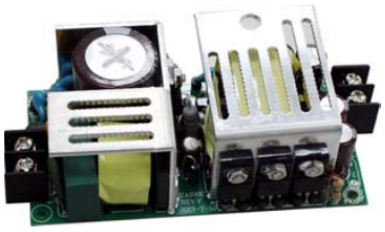
SZA100 Series

100 W AC/DC Open Frame Switching Power Supply

CoolPower Solutions

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
- 3000 VAC Input to Output Isolation
- Ultra Compact Size: 4.05 x 2.04 x 1.36 Inches
- 3-Years Product Warranty



CE

ELECTRICAL SPECIFICATIONS

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	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)	3000V				
	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				
Safety	Agency Approvals	CE, UL60950 (Pending)				
EMC	EMI (Conducted & Radiated Emission)	EN 55022 Class B (Pending)				
	EMS (Noise Immunity)	EN 55024 (Pending)				

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.

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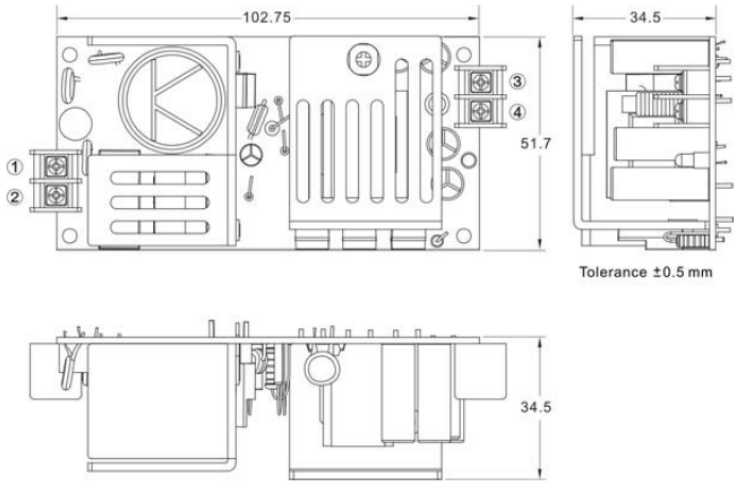
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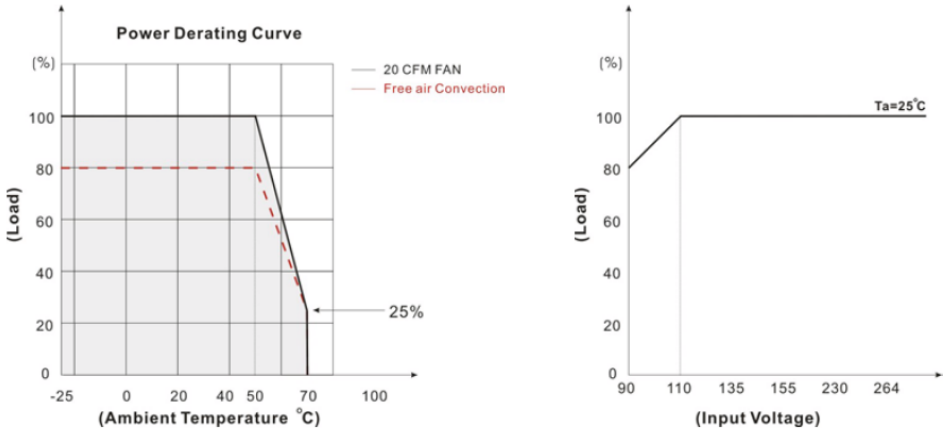
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MECHANICAL DIMENSION (Top View)

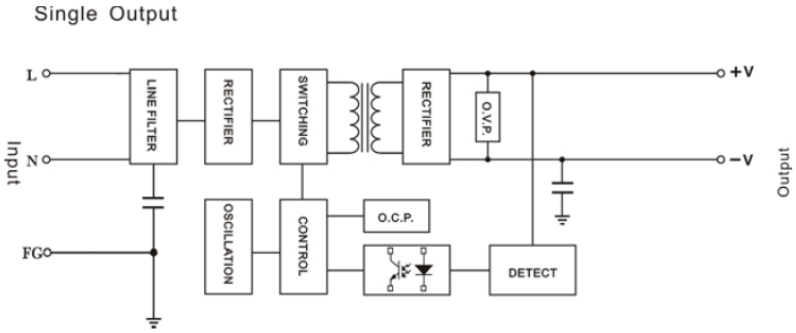


PIN#	SINGLE
1	AC IN (N)
2	AC IN (L)
3	-DC OUT
4	+DC OUT

DERATING



BLOCK DIAGRAM



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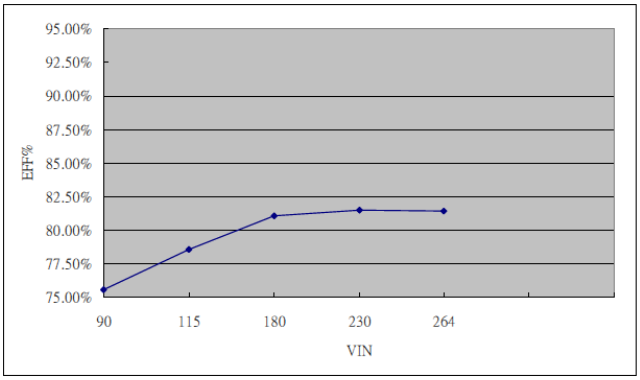
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EFFICIENCY VERSUS LOAD

