

# Sorensen XPL Series

30–125 W

## Compact, low power/low cost benchtop DC power supplies

18–56 V

- Low Noise
- Excellent line/load regulation
- Remote sense
- Coarse and fine voltage controls
- Constant voltage or constant current operation with automatic crossover and mode indication
- Individual On/Off switch per output (not including fixed output)
- Variable ( 1.5V to 5V ) Auxiliary Output
- Shrouded socket-compatible with bare wire and shrouded safety plug connections up to 4 mm.



1–3.3 A

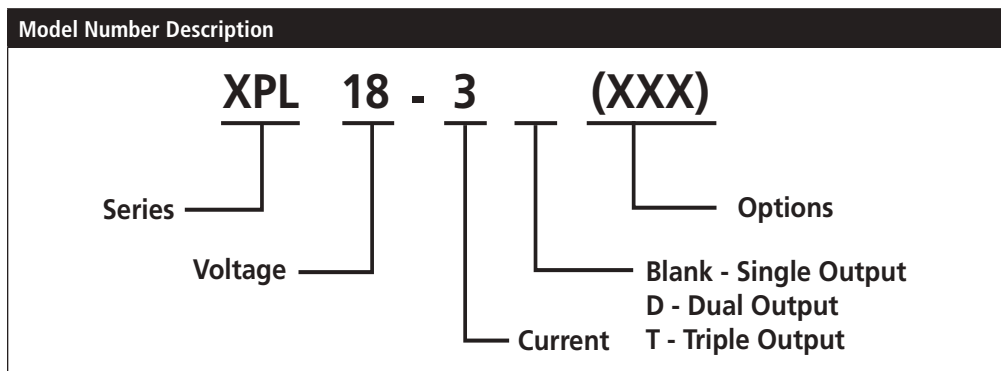
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115

230

The Sorensen XPL Series provides 30 to 125 watts of programmable linear DC power. The XPL is a compact, high performance, low cost power supply suited for benchtop applications. The XPL Series uses linear regulation for high performance. The XPL Series features excellent line and load regulation with low noise and good transient response. When the switchable remote sense is used, regulation specifications apply at the load. The XPL Series is available in a single, dual and triple-output for benchtop use.

The XPL dual-output model has two independent and isolated outputs each with a 0 to 30 volt, 0 to 2 amps capability and its own On/Off switch. The outputs can be wired in either series or parallel to provide voltages up to 60 volts or currents up to 4 amps. All outputs are intrinsically short-circuit proof, and are protected against external voltages and reverse currents. The XPL triple-output model has the same features as the dualoutput model with an additional variable ( 1.5V to 5V ) auxiliary logic output. Set voltage of the auxiliary output can be viewed by a simple touch of a button.



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# XPL Series : Product Specifications<sup>1</sup>

Output : Voltage and Current						
Models	18-3	30-1	30-2	30-2D	30-2T	56-1
Output Voltage	0-18 V	0-30 V	0-30 V	0-30 V	0-30 V	0-56 V
Output Current	0-3.3 A	0-1 A	0-2 A	0-2 A	0-2 A	0-1.1 A
Outputs	1	1	1	2	2 + Aux	1
Output Power	60 W	30 W	60 W	120 W	125 W	60 W
Operating Mode	Constant voltage or constant current with automatic cross-over and indication					
Voltage Setting	By coarse and fine controls					
Current Setting	By single logarithmic control					
Line Regulation	< 0.01% of max. output for a 10% line voltage change					
Load Regulation	< 0.01% of max. output for a 90% load change					
Output Impedance	Typically < 5 mΩ in constant voltage mode. Typically > 50 kΩ in constant current mode					
Ripple & Noise	(20 MHz) Typically < 1 mVrms (CV mode)					
Transient Response	< 20 μs to within 50 mV of set level for 90% load change					
Temperature Coefficient	Typically < 100 ppm/°C					
Output Protection	Outputs will withstand forward voltages of up to 20 V above the rated output voltage. Reverse protection by diode clamp for current up to 3 A.					
Status Indication	Output ON lamps. Constant current mode lamps					
Output Switch	Electronic. Preset voltage and current displayed when output is off					
Output Terminals	4 mm terminals on 19 mm (0.75") pitch					
Remote Sense	Voltage, local or remote by front panel switch					
Meter	Dual 4 digit meters with 14mm LEDs. Read rate 4Hz.					
Meter Resolutions	10 mV, 1 mA					
Meter Accuracy Voltage	0.3% ± 3 digits					
Meter Accuracy Current	0.6% ± 3 digits					
Auxiliary Logic Output ( XPL30-2T only )	Voltage	Variable <1.5V to >5V by front panel control.				
	Meter Voltage Accuracy	0.3% ± 1 digit				
	Current Limit	2A minimum				
	Output Protection	Output will withstand up to 7V forward voltage. Diode clamp reverse protection for currents up to 3A				
	Ripple & Noise (20MHz Bandwidth)	Typically <5mVrms, <15mVpk-pk (CV mode)				
	Load Regulation	<3% for 90% load change				
	Line Regulation	<0.2% for a 10% line voltage change.				
Status Indication	UNREG lamp.					
AC Input	115 V or 230 Vac ±10% (adjustable internally, option HV for factory set 230 Vac input) Installation Category II					
Power Consumption	85 VA (XPL 30-1) 160 VA (XPL 30-2, XPL 18-3, XPL 56-1) 320 VA (XPL 30-2D, XPL 30-2T)					
Operating Range	5 to 40°C , 20% to 80% RH					
Storage Range	- 40 to 70°C					
Environmental	Indoor use at altitudes to 2000 m, Pollution Degree 2					
Cooling	Silent fan-less convection cooling					
Safety	Complies with EN61010-1					
EMC	Complies with EN61326					
Dimensions (H x W x D)	6.3 x 5.5 x 11.6" (160 x 140 x 295 mm) (XPL 30-1, XPL30-2, XPL 18-3, XPL 56-1) 6.3 x 10.2 x 11.6" (160 x 260 x 295 mm) (XPL 30-2D, XPL 30-2T)					
Weight	7.5 lb (3.4 kg) (XPL 30-1) 9.7 lb (4.4 kg) (XPL30-2, XPL 18-3 XPL 56-1) 16.5 lb (7.5 kg) (XPL 30-2D, XPL 30-2T)					
Approvals	CE-marked units meet: EN61010-1 and EN61326					
Options						
230 Vac input factory set (Option HV)						