Construction Signoff Form

Express Plus Power Block and Power Link 2000

This form ensures the site for your ChargePoint solution has been prepared as specified, by you or by your chosen contractor, before beginning installation. Submit this completed form and the required photos to installdispatch@chargepoint.com. Detailed datasheets, site design guides, and installation guides defining ChargePoint specifications are available at ChargePoint Product Reference Documents.

IMPORTANT: All installations must comply with local and regional code. ChargePoint provides concrete pad guidance applicable for most sites in the site design; however, pad sizes for a given site might be smaller or larger due to site conditions. Ensure site drawings have been completed and approved by a structural engineer for the site.

Note: If the installer arrives to the installation site and finds any signoff items incomplete, you will incur a separate re-dispatch fee.

Site Information	Contractor Information
Site address:	Company name:
	Site lead name:
Number of stations to be installed:	Site lead job title:
Contact name:	Site lead email:
Contact phone:	Site lead phone:
Contact email:	Date work began:

Take the following photos for each location throughout the site construction process.

Required Pictures	
☐	1. Completed trenching and conduit (or ducting) laid in place.
☐	2. Prior to concrete pour, if Power Block Concrete Mounting Template (CMT) is used: The CMT is in place and is being held at the proper height to prevent movement during the concrete pour. All anchor bolts are inserted correctly into the CMT. Conduit stub-ups (if used) are inserted correctly into the CMT.
☐	3. Prior to concrete pour, if Power Link 2000 Concrete Mounting Template (CMT) is used:

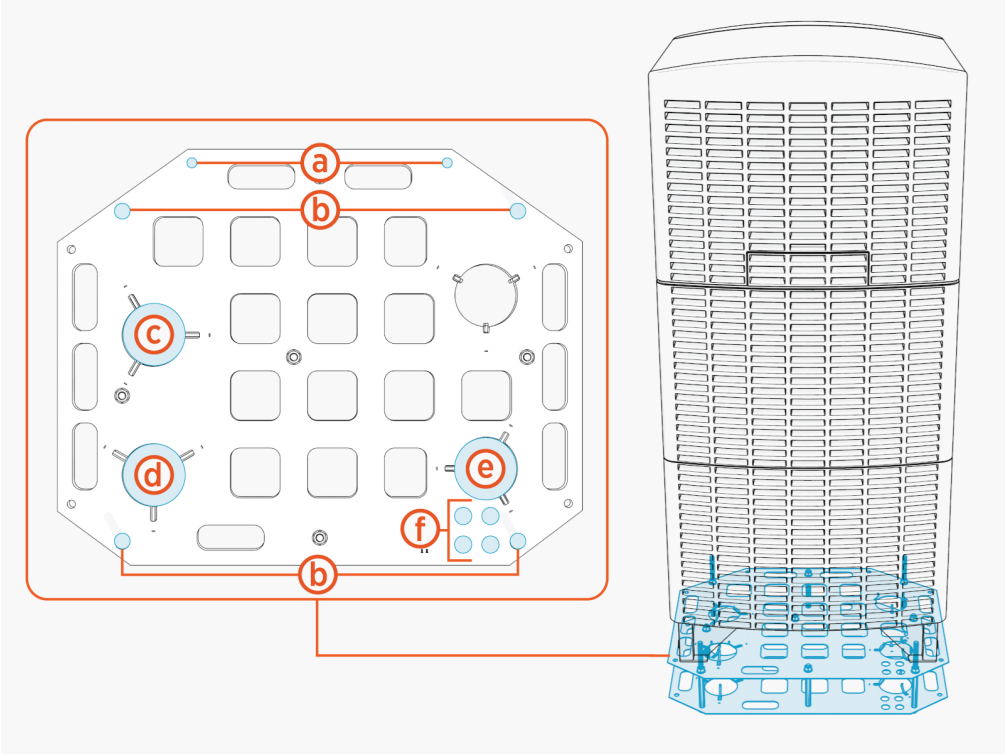
Required Pictures	
	The CMT is in place and is being held at the proper height to prevent movement during the concrete pour. All anchor bolts are inserted correctly into the CMT. Conduit stub-ups (if used) are inserted correctly into the CMT.
	4. Completed mount locations (as many of the following that apply): • Completed concrete pad showing anchor bolts and conduit stub-ups (if used) in place. • Wall or overhead location secure with conduit and wire correctly installed.
	5. Overall space around each mounting location, showing all service clearances are available.
	6. The specification label on the electrical panel, showing total panel capacity.
	7. The open electrical panel with the dead front panel removed, showing terminations.
	8. The open electrical panel with the dead front panel on, showing breaker amperage ratings and labels for Express Plus connections.
	9. The front of each AC disconnect (if applicable by region).
	10. Power Link 2000 sites are positioned such that the front of the station is facing the intended direction (e.g. toward the vehicle).

