

Extensive Features:

- PWM Switch Mode Power Conversion Technology
- Three Phase, Split Phase and Single Phase Output Modes
- Frequency Range 15 1200Hz
- Phase Angle Programming on 3ø Models
- Excellent Output Voltage and Load Regulation
- Metering of Volts, RMS Current, Peak Current, Apparent Power & True Power on all Phases
- Harmonic Measurements
- Scope Function to capture Voltage & Current waveforms
- Sine, Square, Triangle, Clipped Sine and Arbitrary Waveforms Selections
- Output LIST, PULSE and STEP Mode Transient Programming
- Standard USB, LAN, RS232 & GPIB Interfaces
- Compatible with Legacy UPC1/3 Controllers
- Available reduced feature set economy "M" version
- Built-in Web Servers for browser control
- Available instruments drivers for LabView[™] and LabWindows[™]
- PPSC Manager Windows GUI Software

LSX Series

High Performance Switch Mode AC Power Sources Single, Split and Three Phase Mode Pulse Width Modulation Amplifier Technology

1500 VA to 6000 VA

Single, Split & Three Phase Output Voltages up to 600VLL 15 - 1200 Hz





"Innovating Solutions for Control and Monitoring of Power"







THE POWER OF EXPERTISE



FREQUENCY CONVERSION

AEROSPACE

R & D

MILITARY

MANUFACTURING

CUSTOM



Total Control, Metering and Analysis of AC Power. Simp

ê	PR	ROGRAM			Apply All
Freq.	400.00	Hz			Chbb Qu
	Phase A	Phase B	Phase C		Unlink
Phase	0.00	120.0	240.0	Deg	Phases
Volt. AC	115.00	115.00	115.00	VRMS	Destautio
Curr. lim.	41.67	41.67	41.67	ARMS	Protectio
Pow. lim.	4.60	4.60	4.60	kW	Peak
kVA lim.	5.00	5.00	5.00	kVA	Control

Metering •

		Meas.			
Freq.	400.00 Hz				Page 2
	Phase A	Phase B	Phase C		Fault
Volt. L-N	115.00	115.00	115.00	RMS	Status
Current	25.67	25.67	25.67	ARMS	Error and Event
Power	2.655	2.555	2.655 k	w	
	V _{AB}	V _{BC}	V _{CA}		Real Time Plot
Volt. L-L	199.20	199.19	199.20	RMS	Individual
Ready	Prog. MAN		LOC 3p	h &	Phase



Automated Test Equipment Power for Defense Applications

Growing demand for power to support increasingly complex avionics, radar and weapons systems means more power is needed in less available space. The new LSX Series addresses this need by offering unmatched AC power quality output.

With extensive control over voltage, current, frequency, phase angles and transients, the LSX series is capable of handling complex Test Program Sets (TPS's) with minimal programming effort. Available in a range of power levels and output phase configuration to meet any AC test requirement up to 6000 VA.



le, Intuitive Operation



Commercial Avionics Power Test

The low noise and low distortion analog power conversion technology used in the LSX Series Power Source results in unmatched voltage quality and high peak current capability. A frequency range of 15Hz to 1200Hz supports both 400Hz fixed frequency as well as 360Hz to 800Hz wild frequency development and test with exceptional harmonics support.

For compliance testing to electrical avionics test standards like RTCA/DO160 Section 16 and Mil-Std 704, Windows 10 test software test sequences are available as an option.





Selecting the best Topology for Your Application

PWM AC Power Sources offer very good density, high efficiency, and perform well into low power factor loads. They use a combination of both linear and non-linear methods to achieve high efficiency conversion in lighter and smaller packages.

A trade-off is the method's lesser ability to provide high crest factor current and very low output distortion. The graphic below demonstrates the characteristics of PWM technology.



Output Phase Modes

Three phase LSX Models can be configured to operate in one of three available phase modes or FORMs:

Single Phase

Enables Single phase output with the load connected between the 1 Phase and Neutral output terminals. Voltages are programmed phase to neutral.

Split/Single Phase

Enables high range Split/Single phase output. Load is connected either between the Phase A and Phase B output terminals (full voltage) or Phase and Neutral (half voltage). Voltages are programmed phase to phase.

