



Document Number:

M370185-XG1700

Rev:

A

Manual Errata XG 1700


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Manual Errata:

Sorensen
XG 1700

Revision History


Revision	Description	Date	By
A	Errata Release per ECO # EC-000755	01-28-2010	Oleg Boyarko

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The Sorensen XG 1700 operates the same as outlined in the Sorensen XG 850 manual (P/N M370185-01) with the following exceptions:

- Mechanical Specifications are 1U 17" rack as outlined in the following specifications
- Variable Fan Speed Control: Fan Speed is determined by internal heat sink temperature. This allows the fans to adjust to a constant optimal speed when the output of the supply is being pulsed.
- Power saving standby control: When the power supply is in an idle and cooled down mode the supply can go into "sleep mode", much like a computer monitor. Since a XG left in sleep mode is still "on" the user will also have quicker access to an enabled output

Electrical specifications are as outlined on the following pages.

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1. Minimum output voltage is guaranteed to be $\leq 0.2\%$ of the rated voltage at zero output setting.
 2. Minimum output current is guaranteed to be $\leq 0.4\%$ of the rated current at zero output setting when measured with rated load resistance.
 3. Total output power is also based on AUX1 Output Voltage (5V) and AUX1 Output Current (0.5 A) and AUX2 Output Voltage (15 V) and AUX2 Output Current (0.5 A).
 4. From 85-132 Vac or 170-265 Vac, constant load.
 5. From 85-132 Vac or 170-265 Vac, constant load.
 6. From no load to full load, constant input voltage.
 7. For load voltage change, equal to the unit voltage rating, constant input voltage.
 8. For 6 V models the ripple is measured at 2-6 V output voltage and full output current. For other models, the ripple is measured at 10-199% output voltage and full output current.
 9. When using remote sense, the total of the load voltage and the load line drops must not exceed the rated output of the power supply. For example, for an XTR 6-220 in an application with 1 V of load line loss (0.5 V/Line), the maximum available load voltage would be 6-1=5 V. Note: The unit may operate at higher output voltages than this, but there is no guarantee that the power supply will meet performance specifications. Ultimately, the upper limit of the output voltage will be determined by internal circuitry of the power supply (non-adjustable)
 10. With rated, resistive load
 11. At 100/200 Vac input voltage and maximum output power.
- Applies to all footnotes: Programming and Readback: RS-232, RS-485, USB built in. GP1B, Ethernet optional.
Specifications are guaranteed from 1% to 100% of the rated output voltage, current, and power.

AC Line Input Specifications for XTR 1700 Watt

The input to the power supply requires the following input specifications.

Rated AC Input Voltage/Frequency	100-240 Vac, 47-63 Hz
Operational AC Input Voltage/Frequency	85-265 Vac continuous, 47-63 Hz, single phase
Input Current (at 100/200 Vac)	23/12 A
Inrush Current (100/200 Vac)	Less than 50 A
Power Factor Correction	0.99@100/200 Vac, rated output power

Remote Operation

Programming Mode	APG	ISOL	Digital
Voltage and Current Output Voltage Programming	0-100% 2~up to 10 V, programmable		
Current Output Resistor Programming	0-100%, 2~up to 10 k Ω , programmable		
Voltage Output Resistor Programming	0-100%, 2~up to 10 k Ω , programmable		
Output Voltage and Current Monitor	0-100% 2~up to 10 V, programmable		
Voltage Programming Accuracy (mV) ¹	\pm 0.5% of rated output voltage, max (4V/4K range)		\pm 0.1 % of rated output voltage
Current Programming Accuracy (mA) ¹	\pm 1% of rated output current, max (4V/4K range)		\pm 0.2 % of rated output current
Voltage Readback Accuracy (mV)	\pm 1% of rated output voltage		\pm 0.1 % of rated output voltage
Current Readback Accuracy (mA)	\pm 1% of rated output current		\pm 0.2 % of rated output current
Isolation (Prog and Readback Lines)	With respect to chassis potential: 500 V	With respect to Chassis potential: 500 V. Negative or positive main output: 1500 V Negative or positive auxiliary output: 300 V.	
Voltage and Current Programming Resolution			0.012% of full scale
Voltage and Current Readback Resolution			
Parallel Operation	Up to 4 units in master/slave		
Series Operation	Up to 2 units (with external diodes)		
Constant Voltage (CV)/Constant Current (CC) Indicator	CV: TTL High (4-5 V) CC: TTL Low (0-0.6 V)		

Remote Operation (continued)


Programming Mode	APG	ISOL	Digital
Output Voltage and Current Monitor	0-100%, 2~ up to 10 V, programmable		
Shutdown Control ²		Logic low: 0.0-1.4V Logic High: 2.0-15V Dry contact compatible	
AUX On/Off Control		TTL level or dry contact compatible	
Power Supply Status Signal		TTL high: OK (4-5V) TTL low: fail (0-0.6V)	
Interlock Enable/Disable		Dry contact. Open/Short: On or Off, Programmable	

1. Typical APG or isolated APG accuracy can be improved to max accuracy by user calibration at the specific range selected
2. The shutdown input has user selectable negative logic operation via front panel or remote digital input/output.

Common Specification for All Models

Output performance Specifications	
Temperature Coefficient	100 PPM/° C from rated output voltage, after a 30-minute warm-up
Drift (8 hours)	0.05% of rated output (over an 8-hour interval with constant line, load and temperature, after a 30-minute warm-up.
Hold-up Time	Typical 20 ms at any rated input line.
Transient Response Time ¹	Less than 1 ms for 6 V to 60 V models. Less than 2 ms for 80 V to 600 V models
Meter Accuracy	0.5% ± 1 count of actual output voltage or current.
Isolation	
AC Input to Output	1350 Vac
AC Input to Chassis	1350 Vac

1. Time for the output voltage to recover within 0.5% at its rated output for a load change 10-90% of rated output current. Output set point 10-100%.

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Environmental Specifications (Indoor use)

Operating Temperature Range	0° to 50°, 100%° load
Storage Temperature Range	-20° to 70° C
Operating Humidity Range	30-90% RH (no condensation)
Storage Humidity Range	10-95% RH (no condensation)
Operating Altitude	Up to 6,500 feet (2,000 m)
Installation Category	II (IEC 1010-1)
Pollution Degree	2 (IEC 1010-1)

Mechanical Specifications

XTR 1700 Watt (WxHxD)	16.8 x 1.7 x 19.0 inch (429 x 43.6 x 483 mm without rack mount ears)
Weight	XTR 1700 Watt: 22 lb (10 kg)
Cooling	Forced air cooling by internal fans

Regulatory Approvals

Safety	CE Mark
EMC	Complies with EN61000-4 series of standards for immunity