SZA100-5S

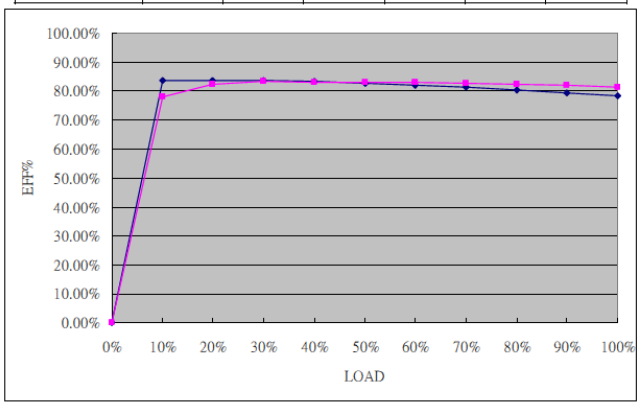
VIN VS Efficiency

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



LOAD VS Efficiency

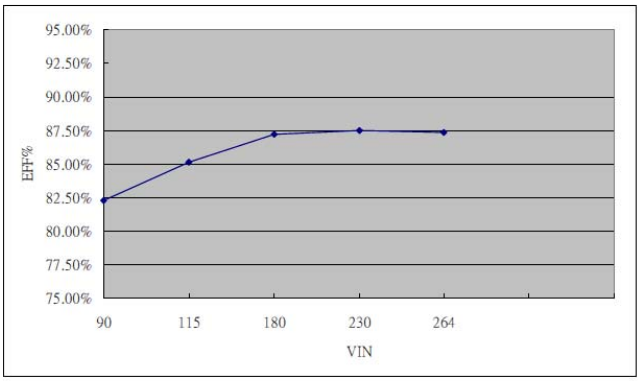
Load (%)	0	10	20	30	40	50
115V (%)	0.00	83.88	83.88	83.71	83.37	82.84
230V (%)	0.00	78.14	82.48	83.49	83.11	83.19
Load (%)	60	70	80	90	100	
115V (%)	82.12	81.28	80.44	79.53	78.52	
230V (%)	83.09	82.76	82.40	81.95	81.47	



SZA100-12S

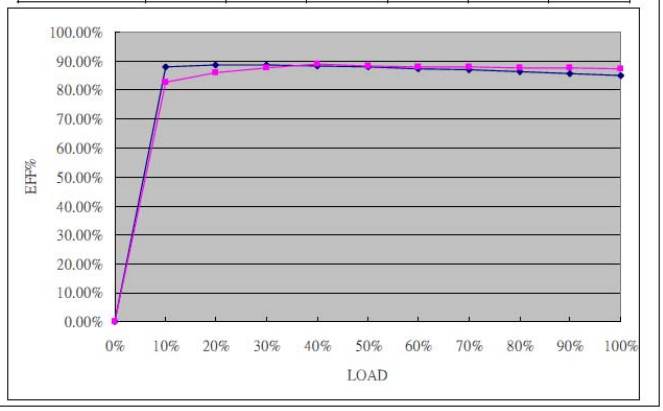
VIN VS Efficiency

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	



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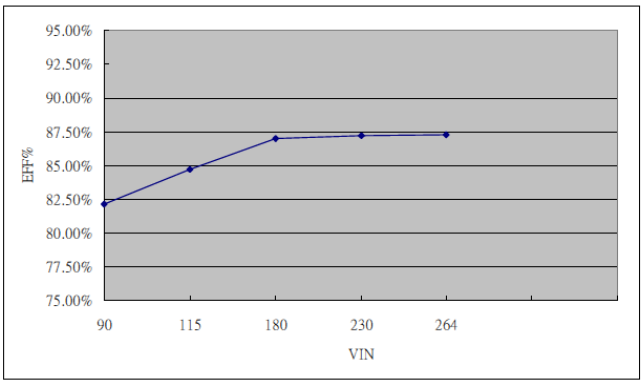
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EFFICIENCY VERSUS LOAD