Three Phase

Enables Three phase output with the load connect between the A, B, C, and Neutral terminals. Loads may be connected either line to line or line to neutral. Voltages are programmed phase to neutral.





Wide Selection of Voltage Ranges

All LSX Series models support direct coupled output voltages up to 135VLN or 270VLL on single phase models or 135VLN/234VLL on three phase models.

For higher voltage output applications on three phase models, the transformer option (T-Option) offers three transformer coupled output ranges at ratios of 1:1.5, 1:2.0 or 1:2.5 for a maximum output voltage of 600VLL in split phase or or 585VLL in three phase mode.

Switching between direct coupled output voltage range and transformer coupled voltage range is done automatically so there is no need to disconnect and re-connect your EUT.



Powerful yet Easy to Use

Although LSX Series sources offer a wide range of operating modes and features, they are easy to operate through a large full color LCD display and soft key driven menus.

Top level menus are always available directly by pressing any of the five menu keys on the left of the display. Entering setup data is accomplished using the numeric keypad or the shuttle. Operating status is shown on screen using various colors to distinguish between setting, measurements and operator warnings, or error messages.

The built-in web server provides access to a large computer touch monitor based user interface with complete control over all LSX Functions and features without the need for any special software. The web browser based program and measurement screen is shown to the right.

PACI	FIC			HOME	CONTROL	MEASUREMENT	CONFIGUR	ATION	SYSTEM	0	9
PROGRAM											
OUTPUT EXABLE	08	•		OFF	SE	ECTED PHASE	ABG	A	8	c	
FREQUENCY	400.00	Hr		•2	CUI	TIMUTRE	4167	Aus	•		
AC VOLTAGE	95.00	Vest		11 8	POI	VER LUMIT	5,0000	- KW	+	•	
OC VOLTAGE	0.00	Vpt.			101	UNIT	50000	KVA		2	
				V APPLY	×	CANCEL					
MEASUREMENTS											
I MENDORCHICHTO				Phone A		Phase B			Phase C		
TREDUCKEY				400.00 Hz		400.00 Hz			400.00 ftz		
VOLTINGE L.N. ACOC			103.62 V _{8M0}			125.20 V _{mm}			67.36 V em		
VIETNEELHAC			103.62 Vent			125.20 Vers			6236Vmm		
VOLTAGE L N DC			0.00 V ₂₀			0.00 ¥ ₂₀			0.00V ₀₀		
CURRENT RMS			17.48 Auro			2116 Ames			11.51 Ames		
CURRENT DC			0.80 A _{0C}			0.69 A ₀₀			BJ4 Apc		
POWER				18062 W		2.6433 W			0.0000 kW		
APP POWER				1.8115 kWA		26492 kNA			0.7797 kill		
POWER FACTOR				100		100					
CORRENT OF				146		145			148		
				Val		Vac			Vca		
VOLTAGE EL ACTIC				98.45 Yang		163.56 Vaug			198.46 Yang		
VOLTAGELLAC			1	98.46 Vint		169.56 Vaans			158.46 V and		
VOLUME LLDC				0.00 Vent		0.00 Vest			0.00 Varia		

Touch Screen and WiFi Connection

The standard external HDMI[™] Monitor interface supports the use of an external flat panel touch monitor for display and control of the power source. This allows measurements to be monitored from across the lab or factory floor as needed.

Alternatively, a tablet or smart phone can be used to operate the power source using the built-in LXI browser interface. Of course, extensive safety protocols are in place to prevent unauthorized access via WiFi or LAN connections.



The terms HDMI, HDMI High-Definition Multimedia Interface, and the HDMI logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.



Transient Programming for AC Power Test Applications

Voltage, Waveform and Frequency output transients are easily created from the front panel using an intuitive spreadsheet style data entry method. Data may be entered for a specific phase or for all three phases at the same time.

The LSX Series supports LIST, PULSE and STEP Mode Transient Types. The user can select the most appropriate type from the front panel or the web server interface. The image below illustrates the three modes graphically. Transients can be stored in non-volatile memory and easily edited as needed on screen.

