

Model SWG100 Series

Parameter		Model			
		SWG100-05	SWG100-12	SWG100-24	
Input Conditions	Rated Input Voltage	100 to 240 VAC (140 to 340 VDC)			
	Allowable Input Voltage	85 to 264 VAC (120 to 370 VDC)			
	Input Current (typ)	1.3 A (100 VAC) / 0.7 A (200 VAC)			
	Rated Frequency	50 / 60 Hz			
	Allowable Frequency Range	47 to 63 Hz			
	Efficiency (typ)	AC 100 V	82%	81%	84%
		AC 200 V	84%	83%	86%
	Power Factor (typ)	0.99 A (100 VAC) / 0.93 A (200 VAC)			
	Inrush Current (typ) ^{1,2}	20 A (V _{IN} = 100 V) / 40 A (V _{IN} = 200 V) I _O = 100% at Cold Start			
Leakage Current (max)	0.40 mA (V _{IN} = 100 V) / 0.75 mA (V _{IN} = 240 V) 60 Hz I _O = 100% per measuring method of IEC60950-1 and PSE				
Output Conditions	Rated Output Voltage	5 V	12 V	24 V	
	Rated Output Current	20 A	8.5 A	4.5 A	
	Static Input Variation	20 mV max	48 mV max	96 mV max	
	Static Load Variation	40 mV max	100 mV max	150 mV max	
	Ripple ³	0° to 50° C	80 mVp-pmax	120 mVp-pmax	120 mVp-pmax
		-10° to 0° C	140 mVp-pmax	160 mVp-pmax	160 mVp-pmax
	Ripple Noise ³	0° to 50° C	120 mVp-pmax	150 mVp-pmax	150 mVp-pmax
		-10° to 0° C	160 mVp-pmax	180 mVp-pmax	180 mVp-pmax
	Ambient Temperature Variation	0° to 50° C	50 mV max	120 mV max	240 mV max
		-10° to 0° C	60 mV max	150 mV max	290 mV max
	Time Course Drift ⁴	20 mV max	48 mV max	96 mV max	
	Startup Time ¹	350 ms typ (V _{IN} = 100 V I _O = 100%)			
	Output Holding Time ¹	20 ms typ (V _{IN} = 100 V I _O = 100%)			
Voltage Variation Range ⁹	4.00 to 5.50 V	10.0 to 13.2 V	19.2 to 27.0 V		
Voltage Set Point	5.00 to 5.15 V	12.00 to 12.48 V	24.00 to 24.96 V		
Additional Functions	Overcurrent Protection	Detection above 105% of rated current (automatic recovery)			
	Overvoltage Protection ⁵	5.75 to 7.00 V	15.0 to 18.0 V	30.0 to 37.0 V	
	Operations Display	LED Display: Green			
Environmental Conditions	Operating Temperature Range	-10°C to 71°C (with derating)			
	Storage Temperature Range	-20°C to 75°C			
	Operating Humidity Range	20% to 90% RH (no condensation)			
	Storage Humidity Range	20% to 90% RH (no condensation)			
	Cooling Requirements	Natural air cooling			
	Vibration Resistance	Vibration Frequency	10 to 55 Hz		
		Sweep Time	3 minutes		
		Acceleration	19.6 m/s ² (2 G)		
		Vibration Direction	x, y, z		
		Vibration Time	One hour in each of three directions		
Shock Resistance	196.1m/s ² (20G) 11 ms One each of three directions x, y, z				
Installation Conditions	Derating may be required due to mounting orientation				

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Insulation ⁷	Insulation Withstand Voltage	Input-Output	3000 VAC one minute (leakage current 10 mA or less)		
		Input-FG	2000 VAC one minute (leakage current 10 mA or less)		
		Output-FG	500 VAC one minute (leakage current 100 mA or less)		
	Insulation Resistance	Input-Output	50 MΩ (measured with 500 VDC Megger)		
		Input-FG			
		Output-FG			
Others	Input/Output Type		Terminal Stand		
	Dimensions		32 mm (W) X 93 mm (H) X 147 mm (D) (without terminal stand)		
	Weight		440g maximum (without cover)		
	Safety Standards		UL60950-1, C-UL (CSA60950-1), EN60950-1, EN50178, PSE		
	EMI Safety		Designed to meet FCC Class B, VCCI Class B, CISPR22 Class B, EN55011 Class B, EN55022 Class B		
	Harmonic Current		Designed to meet IEC61000-3-2		
	Electromagnetic Susceptibility		Designed to meet EN61000-4-2 (for electrostatic discharge)		
			Designed to meet EN61000-4-3 (for radiated, radio-frequency, electromagnetic field)		
			Designed to meet EN61000-4-4 (for transient burst)		
			Designed to meet EN61000-4-5 (for lightning surge)		
			Designed to meet EN61000-4-6 (for conductive radio frequency electromagnetic field)		
Designed to meet EN61000-4-8 (for power supply frequency electromagnetic field immunity)					
Environmental Response		Designed to meet EN61000-4-11 (for voltage dip/variation)			
Options	Remote On/Off		Yes		
	Connector		JST (except 5 V output)		
	Cover ⁸		Yes		

- Specified under rated input/output conditions at an ambient temperature of 25°C.
- More current above noted values may flow at restart (ambient temperature of 25°C).
- Ripple noise is measured with a 20 MHz oscilloscope using a 1:1 probe.
- Time-course drift is measured between 30 minutes to 8 hours after applying input voltage at rated input/output at an ambient temperature 25°C.
- Reset is performed by reapplying input voltage.
- Output derating may be required.
- Insulation conditions are specified at normal temperature and humidity.
- Derating may be required for the power supply with cover.
- In the case where output voltage is variable, set a voltage such that Output Voltage Variation, Rated Output Current, and Rated Output Power are not exceeded.