SZA100-15S

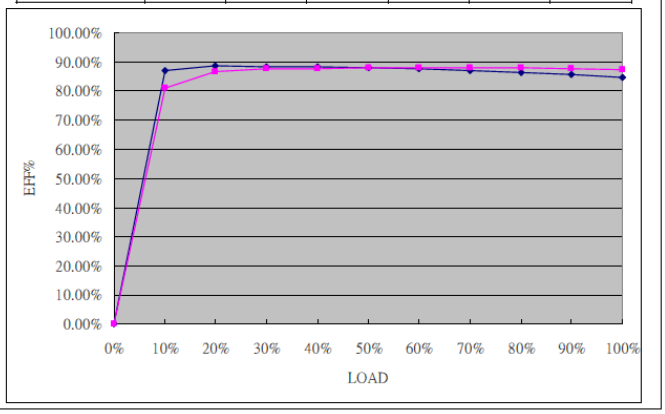
VIN VS Efficiency

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



LOAD VS Efficiency

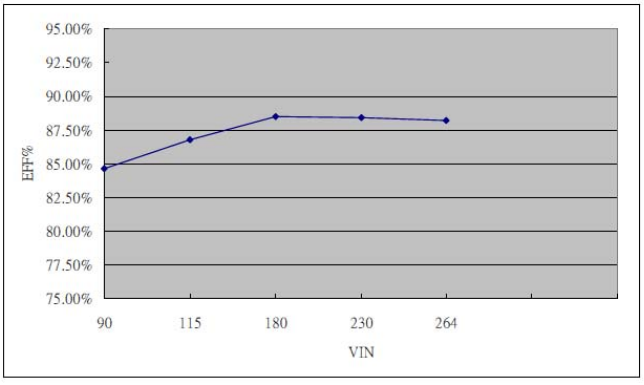
Load (%)	0	10	20	30	40	50
115V (%)	0.00	87.17	88.62	88.50	88.45	88.08
230V (%)	0.00	81.01	86.73	87.82	87.76	88.01
Load (%)	60	70	80	90	100	
115V (%)	87.61	86.96	86.33	85.59	84.76	
230V (%)	88.13	88.07	87.90	87.66	87.35	



SZA100-24S

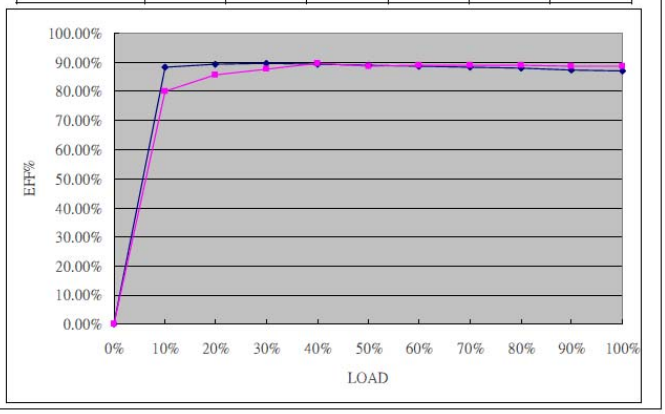
VIN VS Efficiency

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	



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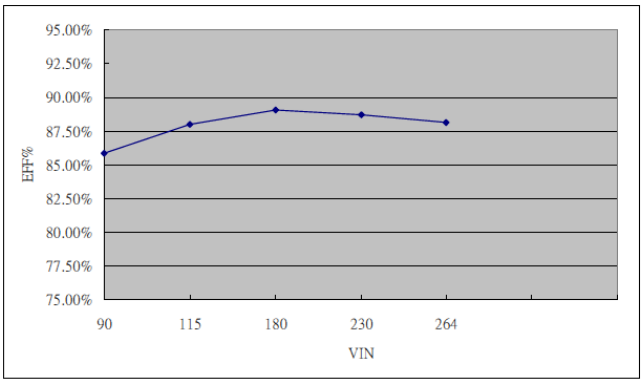
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EFFICIENCY VERSUS LOAD

SZA100-48S

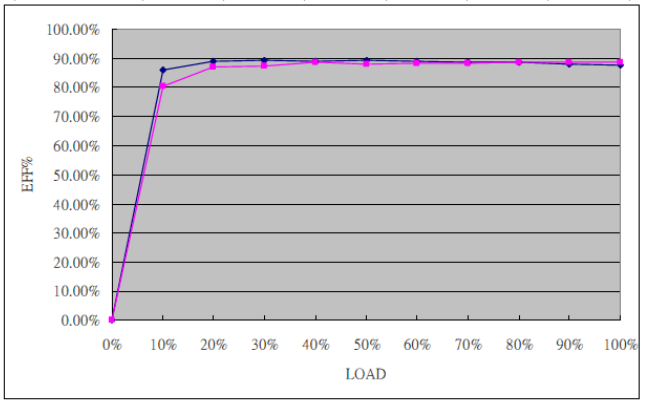
VIN VS Efficiency

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	



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