Eaton Corp. - Marina Power and Lighting, Inc.

General Specifications for Lighthouse Power Pedestal

All Power Pedestals Must Meet the Following:

Part I. General:

1.1 General Requirements:
A. Shall be tested and certified to be in compliance with ANSI/UL 231 entitled “power outlets.”
B. If a laboratory other than U.L. is used that laboratory must certify, in writing, that the power outlet has been tested and meets all of the requirements of ANSI/UL 231, including 746C polymeric materials, and that the unit will pass the 94VO-5V flame test.
C. Shall be certified to meet all sections of NFPA 303 DTD “2006 Marinas and Boatyards.”
D. Shall meet 406.8 (B)(2)(a) of the national electric code NFPA 70, i.e. “A receptacle installed in a wet location shall be installed in a weatherproof enclosure, the integrity of which is not affected when the attachment plug cap is inserted.”

Part II. Products:

2.1 Acceptable Manufacturers - Power Pedestal / Distribution Equipment:
A. Eaton - Marina Power and Lighting
   149 Warwick Court, Williamsburg, VA 23185
   Toll Free: 1-800-723-8009

2.2 Power Pedestal - General Specification
A. Main Housing:
   a. The housing shall be constructed of 1/4" thick injection molded heavy resin material and shall be coated with a UV-resistant water based acrylic polyester. It shall be UL listed as a type 3R weatherproof enclosure.
   b. The base shall be hinged to the upper unit to provide ease of wiring and plumbing and shall be of heavy resin construction with mounting feet that are 3/4” in thickness.
B. **Lighting Assembly / Housing:**
   a. The lighting top housing shall be constructed of 1/8” thick injection molded heavy resin material and shall be coated with a UV-resistant water based acrylic polymer. It shall be UL listed as a type 3R weatherproof enclosure.
   b. **STANDARD** - Each pedestal shall be equipped with a non-metered light. The lighting assembly shall include one LED light, that is controlled by an electromechanical photocell and protected by a 20 amp, single pole breaker.
   c. **OPTION** - Each pedestal shall be equipped with a non-metered CFL light, that is controlled by an electromechanical photocell and protected by a 20 amp, single pole breaker. LED light shall be manufactured by Eaton - Marina Power & Energy.

C. **Wiring:**
   a. The power pedestal shall be completely pre-wired at the factory to the load side of the compression lug assembly.
   b. All load copper wiring shall be of high stranding and tin plated to resist corrosion.
   c. The maximum size of the line wiring shall be 350 MCM direct feed or #4/0 loop feed.

D. **Loop Feed Bus Bar System:**
   a. **STANDARD** - 250 Amp Bus Bar - The bus system shall be of stud compression terminal type using a 3/8” - silicon-bronze stud with a silicon-bronze Belleville type washer. The 3/8” - silicon-bronze hex-nut shall be torqued to 150 inch-pounds with a maximum amperage rating of 250 amps.
   b. **OPTION** - Single and double barrel mechanical bus bars - rated for copper or aluminum - are also available in sizes ranging from #8 to 350MCM.

E. **Grounding:**
   a. All exposed metallic parts must have an integral ground that is a part of the equipment grounding system.

F. **Receptacles:**
   a. All receptacles shall be mounted behind a lockable weatherproof, hinged door that is under tension to ensure proper closing pressure when the receptacle is or is not in use.
   b. **OPTION** - Receptacles may remounted behind hinged, self closing polyvinyl gasketed cover.
   c. All receptacles under 60 amps shall be of the corrosion resistant type conforming to NEMA L-5 and/or NEMA L-6 requirements and are rated for marine use.
   d. All receptacles over 60 Amp receptacles shall conform to IEC and CEE standards.
   e. 20 Amp, 110 Volt, straight blade receptacles shall be GFI protected.
   f. 20 Amp, 125 Volt, twist-lock receptacles shall be 2 pole, 3 wire (NEMA L5-20).
   g. 30 Amp, 125 Volt, twist-lock receptacles shall be 2 pole, 3 wire (NEMA L5-30).
   h. 50 Amp, 125 Volt, twist-lock receptacles shall be 2 pole, 3 wire (NEMA SS-1).
   i. 50 Amp, 125/250 Volt, twist-lock receptacles shall be 3 pole, 4 wire (NEMA SS-2).
   j. 100 Amp, 125/250 Volt, pin-and-sleeve receptacles shall be 3 pole, 4 wire.
   k. 100 Amp, 120/208 Volt, pin-and-sleeve receptacles shall be 4 pole, 5 wire.
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I. 100 Amp, 480 Volt, pin-and-sleeve receptacles shall be 3 pole, 4 wire.

m. 100 Amp, 277/480 Volt, pin-and-sleeve receptacles shall be 4 pole, 5 wire.

