Table 1-1. Multi-Phase System Configurations

System Series	Number of Phases	Configuration
700	2	Two Model 351SLs in 2Ø at 90°; one 400SR; one signal cable (refer to Section II for further information).
1000	2	Two Model 501SLs in 2Ø at 90°; one 400SR; one signal cable (refer to Section II for further information).
1050	3	Three Model 351SLs in a 4-wire Y; two 400SRs; one signal cable (refer to Section II for further information).
1500	3	Three Model 501SLs in a 4-wire Y; two 400SRs; one signal cable (refer to Section II for further information).

1.4 SPECIFICATIONS

The performance specifications listed in paragraphs 1.4.1 and 1.4.2 provide baseline information for the particular model.

1.4.1 Model 351SL Specifications

1.4.1.1 Output Characteristics

Output Power: A minimum of 350 VA from 55-65 VAC, 110-130 VAC, or 220-260 VAC, with a power factor (PF) from unity to ±0.7 PF, over ±10% of the input line (refer to Figure 1-1 for the power derating curve).

Output Voltage Range, Standard Output Transformer:

0-65 VRMS; 0-130 VRMS; or 0-260 VRMS. The rear panel and internal jumpers provide either 0-65/130 VAC or 0-130/260 VAC voltage ranges.

Output Voltage Range, Optional Output Transformer:

0-32 VAC or 0-130 VAC, simultaneous.

Voltage Monitoring: Available via a meter on the front panel of the unit.

Voltage Control: Adjustable, zero to full scale via a locking front panel potentiometer or optional GPIB remote.

Output Current:

Output Voltage	Maximum RMS Current Per Phase
0-65	8.0
0-130	4.0
0-260	2.0

Frequency Range: 45 Hz to 5 kHz at full rated power.

Total Harmonic Distortion (THD): 0.4% maximum from 200 Hz to 1 kHz; 0.6% maximum from 45 Hz to 5 kHz (refer to Figure 1-2 for typical distortion curve).

Load Regulation: ±1%, no load to full load over the full frequency range. Adjustable to 0.1% for specific load conditions. Better than ±0.25% for a fixed frequency output between 45 Hz and 1 kHz.

Line Regulation: ±0.25% at the rated load for a ±10% input range at the full scale output voltage.

Response Time: <50 μsec.

AC Noise Level: 70 dB below full output voltage with a grounded input.

Gain Stability: ±0.25% for 24 hours at constant line, load and temperature after warm-up.

Overload and Short Circuit Protection: Automatic electronic current limiting senses both excessive load current and/or low power factor. Automatic instantaneous reset occurs when the overload is removed unless the front panel circuit breaker is activated.

Thermal Protection: An automatically resetting thermal sensor removes the output voltage to prevent damage due to excessive overload or heatsink temperature.

1.4.1.2 Input Characteristics

Line Voltage: User selectable 115 VAC or 230 VAC, ±10%, single phase.

Line Frequency: 47-63 Hz continuous (380-420 Hz optional); 45-70 Hz for short term transients.

Efficiency: Up to 55%.

Line Power: 1000 watts, maximum.

Line Volt-Amperes: 1600 VA, maximum.

Line Input: A three wire input via the terminal block on the rear of the chassis. The 115 VAC or 230 VAC selection is made via an external switch.

1.4.1.3 ATE Features

Range Change Relays: An optional oscillator (PIP) allows the optional internal range change relays to switch between 130 VAC and 260 VAC via either front panel control or under special GPIB control. Other voltage ranges are available as special options.

Output Relay: An optional internal output relay can connect the load to the output of the power source under GPIB control.

Remote Sense: Available with a PIP and other selected oscillators.

Current Limit Feedback: An optional internal current transformer will provide current limit feedback to the PIP oscillator.

PIP Sync In/Out: The PIP can be optionally synchronized by an external source. This allows a PIP to synchronize to another PIP.

Built-In-Test-Equipment: Optional with the use of the Elgar PIP 704, PIP 9012 or PIP 9023 programmable oscillators. Depending on the PIP, the system measures and reports RMS voltage, RMS current, frequency, phase angle, and RMS power in watts.

1.4.1.4 General

Operating Temperature Range: 0°C to 55°C (32°F to 131°F).

Operating Humidity Range: Up to 95%, non condensing.

Cabinet Mounting: Standard 19" RETMA rack mounting using 20" rack slides.

Dimensions: 5.25 (133 mm) high X 19" (483 mm) wide X 21" (533 mm) deep.

Net Weight: 75 pounds (34 kg).

Shipping Weight: 83 pounds (38 kg).

Front Panel Finish: Light gray, color #26408, per FED-STD-595A with black silk screening, color #27038.

Cooling: Single 4.25" (108 mm) fan mounted inside the unit with side air intake and rear air exhaust.

Front Panel Meter: A 0 to 300 VAC voltmeter provides ±3% of full scale accuracy over the 45 Hz to 1 kHz frequency range.

J1 Interface Connector: 15 pin configuration for added flexibility.

1.4.2 Model 501SL Specifications

1.4.2.1 Output Characteristics

Output Power: A minimum of 500 VA from 55-65 VAC, 110-130 VAC, or 220-260 VAC, with a power factor (PF) from unity to ±0.7 PF, over ±10% of the input line (refer to Figure 1-1 for the power derating curve).

Output Voltage Range, Standard Output Transformer:

0-65 VRMS; 0-130 VRMS; or 0-260 VRMS. The rear panel and internal jumpers provide either 0-65/130 VAC or 0-130/260 VAC voltage ranges.

Output Voltage Range, Optional Output Transformer:

0-32 VAC or 0-130 VAC, simultaneous.

Voltage Monitoring: Available via a meter on the front panel of the unit.

Voltage Control: Adjustable, zero to full scale via a locking front panel potentiometer or optional GPIB remote.