GENERAL ELECTRICAL NOTES

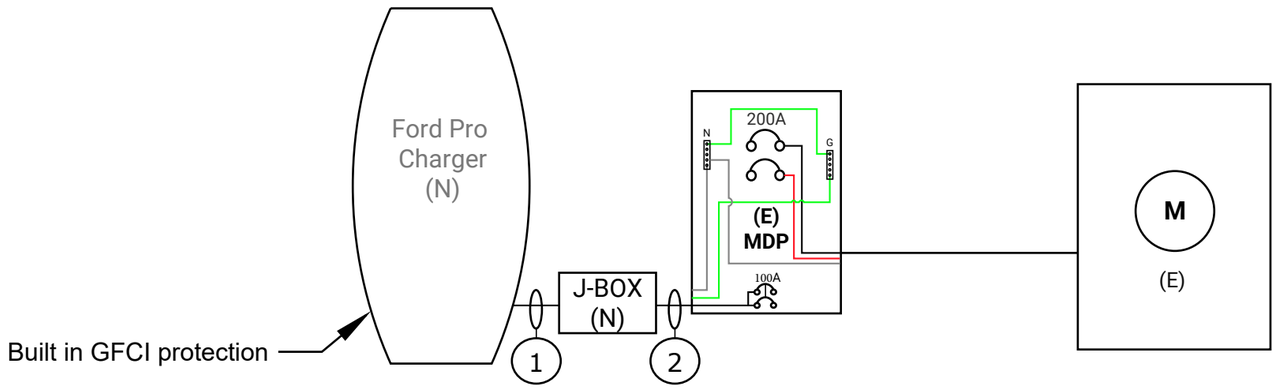
1. Equipment shall be new unless otherwise noted.
2. Equipment shall be listed unless otherwise noted.
3. Equipment shall be installed providing adequate working space in compliance with NEC.
4. Copper conductors shall be used and shall have insulation rating 600v, 90°C unless otherwise noted.
5. Conductors shall be sized in accordance with the NEC and ampacity shall be derated for temperature increase, conduit fill & voltage drop.
6. All conductors shall be installed in approved conduits. Conduits shall be adequately supported in accordance with the NEC.
7. AC Disconnect is optional, however it may be required by the utility.
8. Exposed non-current carrying metal parts shall be grounded in accordance with the NEC.
9. All work shall comply with the NEC and all applicable local electrical code requirements.
10. Contractor will provide labeling in accordance with the NEC, Article 110, 225, 690, and 705.

WIRING SCHEDULE

TAG	CONDUIT SIZE	CONDUCTOR	NEUTRAL	GROUND	NOTES
1	1" PVC or Equiv	#6 THWN-2	#6 THWN-2	#10 AWG	Charger to J-Box
2	NONE	6/2 NM	NONE	#10 AWG	From J Box to MDP

LEGEND

(N)	NEW
(E)	EXISTING
(O)	NEW BY OTHERS
-----	NEUTRAL
-----	GROUND



CAPE FEAR SOLAR SYSTEMS
901 Martin Street, Unit A
Wilmington, NC 28401
910-409-5533

GC LIC. NO. : 65677
ELEC. LIC. NO. : U-33321

BENJAMIN SHERIDAN
99 Countryside Dr, Lillington, NC 27546

LINE DIAGRAM

REVISION LIST

#	REV. DATE	DESC.

DATE:	**August 21, 2023**
DRAWN BY:	**ZJP**

This manual applies to Wall Connectors identified by part number 1457768-**-*.

Product Specifications

Voltage and Wiring	Nominal 200-240 V AC single-phase
Current Output Range	12 – 48 amps
Terminal Blocks	12-4 AWG (3.5 - 25 mm^2), copper only
Supported Conduit Sizing	¾" (21 mm) default, 1" (27 mm) optional
Grounding Scheme	TN/TT
Frequency	50/60 Hz
Cable Length	8.5' (2.6 m) or 18' (5.5 m)
Wall Connector Dimensions	Height: 13.6" (345 mm) Width: 6.1" (155 mm) Depth: 4.3" (110 mm)
Wire Box Bracket Dimensions	Height: 9.8" (250 mm) Width: 4.7" (120 mm) Depth: 2.0" (50 mm)
Weight (including wirebox)	10 lb. (4.5 kg)
Operating Temperature	-22°F to 122°F (-30°C to 50°C)
Storage Temperature	-40°F to 185°F (-40°C to 85°C)
Enclosure Rating	Type 3R
Ventilation	Not required
Means of Disconnect	External branch circuit breaker
Ground Fault Circuit Interrupter	Integrated, no additional required (CCID20)
Wi-Fi	2.4 GHz, 802.11b/g/n
Agency Approvals	cULus - E351001

Transportation and storage: Ensure that Wall Connector is within storage temperature when moving, transporting, or storing.

This device complies with part 15 of the FCC Rules. Operation is subject to the following conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Circuit Breaker Rating / Maximum Output

Power Output

For maximum power output, install a standard double pole 60 amp circuit breaker. Wall Connector includes integrated GFCI protection - do not install a GFCI circuit breaker.

Wall Connector incorporates automatic load management, which allows the max output to be customized to an existing power supply. If the electrical supply is unable to support the 60 amp configuration, select a lower amperage configuration.

Circuit breaker (amps)	Max output (amps)	Power output at 240 volts (kW)
60	48	11.5
50	40	9.6
40	32	7.6
30	24	5.7
20	16	3.8
15	12	2.8

NOTE: External disconnect switches are neither required nor recommended.

NOTE: Circuit breaker size is programmed during the commissioning process. See Commissioning Procedure on page 22 for details.

NOTE: Some Tesla vehicles may draw less current than the max output. Actual charging rate depends on Wall Connector output and onboard charger in the vehicle.

Branch Circuit Conductors and Ground Wire

- If installing for less than maximum power, refer to local electrical code to select correct conductors and ground wire size that are suitable for the chosen circuit breaker.
- If installing for maximum power, use minimum 6 AWG, 90° C-rated copper wire for conductors.

  NOTE: Upsize conductors if necessary.
- For sites with multiple Wall Connectors, each Wall Connector must have its own branch circuit with L1, L2/N, and Ground.
- COPPER WIRE TERMINATIONS ONLY for landing in Wall Connector wirebox terminals. Conductors can be stranded or solid.
- For outdoor installations, use watertight fittings when securing feeder wires to the wirebox.

Grounding Connections

Wall Connector must have a ground path back to the main equipment earthing point on site. Without a proper ground connection, the Wall Connector will fault during a ground assurance test. Equipment-grounding conductor must be run with the circuit conductors and connected to the equipment-grounding terminal in the wirebox. Install a ground (PE) wire sized according to local electrical code.

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