LMX Series

High Performance Linear AC Power Sources

Single, Split and Three Phase Mode

Analog Amplifier Technology

Extensive Features:

- True Linear Technology for superior AC output fidelity
- Three Phase, Split Phase and Single Phase Output Modes
- Frequency Range 15 - 5000Hz
- Less than 0.1% Vthd Distortion
- Ripple and Noise less than -72dB
- Phase Angle Programming on 3ø Models
- Precise 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 UPC Controllers

500 VA to 6000 VA

Direct: 0-135 VAC L-N / 0-234 VAC L-L 3ø
T-Option:0-338 VAC L-N / 0-585 VAC L-L 3ø
15 - 5000 Hz

"Innovating Solutions for Control and Monitoring of Power"

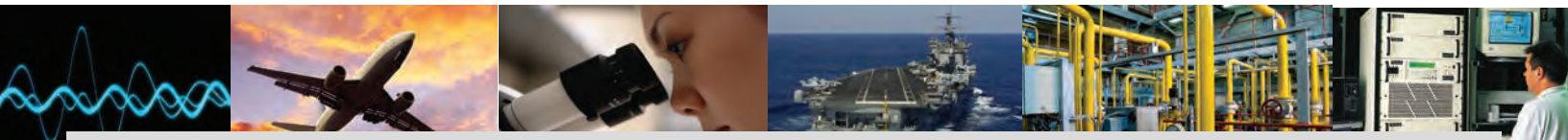
GPIB RS232 USB LAN LXI

PACIFIC POWER SOURCE®

THE POWER OF EXPERTISE

MADE IN USA

CE cNemko US 61010



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PACIFIC POWER SOURCE

Total Control, Metering and Analysis of AC Power. Simp

Programming

Metering

Menu Keys

SD

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 LMX Series addresses this need by offering unmatched AC power quality output.

With extensive control over voltage, current, frequency, phase angles and transients, the LMX 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 30kVA.

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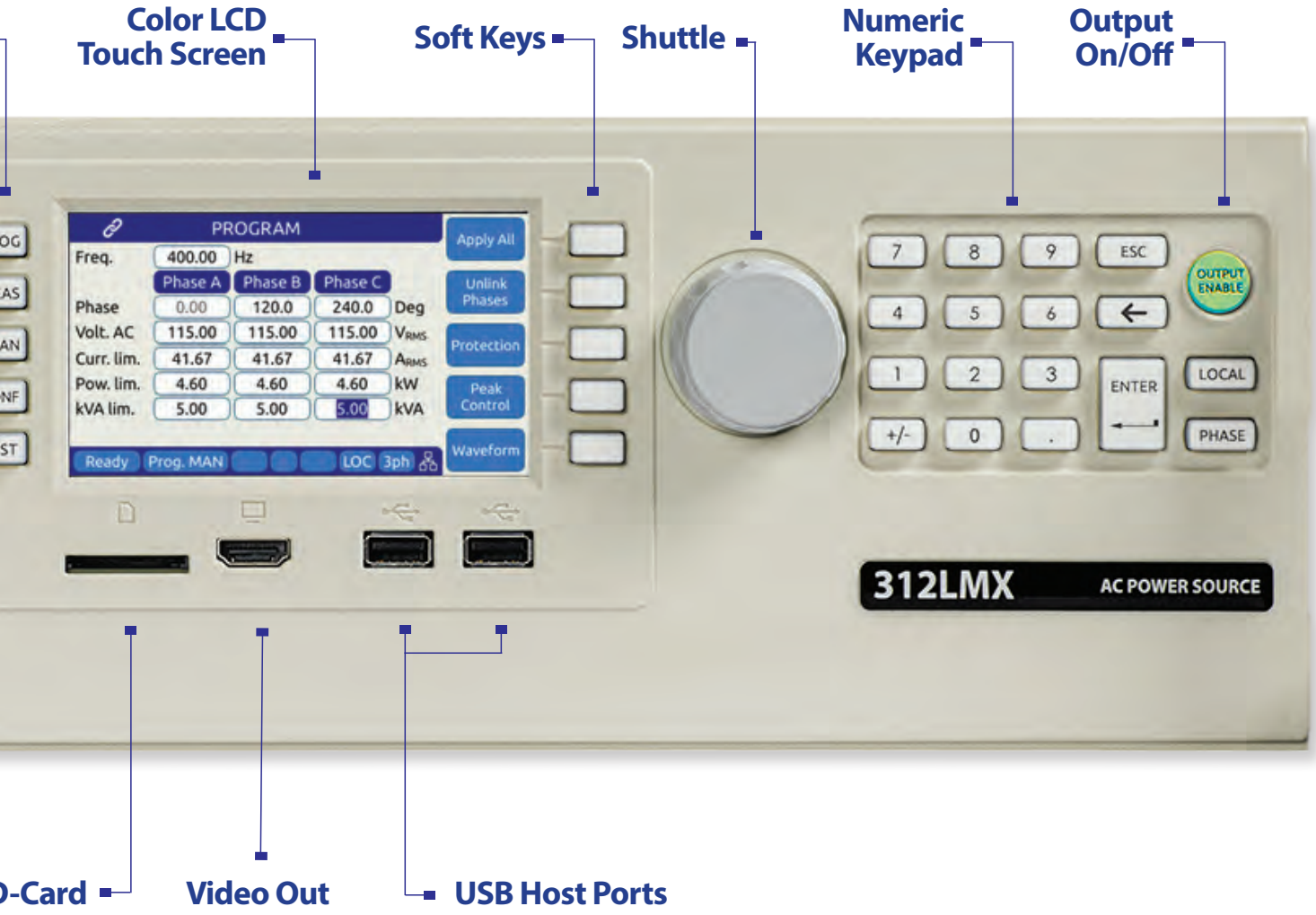
le, Intuitive Operation