If preferred, transient programming and execution can be also be accomplished using the available Windows control software or web browser interface.

ŧ	Freq	Volt AC	Volt DC	Dwell 👔	-
1	400.00	115.00	0.00	100.0	Sten
2	400.00	100.00	0.00	10.0	Jucp
3	400.00	115.00	0.00	100.0	(
1	400.00	100.00	0.00	10.0	Step
5	400.00	115.00	0.00	100.0	Mode
5	400.00	100.00	0.00	10.0	Edit
7	400.00	115.00	0.00	100.0	Mode
3	400.00	100.00	0.00	10.0	-

Transient Executing in View Mode



The LSX Series' rich feature set supports a wide variety of AC power test applications. With full control over voltage, current, frequency, power, slew rates and phase angles, no test requirement is too challenging for the LSX to handle. This includes AC power compliance testing, transformer testing, appliance testing, DC charger testing, UPS testing and more.

The scope images shown here capture several examples of AC power test waveforms generated by an LSX.



Three Phase Voltage Drop Test Captured







AC Transient Output Captured on Digital Scope



200 Selectable Arbitrary Waveforms

In addition to sine wave, the LSX Series offers multiple selectable AC waveforms such as clipped sine wave at various distortion levels, square, triangle and stepped squares. The operator can create arbitrary waveforms using Pacific Power's PPSC Studio Windows software or using a web browser and download these to the power source. A graphical representation (preview) of each waveform is shown on screen and a waveform name alias can be assigned to each so the operator can be sure the correct waveform is applied to the unit under test.



Capture Voltage & Current Waveforms

Built-in digital scope function captures voltage and current time domain signals, perfectly synchronized to the output frequency. Voltage and current displayed with accurate phase relationship. Display output waveforms on front panel or in Web browser.

The browser user interface supports more advanced digital scope functionality by utilizing a PC or tablet's larger screen area allowing muliple scope channels and periods of voltage, current and power waveforms to be captured and displayed.



Harmonics Measurements

Eliminate the need for an external power analyzer by measuring voltage and current harmonics. Harmonics information is displayed in either bar charts or detailed table format for easy viewing and analysis.

Data is displayed for individual phase or all three phase simultaneously.



Auxiliary I/O Functions

To support integrated test system design and interaction with the load or other equipment, the LSX Series offers a range of analog and digital I/O functions.

User Programmable I/O. Assign command macros or programming parameters to analog or digital I/O pins as needed. This provides a unique level of customization for putting together sophisticated test stations.





Single Phase Models

Direct Coupled Output Units (15 Hz - 1200 Hz)

MODEL	Rated Power (VA) ¹	Output Form ²	Output Voltage Max ³ (I-n/I-I)	Output Current ⁴ (A _{ms})	Input Power⁵	Unit Height (inU)	Unit Weight (Ibs/kg)
115LSX	1500	1	0-132	16	1Ø	5.25-3U	65/29.5
120LSX	2000	1/2	0-150/300	20/14	1Ø	5.25-3U	75/34
140LSX	4000	1/2	0-135/270	32/16	3Ø	8.75-5U	120/54.5
160LSX	6000	1/2	0-132/264	48/16	3Ø	8.75-5U	145/66

Direct / Transformer Coupled Selectable Output Units (45 Hz - 1200 Hz)

				Output Voltag	e Max ³ (I-n/I-I) Transformor			Output Cu	rrent ⁴ (A _m	_) >r		Unit	Transformer
MODEL	Rated Power (VA) ¹	Output Form ²	Direct	Ratio 1.5:1	Ratio 2.0:1	Ratio 2.5:1	Direct	Ratio 1.5:1	Ratio 2.0:1	Ratio 2.5:1	Input Power⁵	Height (inU) Weight (lbs/kg)	Height (inU) Weight (lbs/kg)
115LSXT	1500	1	0-132	0-198	0-264	0-330	16	10.7	8	6.4	1Ø	5.25-3U 80/36.4	Integrated
140LSXT	4000	1/2	0-135/270	0-202/404	0-270/540	0-338/600	32/16	21.3/10.7	16/8	12.8/6.4	3Ø	8.75-5U 120/54.5	5.25-3U 125/56.8
160LSXT	6000	1/2	0-132/264	0-198/396	0-264/528	0-330/600	48/16	32/10.6	24/8	19.2/6.4	3Ø	8.75-5U 145/66	5.25-3U 125/56.8

1. Rated output power is based on a combination of output voltage, current and load power factor. Values stated represent the rated capabilities of a given model. Consult factory for assistance in determining specific unit capabilities as they might apply to your application.