G. Circuit Breakers:
   a. All breakers for receptacles shall be of the thermal magnetic type, 10,000 A.I.C., and shall be UL listed.
   b. Circuit breakers may be located under lockable, weatherproof door cover.
   c. Circuit breakers for the 20 Amp, 110 Volt, straight blade receptacles and the 20 Amp, 125 Volt, twist-lock receptacles shall be single pole, 20 Amp.
   d. Circuit Breakers for the 30 Amp, 125 Volt, twist-lock receptacles shall be single pole, 30 Amp. OPTION-GFCI Breakers 30mA.
   e. Circuit Breakers for the 50 Amp, 125 Volt, twist-lock receptacles shall be single pole, 50 Amp. OPTION-GFCI Breakers 5mA.
   f. Circuit breakers for the 50 Amp, 125/250 Volt, twist-lock receptacles shall be two pole, 50 Amp.
   g. Circuit breakers for the 100 Amp, 125/250 Volt, pin-and-sleeve receptacles shall be two pole, 100 Amp.
   h. Circuit breakers for the 100 Amp, 120/208 Volt, pin-and-sleeve receptacles shall be three pole, 100 Amp.
   i. Circuit breakers for the 100 Amp, 480 Volt, pin-and-sleeve receptacles shall be three pole, 100 Amp.
   j. Circuit breakers for the 100 Amp, 277/480 Volt, pin-and-sleeve receptacles shall be three pole, 100 Amp.

H. Hose/Cable Bracket:
   a. Each pedestal shall have heavy resin brackets capable of holding a 50' length of 5/8" water hose or 50' of 50 Amp, four-conductor boat S.O. cord.

I. Metering (Optional):
   a. 120 Amp Meter - The pedestals shall be equipped with fully electronic meters that display the kilowatts used at each slip on a non-resettable digital counter that is protected from the weather. The accuracy of the meters must be certified by the manufacturer to have a 120 ampere rating and no more than a 2% error when tested in accordance with ANSI.-C12.1. (California requires 1%).
   b. 200 Amp Meter - The pedestals shall be equipped with fully electronic meters that display the kilowatts used at each slip on a non-resettable digital counter that is protected from the weather. The accuracy of the meters must be certified by the manufacturer to have a 200 ampere rating and no more than a 2% error when tested in accordance with ANSI.-C12.1. (California requires 1%).

J. Communications (Optional):
   a. Each pedestal may be equipped with up to four outlets for each slip. Each outlet shall contain a combination of RJ45 (internet) receptacles, RJ11 (telephone) receptacles, or male coax (cable TV) connectors under an injection-molded heavy resin, weather protective cover.
b. Each communication assembly shall include an internal isolation box for the separation of high and low voltage equipment.

K. Water:
   a. The water connection shall be one (1) ¾” inlet, which divides into two (2) ¾” hose bibs. The valves shall be ¼ turn ball valves.

L. Power Pedestals for A.D.A. Slips (Designated as Handicap Accessible):

(END OF SECTION)
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Product Features

PHOTOCELL
LIGHTING ASSEMBLY
ELECTRIC kWH METER
RECEPTACLES AND BREAKERS UNDER LOCKABLE WEATHER-PROOF DOOR
HOSE AND CABLE BRACKET
ENGINEERED RESIN HOUSING
3/4” BALL VALVE WATER ASSEMBLY

FRONT

SIDE

BUS BAR ASSEMBLY
COMMUNICATIONS ASSEMBLY
HINGED POSITION
USE OF ANY OTHER TYPE OF BUS BAR ASSEMBLY OTHER THAN THE ONE PROVIDED BY OR APPROVED BY THE MANUFACTURER WILL VOID THE WARRANTY AND MAY ALSO VOID THE LISTING AND COULD RESULT IN PROPERTY LOSS OR PERSONAL INJURY.

WARNING

DRILL 
DRILL 
PUNCH OUT 
PUNCH OUT

7.15”
11.75”
4.00”
4.65”

1” DIA. HOLE
FOR PH/CATV

1” DIA. HOLE
FOR PH/CATV

1.5” DIA. HOLE
FOR WATER

WATER

ELECTRICAL AND
COMMUNICATIONS

ELECTRICAL AND
COMMUNICATIONS

0.78”

13.67”
13.75”

11.75”
13.67”

www.marinapower.com
1-800-723-8009

LIGHTHOUSE - Product Specifications
Wiring Diagram - Stud Lug Bus Bar

Wire Colors Per NEC
Line 1  L1  Black
Neutral  N  White
Line 2  L2  Red
Line 3  L3  Blue
Ground  G  Green

Compression Terminals (Not Included)
Contractor needs to terminals to line wires and place on provided stud lug connector. Max width of compression lug pad to be X.

Wiring Diagram - Aluminum Mechanical Bus Bar

Wire Colors Per NEC
Line 1  L1  Black
Neutral  N  White
Line 2  L2  Red
Line 3  L3  Blue
Ground  G  Green
Water Assembly

![Diagram of a water assembly with labeled parts: 3/4" BALL VALVE, 3/4" FEMALE CONNECTION, WEATHERPROOF IN-USE COVER, REMOVABLE ACCESS PLATE, MARINE TWISK-LOCK TELEPHONE RECEPTACLE, COAX CABLE TV CONNECTION.]

Communications

COMMUNICATION ASSEMBLIES INCLUDE ISOLATION BOXES FOR INTERNAL CONNECTIONS

CONNECTIONS AVAILABLE:

- MARINE TWIST-LOCK TELEPHONE
- RJ-12 CAT3 TELEPHONE JACK (HOUSEHOLD PHONE)
- RJ-45 CAT5 HIGH-SPEED INTERNET JACK
- COAX CABLE TV FCF FEMALE CONNECTION
- OTHER CONNECTIONS AVAILABLE UPON REQUEST