Commercial Avionics Power Test

The low noise and low distortion analog power conversion technology used in the LMX Series Power Source results in unmatched voltage quality and high peak current capability. A wide frequency range of 15Hz to 5000Hz 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, the high 50 kHz small signal bandwidth of the LMX Series outperforms any switch-mode AC power source.

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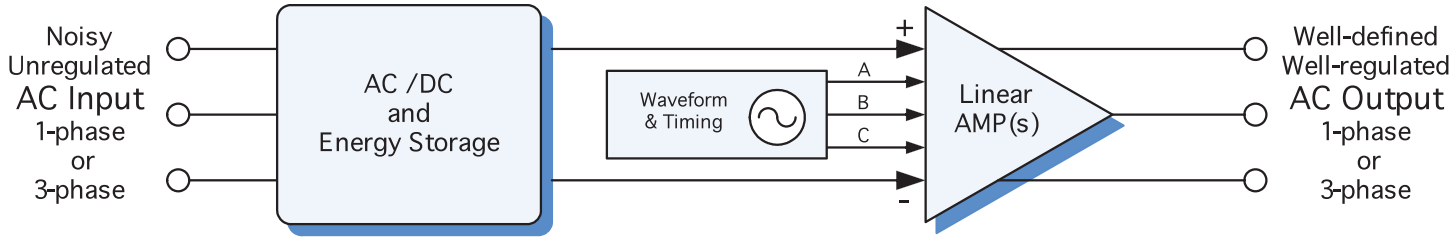
Selecting the best Topology for Your Application

Pacific Power Source designs and manufactures both linear and pulse-width modulated (PWM) AC Power Sources. Understanding the capabilities and differences between these technologies is especially helpful in determining which models best satisfy your requirement.

There is no single-parameter right-or-wrong solution when deciding which technology is best for a given application. Careful evaluation of individual test requirements will determine whether linear or PWM technology is correct.

Linear AC Power Sources produce low-distortion, high fidelity, output waveforms. The advantage of linear amplification is its ability to faithfully reproduce oscillator waveforms with very high small signal bandwidth and low output distortion. The disadvantage is larger size and lower efficiency inherent to Class A/AB amplifiers. The graphic below demonstrates the characteristics of Linear-Amplifier technology.

The tables below list some of the key pro's and con's of linear amplifier technology.



BENEFITS
Very low output distortion
Wide output bandwidth
High crest factor handling for wide range of loads without waveform distortion

DRAWBACKS
Higher temperature operation due to class A, B, and AB amplifier inefficiencies
Larger size due to increased component count
Higher weight due to increased component count

FEATURE/CAPABILITY	LINEAR
Lowest harmonic distortion	Best
Lowest output impedance	Best
Highest bandwidth	Best
Active impedance control	Best
Highest crest-factor	Best
Highest startup surge current	Best

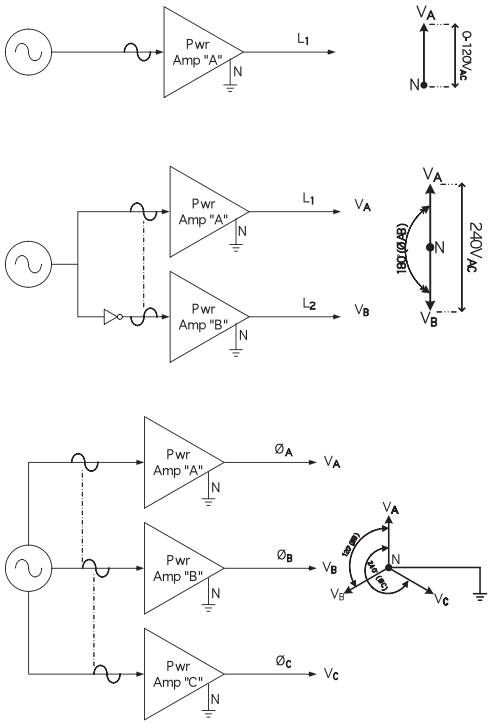
Output Phase Modes

Three phase LMX 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.