2. All single phase output units (Model 115 ASX excepted) are operable with dual voltage ranges as listed. Output voltage ranges and 10/20 output form are selected by front panel or bus commands.

3. Output voltage ranges listed are for standard units. VMAX is output voltage with nominal input and full rated load applied. Other voltage ranges are available with the output magnetics options below.

4. Available current will vary with output voltage and power factor.

5. Input power frequency is 47–63 Hz. Single phase input: 100, 110, 120, 208, 220, 230 and 240 VAC +10%. Three phase input: 208, 220, 240, 380, 400 and 416 VAC +10%.

6. Single phase and 400 Hz input options may be available. Consult Factory.

LSXM Version Reduced Feature Set Summary

FEATURES	LSX	LSXM
Output Waveforms	See Page 10	Sinewave only
Phase Angles phase B, C	Programmable	Fixed: 120°,240° or 240°,120°
Transient Programming	yes	no
Programmable V,F slew rate	yes	yes
Programmable Settings	yes	yes
Measurements (scalar)	yes	yes
Harmonic Measurements	yes	no
Waveform Capture	yes	no
Programmable output Im- pedance (Prog-Z)	yes	no
Digital control interfaces	yes	yes
Embedded Web Server	yes	yes



115LSX Model - 1500VA - 3U (5.25")



120LSX Model - 2000VA - 3U (5.25")



140LSX Model - 4000VA - 5U (8.75")



Three Phase Models

Direct Coupled Output Units (15 Hz - 1200 Hz)

MODEL	Rated Power (VA) ¹	Output Form ²	Output Voltage Max ³ (I-n/I-I)	Output Current ⁴ (A _{ms})	Input Power⁵	Unit Height (inU)	Unit Weight (Ibs/kg)
315LSX	1200	1/2 3	0-132/264 0-132/228	12/6 4/Ø	1Ø	5.25-3U	75/34
320LSX	2000	1/2 3	0-150/300 0-150/260	20/12 7/Ø	1Ø	5.25-3U	85/38.5
345LSX	4500	1/2 3	0-135/270 0-135/234	36/12 12/Ø	3Ø	8.75-5U	145/66
360LSX	6000	1/2 3	0-132/264 0-132/228	48/16 16/Ø	3Ø	8.75-5U	145/66

Direct / Transformer Coupled Selectable Output Units (45 Hz - 1200 Hz)

				Output Voltag	je Max³ (l-n/l-l)			Output Cu	ırrent ⁴ (A _{rm}	<u>,</u>)			_
	Rated				Transformer			٦	ransforme	r		Unit Height (in -L I)	Transformer Height (in -LI)
MODEL	Power (VA) ¹	Output Form ²	Direct	Ratio 1.5:1	Ratio 2.0:1	Ratio 2.5:1	Direct	Ratio 1.5:1	Ratio 2.0:1	Ratio 2.5:1	Input Power⁵	Weight (lbs/kg)	Weight (lbs/kg)
345LSXT	4500	1/2 3	0-135/270 0-135/234	0-202/404 0-202/350	0-270/540 0-270/468	0-338/600 0-338/585	36/12 12/Ø	24/8 8/Ø	18/6 6/Ø	14.4/4.8 4.8/Ø	3Ø	8.75-5U 145/66	5.25-3U 125/56.8
360LSXT	6000	1/2 3	0-132/264 0-132/228	0-198/396 0-198/343	0-264/528 0-264/457	0-330/600 0-330/572	48/16 16/Ø	32/10.7 10.7/Ø	24/8 8/Ø	19.2/6.4 6.4/Ø	3Ø	8.75-5U 145/66	5.25-3U 125/56.8

1. Rated output power is based on a combination of output voltage, current and load power factor. Values stated represent the rated capabilities of a given model. Consult factory for assistance in determining specific unit capabilities as they might apply to your application.