Civil Work, Power Block	
	1. The concrete pad was designed, installed, and approved as follows: (a) If pad was newly poured: • The pad was designed and installed based on one of the conservative stability specifications listed in the *Express Plus Power Block and Power Link 2000 Site Design Guide*, in accordance with site-specific wind, seismic, and soil conditions. -or- • The pad was designed by a structural engineer based on site-specific conditions and based on the structural parameters listed in the *Express Plus Power Block and Power Link 2000 Site Design Guide*. (b) If using existing concrete surface: • The pad was inspected and approved by a structural engineer based on the structural parameters listed in the *Express Plus Power Block and Power Link 2000 Site Design Guide*.
	2. The mounting surface is smooth and doesn't exceed a slope of 20 mm per meter (0.25 inches per foot).
	3. Power Block is designed with a 450 mm (18 in) flood plane. If site has a 450 mm (18 in) or greater flood plane for a 100-year flood event, the concrete pad is raised to meet Power Block's flood plane design.
	4. Walls, fences, or slopes do not prevent water from draining from the pad.
	5. If using an existing concrete pad with Power Block Surface Conduit Entry Kit (SCEK): • The Power Block anchor bolts are in position per the site design plan and per the anchor bolt pattern specified by the *Express Plus Power Block Surface Conduit Entry Kit Guide*.

Civil Work, Power Block

- The Power Block anchor bolts (x4) have been installed using an epoxy with a bonding strength of 11.7 MPa minimum, compressive strength of 82.7 MPa minimum, and tensile strength of 49.3 MPa minimum, such as Hilti HIT-RE 500 V3 (normal cure) or Hilti HIT-HY 200-A (fast cure).
- Anchor bolts are embedded 229 mm (9 in) into the concrete pad, have 76 mm (3 in) exposed length above the concrete surface, and are plumb.
- The Surface Conduit Entry (SCE) gland plate anchor bolts (x2) are in position per the site design plan and per the anchor bolt pattern specified by the *Express Plus Power Block Surface Conduit Entry Kit Guide*.
- The SCE gland plate anchor bolts (x2) have an epoxied embedment of 229 mm (9 in) and are plumb.
- The SCE Kit is ready for installation.

☐ 6. If Concrete Mount Template (CMT) is used, the Power Block CMT is installed in the pad with the CMT top surface 51 mm (2 in) below the concrete surface, and the conduits and anchor bolts are positioned correctly and meet the Power Block's design specifications:



(a) M16 anchor bolt (x2) locations for mounting SCE gland plate (applicable only for Surface Conduit Entry (SCE)).

(b) M16 anchor bolt (x4) locations for mounting Power Block (9 in or 229 mm embedment, 3 in or 76 mm exposed length above the concrete surface).

(c) Conduit position for HV DC output B wires exit (max. trade size is 4 in or 103 mm).

(d) Conduit position for HV DC output A wires exit (max. trade size is 4 in or 103 mm).
Note: The DC output of Power Block is the DC input for *Power Link 2000*.

(e) Conduit position for AC input wires entry (max. trade size is 4 in or 103 mm).