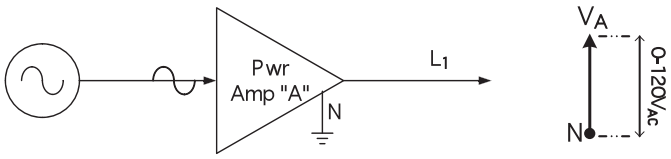


Wide Selection of Voltage Ranges

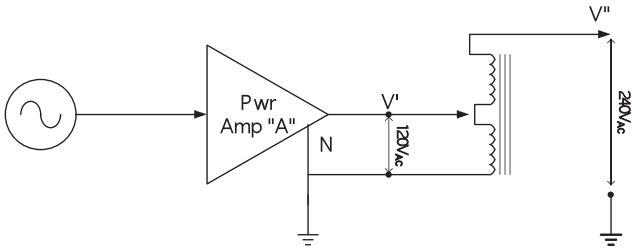
All LMX Series models support direct coupled output voltages up to 135V_{LN} or 270V_{LL} on single phase models or 135V_{LN}/234V_{LL} on three phase models.

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 single phase output voltage of 600V single phase or 585V three phase.

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.



Direct Coupled Output Voltage Range.



Transformer Coupled Output Voltage Range

Powerful yet Easy to Use

Although LMX 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 LMX Functions and features without the need for any special software. The web browser based program and measurement screen is shown to the right.

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.

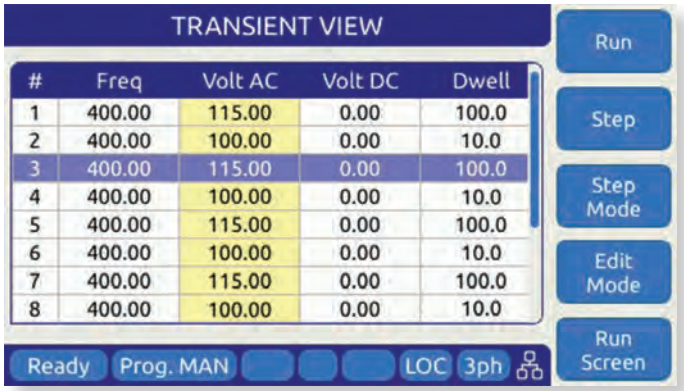
Alternatively, a tablet or smart phone can be used to operate the power source using the built-in LXI browser interface. Of course, extensive safety protocols are in place to prevent unauthorized access via WiFi or LAN connections.

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.

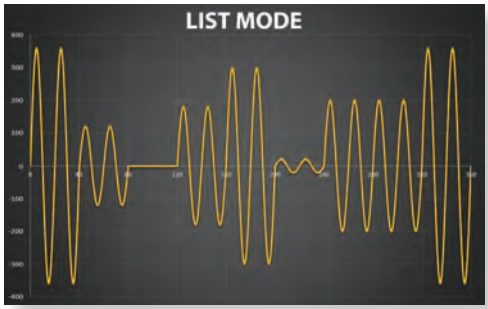
The LMX Series supports LIST, PULSE and STEP Mode Transient Types. The user can select the most appropriate type from the front panel or the web server interface. The image below illustrates the three modes graphically. Transients can be stored in non-volatile memory and easily edited as needed on screen.

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

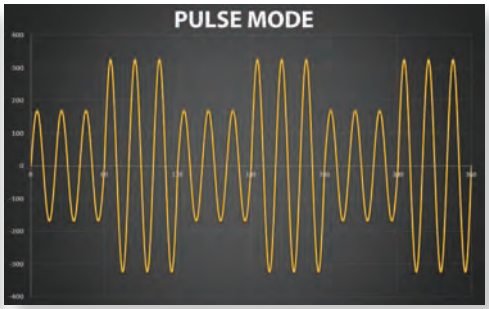


#	Freq	Volt AC	Volt DC	Dwell
1	400.00	115.00	0.00	100.0
2	400.00	100.00	0.00	10.0
3	400.00	115.00	0.00	100.0
4	400.00	100.00	0.00	10.0
5	400.00	115.00	0.00	100.0
6	400.00	100.00	0.00	10.0
7	400.00	115.00	0.00	100.0
8	400.00	100.00	0.00	10.0

