305LMX & 305LMXT

1Ø, 2Ø or 3ø – Linear AC Power Source

500 VA 15-5,000 Hz

$10 \rightarrow 0-338 V_{L-N}$ $20 \rightarrow 0-600 V_{L-L}$ $30 \rightarrow 0-338 V_{L-N} / 0-585 V_{L-L}$

Standard Features:

- Advanced Linear Amplifiers Provide Very Low Voltage Distortion, no Switching Noise, Fast Voltage and Current Slew Rates, Exceptionally Low Output Impedance and High Peak Current Capability
- Single, split or three phase selectable output from front panel or bus command
- 15 to 5,000 Hz. Full Power Bandwidth Operation – 5Hz to 50KHz small signal bandwidth, 3dB at 10% of full voltage
- Precision Voltage Programming
 0.05% with Continuous Self-Calibration (CSC) engaged
- True-RMS Metering of Volts, Amps, and Power
- Color touch screen front panel operation
- LAN (LXI), USB, GPIB and RS-232 Interfaces
- Arbitrary Waveforms
- Transients for Static and Dynamic Test Applications
- Programmable Output Impedance
- Harmonic Analysis and Waveform
 Synthesis
- PPSC Manager Windows 10 Software
- Embedded Web server



Model 305LMX

As the lowest three phase power member of Pacific Power's LMX-Series popular family of high performance Linear AC Power Sources, the 305LMX offers the same low output voltage noise and distortion, ease of installation, and high AC waveform fidelity as found in all of Pacific Power's Linear AC Power Sources. Control and operational features provide a high degree of versatility and ease of use for applications ranging from simple, manually controlled frequency conversion to harmonic testing and sophisticated programmable transient simulation.

AC TEST POWER

All 305LMX models are equipped with a powerful micro-controller with the ability to operate as a fully integrated test system. This enables a variety of power conditions and transients to be applied to the device under test while metering and analyzing all output performance parameters. For higher power requirements, refer to the complete LMX series catalog.

FREQUENCY/ VOLTAGE CONVERSION

The 305LMX is an excellent source of stable AC Voltage over the frequency range of 15 to 5,000 Hz. The output frequency is quartz-crystal stabilized. Output voltages up to 135VL-N in single phase mode and up to 270VL-L in split phase mode are available on the 305LMX model and up to 600VL-L in split phase mode or 585VL-L in three phase mode on the 305LMXT model.

PHASE CONVERSION

With the ability to provide two or three phase output, the 305LMX is a good choice to convert one-phase line voltage into precisely controlled split (two-phase) or three phase output power.



305LMX Models Output Ratings

			Output Voltage Max ³ (I-n/I-I)			Output Current⁴ (A _{rms})				
				Transformer				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
305LMX	500	1/2 3	0-135/270 0-135/234	n/a	n/a	n/a	4/2 1.3/ø	n/a	n/a	n/a
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 1.3/ø	2.6/1.3 1/ø	2/1 0.75/ø	1.6/0.8 0.6/ø

Notes:

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. Output Form: Unit is operable as single phase with dual range capability or three phase. Output voltage ranges and 10/20 or 30 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 $\mathrm{V}_{_{\mathrm{RMS}}}$ output. Current may vary with power factor.



FREQUENCY CONVERSION

AEROSPACE

R&D

MILITARY

CUSTOM



305LMX & 305LMXT

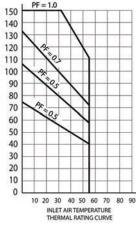
LMX Power Source Specifications (PF = 1.0, V_{out} > 25% F.S.) **Line Regulation** Output Distortion (VTHD) **Ripple & Noise Output Frequency** Load Regulation¹ **Response Time** Full Power 5 µsec typ. For **Direct Coupled Ranges:** 15~450 Hz: < 0.1% 0.1% max for a 15-5,000 Hz Direct Coupled step load change. 450~5000 Hz: < f x 0.076% + - 72 dB 0.25% 15 to 2,000 Hz. 45-5,000 Hz Transformer ±10% line change Small signal bandwidth = 5 0.50% 2,000 to 5,000 Hz. 0.07% (f in kHz) Hz to 50 KHz Coupled

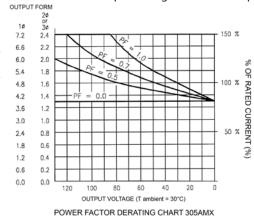
Note 1: Improves to less than 0.05% with external sense and CSC mode enabled. For transformer coupled voltage ranges, load regulation by step-up ratio is: 1.5:1 - 2%, 2.0:1 - 4%, 2.5:1 - 5%. Improves to < 0.1% with external sense and CSC mode enabled.

Thermal and Load Power Factor Rating Curves

Rated Continuous Load Current as a Function of Ambient Temperature and Power Factor and Output Voltage at Nominal Input Line.

OUTPUT CURRENT (Arms/ø)





THERMAL RATING -AC CURRENT RMS

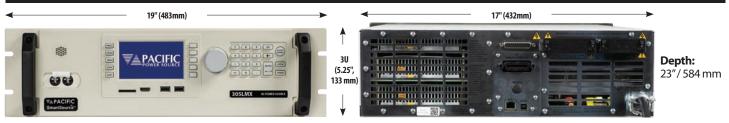
OUTPUT VOLTAGE-AC VOLTS RMS

Short term overloads to 150% of rated current are permitted. Operating time before thermal shutdown or circuit breaker trip varies from seconds to several minutes depending upon line and temperature conditions.

AC Input Power Requirements (47-63 Hz)

Input Voltage:	100 or 110 Vac ± 10%	120 Vac ± 10%	200 or 208 Vac ± 10%	220 or 230 Vac ± 10%	240 Vac ± 10%
AC Input Current:	12 Arms	11 Arms	7 Arms	6 Arms	5 Arms
Recommended Input Service:	25 A	25 A	15 A	15 A	15 A

Chassis Dimensions and Weights



Ordering Information

۰.		,		
	Model	T Option Ratio	AC Input Voltage (1ø)	Options
	305LMX	n/a	Specify: 100, 110, 120,	PPSC Test Manager SW License
	305LMXT	1.5:1 or 2.0:1 or 2.5:1	200, 208, 220, 230 or 240	Avionics or IEC Test Sequences

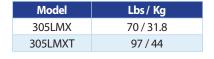
Order Example:

305LMXT, T= 2.0:1, V_{IN}: 120VAC

- 500VA, 3-Phase, ^AAC Power Source with optional transformer
- 2.0:1 Transformer Ratio
- 120VAC, 1 Phase Input Voltage

Export Version:

Three phase LMX Models intended for export outside of the USA must be ordered with the letter "E" (Export) post-fix. 305LMXT-E





 $\ensuremath{\textcircled{O}}$ 2020 Pacific Power Source, Inc. Subject to change without notice. DS305LMX 0223