2. All three phase units are operable as single phase with dual voltage range capability or as three phase. Output voltage ranges and 10/30 output form are selected by front panel or bus commands.

3. Output voltage ranges listed are for standard units. VMAX is output voltage with nominal input and full rated load applied. Other voltage ranges are available with the output magnetics options below.

4. Current ratings at 125Vrms output. Current may vary with power factor.

- 5. Input power frequency is 47-63 Hz. Single phase input: 100, 110, 120, 208, 200, 220, 230 and 240 VAC +10%. Three phase input: 208, 220, 240, 380, 400 and 416 VAC +10%. (480V input or 400 Hz frequency input available as a cost option on most ASX models.
- 6. Single phase and 400 Hz input options may be available. Consult Factory.



315LSX Model - 1500VA - 3U (5.25")



360LSX Model - 6000VA - 5U (8.25") 360LSXT Mod



360LSXT Model - 6000VA with Mag Module - 8U (14")

Tel: +1.949.251.1800



Technical Specifications (common to all LSX Models)

OUTPUT		SPECIFI				
Power						
	Output	See Model Tab	oles page 8 & 9			
Voltage						
	Mode	A	C			
Direct C	Coupled Range ¹	See Model Tab	oles page 8 & 9			
T-	Option Ranges	Turns ratios: 1:	1.5, 1:2.0, 1:2.5			
Programm	ning Resolution	0.0	1V			
	Accuracy	$\pm 0.1\%$ (CSC mode)				
	Waveforms	Sine, Square, Irlangle,				
	(200 Max.)		D), Arbitrary			
Harmonic D	ictortion (Vthd)	< 20	5 mv			
		Form I	Form 3			
30 Models	15 - 200 HZ	< ± 0.25%	< ± 0.25%			
	200 - 1200 Hz ²	< 1 x 0.7% + 0.36%	<tx +="" 0.11%<="" 0.7%="" td=""></tx>			
120/320LSX	15 - 200 Hz	< ± 0.25%	< ± 0.25%			
	200 - 1200 Hz ²	< f x 0.7% + 0.11%	<fx +="" 0.11%<="" 0.7%="" td=""></fx>			
5U Models	15 - 200 Hz	$< \pm 0.25\%$	$< \pm 0.25\%$			
	200 - 1200 Hz ²	<fx +="" 0.22%<="" 1.4%="" td=""><td><fx1.4%+0.03%< td=""></fx1.4%+0.03%<></td></fx>	<fx1.4%+0.03%< td=""></fx1.4%+0.03%<>			
	Note:	Under full, resistive load conditions				
	Output Noise	-66	dB			
L	oad Regulation	Form 1	Form 3			
3U Models	15 - 200 Hz	< ± 0.25%	< ± 0.25%			
	200 - 1200 Hz ²	< f x 0.7% + 0.11%	< ± 0.5%			
120/320LSX	15 - 200 Hz	< ± 0.25%	< ± 0.25%			
	200 - 1200 Hz ²	< ± 0.6%	< ± 0.5%			
5U Models	15 - 200 Hz	< ± 0.25%	< ± 0.25%			
	200 - 1200 Hz ²	<tx -="" 0.25%<="" 2.5%="" td=""><td><tx1.5%-0.05%< td=""></tx1.5%-0.05%<></td></tx>	<tx1.5%-0.05%< td=""></tx1.5%-0.05%<>			
I	Line Regulation	< 0.1% for 10%	6 Line Change			
	voltage Sense	External Sense	e, max. voitage			
Voltage	Response Time	60 usec typical, 1	0–90% load step			
Isolation						
Output Ne	utral to Chassis	150Va	c Max			
Output	Line to Chassis	338Vac Max.				
Frequency						
Direct	Coupled Range	15.00 – 1200.0 Hz				
	T-Option	45.00 – 1200.0 Hz				
Programm	ning Resolution	0.01	l Hz			
	Accuracy	± 0.005%	/ 50 ppm			
Current						
	Range	See Model Tab	oles page 8 & 9			
Programm	ning Resolution	0.01	Arms			
	Accuracy ³	$\pm (0.5\% + f(kH))$	Hz) * 0.5%) F.S.			
Current	Protection (CP)	Constant C	urrent (CC)			
Dhase Americ	Modes	or Output	t Trip (CV)			
	(In 3 and 2 Phase		EO 0º			
Programma	Die Priase (B, C)	0-3	אינט. 1°			
	Accuracy	U. +0 35° / +0 1° D	I hase Reg. Mode			
Programmak		<u></u> 0.55 / <u></u> 0.1 P (Per SX unit)	hase ney. Mode			
. rogrammat	Phase Mode	3 Phc 2 Pl	hs 1 Phs			
Real Time:	Resistance (R)	+100 O +20	0.0 + 3330			
	Inductance (I)	0 - 50uH 0-100)uH 0 - 16.7uH			
RMS:	Resistance (R)	$\pm 10 \Omega \pm 20$	$\Omega \pm 3.33 \Omega$			
	Inductance (L)	0 - 2mH 0-4m	H 0 - 0.67mH			

