

# Critical Asset Protection Bulkhead CAPB - Pump

### **Controlled Pump Station Shutdown and Restart**

The CAPB - Pump is designed for use with the Strike Guard Lightning Warning System to protect an irrigation pump station from lightning induced surge currents. By providing an early warning to the pump and allowing it to safely spin down before sprinkler heads and valves are closed, the CAPB – Pump prevents irrigation pipe damage due to hydraulic shock.

In addition to providing automatic and safe shutdown of a pump station, the CAPB - Pump offers an optional strobe light to alert nearby personnel that the pump is powered down.

By giving advance lightning warning to a pump station that a shutdown is imminent, the CAPB - Pump

protects golf course infrastructure, maximizes uptime, and minimizes repair costs.



CAPB-PUMP with WAVE Sequencer and switch-gear.

The CAPB - Pump comes as a completely assembled and tested wall-mount unit requiring only input (line) mains power (100 to 240 VAC single or split phase) and control lines from the pump station to be connected to the control relays, to be installed by a licensed electrician.

The CAPB - Pump is comprised of two interconntected electrical enclosures mounted on a common finished panel:

- WAVE Sequencer enclosure
- Metal switch-gear enclosure

The CAPB - Pump includes an integral WAVE Sequencer, packaged in a polycarbonate weather- resistant enclosure. All AC equipment and switch-gear are packaged in steel enclosures for arc-flash protection.

The CAPB - Pump requires either local Strike Guard Lightning Data Receiver direct connection, or RF signaling from a WAVE Transmitter actuated by a Strike Guard Lightning Warning System, or manual activation. The CAPB - Pump is customized based on project requirements. In addition to the optional strobe light, the CAPB can be configured with output relays with wetted contacts.

#### **CAPB - PUMP SPECIFICATIONS:**

INSTALLATION: Wall-mountable, 24 inches tall x 22 inches wide x 7.5 inches deep finished panel

ENCLOSURE: WAVE Sequencer NEMA 4X polycarbonate. AC wiring and all switch gear in steel enclosures

WAVE SEQUENCER BATTERIES: 6 v, 3.5 AHr, sealed gel-cell; lead acid COMMUNICATION & CONTROL INPUT: Strike Guard Lightning Data Receiver direct connect or WAVE Transmitter RF signal, 10 W, 27.255 MHz, -115 dBm sensitivity (or better)

**OUTPUT CONTROL: Sequence delays between outputs via DIP switch** programming

STATUS INDICATION: Power on/off, failure, control output, sequence on/off RF PROTECTION: PolyPhaser® rated up to 2 kW protection between 1.5 to 50

SURGE PROTECTION (for CAPB-PUMP only): Sycom Clamping level 150/300 V for 120/240 VAC, <5 nanosecond response time

SWITCH GEAR ENCLOSURE RELAYS: Phoenix 12 VDC coil voltage, 10 Amp at 250 VAC contact rating

INPUT POWER: 100 to 240 VAC, single or split phase, specified at order time. AC/ DC POWER SUPPLY: In-line switching power supply, 88-264 VAC input (single or split phase), 50/60 Hz, UL, VDE, FCC, CSA, CE.

WAVE TRANSMITTER RANGE: 2 mile radius with standard antenna ANTENNA: Standard 3 ft monopole antenna, 25 ft coaxial cable

APPLICATION: Lightning protection of pump stations in large irrigation systems

#### **CAPB - PUMP DELIVERS:**

- Fully assembled, tested and ready for customer pump station connections
- Best-engineering-practice conventional passive lightning surge protection keeps the CAPB - Pump protected, so it can reliably protect the pump station
- Advanced and comprehensive active lightning protection including automatic disconnection (isolation) & automatic grounding of field conductors, automatic AC power shut-down, selective isolation, selective grounding, and selective shut-down
- Properly engineered (NEC compliant) panel for greatly
  - simplified installation
- Optional high-intensity strobe indicates sequence on/off condition
- Shielding, cable-routing, cable dressing and metalenclosed switch-gear to minimize flash-over risk and for arc-flash protection
- Attractive enclosure with large-area viewing window
- Rugged professional grade, complete assembly



**WAVE Sequencer** 



The Critical Asset Protection Bulkhead interfaces with the Strike Guard Lightning Warning System for automation

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Specifications are subject to change.





