MAGNET & BBU MANAGEMENT SYSTEM

WINKLE

The new Magnet & BBU Management System monitors the entire system including the BBU.

APPLICATIONS

Overhead cranes with magnet control and battery backup.

The Magnet System Monitor Tests Individual Battery Health and Can Identify Weak and/or Failing Batteries Within the Battery Bank.

Audible and Visual Alarms When Line Power Is Lost, Including a 2-Minute Battery Warning.

A Real Push-To-Test Simulates Loss of Line Power to Ensure the Magnet System Is in Good Working Condition.

An HMI With Real Time Data Display.

WARRANTY 1 YEAR

WINKLE

MAGNET & BBU MANAGEMENT SYSTEM

SPECS

- PLC controlled Monitoring system.
- Allen Bradley Micro 820 PLC with 16 output expansion.
- Two Allen Bradley 4 input analog cards.
- Winkle Industries innovative battery sampling circuitry.
- Siemens 3-pole contactor for battery backup test.
- Voltage and ammeter transducers for plc monitoring of rectifier and battery conditions.
- Status lights and audible alarms for bridge mounting.
- Individual battery monitoring for detecting deteriorating or failed batteries within the bank.
- NEMA 4x enclosure.
- HMI 10" Touchscreen, Color 800x600 Pixels for system monitoring and data analytics.
- HMI battery health status graph.
- HMI magnet icon displays green ON and red OFF.
- HMI acknowledge alarms, reset, system on/off, and system push to test.
- Displays and monitors rectified line voltage and current.
- Displays and monitors battery line voltage and current.

OPERATION SET-UP

The system was designed to fully test the functionality of the magnet system and backup unit.

1. On the START screen press the central grey box and enter your total magnet(s) cold amps, then press ENTER on the virtual keyboard.
2. Press the RUN SCREEN button.
3. Pick up a load and hold it a few inches above the ground.
4. Press the TEST button.
   - The lights and siren will sequence for 5 seconds each.
   - Then the mainline contactor will drop out for one minute.
   - The batteries will hold the load during this time.
   - The indicator light will flash RED for one second on, one second off during the test.
5. Begin normal operation.

MONITORING

- Line and Battery Amps will display when the magnet is on, both in graph and numerically in the upper lefthand corner of the screen.
- If the magnet is on mainline power, mag amps will display under LINE.
- If the magnet is on battery power, mag amps will display under BATTERY.
- The magnet cold amps will display to the right of the depiction of the magnet on the upper righthand corner of the screen.
- HMI and visual alarms for hot magnet.
- The bottom of the screen contains a depiction of a battery with 17 bar graphs.
  - These graphs show the voltage of each battery in the BBU.
  - Visual representation of batteries.
  - Alarms for weak batteries.

INDICATOR LIGHT

The indicator light displays two colors: RED and AMBER.

- An AMBER blinking light 1 second on and 1 second off indicates the magnet is hot and continued use may damage the internal windings.
- A RED blinking light indicates that line power has been lost and the system is now ON BATTERY.
  - ONE SECOND on and ONE SECOND OFF for the first 18 MINUTES.
  - HALF SECOND on and HALF SECOND OFF for the last 2 MINUTES.
- During the last 2 minutes, the siren will sound.
  - The siren can be silenced by pressing ACK SIREN.