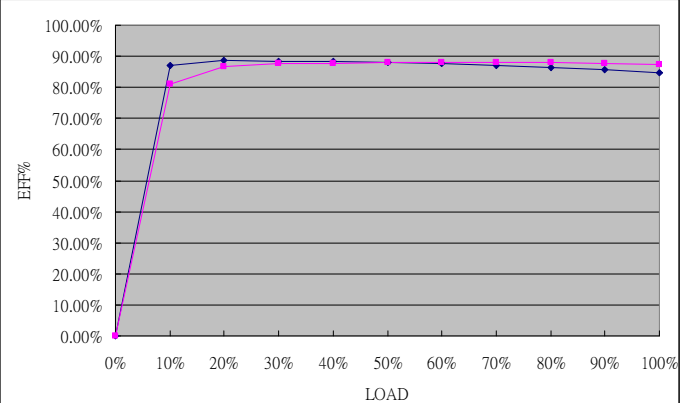


**EFFICIENCY VERSUS LOAD**
**SZA100-15S**
**VIN VS Efficiency**

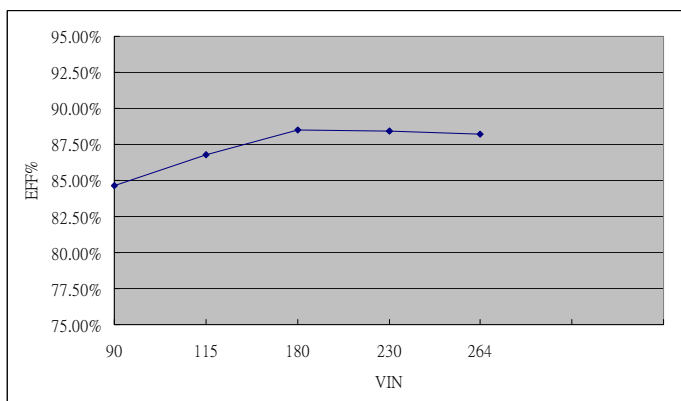
Input Voltage (V)	90	115	180	230	264
Efficiency (%)	82.17	84.74	87.02	87.24	87.28


**LOAD VS Efficiency**

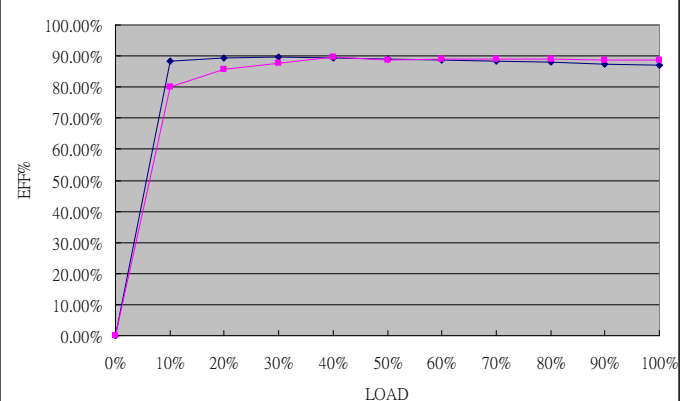
Load (%)	0	10	20	30	40	50
115V (%)	0.00	87.17	88.62	88.50	88.45	88.08
230V (%)	0.00	81.01	86.73	87.82	87.76	88.01
Load (%)	60	70	80	90	100	
115V (%)	87.61	86.96	86.33	85.59	84.76	
230V (%)	88.13	88.07	87.90	87.66	87.35	


**SZA100-24S**
**VIN VS Efficiency**

Input Voltage (V)	90	115	180	230	264
Efficiency (%)	84.67	86.82	88.49	88.44	88.19

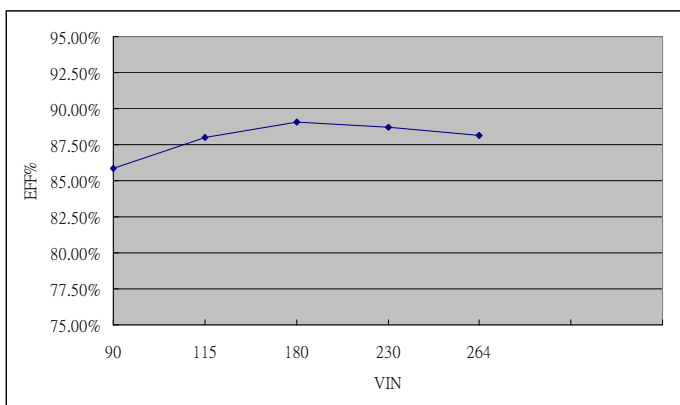

**LOAD VS Efficiency**

Load (%)	0	10	20	30	40	50
115V (%)	0.00	88.32	89.26	89.73	89.34	89.09
230V (%)	0.00	80.16	85.70	87.80	89.70	88.87
Load (%)	60	70	80	90	100	
115V (%)	88.72	88.37	87.92	87.46	86.90	
230V (%)	88.96	88.96	88.94	88.80	88.61	



**EFFICIENCY VERSUS LOAD**
**SZA100-48S**
**VIN VS Efficiency**

Input Voltage (V)	90	115	180	230	264
Efficiency (%)	85.87	87.97	89.10	88.69	88.16


**LOAD VS Efficiency**

Load (%)	0	10	20	30	40	50
115V (%)	0.00	85.99	89.05	89.50	89.10	89.24
230V (%)	0.00	80.50	87.10	87.52	88.67	88.12
Load (%)	60	70	80	90	100	
115V (%)	89.09	88.77	88.54	88.14	87.70	
230V (%)	88.40	88.48	88.61	88.62	88.65	