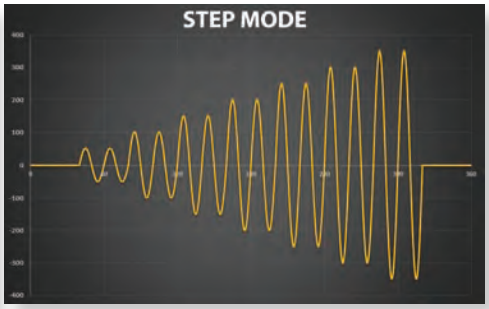
Transient Executing in View Mode



TRANSIENT LIST MODE



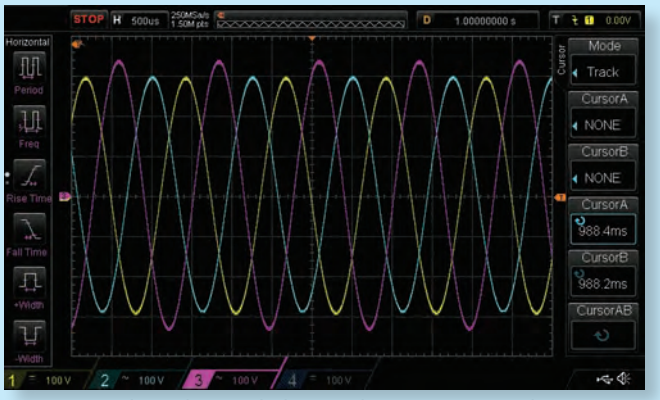
TRANSIENT PULSE MODE



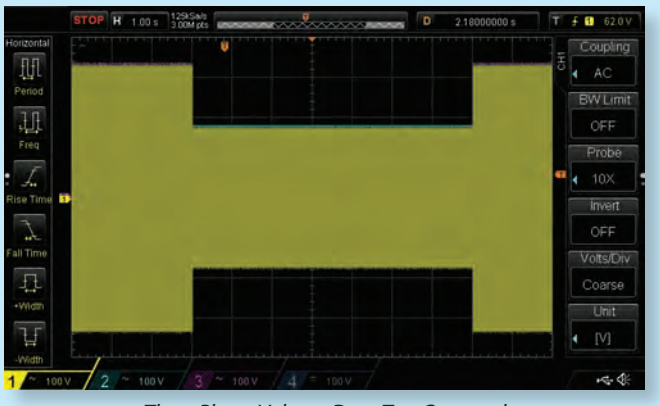
TRANSIENT STEP MODE

The LMX 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 LMX to handle. This includes AC power compliance testing, transformer testing, appliance testing, DC charger testing, UPS testing and more.

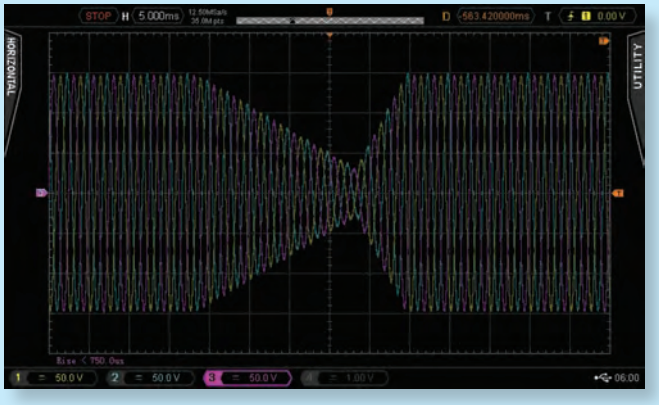
The scope images shown here capture several examples of AC power test waveforms generated by an LMX.



Three Phase Unbalance Voltage Test Captured



Three Phase Voltage Drop Test Captured



AC Transient Output Captured on Digital Scope

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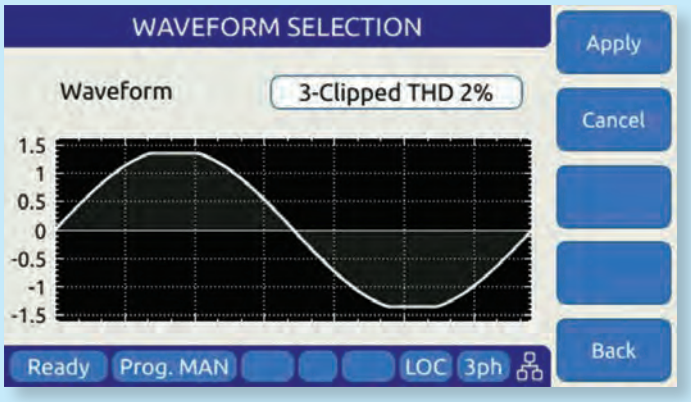
200 Selectable Arbitrary Waveforms