TRANSIENTS	Specification
Programming	operation
No. of Entries	200 Steps / 400 segments
Modes	
Parameters	Frequency Volt AC Volt DC Wave-
raidificters	form Ramp Time Dwell Time
Dwell Time Bange	0.2 - 1000000 0 msec
Time Resolution	0.1 msec
Fdit Modes	Add at end Insert before Delete
Execution	Add de end, insere belote, belete
Run Control	Run from step # to step #
	Run, Step, Restart, Stop
Execution Modes	Normal, Debug
Program Storage	
Non-volatile	100 Programs + Transients
MEASUREMENTS	SPECIFICATION
	SIECHICATION
AC voltage (vrms)	0 240 \/1 N / 0 600 \/1
Bacalution	0 - 340 VLN / 0-000 VLL
Resolution	
	± 0.1% F.S.
Fundamental Pange	15 1200 H 7
	0.01 H -
Resolution	
Accuracy	± 0.1% Rdg
Ac current (Arms)	See Model Tables page 8 & 0
Posolution	
Accuracy	$\pm (0.50\% \pm f(k \Box_7) * 0.50\%) ES$
Current Crost Eactor	$\pm (0.5\% \pm 1 (\text{KHZ}) - 0.5\%)$ F.S.
	1 00 - 5 00
Posolution	0.01
Accuracy	0.01 + 2.0% ES
Accuracy	± 2.0% F.S.
AC OI DC POWEI (W)	See Model Tables page 8 & 0
Pocolution	1 W front papel / 0.1 W romoto
Accuracy	
Apparent Power (VA)	± 0.75 % 1.3.
Range	See Model Tables page 8 & 9
Besolution	1 VA front panel / 0 1 VA remote
Δεεμταεν	+ 0.75 % FS
	± 0.7 5 /01.5.
Range	0.00 - 1.00
Resolution	0.00
Resolution	0.01

Note 1: Specification valid above 40Hz

WAVEFORM CAPTURE	SPECIFICATION
Parameters	VLN-A, VLN-B, VLN-C,
	Vll ab ,Vll ac ,Vll bc ,Ia, Ib, Ic
Max. Sample Rate	500 ksps
Samples/cycle	1024 (512 in UPC Compatibility
	mode)
Record Length	8 MSamples
Bandwidth	100 kHz @ 500 ksps

Note 1: VLL applies to three phase LSX Models in three phase mode Note 2: Frequency "f" is in kHz Note 3: Specification valid above 40Hz



Technical Specifications (continued)

