

SPECIFICATIONS FOR DUAL PURPOSE DOCKING STATION

PART 1 – GENERAL REQUIREMENTS

1.01 Scope:

- A. Contractor shall furnish, deliver, install and test the dual purpose docking station as specified herein and in accordance with the drawings.

1.02 Quality Assurance:

- A. Dual purpose docking station shall be UL listed and labeled under the UL 1008 standard.
- B. Dual purpose docking station manufacturer shall provide a complete factory assembled, wired and tested dual purpose docking station.
- C. Dual purpose docking station shall be factory Hi-pot tested for a period of not less than 60 seconds.
- D. Dual purpose docking station installation shall meet all applicable NEC standards.

1.03 Submittals:

- A. Contractor shall submit manufacturer's drawings and data of dual purpose docking stations for Engineer's approval prior to start of fabrication. Drawings and data shall include, as a minimum, dimensioned general arrangement drawings and wiring diagrams, UL listing information including UL file or control number, short circuit rating or withstand rating, component data, mounting provisions, conduit entry locations and installation instructions.
- B. Upon installation of dual purpose docking stations Contractor shall submit manufacturer's Operating & Maintenance Manual which shall include as a minimum:
 - 1. Certified as-built General Arrangement drawings and Wiring Diagram.
 - 2. Materials / Component List including part numbers.
 - 3. Maintenance and service requirements.
 - 4. Certificate of Compliance and hi-pot test data.

1.04 Warranty:

- A. Dual purpose docking stations shall be covered by manufacturer's warranty for a minimum period of (1) one year after shipment from manufacturer.

SECTION 2 - PRODUCTS

2.01 **General:**

- A. All equipment shall be new.
- B. Dual purpose docking station manufacturer must have produced and sold UL 1008 Listed dual purpose docking stations as a standard product for minimum of (3) years.
- C. Dual purpose docking stations provided with overcurrent protection devices shall be molded case circuit breaker type; knife switch or fused switches are not acceptable.
- D. Contractor shall be responsible for the equipment until it has been installed and is finally inspected, tested and accepted in accordance with the requirements of this Specification.
- E. Dual purpose docking stations shall be DualConnect™ as manufactured by ESL Power Systems, Inc. or equal as approved by the Engineer.

2.02 **Dual purpose docking station:**

- A. 2-breaker dual purpose docking station shall consist of (2) molded case circuit breakers, Load bank breaker to be provided with a shunt trip (shunt trip voltage to be per the drawings), male cam-style inlet connectors, female cam-style outlet connectors, power distribution blocks and grounding terminals, all housed within a padlockable enclosure.
- B. 1-breaker dual purpose docking station shall consist of (1) molded case circuit breakers, male cam-style inlet connectors, female cam-style outlet connectors, power distribution blocks and grounding terminals, all housed within a padlockable enclosure.
- C. No-breaker dual purpose docking station shall consist of male cam-style inlet connectors, female cam-style outlet connectors, power distribution blocks and grounding terminals, all housed within a padlockable enclosure.
- D. Power from a portable generator shall only be permitted by means of a key interlock system with the permanent generator to prevent both power sources being connected together.
- E. Dual purpose docking station enclosure shall be Type 3R, constructed of continuous seam-welded, powder coated galvanized steel or stainless steel per the drawings. The main access shall be through a hinged door that extends the full height of the enclosure. Access for both portable generator cables with female cam-style plugs and for load bank cables with male cam-style plugs shall be via a hinged lower flap door. Hinged flap door shall be provided to cover the cable openings when cables are not connected; the hinged flap door shall allow cable entry only after the main access door

has been opened. Enclosure shall be powder coated after fabrication; color shall be wrinkle gray RAL 7035.

- F. Cam-style male connectors (inlets) and cam-style female connectors (outlets) shall be UL Listed single-pole separable type and rated 400 amps at 600VAC. All cam-style connectors shall be color coded. Cam-style connectors shall be provided for each phase and for ground, and shall also be provided for neutral (if required). Each of the phase cam-style connectors and the neutral cam-style connectors within the enclosure shall be factory-wired. The ground cam-style male connectors shall be bonded to the enclosure, and a ground lug shall be provided for connection of the facility ground conductor.
- G. Termination lugs shall be provided for line and load-side field wiring.
- H. Molded case circuit breakers shall be UL Listed 3-pole and the short circuit interrupt rating shall be per the drawings. Trip rating of the molded case circuit breakers shall be as shown on the drawings.

SECTION 3 - EXECUTION

3.01 Installation:

- A. Prior to installation of dual purpose docking station, Contractor shall examine the areas and conditions under which the dual purpose docking station is to be installed and notify the Engineer in writing if unsatisfactory conditions exist.
- B. Dual purpose docking station shall be installed as shown on the drawings and per the manufacturer's written instructions. In addition, the installation shall meet the requirements of local codes, the National Electrical Code and National Electrical Contractors Association's "Standard of Installation".
- C. Conduit entry into the dual purpose docking station shall be by Contractor; Contractor shall furnish and install listed watertight conduit hubs, as manufactured by MYERS or T&B, for each conduit entry on the dual purpose docking station. The incoming hub size shall match the conduit size for feeders and ground as shown on the drawings. The outgoing hub size shall match the conduit size for loads and ground as shown on the drawings. Hubs shall be properly installed and tightened to maintain Type 3R integrity of the dual purpose docking station enclosure.
- D. Contractor shall terminate feeder conductors, load conductors and ground per the manufacturer's instructions. All field wiring terminations shall be torqued as required per the instructions on the dual purpose docking station's termination lugs, circuit breakers & ground lugs.

3.02 **Field Testing:**

- A. Prior to energizing dual purpose docking station, the Contractor shall perform the following checks and tests as a minimum:
1. Verify mounting and connections are complete and secure.
 2. Verify internal components and wiring are secure.
 3. Perform continuity check of all circuits.
 4. Perform 1,000 VDC megger test on feeder and load cables. Prior to testing, all auxiliary circuits must be turned OFF and all fuses, microswitches and shunt trip circuits must be disconnected. It is required to take out the rating plug of any electronic trip circuit breakers while performing a megger (insulation) test.
 5. Verify deadfront is secure.
 6. Confirm operation of the dual purpose docking station ground receptacle by attaching a plug to the dual purpose docking station ground receptacle and then verify that the plug is grounded to the facility ground.

End of Section