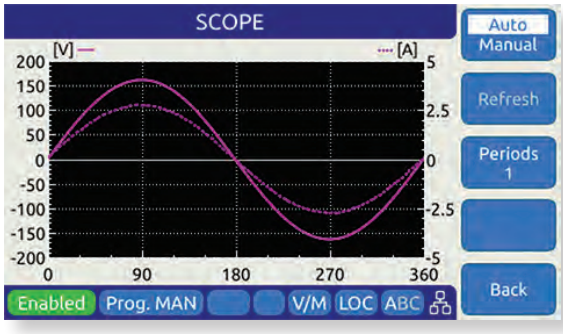
In addition to sine wave, the LMX Series offers multiple selectable AC waveforms such as clipped sine wave at various distortion levels, square, triangle and stepped squares. The operator can create arbitrary waveforms using Pacific Power's PPSC Studio Windows software or using a web browser and download 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.



Clipped Sine Waveform Selection - Vthd = 2%

Capture Voltage & Current Waveforms

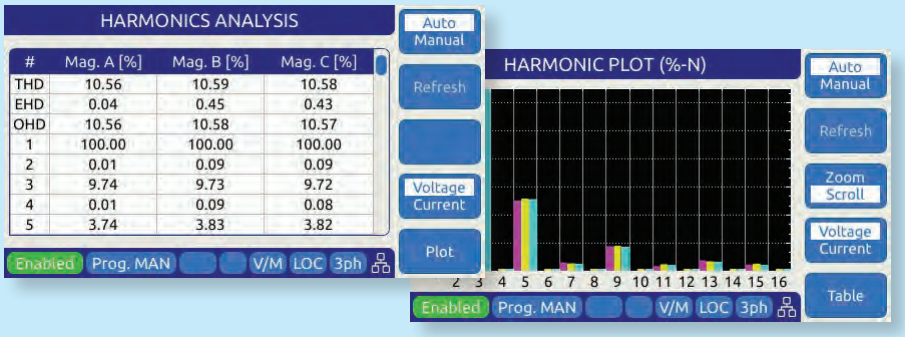
Built-in digital scope function captures voltage and current time domain signals, perfectly synchronized to the output frequency. Voltage and current displayed with accurate phase relationship. Display output waveforms on front panel or in Web browser.



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 LMX 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 - 5000 Hz)

MODEL	Rated Power (VA)[1]	Output Form[2]	Output Voltage Max[3] (l-n/l-l)	Output Current[4] (A_{rms})	Input Power[5]	Unit Height (in.-U)	Unit Weight (lbs/kg)
105LMX	500	1/2	0-135/270	4/2	1Ø	5.25-3U	70/31.8
108LMX	750	1/2	0-135/270	6/3	1Ø	5.25-3U	70/31.8
112LMX	1200	1/2	0-150/300	10/5	1Ø	5.25-3U	80/36.3
140LMX	4000	1/2	0-135/270	32/16	3Ø	14-8U	185/84.0
160LMX	6000	1/2	0-135/270	48/16	3Ø	14-8U	195/88.6

Direct / Transformer Coupled Selectable Output Units (45 Hz - 5000 Hz)

MODEL	Rated Power (VA)[1]	Output Form[2]	Output Voltage Max[3] (l-n/l-l)				Output Current[4] (A_{rms})				Input Power[5]	Unit Height (in.-U) Weight (lbs/kg)	Transformer Height (in.-U) Weight (lbs/kg)
			Direct	Transformer Ratio 1.5:1	Transformer Ratio 2.0:1	Transformer Ratio 2.5:1	Direct	Transformer Ratio 1.5:1	Transformer Ratio 2.0:1	Transformer Ratio 2.5:1			
105LMXT	500	1/2	0-135/270	0-202/404	0-270/540	0-338/600	4/2	2.6/1.3	2/1	1.6/0.8	1Ø	5.25-3U 97/44.0	Integrated
108LMXT	750	1/2	0-135/270	0-202/404	0-270/540	0-338/600	6/3	4/2	3/1.5	2.4/1.2	1Ø	5.25-3U 97/44.0	Integrated
140LMXT	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	14-8U 185/84.0	5.25-3U 125/56.8
160LMXT	6000	1/2	0-135/270	0-202/404	0-270/540	0-338/600	48/16	32/10.7	24/8	19.2/6.4	3Ø	14-8U 195/88.6	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 units are operable with dual voltage ranges as listed. Output voltage ranges and 1Ø/2Ø conversions are selected by front panel or bus command.
3. Output voltage ranges listed are for standard units. VMAX is achievable with nominal input voltage at full load.
4. Current ratings at 125 V_{RMS} output. Current may vary with power factor.
5. Input power frequency is 47–63 Hz. Single Phase: 100, 110, 120, 200, 208, 220, 230, 240, VAC ±10%. Three phase: 208, 220, 240, 380, 400, 416 VAC ±10% (480 VAC option available).
6. Single phase and 400 Hz input options may be available. Consult Factory.

