Sorensen XEL Series

90W Linear Benchtop Supply with V-Span

- Ideal for engineering lab use
- Digital features with analog controls
- Remote control for bench & system application
- S-Lock: Set and lock the voltage
- V-Span: user-defined voltage limits
- Small benchtop footprint

48–180 W

6–250 V

370 mA–6 A

	~	115	230

LXI USB GPIB RS232

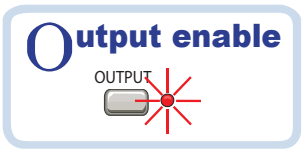
The Sorensen XEL benchtop power supply is as easy to use as simple analog power supplies but offers the flexibility of advanced digital features. The user interface allows easy control with single-turn knobs including a fine control knob for voltage.

This easy-to-use interface is complemented by V-Span, S-lock and Output Enable functions. V-Span allows the user to set a maximum and minimum value over which the knob control operates. This provides more precise control over the voltage as the knob operates over a narrow range as well as protecting devices under test by limiting the maximum voltage. S-Lock provides an easy method to output a regulated fixed voltage. Output Enable lets the user setup the desired voltage and current levels prior to actually turning on the output. All of these features in a laboratory bench supply are only found in the XEL series.

At 4.2x11.3 inches (108mm x 287mm), the XEL series occupies the least bench top space of any programmable power supply. The dual output model offers 90W per channel, also in a compact 8.4x11.3 inches (216mm x 287mm)

The dual output XEL30-3D is two 30V/3A power supplies in one unit. All of the features of the single output version are also in the dual output. The outputs are fully independent and isolated. Plus, the outputs can be operated in 4 modes: isolated, tracking, ratio tracking and true parallel. In addition, the outputs can be enable (on/off) independently or synchronously.

The programming "P" option includes LXI Class C Ethernet, USB, RS-232 and analog remote control. The option "PG" inlcudes GPIB programming plus all of the interface methods included in the "P" option described above.



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AMETEK®
PROGRAMMABLE POWER

XEL Series : Product Specifications

Output Ratings							
Model	XEL 6-8	XEL 15-5	XEL 30-3	XEL 60-1.5	XEL 30-3D	XEL 120-0.75	XEL 250-0.37
Voltage (VDC)	0-6	0-15	0-30	0-60	0-30	0-120	0-250
Current (ADC)	0.1 mA - 8 A	0.1 mA - 5 A	0.1 mA - 3 A	0.1 mA - 1.5 A	0.1 mA - 3 / 6 A	0.01 mA - 750 mA	0.01 mA - 375 mA
Power (W)	48	75	90	90	90/180	90	90

Output Performance[1]		
Voltage Meter	4-digit meter	
Accuracy, Resolution	0.1% + 10mV, 10mV	0.1% + 100mV, 100mV
Current Meter	4-digit meter	
Accuracy	± (0.3% + 0.005A) to 3A, ± (0.5% + 0.005A) to 6A, ± (0.3% + 0.5mA) on 500mA range	± (0.3% + 0.1mA), ± (0.3% + 0.01mA) on 75mA range
Resolution	1mA (0.1mA on 500mA range)	0.1mA (0.01mA on 75mA range)
Low Current	< 500mA	< 75mA
Accuracy, Resolution	0.3% + 0.3mA, 0.1mA	0.3% + 0.03mA, 0.01mA
Voltage Ripple (20MHz bandwidth)	0.4 mVRMS	2mV
Voltage Noise (20MHz bandwidth)	2 mVpp	10mVpp
Current Ripple	< 0.2 mARMS (< 40 μARMS on 500mA range)	< 10 μARMS (< 1 μARMS on 75mA range)
Digital Programming Performance Option		
Voltage Accuracy, Resolution	± (0.05% + 10mV), 1mV	± (0.05% + 50mV), 10mV
Current Accuracy	± (0.3% + 0.005A) to 3A, ± (0.5% + 0.005A) to 6A, ± (0.3% + 0.5mA) on 500mA range	± (0.3% + 0.1mA), ± (0.3% + 0.01mA) on 75mA range
Current Resolution	0.1mA (0.01mA on 500mA range)	0.1mA (0.01mA on 75mA range)
Load Regulation		
Voltage	0.01% + 4.5mV with remote sense up to 0.5V line drop	
Current	0.01% + 500μA Specification applies for line resistance <0.5ohms when remote sense is used	
Line Regulation (10% line change)		
Voltage	0.01% + 2.0mV	0.01% + 10mV
Current	0.01% + 250μA	0.01% + 50μA
Transient Response	< 250μs to within 50mV of setting (90% load change)	

[1] 120V & 250V models have a slightly modified performance specification. See data sheet or manual on web site for complete specifications

Common	
AC Input	115 VAC ± 10%, 50/60Hz (230VAC available as option MHV) (100VAC available as option MJV)
Power	280VA maximum
Operating Temperature	5-40 °C, 20-80% RH
Storage Temperature	-40 to +70 °C
Weight	9.9 lbs. / 4.5 kgs, XEL30-3D: 18.8 lbs. / 9 kgs
Size (WxHxD)	4.2x5.2x11.3 inches / 107x131x288 mm, XEL30-3D: 8.4x5.2x11.3 inches / 214x131x288 mm

Options	
MHV	Configured for 230VAC input
MJV	Configured for 100VAC input
Programming "P"	LXI Class C Ethernet, USB, RS-232 and remote analog **
Programming "PG"	GPIB 488.2, LXI Class C Ethernet, USB, RS-232 and remote analog **
RM - XPDG-3	Rackmount Kit

Model Numbers	
XEL6-8	6 V, 8 A
XEL15-5	15 V, 5 A
XEL30-3	30 V, 3 A
XEL60-1.5	60 V, 1.5 A
XEL30-3D	30 V, 3 A Dual Output. The outputs are fully independent and isolated.
XEL120-0.75	120V, 0.75A
XEL250-0.37	250V, 0.37A

* Current accuracy in parallel mode = 0.5% + 3mA ** Remote Analog not available on dual "D" ouput option