**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 312LMX**

As one of the medium three phase power member of Pacific Power’s LMX-Series popular family of high performance Linear AC Power Sources, the 312LMX 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 312LMX 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 312LMX 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 150VL-N in single phase mode, 300VL-L in split phase mode or 259VL-L in three phase mode.

**PHASE CONVERSION**

With the ability to provide two or three phase output, the 312LMX is a good choice to convert one-phase line voltage into precisely controlled split (two-phase) or three phase output power.
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></td>
<td>Direct Coupled Ranges:</td>
<td></td>
<td>-72 dB</td>
<td>5 \text{usec typ.} For step load change. Small signal</td>
</tr>
<tr>
<td>15-5,000 Hz Direct Coupled</td>
<td>0.1% max for a ±10% line change</td>
<td>0.25% 15 to 2,000 Hz. 0.50% 2,000 to 5,000 Hz.</td>
<td>0.1% THD(<em>{\text{AVG}}) 45 to 1,000 Hz 0.25% THD(</em>{\text{AVG}}) 15 to 5,000 Hz.</td>
<td></td>
<td>step load change. Small signal</td>
</tr>
<tr>
<td>45-5,000 Hz Transformer Coupled</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>signal bandwidth = 5 Hz to 50 KHz</td>
</tr>
</tbody>
</table>

**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.

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

<table>
<thead>
<tr>
<th>Input Voltage</th>
<th>AC Input Current</th>
<th>Recommended Input Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 Vac ± 10%</td>
<td>20 Arms</td>
<td>25 A</td>
</tr>
<tr>
<td>110 Vac ± 10%</td>
<td>19 Arms</td>
<td>25 A</td>
</tr>
<tr>
<td>120 Vac ± 10%</td>
<td>18 Arms</td>
<td>25 A</td>
</tr>
<tr>
<td>200 Vac ± 10%</td>
<td>10 Arms</td>
<td>15 A</td>
</tr>
<tr>
<td>230 Vac ± 10%</td>
<td>9 Arms</td>
<td>15 A</td>
</tr>
<tr>
<td>240 Vac ± 10%</td>
<td>9 Arms</td>
<td>15 A</td>
</tr>
</tbody>
</table>

**Chassis Dimensions and Weights**

- **19” (483mm)**
- **17” (432mm)**
- **Depth:** 23” / 584 mm
- **3U** (5.25", 133 mm)

**Ordering Information**

<table>
<thead>
<tr>
<th>Model</th>
<th>T Option Ratio</th>
<th>AC Input Voltage (1ø) Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>312LMX</td>
<td>n/a</td>
<td>PPSC Test Manager SW License Avionics or IEC Test Sequences</td>
</tr>
</tbody>
</table>

**Order Example:**

312LMX, VIN: 120VAC
- 1200VA, 3-Phase, AC Power Source
- 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.

312LMXTE