3U (5.25") Rack Height Models

5U (8.25") Rack Height Models

8U (14") Rack Height Models

Three Phase Models

Direct Coupled Output Units (15 Hz - 5000 Hz)

MODEL	Rated Power (VA)[1]	Output Form[2]	Output Voltage Max[3] (l-n/l-l)	Output Current[4] (A_{rms})	Input Power[5]	Unit Height (in.-U)	Unit Weight (lbs/kg)
305LMX	500	1/2 3	0-135/270 0-135/234	4/2 1.3/Ø	1Ø	5.25-3U	74/33.6
308LMX	750	1/2 3	0-135/270 0-135/234	6/2 2/Ø	1Ø	5.25-3U	74/33.6
312LMX	1200	1/2 3	0-150/300 0-150/260	10/3.3 3.3/Ø	1Ø	5.25-3U	80/36.3
320LMX	2000	1/2 3	0-135/270 0-135/234	18/6 6/Ø	3Ø	8.75-5U	150/68.2
345LMX	4500	1/2 3	0-135/270 0-135/234	36/12 12/Ø	3Ø	14-8U	190/86.3
360LMX	6000	1/2 3	0-135/270 0-135/234	48/16 16/Ø	3Ø	14-8U	195/88.6

Direct / Transformer Coupled Selectable Output Units (45 Hz - 5000 Hz)

MODEL	Rated Power (VA)[1]	Output Form[2]	Output Voltage Max[3] (l-n/l-l)				Output Current[4] (A_{rms})				Input Power[5]	Unit Height (in.-U) Weight (lbs/kg)	Transformer Height (in.-U) Weight (lbs/kg)
			Direct	Transformer			Direct	Transformer					
				Ratio 1.5:1	Ratio 2.0:1	Ratio 2.5:1		Ratio 1.5:1	Ratio 2.0:1	Ratio 2.5:1			
305LMXT	500	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	4/2 1.5/Ø	2.6/1.3 1.0/Ø	2/1 0.75/Ø	1.6/0.8 0.6/Ø	1Ø	5.25-3U 100/45.5	Integrated
308LMXT	750	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	6/2 2/Ø	4/1.3 1.3/Ø	3/1 1/Ø	2.4/0.8 0.8/Ø	1Ø	5.25-3U 100/45.5	Integrated
320LMXT	2000	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	18/6 6/Ø	12/4 4/Ø	9/3 3/Ø	7.2/2.4 2.4/Ø	3Ø	8.75-5U 150/68.2	5.25-3U 125/56.8
345LMXT	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	14-8U 190/86.3	5.25-3U 125/56.8
360LMXT	6000	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	48/16 16/Ø	32/10.7 10.7/Ø	24/8 8/Ø	19.2/6.4 6.4/Ø	3Ø	14-8U 195/88.6	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 1Ø/3Ø conversions are selected by front panel or bus command.
3. Output voltage ranges listed are for standard units. VMAX is achievable with nominal input voltage at full load. Other voltage ranges are available with the output magnetics option.
4. Current ratings at 125 V_{RMS} output. Current may vary with power factor.
5. Input power frequency is 47–63 Hz. Single Phase: 100, 110, 120, 200, 208, 220, 230, 240, VAC ±10%. Three phase: 208, 220, 240, 380, 400, 416 VAC ±10% (480 VAC option may be available.).
6. Single phase and 400 Hz input options may be available. Consult Factory.

Parallel Configurations for Higher Power

The 145LMX, 345LMX, 160LMX and 360LMX source models can be paralleled to create higher power systems. When equipped with the Parallel Bus (-PB) option, up to five of these LMX units can be paralleled and synchronized to create power systems up to 30kVA when equipped with the -MB.

All programming is performed from the master unit front panel or remote control interfaces. Consolidated measurements are reported on the master unit. The table shows supported parallel LMX Series configurations.