Civil Work, Power Block

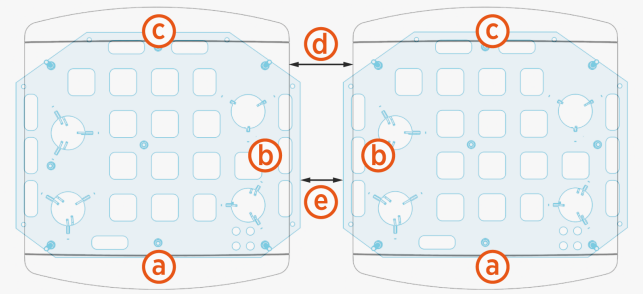
(f) Conduit position for LV DC output, shunt trip wires, and Ethernet cable entry (max trade size is 1 in or 25 mm).

- One for shunt trip (if used).
- Three for LV wires and Ethernet cable (quantity as-needed).

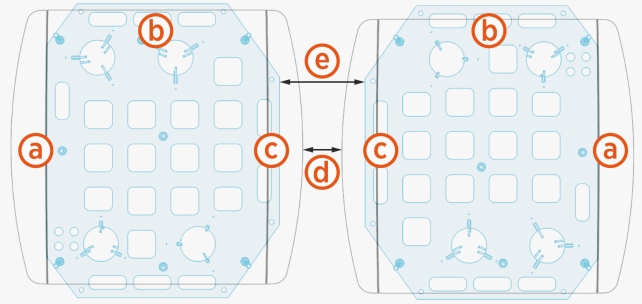
☐ **7.** Conduit stub-ups (if applicable) are cut to a height 559-914 mm (22-36 in) above top of concrete.

8. The open space and service clearance requirements are met:

Two Power Blocks laid side-to-side



Two Power Blocks laid back-to-back



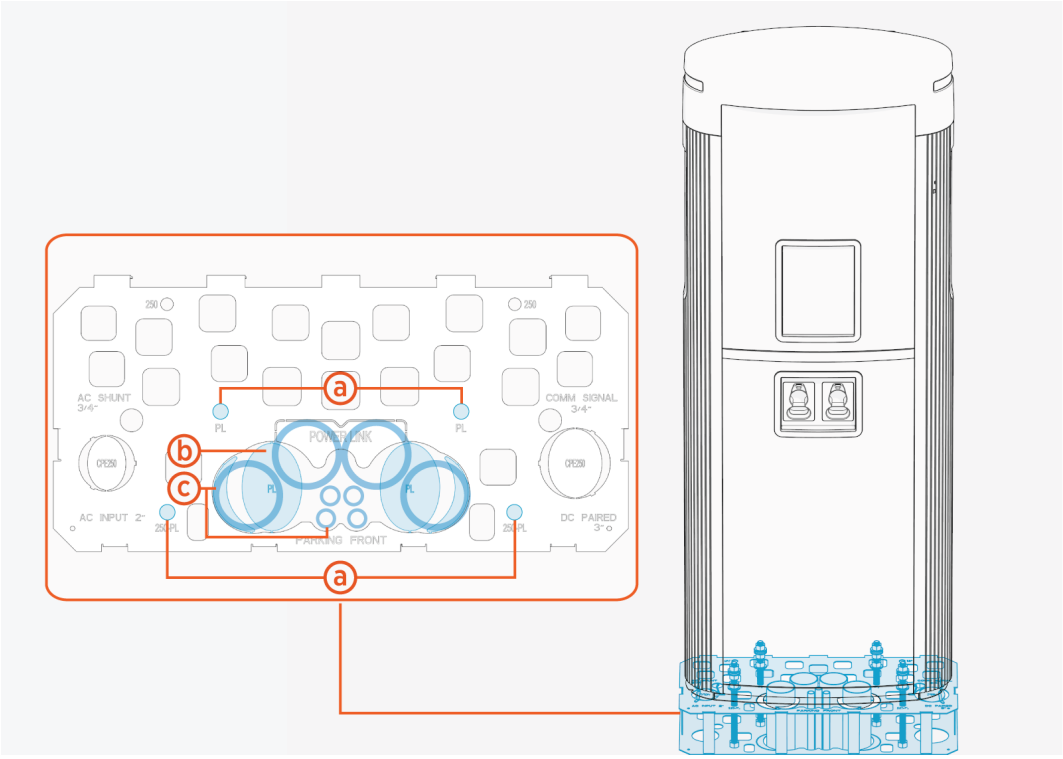
Side	PBs Layout	Clearance		
(a) Front	-	-		Min. 1 m (3 ft 3-3⁄8 in)
(b) Sides	PBs laid side-to-side	Minimum	(d) PB to PB	51 mm (2 in)
			(e) CMT to CMT	CMTs overlap by 15 mm (0.590 in)
		Otherwise	(d) PB to PB	152 - 203 mm (6 - 8 in)
			(e) CMT to CMT	116 - 167 mm (4-9/16 - 6-9/16 in)
(c) Rear	PBs laid back-to-back		(d) PB to PB	457 - 609 mm (18 - 24 in)
			(e) CMT to CMT	609 - 761 mm (24 - 30 in)

