6000 VA 15-5,000 Hz

 $1\phi \rightarrow 0 - 338 \, V_{L-N}$  $2\phi \rightarrow 0 - 600 \, V_{L-L}$ 

### **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 or Split 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
- Multi Unit Paralleling Option







MADE IN USA

## **Model 160LMX**

As the highest power member of Pacific Power's LMX-Series popular family of high performance Linear AC Power Sources, the 160LMX 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.

### **ACTEST POWER**

All 160LMX 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 160LMX 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 160LMX model and up to 600VL-L in split phase mode on the 160LMXT model.

#### PHASE CONVERSION

With the ability to provide two phase output, the 160LMX is a good choice to convert one-phase line voltage into precisely controlled split (two-phase) output power.

# **160LMX Models Output Ratings**

|         |                                  |                             |           | Output Voltage Max³ (I-n/I-I) |                |                |             | Output Current <sup>4</sup> (A <sub>rms</sub> ) |                |                |
|---------|----------------------------------|-----------------------------|-----------|-------------------------------|----------------|----------------|-------------|---|----------------|----------------|
|         |                                  |                             |           | Transformer                   |                |                | Transformer |   |                |                |
| MODEL   | Rated<br>Power (VA) <sup>1</sup> | Output<br>Form <sup>2</sup> | Direct    | Ratio<br>1.5:1                | Ratio<br>2.0:1 | Ratio<br>2.5:1 | Direct      | Ratio<br>1.5:1                                  | Ratio<br>2.0:1 | Ratio<br>2.5:1 |
| 160LMX  | 6000                             | 1/2                         | 0-135/270 | n/a                           | n/a            | n/a            | 48/16       | n/a   | n/a            | n/a            |
| 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       |

#### 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. All single phase units are operable with dual voltage ranges as listed. Output voltage ranges and 10/20 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  $\rm V_{\rm RMS}$  output. Current may vary with power factor.





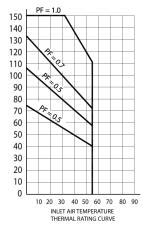
## LMX Power Source Specifications (PF = 1.0, $V_{...} > 25\%$ F.S.)

| Output Frequency   | Line Regulation                    | Load Regulation <sup>1</sup>  | Output Distortion   | Ripple & Noise | Response Time  |
|--|------------------------------------|---|---|----------------|--|
| Full Power<br>15-5,000 Hz Direct Coupled<br>45-5,000 Hz Transformer<br>Coupled | 0.1% max for a<br>±10% line change | Direct Coupled Ranges:<br>0.25% 15 to 2,000 Hz.<br>0.50% 2,000 to 5,000 Hz. | 0.1% THD <sub>AVG</sub> 45 to 1,000 Hz<br>0.25% THD <sub>AVG</sub> 15 to 5,000 Hz | < 50 mVrms     | 5 μsec typ. For<br>step load change.<br>Small signal bandwidth = 5<br>Hz to 50 KHz |

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.

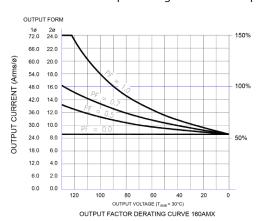
## **Thermal and Load Power Factor Rating Curves**

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



#### THERMAL RATING -AC CURRENT 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.



#### **OUTPUT VOLTAGE-AC VOLTS RMS**

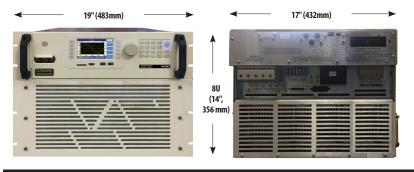
Short term overloads to 150% are permitted. Operating time before thermal shutdown or circuit breaker trip varies from seconds to several minutes depending upon line and temperature conditions.

### **AC Input Power Requirements (47-63 Hz)**

| Input Voltage:                | 208 Vac 3ø∆ ± 10% | 220 Vac 3ø∆ ± 10% | 230 Vac 3ø∆ ± 10% | 380 Vac 3ø∆ ± 10% | 400 Vac 3ø∆ ± 10% | 480 Vac 3ø∆ Opt. |
|-------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|
| AC Input Current:             | 28 Arms           | 26 Arms           | 25 Arms           | 15 Arms           | 14 Arms           | 14 Arms          |
| Recommended Input<br>Service: | 40 A              | 40 A              | 40 A              | 20 A              | 20 A              | 20 A             |

Note; Other AC input voltage settings available are 240Vac 3ø Delta and 416Vac 3ø

## Chassis Dimensions (w/o T Option) and Weights



**Depth:** 23" / 584 mm

| Model   | Lbs / Kg    |
|---------|-------------|
| 160LMX  | 195 / 88.6  |
| 160LMXT | 320 / 145.8 |

### **Parallel Bus Option**

The 160LMX AC power source can be paralleled to create higher power systems. When equipped with the Parallel Bus (-PB) option, up to five units can be paralleled.

# **Ordering Information**

| Model   | T Option Ratio          | AC Input Voltage          | Options                        |
|---------|-------------------------|---------------------------|--------------------------------|
| 160LMX  | n/a                     | Specify: 208, 220, 230,   | PPSC Test Manager SW License   |
| 160LMXT | 1.5:1 or 2.0:1 or 2.5:1 | 240, 380, 400, 416 or 480 | Avionics or IEC Test Sequences |

## **Order Example:**

160LMXT, T= 2.0:1, V<sub>IN</sub>: 380VAC

- 6000VA, 1-Phase, AC Power Source with optional transformer
- 2.0:1 Transformer Ratio
- 380VAC, 3 Phase Input Voltage

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|-----------|------------------|---|
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