		SPECIFICATION		
Parameters		VLN-A, VLN-B, VLN-C,		
		VLL AB ,VLL AC ,VLL BC ,IA, IB, IC		
Harmonics Range		H2 ~ H50		
Accuracy – Ampli	tude	± 1.0 % of RMS Reading		
Phase Angle Ra	ange	0 ~ 359.9		
Accuracy - Phase A	ngle	< 8 µsec		
Bandw	vidth	100 kHz @ 500 ksps		
Display Mo	odes	Table format, Graph format		
AC INPUT		SPECIFICATION		
Mains Voltage Form		4 Wire, L1, L2, L3 and PE		
Frequency		47 - 63 Hz		
Single Phase AC Inpu	t Sel	ections		
Input Voltages		100, 110, 120, 200, 208, 220, 230 or		
		240 Vac		
Phase Cur	rent	Model specific		
Three Phase AC Input Sele		ections		
Input Voltages		208, 220, 240, 380, 400, 416 or		
	-	480 ¹ Vac		
Phase Current		Model specific		
ENVIRONMENTAL		SPECIFICATION		
Cooling	Varia	able speed fan cooled, front and/or		
coomig	side air intake rear exhaust			
	115/120/315/320 Models: 200 CFM			
	140/160/345/360 Models: 300 CFM			
	14	0/160/345/360 Models: 300 CFM		
Audible Noise	14	0/160/345/360 Models: 300 CFM 65 dBA Max. @ 1 meter		
Audible Noise Temperature	14	0/160/345/360 Models: 300 CFM 65 dBA Max. @ 1 meter		
Audible Noise Temperature Operating	14	0/160/345/360 Models: 300 CFM 65 dBA Max. @ 1 meter 0 to 55 °C / 32 to 131 °F		
Audible Noise Temperature Operating Storage	14	0/160/345/360 Models: 300 CFM 65 dBA Max. @ 1 meter 0 to 55 °C / 32 to 131 °F -10 to 70 °C / 14 to 158 °F		
Audible Noise Temperature Operating Storage Humidity	14	0/160/345/360 Models: 300 CFM 65 dBA Max. @ 1 meter 0 to 55 °C / 32 to 131 °F -10 to 70 °C / 14 to 158 °F < 0 - 95 %, non-condensing		
Audible Noise Temperature Operating Storage Humidity Altitude	14	0/160/345/360 Models: 300 CFM 65 dBA Max. @ 1 meter 0 to 55 °C / 32 to 131 °F -10 to 70 °C / 14 to 158 °F < 0 - 95 %, non-condensing Operating: 1,981 m / 6500 feet		
Audible Noise Temperature Operating Storage Humidity Altitude	14	0/160/345/360 Models: 300 CFM 65 dBA Max. @ 1 meter 0 to 55 °C / 32 to 131 °F -10 to 70 °C / 14 to 158 °F < 0 - 95 %, non-condensing Operating: 1,981 m / 6500 feet Storage: 12,192 m / 40,000 feet		

JIJIEWIFEAIUREJ	DESCRIPTION	
DISPLAY		
Туре	Full Color, Touch LCD Display	
Size	4.3" Diagonal	
Resolution	480 x 272 pixels	
USB Ports	2 Front Panel, 1 Rear Panel, Type A	
SD Card	32 GB max. Capacity	
Video Output	Monitor Out, Front Panel	

INTERFACES	DESCRIPTION		
Remote Control			
USB	Device Type B		
RS232	1200 - 921600 baud		
LAN eXtensions for Instrumentation	LXI compliant, Ethernet, RJ45, TCP/IP Protocol, Telnet Protocol Command Line		
GPIB	IEEE488,1, IEEE488.2 (2003 incl., NI HS488) IEC 60488-1, IEC 60488-2 (2004) Functions: SH1, AH1, T6, L3, SR1, RL1, DC1, DT1		
WiFi	Optional USB WiFi adaptor available		

ANALOG I/O	SPECIFICATION	
Analog Inputs (4)		
Modes	Amplifier, Amplitude Modulation, Int.	
	+ Ext. Input Summing	
AI1, AI2, AI3	Programmable setting phs A, B, C	
Al4	Frequency	
Range	0 to ±10 Vdc for 0 - F.S.	
Accuracy	± 0.1% F.S.	
Impedance	10 kOhm	
Analog Outputs (4)		
AO1, AO2, AO3	Voltage Meas. phs A, B, C	
AO4	Power Measurement Total	
Range	0 - 5Vdc for 0 - F.S.	
Accuracy	± 0.1% F.S. into > 5 kOhm load	
Impedance	5 kOhm	
Connector Type	DB25, Rear Panel	