Note: If placing two Power Blocks back-to-back and using surface conduit entry, there must be at least 609 mm (24 in) of shared rear clearance.

- Side clearances can be shared between Power Blocks as long as:
  - At least 51 mm (2 in) of clearance is maintained between each Power Block.
  - Required service clearance is maintained at the front and rear sides.
  - At least 457 mm (18 in) of clearance is available at each end of a row of Power Blocks.
- Front and rear clearances must be at grade level +/- 13 mm (0.5 in).

Civil Work, Power Link 2000, Pedestal Mount	
☐	1. The concrete pad was designed, installed, and approved as follows: (a) If pad was newly poured: • The pad was designed and installed based on one of the conservative stability specifications listed in the *Express Plus Power Block and Power Link 2000 Site Design Guide*, in accordance with site-specific wind, seismic, and soil conditions. -or- • The pad was designed by a structural engineer based on site-specific conditions and based on the structural parameters listed in the *Express Plus Power Block and Power Link 2000 Site Design Guide*. (b) If using existing concrete surface: • The pad was inspected and approved by a structural engineer based on the structural parameters listed in the *Express Plus Power Block and Power Link 2000 Site Design Guide*.
☐	2. The mounting surface must be smooth and cannot exceed a slope of 20 mm per meter (0.25 inches per foot).
☐	3. Walls, fences, or slopes do not prevent water from draining from the pad.
☐	4. If using an existing concrete pad with Power Link 2000 Surface Conduit Entry Kit (SCEK): • The Power Link 2000 anchor bolts (x4) are in position per the site design plan and per the anchor bolt pattern specified by the *Express Plus Power Link 1000 Surface Conduit Entry Kit Guide*. • The Power Link 2000 anchor bolts (x4) have been installed using an epoxy with a bonding strength of 11.7 MPa minimum, compressive strength of 82.7 MPa minimum, and tensile strength of 49.3 MPa minimum, such as Hilti HIT-RE 500 V3 (normal cure) or Hilti HIT-HY 200-A (fast cure). • Anchor bolts are embedded 229 mm (9 in) into the concrete pad, have 76 mm (3 in) exposed length above the concrete surface, and are plumb. • The SCE Kit is ready for installation.
☐	5. If Concrete Mount Template (CMT) is used, the Power Link 2000 CMT is installed in the pad, and the conduits and anchor bolts are positioned correctly and meet the Power Link 2000's design specifications:

Civil Work, Power Link 2000, Pedestal Mount



(a) M16 anchor bolt (x4) locations for mounting Power Link 2000 [229 mm (9 in) embedment, 76 mm (3 in) exposed length above the concrete surface].

(b) Breakaway tabs for entry of wires through conduits (c) or armored cables are appropriately removed.