MODEL	Consist of	Phase Mode	Rated Power
390/190LMX	2 x 345 or 145LMX	3 & 2 or 1 Phase	9kVA
3120/1120LMX	2 x 360 or 160LMX	3 & 2 or 1 Phase	12kVA
3180 /1180LMX	3 x 360 or 160LMX	3 & 2 or 1 Phase	18kVA
3240/1240LMX	4 x 360 or 160LMX	3 & 2 or 1 Phase	24kVA
3600/1600LMX	5 x 360 or 160LMX	3 & 2 or 1 Phase	30kVA

Technical Specifications (common to all LMX Models)

OUTPUT	SPECIFICATION
Power	
Output	See Model Tables page 8 & 9
Voltage	
Mode	AC
Direct Coupled Range[1]	0-135 Vac LN / 0-234 Vac LL
T-Option Ranges	Turns ratios: 1:1.5, 1:2.0, 1:2.5
Programming Resolution	0.01 V
Accuracy	±0.1% (CSC mode)
Waveforms (200 Max.)	Sine, Square, Triangle, Clipped (THD), Arbitrary
DC Offset	< 20 mV
Harmonic Distortion (Vthd) *(full, resistive load)*	15~1000 Hz: < 0.1% 1000~5000 Hz: < 0.25%
Output Noise	< 50 mVrms
Load Regulation	± 0.0% F.S. CSC Mode ±0.25% F.S. CSC off
Line Regulation	< 0.1% for 10% Line Change
Voltage Sense	External Sense, max. voltage drop 5% F.S.
Voltage Response Time	5 µsec typical step load change
Small Signal Bandwidth	5 Hz to 40 kHz, ±3dB, 10% F.S.
Isolation	
Output Neutral to Chassis	150Vac
Frequency	
Direct Coupled Range	15.00 – 5000.0 Hz
T-Option	45.00 – 5000.0 Hz
Programming Resolution	0.01 Hz
Accuracy	± 0.005% / 50 ppm
Current	
Range	See Model Tables page 8 & 9
Programming Resolution	0.01 Arms
Accuracy[2]	± (0.5% + f (kHz) * 0.5%) F.S.
Current Protection (CP) Modes	Constant Current (CC) or Output Trip (CV)
Phase Angle *(In 3 and 2 Phase Mode)*	
Programmable Phase (B, C)	0 - 359.9°
Resolution	0.1°
Accuracy	±0.35° / ±0.1° Phase Reg. Mode
Programmable Impedance (Per LMX unit)	
Phase Mode	3 Phs | 2 Phs | 1 Phs
Real Time: Resistance (R)	±100 Ω | ±200 Ω | ± 33.3 Ω
Inductance (L)	0 - 50µH | 0-100µH | 0 - 16.7µH
RMS: Resistance (R)	±10 Ω | ±20 Ω | ± 3.33 Ω
Inductance (L)	0 - 2mH | 0-4mH | 0 - 0.67mH

Note 1: V_{LL} applies to three phase LMX Models in three phase mode

Note 2: Specification valid above 40Hz

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

TRANSIENTS	Specification
Programming	
No. of Entries	200 Steps / 400 segments
Modes	LIST, PULSE, STEP
Parameters	Frequency, Volt AC, Volt DC, Waveform, Ramp Time, Dwell Time
Dwell Time Range	0.1 - 10000000.0 msec
Time Resolution	0.1 msec
Edit Modes	Add at end, Insert before, Delete
Execution	
Run Control	Run from step # to step # Run, Step, Restart, Stop
Execution Modes	Normal, Debug
Program Storage	
Non-volatile	100 Programs + Transients

MEASUREMENTS	SPECIFICATION
AC Voltage (Vrms)	
Range	0 – 340 V_{LN} / 0-600 V_{LL}
Resolution	0.01 V
Accuracy	± 0.1% F.S.
Frequency (Hz)	
Fundamental Range	15 - 5000 Hz
Resolution	0.01 Hz
Accuracy	± 0.1% Rdg
AC Current (Arms)	
Range	See Model Tables page 8 & 9
Resolution	0.01 Arms
Accuracy[1]	± (0.5% + f (kHz) * 0.5%) F.S.
Current Crest Factor	
Range	1.00 - 5.00
Resolution	0.01
Accuracy[1]	± 2.0% F.S.
AC or DC Power (W)	
Range	See Model Tables page 8 & 9
Resolution	1 W front panel / 0.1 W remote
Accuracy[1]	± 0.75 % F.S.
Apparent Power (VA)	
Range	See Model Tables page 8 & 9
Resolution	1 VA front panel / 0.1 VA remote
Accuracy[1]	± 0.75 % F.S.
Power Factor	
Range	0.00 - 1.00
Resolution	0.01

Note 1: Specification valid above 40Hz

WAVEFORM CAPTURE	SPECIFICATION
Parameters	V_{LN-A}, V_{LN-B}, V_{LN-C}, $V_{LL\ AB}$, $V_{LL\ AC}$, $V_{LL\ BC}$, I_A, I_B, I_C
Max. Sample Rate	500 ksps
Samples/cycle	1024 (512 in UPC Compatibility mode)
Record Length	8 MSamples
Bandwidth	100 kHz @ 500 ksps

Technical Specifications (continued)