DIGITAL I/O	SPECIFICATION		
Digital Inputs (6)			
Fixed (3)	Remote Inhibit, Transient Trigger, Phase Sync		
User Programmable (3)	DI1, DI2, DI3		
Input Levels	Low < 0.4V, High > 2.0V		
Digital Outputs (6)			
Open Collector, Fixed	Relay Control FORM, Relay Control T		
(2)	Option		
TTL, Fixed (2)	Output Relay/Transient		
	/Function Strobe		
	Phase Sync		
User Programmable (2)	DO1, DO2		
Output Levels	Low < 0.4V, High > 4.6V		
Connector Type	DB25, Rear Panel		

MECHANICAL	SPECIFICATION		
Dimensions			
Width	19" / 482 mm		
Height	See Model Tables page 8 & 9		
Depth	3U Models: 23.0" / 584 mm		
(Includes rear connectors,	5U Models: 23.12" / 587 mm		
excludes rack handles)			
Weight			
Net	See Model Tables page 8 & 9		

PROTECTION	SPECIFICATION	
T	AC or DC Current, True Power,	
Types	Apparent Power, Over voltage,	
	Over Temperature	

Note 1: 480Vac Input is an available option on some models. Consult factory.



Ordering Information

Standard Models

Single Phase Ma 115LSX(T) 120LSX 140LSX(T) 160LSX(T)	odels (T = Option) 115LSXM(T) 120LSXM 140LSXM(T) 160LSXM(T)	Three Phase Model 315LSX ¹ 320LSX ¹ 345LSX(T) 360LSX(T)	odels (T = Option) 315LSXM 320LSXM 345LSXM(T) 360LSXM(T)	AC Input Voltages (VIN) Must be specified on order, see pages 8 & 9 Options C Interharmonics Generator Option E Export version, "E" postfix
Order Example Typical Delivery Items		Model Number Configurator ¹		
 360LSX AC Power Source, 6000VA, 3-Phase, No T- Option, USB, RS232, LAN, GPIB & AUX I/O Specify Factory set AC Input Voltage 		 AC Power Source English Manuals in PDF Format Certificate of Compliance 		$\begin{array}{ c c c c c c }\hline p & nn & LSX & T & - & C & E \\ \hline p & nn & LSXM & T & - & C & E \\ \hline 1 = Single Phase \\ 3 = Three Phase \\ \hline \end{array}$
Note 1: For External Transformer ontion on 3151 SX & 3201 SX models refer to ontion M99222			15 = 1500VA	

1 3 1 3 L 3 X & 3 2 0 L 3 X 11100 eI S, Telef TO OPTION 1992 Z A



Software Options		
Windows 10 Software - 64 Bit	Test Sequences - Avionics ²	Test Sequences - Other ²
 PPSC Studio Control Software PPSC Test Manager 	 ABD0100.1.8 - Airbus A380, AC Power Groups ABD0100.1.8.1 - Airbus A350, AC Power Groups AMD24C - Airbus A400M, AC Power Groups 	IEC Test Suite - Includes IEC61000-4- 11p, IEC61000-4-14, IEC61000-4-27p, IEC61000-4-28 and IEC61000-4-34p
	 Boeing 787B3-0147 - B787, AC Power Groups MIL-STD704 - US DoD, AC Power Groups RTCA-D0160 Section 16, AC Power Groups 	MIL-STD 1399-300B - US DoD, Ship- board Power, AC Power Groups

Service and Support

Pacific Power Source's customer support is second to none. Our Customer Support Program provides the training, repair, calibration, and technical support services that our customers value. In addition to receiving the right test equipment, our customers can also count on excellent support before, during and after the sale. With company owned support and service centers around the world, support is never far away. Complete calibration and repair services are offered at our US, European and Chinese manufacturing facilities (see contact info below). Calibrations are to original factory specifications and are traceable to NIST (National Institute of Standards and Technology).

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