

Fountain, Aerator, and Circulator Electrical Control Panels

This specification is written and intended to provide bidders the necessary information pertaining to the floating aerating fountain(s) or surface aerator (s) for the _____ project.

1. C-25 (120V) DETAILED SPECIFICATIONS

- 1.1. **Panel Specifics**: Electrical control panel shall be 120V rated and wired for “Plug & Go” operation. The electrical control panel shall have a 15 amp circuit and be single phase operation. The electrical control panel shall be standard with all Kasco 120V Aerating Fountains and optional with Pond Aerators and Water Circulators.
- 1.2. **Enclosure**: Electrical control panel shall be NEMA 3 R type, U.V. resistant thermoplastic and gray in color. The electrical control panel shall have molded mounting positions for vertical mounting, be lockable, and have door mounted instructions. The bottom of the enclosure shall have 2 round power cord openings 1.5” in diameter.
- 1.3. **GFCI Breaker**: Electrical control panel shall include a 15 amp, single pole Class A Human Rated GFCI breaker with overload and short circuit protection. The GFCI shall have a test and reset button for monthly testing.
- 1.4. **Timer**: Electrical control panel shall include a 24 hour mechanical timer with two ON and two OFF trippers. The timer shall have 30 minute intervals.
- 1.5. **Power Connection**: Electrical control panel shall have a permanently wired 120V electrical connection with a NEMA 5-15P molded plug, approximately 27” long for “Plug & Go” operation. The electrical control panel shall have two 120V, NEMA 5-15R receptacles, one labels “UNIT” for the unit and one labeled “LIGHT” for the optional light kit.
- 1.6. **Photo Cell**: Electrical control panel shall have permanently mounted photo cell to register darkness levels for secondary operation of the optional low voltage lighting kits available with 120V fountain units.

2. C-85 (240V) DETAILED SPECIFICATIONS

- 2.1. **Panel Specifics**: Electrical control panel shall be 240V rated and wired. The electrical control panel shall have a 20 amp circuit and be single phase operation. The electrical control panel shall be standard with all Kasco 240V Aerating Fountains and optional with Pond Aerators and Water Circulators.
- 2.2. **Enclosure**: Electrical control panel shall be NEMA 3R type, protective coated steel and gray in color. The electrical control panel shall have built in mounting positions for vertical mounting, be lockable, and have door mounted instructions. The bottom of the enclosure shall have available knock-outs for panel wiring.
- 2.3. **GFCI Breaker**: Electrical control panel shall include a 20 amp, double pole, Class A Human Rated GFCI, Square D[®] breaker with overload and short circuit protection. The GFCI shall have a test and reset button for monthly testing.
- 2.4. **Timer**: Electrical control panel shall include a 24 hour mechanical timer with two ON and two OFF trippers. The timer shall have 30 minute intervals. The timer shall have a manual override for manual operation.
- 2.5. **Power Connection**: Electrical control panel shall have an external, covered NEMA 6-20R outlet for external connection of the unit. The unit may also be hardwired into the control panel through the bottom enclosure knock-outs. The optional lighting shall be plugged into the 120V outlet in the control panel through the bottom enclosure knock-outs. The control panel requires 4 wire power (L1, L2, 1 ground, and 1 neutral) for proper operation. The incoming power shall be hardwired into the control panel through the bottom enclosure knock-outs.

2.6. **Lighting Circuit:** Electrical control panel shall be lighting ready with built-in components. Lighting components shall include electrical relay, 15 amp single pole breaker, photo cell for secondary light operation, and a GFI protected 120V receptacle. When the control panel timer is in an ON position, power shall be allowed through the relay from the timer and the 15 amp breaker into the photo cell. When the photo cell measures proper darkness, it will allow 120V power to flow to the 120V receptacle. The 120V receptacle shall allow power to flow into the lighting package with remote transformer, when plugged in.

3. **C-95 (240V) DETAILED SPECIFICATIONS**

3.1. **Panel Specifics:** Electrical control panel shall be 240V rated and wired. The electrical control panel shall have a 30 amp circuit and be single phase operation. The electrical control panel shall be standard with all Kasco 240V Aerating Fountains and optional with Pond Aerators and Water Circulators.

3.2. **Enclosure:** Electrical control panel shall be NEMA 3R type, protective coated steel and gray in color. The electrical control panel shall have built in mounting positions for vertical mounting, be lockable, and have door mounted instructions. The bottom of the enclosure shall have available knock-outs for panel wiring.

3.3. **GFCI Breaker:** Electrical control panel shall include a 30 amp, double pole, Class A Human Rated GFCI, Square D[®] breaker with overload and short circuit protection. The GFCI shall have a test and reset button for monthly testing.

3.4. **Timer:** Electrical control panel shall include a 24 hour mechanical timer with two ON and two OFF trippers. The timer shall have 30 minute intervals. The timer shall have a manual override for manual operation.

3.5. **Power Connection:** The pump unit shall be hardwired into the control panel through the bottom enclosure knock-outs. The optional lighting shall be plugged into the 120V outlet in the control panel through the bottom enclosure knock-outs. The control panel requires 4 wire power (L1, L2, 1 ground, and 1 neutral) for proper operation. The incoming power shall be hardwired into the control panel through the bottom enclosure knock-outs.

3.6. **Lighting Circuit:** Electrical control panel shall be lighting ready with built-in components. Lighting components shall include electrical relay, 15 amp single pole breaker, photo cell for secondary light operation, and a GFI protected 120V receptacle. When the control panel timer is in an ON position, power shall be allowed through the relay from the timer and the 15 amp breaker into the photo cell. When the photo cell measures proper darkness, it will allow 120V power to flow to the 120V receptacle. The 120V receptacle shall allow power to flow into the lighting package with remote transformer, when plugged in.

3.7.

4. **SAFETY INFORMATION**

4.1. The electrical control panel shall be tested as a complete unit and must meet UL (Underwriters Laboratories, Inc.) requirements in compliance with Category 778 for Motor-Operated Water Pumps and compliance with Category 50 for the Electrical Equipment (control panel). Lights must be in compliance with Category 676 Underwater Luminaries and Submersible Junction Box for use on Floating Fountains.

5. **WARRANTY INFORMATION**

5.1. The electrical control panel shall include a 2 year manufacture's repair warranty on all components. Unauthorized tampering will void the warranty.

6. **ACCEPTABLE MANUFACTURER**

6.1. The electrical control panel shall be a KASCO C-25, C-85, or C-95 Model manufactured by Kasco Marine, Inc., 800 Deere Rd., Prescott, WI U.S.A 54021. 715-262-4488. www.KascoMarine.com.

7. INSTALLATION

7.1. **Electrical Control Panel:** The electrical control panel must be installed per instructions and National Electrical code. Any alterations or substitutions, unless allowed by the instructions in the Owner's Manual will void the ETL Listing, void the manufacturer's warranty, and may cause a dangerous situation. Read the Owner's Manual thoroughly before starting the installation process and follow them carefully.