HARMONICS MEAS.	SPECIFICATION
Parameters	VLN-A, VLN-B, VLN-C, VLL AB ,VLL AC ,VLL BC ,IA, IB, IC
Harmonics Range	H2 ~ H50
Accuracy – Amplitude	± 1.0 % of RMS Reading
Phase Angle Range	0 ~ 359.9
Accuracy - Phase Angle	< 8 µsec
Bandwidth	100 kHz @ 500 ksps
Display Modes	Table format, Graph Format

AC INPUT	SPECIFICATION
Mains Voltage Form	4 Wire, L1, L2, L3 and PE
Frequency	47 - 63 Hz
Single Phase AC Input Selections	
Input Voltages	100, 110, 120, 200, 220 or 240 Vac
Phase Current	Model specific
Input Power Factor	> 0.9
Three Phase AC Input Selections	
Input Voltages	208, 220, 240, 380, 416 or 480 Vac
Phase Current	Model specific
Input Power Factor	> 0.9

ENVIRONMENTAL	SPECIFICATION
Cooling	Variable speed fan cooled, front and/or side air intake, rear exhaust
Audible Noise	65 dBA Max. @ 1 meter
Temperature	
Operating	0 to 55 °C / 32 to 131 °F
Storage	-10 to 70 °C / 14 to 158 °F
Humidity	< 0 - 95 %, non-condensing
Altitude	Operating: 1,981 m / 6500 feet Storage: 12,192 m / 40,000 feet

SYSTEM FEATURES	DESCRIPTION
DISPLAY	
Type	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	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
AI4	Frequency
Range	0 -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 - 10Vdc 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 (2)	Relay Control FORM, Relay Control T 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" / 482mm
Height	See Model Tables page 8 & 9
Depth *(Includes rear connectors, excludes rack handles)*	3U Models: 23.8" / 604 mm 5U Models: 25.1" / 637 mm 8U Models: 24.4" / 621 mm
Weight	
Net	See Model Tables page 8 & 9

REGULATORY	SPECIFICATION
Safety	IEC 61010-1:2010 (Edition 3)
EMC	
Emissions Standard	EN 55011:2009+A1:2010
Immunity Standard	EN 61000-4-2, -3, -4, -5, -6, -8, -11
Product Category	EN 61326-1:2013 (Measurement, Laboratory and Control Equipment)
Approvals	CE Mark, NRTL Safety
RoHS (DIRECTIVE 2011/65/EU)	
Product Category	EN50581:2012

Ordering Information

Standard Models

Single Phase Models (T = Option)

- ☐ 105LMX(T)
- ☐ 108LMX(T)
- ☐ 112LMX
- ☐ 140LMX(T)
- ☐ 160LMX(T)

Three Phase Models (T = Option)

- ☐ 305LMX(T)
- ☐ 308LMX(T)
- ☐ 312LMX
- ☐ 320LMX(T)
- ☐ 345LMX(T)
- ☐ 360LMX(T)

AC Input Voltages (V_{IN})

- ☐ Must be specified on order, see pages 8 & 9

Options

- ☐ 413 Option "C" Interharmonics Generator
- ☐ PB Parallel Bus (140, 160, 345 & 360LMX only)
- ☐ E Export version, "E" postfix

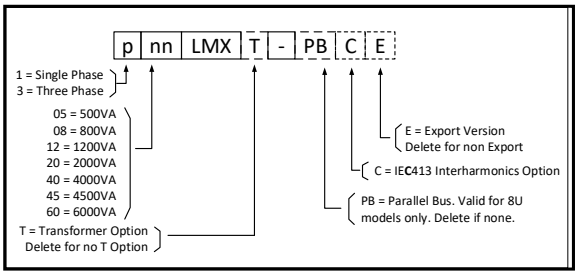
Order Example

360LMX
- AC Power Source, 6000VA, 3-Phase, No T-Option, USB, RS232, LAN, GPIB & AUX I/O
- Specify Factory set AC Input Voltage

Typical Delivery Items

- AC Power Source
- English Manuals in PDF Format
- Certificate of Compliance

Model Number Configurator



Software Options

Windows 10 Software - 64 Bit

- ☐ PPSC Studio Control Software
- ☐ PPSC Test Manager

Test Sequences - Avionics[2]

- ☐ ABD0100.1.8 - Airbus A380, AC Power Groups
- ☐ ABD0100.1.8.1 - Airbus A350, AC Power Groups
- ☐ AMD24C - Airbus A400M, AC Power Groups
- ☐ Boeing 787B3-0147 - B787, AC Power Groups
- ☐ MIL-STD704 - US DoD, AC Power Groups
- ☐ RTCA-DO160 Section 16, AC Power Groups

Test Sequences - Other[2]

- ☐ IEC Test Suite - Includes IEC61000-4-11, IEC61000-4-14, IEC61000-4-27, IEC61000-4-28 and IEC61000-4-34
- ☐ 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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