Model 320LMX

As the medium three phase power member of Pacific Power’s LMX-Series popular family of high performance Linear AC Power Sources, the 320LMX 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 320LMX 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 320LMX 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 135V LN in single phase mode and up to 270V L-L in split phase mode are available on the 320LMX model and up to 600V L-L in split phase mode or 585V L-L in three phase mode on the 320LMXT model.

PHASE CONVERSION

With the ability to provide two or three phase output, the 320LMX is a good choice to convert one-phase line voltage into precisely controlled split (two-phase) or three phase output power.

### 320LMX & 320LMXT

**2000 VA**

1Ø → 0-338 V L-N

2Ø → 0-600 V L-L

3Ø → 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

### 320LMX Models Output Ratings

<table>
<thead>
<tr>
<th>MODEL</th>
<th>Rated Power (VA)</th>
<th>Output Form</th>
<th>Direct</th>
<th>Transformer</th>
<th>Output Voltage Max² (V L-N/L-L)</th>
<th>Output Current⁴ (A RMS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>320LMX</td>
<td>2000</td>
<td>1/2 3</td>
<td>0-135/270 0-135/234</td>
<td>n/a n/a n/a</td>
<td>18/6 6/0</td>
<td>n/a n/a n/a</td>
</tr>
</tbody>
</table>

**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 1Ø/2Ø or 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.

LMX Power Source Specifications

(\(PF = 1.0, V_{\text{out}} > 25\% \text{ F.S.}\))

<table>
<thead>
<tr>
<th>Output Frequency</th>
<th>Line Regulation</th>
<th>Load Regulation(^1)</th>
<th>Output Distortion</th>
<th>Ripple &amp; Noise</th>
<th>Response Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Power</td>
<td>0.1% max for a  (\pm 10%) line change</td>
<td>Direct Coupled Ranges: 0.25% 15 to 2,000 Hz. 0.50% 2,000 to 5,000 Hz.</td>
<td>0.1% (\text{THD}<em>{\text{AVG}}) 45 to 1,000 Hz. 0.25% (\text{THD}</em>{\text{AVG}}) 15 to 5,000 Hz.</td>
<td>-72 dB</td>
<td>5 µsec typ. For step load change. Small signal bandwidth = 5 Hz to 50 KHz</td>
</tr>
</tbody>
</table>

**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.

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

<table>
<thead>
<tr>
<th>Input Voltage:</th>
<th>208 Vac 3ø ± 10%</th>
<th>220 Vac 3ø ± 10%</th>
<th>240 Vac 3ø ± 10%</th>
<th>380 Vac 3ø ± 10%</th>
<th>416 Vac 3ø ± 10%</th>
<th>480 Vac 3ø Opt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC Input Current:</td>
<td>11 Arms</td>
<td>10 Arms</td>
<td>9 Arms</td>
<td>6 Arms</td>
<td>5 Arms</td>
<td>5 Arms</td>
</tr>
<tr>
<td>Recommended Input Service:</td>
<td>20 A</td>
<td>20 A</td>
<td>20 A</td>
<td>10 A</td>
<td>10 A</td>
<td>10 A</td>
</tr>
</tbody>
</table>

**Chassis Dimensions and Weights**

Depth: 23” / 584 mm

**Ordering Information**

<table>
<thead>
<tr>
<th>Model</th>
<th>T Option Ratio</th>
<th>AC Input Voltage (3ø (\Delta))</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>320LMX</td>
<td>n/a</td>
<td>Specify: 208, 220, 240, 380 or 416</td>
<td>PPSC Test Manager SW License</td>
</tr>
<tr>
<td>320LMXT</td>
<td>1.5:1 or 2.0:1 or 2.5:1</td>
<td></td>
<td>Avionics or IEC Test Sequences</td>
</tr>
</tbody>
</table>

**Order Example:**

320LMXT, \(T = 2.0:1, V_{\text{IN}}: 208VAC\)
- 2000VA, 3-Phase, AC Power Source with optional transformer
- 2.0:1 Transformer Ratio
- 208VAC, 3 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.

320LMXTE

© 2020 Pacific Power Source, Inc. Subject to change without notice. DS320LMX 0320