The table below provides the maximum size and quantity of conduits that can be installed on Power Link 2000 by removing the breakaway tabs (b):

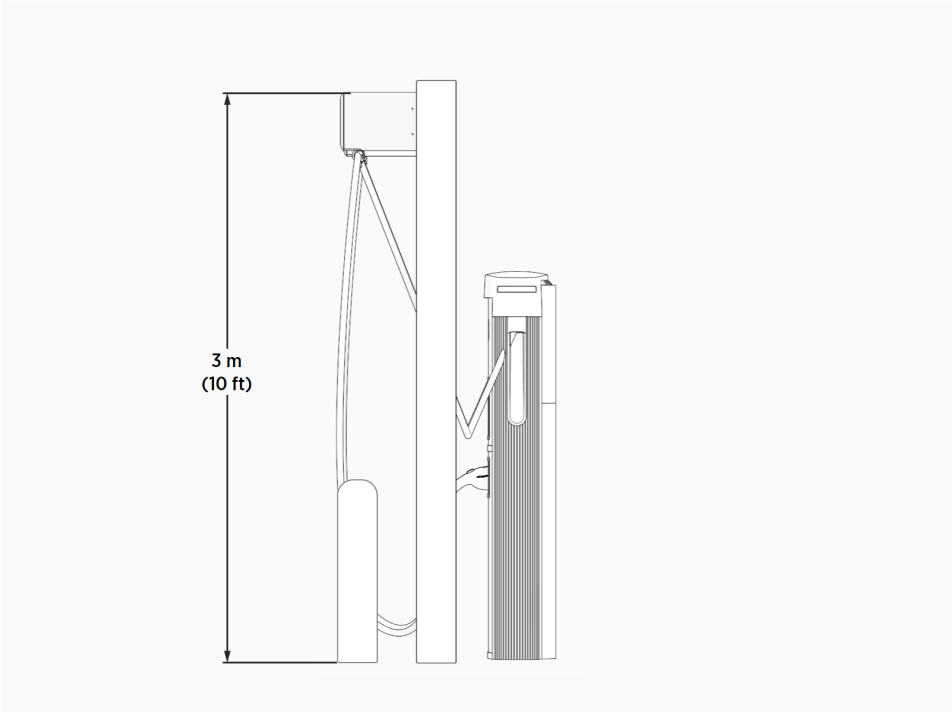
Conduits For	Conduit Quantity x Trade Size	
	North America	Europe
HV DC wires	2 x 4 inch max. or 4 x 3 inch max. or 6 x 2 inch max.	2 x 103 mm max. or 4 x 78 mm max. or 6 x 53 mm max.
LV DC wires and Ethernet cable	2 x 1 inch **Note:** 1 inch size conduit is required. The quantity of conduit will depend on the configuration.	2 x 27 mm **Note:** 27 mm size conduit is required. The quantity of conduit will depend on the configuration.
Optional features (Ethernet-to-USB or soft shutdown switch)	2 x 3/4 inch max.	2 x 21 mm max.

Civil Work, Power Link 2000, Pedestal Mount	
☐	6. Conduit stub-ups (if applicable) are cut to a height 102-160 mm (4-6.3 in) above top of concrete.

