## POWER CONTROL CENTER (1HP-5HP) SPECIFICATIONS

OTTERBINE Water Quality Management Products are the only aeration systems on the market that are safety tested and approved by the Electrical Testing Laboratory (ETL).

**TESTING:** Power Control Center (PCC) components are U.L. listed and CSA certified. Aerator/Fountain, PCC and all components are ETL and ETL-C listed and approved as a complete package.

The following is a description of the electrical components used by Otterbine in our Power Control Center for all 1HP - 5HP Aeration Systems.

**A. CONSTRUCTION:** The power control center utilizes a durable fiberglass, NEMA 4X rated enclosure. The dimensions of the standard control center are: height = 14in (36 cm), width = 12in (31cm), depth= 6in (15cm).

**B. DISCONNECT:** The Otterbine Power Control Center has a surface mounted power disconnect switch to quickly remove power to all equipment in the water. The PCC shall be mounted where visible from the location of the aeration equipment.



- **C. MOTOR CONTROLLER:** Each Power Control Center is equipped with a Manual Motor Protector (MMP) providing short circuit and motor overload protection. The aerator/fountain is controlled by an across-the-line magnetic contactor.
- **D. CONTROL CIRCUIT:** On 208-230 volt installations a neutral wire must be present to supply 115 volts to operate the internal control circuit components. A manual-off-auto switch is used to select the operating mode. In automatic, a 24-hour time clock operates the control circuitry while manual allows constant operation of the aerator.
- **E. GROUND FAULT PROTECTION:** All single phase 115 and 208-230 volt and all three phase 208-230 volt Power Control Centers are equipped with Class A personnel rated GFCI protection as standard equipment.
- **F. SURGE PROTECTION:** Each Power Control Center is equipped with lightning and power surge protection in case of lightning strikes.
- **G. GROUND LUGS:** Grounding lugs are present for connection of the aerators power cable ground wire to insure the unit is properly grounded.
- **H. SUB PANEL:** Power Control Center components that do not require regular access by the end user are mounted on the sub-panel.
- **I. SWING PANEL:** Components such as: Manual-Off-Auto (MOA) selector switch, timers, GFCl's, lighting circuit fuses as well as short circuit and overload trip reset that are required to be set or reset by the end user are safely and readily accessible just inside the main door of the enclosure on the swing panel.

**J. MOUNTING OF ENCLOSURE:** The Otterbine Power Control Center is mounted by means of four external mounting holes on the enclosure.

## **TYPICAL SPECIFICATIONS:**

**POWER CONTROL CENTER:** The electrical components shall be mounted in a NEMA 4X rated enclosure with an externally mounted disconnect switch and a MANUAL - OFF - AUTO selector switch. The electrical system for all units (115, 208-230, 380-415 & 460V) shall include a non-reversing 600V rated Manual Motor Controller (MMC) with thermal overload and short circuit trip and 24hr timer. 115, 208-230 volt, single and three phase units shall include GFCI (Ground Fault Circuit Interrupter) protection. To operate the GFCI and control circuit on 208-230 volt systems a neutral must be present or an optional control transformer may be supplied. The electrical system shall include a lightning arrester, rated for a maximum of 60,000 amperes discharge.

**INSTALLATION:** Aerator Power Control Centers come with all required elements. The only additional requirements are the connections to the Power Control Center of the external power from a branch circuit short circuit device and the aerator power cable. Any and all electrical work should be done by a qualified and licensed electrician and conform to all local and national electrical codes.

**OPTIONS:** Although the fiberglass enclosure will withstand the harshest environments Stainless Steel enclosures are available when required. Multiple Motor Controllers in one enclosure; Phase Monitor; EPD or GFCI Devices for 460V; Step Down Transformers; Remote Satellite Control; Water Level Shut Off; Fountain GloTM Light Controls.

**CUSTOM CONTROLS:** Otterbine can build controls to your specifications for an additional cost. Power Control Centers for operating multiple aerator systems are available.

**COMPUTER CONTROL:** We can supply the relays necessary to allow common 24 volt irrigation computer control systems to allow the operation of the aerator.

**WARRANTY:** Power Control Center warranty shall coincide with the warranty parameters of the aerator/fountain it controls. Refer to aerator/fountain product warranty for details

ACCEPTABLE MANUFACTURER: The Power Control Center shall be manufactured by OTTERBINE/BAREBO, INC., 3840 MAIN ROAD EAST, EMMAUS, PA U.S.A. 18049 PH: (610) 965-6018. www.otterbine.com