



Standard Specification

## **TRAILER CONNECTION PANEL (TCP)**

*The Trailer Connection Panel shall be furnished in accordance with the following specification.*

### **1. General**

- 1.1.** The Trailer Connection Panel is an assembly designed to connect the HindlePower Mobile DC Power System to the user's substation DC bus for battery maintenance or emergency use. The connection panel shall provide terminations for the trailer's AC feed and DC output. Circuit breakers, or manual switches, may be provided for the AC and DC connections if required.
- 1.2.** Site Installation Configurations:
- 1.2.1.** The base unit will include AC and DC connections with test points, indicators for energized terminals, and a 120Vac GFI outlet.
- 1.2.2.** The panel can be supplied with a second set of DC connection terminals for connecting ancillary user equipment (e.g. DC load bank).
- 1.2.3.** The panel can be supplied with AC and/or DC manual switches for isolating user connections.
- 1.2.4.** The panel can be supplied with AC and/or DC circuit breakers for input/output protection, as well as a means of isolating panel connections.

### **2. Electrical**

- 2.1.** The connection panel shall be equipped with:
- (3) single phase AC connection terminals (line 1, line 2, and neutral)
  - (1) Ground connection terminal
  - (2) DC connection terminals (positive and negative)
  - If ordered, (2) additional DC connection terminals (positive and negative)  
(All terminals are rated for 400A)
- 2.2.** The connection panel shall be equipped with test points for measuring voltage, and indicators that allow the user to determine if the connections are energized.
- 2.3.** The connection panel shall be equipped with a standard 120Vac / 20A GFI outlet that allows the user to power ancillary equipment.
- 2.4.** The AC breaker shall be rated for 100A, and the DC breaker rated for 200A. (If supplied)
- 2.5.** User connection wire ranges:

100A AC breaker	#14 - #3/0 AWG
200A DC breaker	#3/0 AWG - 350 MCM
20AC GFI Outlet	#12 AWG



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### **3. Enclosure Construction**

- 3.1.** The connection panel enclosure shall be NEMA type 4 assembly, designed for outdoor use.
- 3.2.** The connection panel enclosure shall be designed for wall mounting. Enclosure dimensions shall be as follows:

Single DC connection	30" (762mm) H x 24.0" (609mm) W x 10" (254mm) D
Single DC connection	36" (914mm) H x 30.0" (762mm) W x 10" (254mm) D

- 3.3.** The connection panel enclosure shall be constructed of 14 GA steel. External finish shall be ANSI 61 gray epoxy powder coat paint.
- 3.4.** The connection panel enclosure shall feature pre-punched 4" (102mm) cable entry holes, with water-tight, clamping, hole-covers secured to the enclosure with lanyards.
- 3.5.** The enclosure door is to have an engraved data nameplate permanently mounted to the outside, and an engraved one-line diagram with user instructions permanently mounted on the inside.
- 3.6.** The connection panel enclosure shall have provisions for pad locking.
- 3.7.** The connection panel shall feature a bonding stud on the door, and a grounding stud in the enclosure.
- 3.8.** The connection panel enclosure shall have collar studs provided for mounting the inner panel.

### **4. Inner Panel Construction**

- 4.1.** The inner panel enclosure shall be constructed of 16 GA galvanized steel.
- 4.2.** The inner panel shall feature mounting holes for all possible configurations, allowing for field upgrade.
- 4.3.** The inner panel shall feature an engraved diagram that provides identification of all installed components.
- 4.4.** The inner panel engraved diagram shall cover any unused component mounting holes.