EAGLE EYE POWER SOLUTIONS

100kW AC Load Bank Specifications

1. Summary

This document describes the specific requirements for a 100kW AC load bank. Test data measured, displayed, and recorded by a load bank should include:

- Phase/Line Voltage
- Load Current
- Real/Reactive/Apparent Power
- AC Frequency
- Power Factor
- Load Time

2. System Composition

The load bank requires the following components unless stated as optional:

Load Bank Body	Resistive 3-phase/4-wire load bank designed for load testing of generators, UPS, and other critical AC power sources.
Data Management Software	Software used to control, view, manage and analyze load test information.
RS-485 Cable	Cable for RS-485 communication.
RS-485/RS-232/USB Converter	Cable used to convert from RS-485/RS-232 port on load bank to PC's USB serial port.
AC Power Cord	Provides power to the unit at 110/220 VAC, 50/60 Hz.

3. Load Bank Capabilities

3.1 The load bank measures, displays, and records the following 3-phase test parameters:

- Phase/Line Voltage
- Load Current
- Real/Reactive/Apparent Power
- AC Frequency
- Power Factor
- Load Time

3.2 Built in 3-line digital metering allows high-precision data collection directly from the unit.

3.3 Designed to meet nominal voltage at 100kW max power, with 8 load control steps.

3.4 Data Management Software allows for automatic or manual load testing through a remote PC. Automatic load testing allows the user to set custom periods for load power and time. The software is also used for displaying, storing, and managing test data, and allows for the creation of test reports and graphs.

3.5 Built in protection features including: emergency stop, over-voltage protection, short-circuit protection, and overheating protection.

4. Hardware Performance

4.1 Adjustable test data save cycle, to a minimum of 2 second intervals.

4.2 Utilizes forced air cooling to prevent overheating of internal components.

4.3 Built for portability with lifting eyes on top of unit for hoisting, and casters for rolling.

5. Technical Specifications

Load Voltage	Available models: 208V, 240V, 380V, 400V, 415V, 440V, or 480V nominal
Power / Frequency	Nominal voltage at 100kW (110kW max load) 3-phase 4-wire, 50/60Hz
Resistive Load Steps	8 steps: 1, 2, 2, 5, 10, 20, 20, and 50 kW
Power Factor	1
Load Tolerance	±5% per step, ±3% overall
Display	Multiple function display meter
Communication	RS-232/RS-485, USB
Cooling	Forced air cooling
Operating Environment	Ambient Temperature: -10 – 50°C (14 – 122°F) Relative Humidity: ≤95% Atmospheric Pressure: 86 – 106 kPa
Insulation	Class F
Operating Power	110/220 VAC single phase, 50/60 Hz

6. Warranty

12 months