Civil Work, Power Link 2000, Pedestal Mount

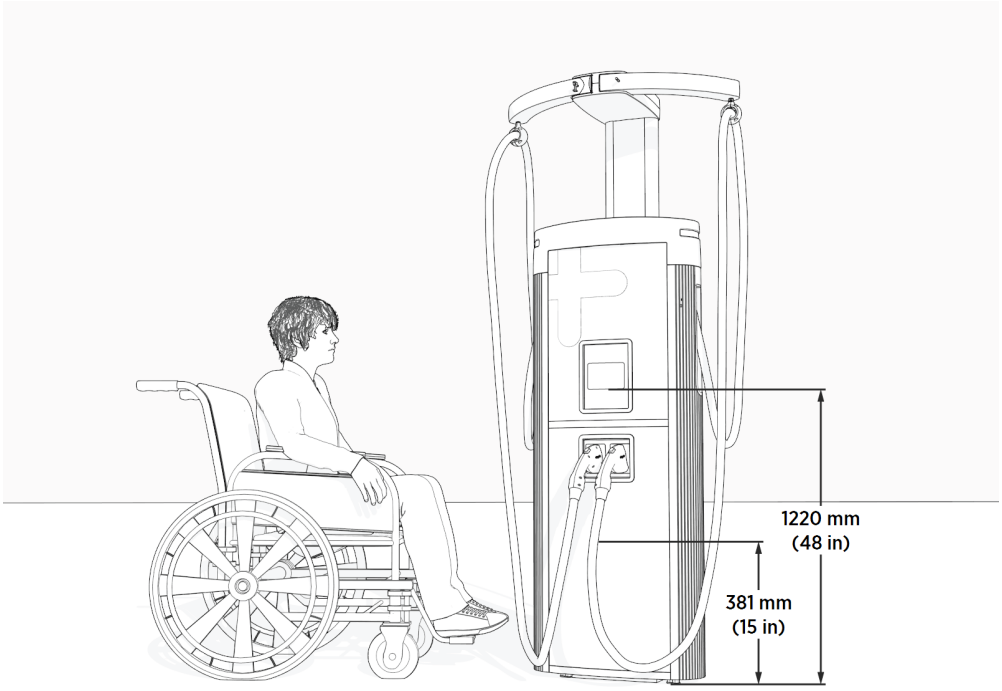
☐ 7. If Power Link 2000 is using overhead Cable Management Kit (CMK), the pole or structure that supports the overhead CMK meets the following specifications listed in the *Express Plus Power Block and Power Link 2000 Site Design Guide*:

- The pole has a structural capacity of 1780 N (400 lbf) and is designed or verified by a structural engineer per local codes.
- The pole is high enough to mount the overhead CMK at an optimum height of 3 m (10 ft) for maximum cable reach.
- Unless the pole needs to be at a certain location for a specific vehicle inlet, the pole's mounting bolts are located such that the overhead CMK, when mounted onto the pole, comes at the center of the parking space and aligns with the front of the bollards.



☐ 8. If site has parking spaces reserved for people with limited mobility, Power Link 2000 is not installed on a raised concrete pad.

Civil Work, Power Link 2000, Pedestal Mount



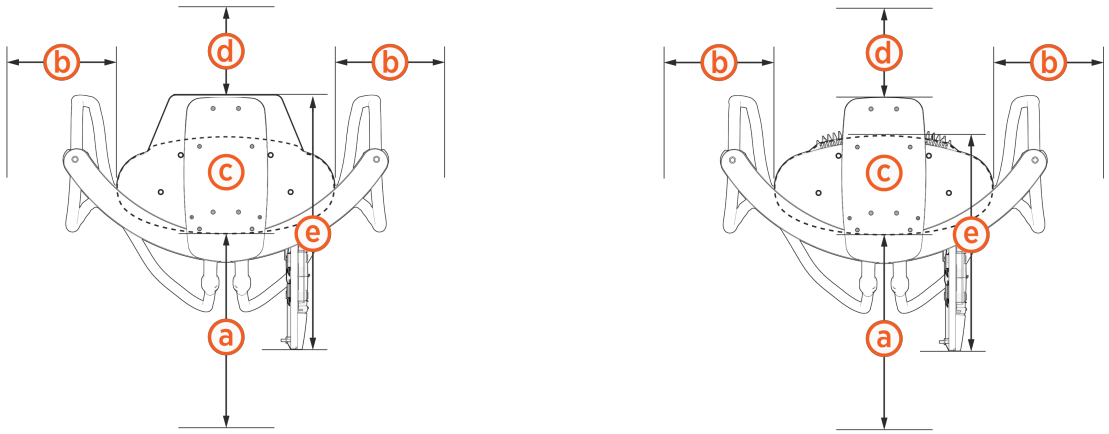
Civil Work, Power Link 2000, Wall or Overhead Mount

☐	1. The wall or overhead structure has a structural capacity of 1780 N (400 lbf) in addition to product weight and it is designed or verified by a structural engineer per local codes.
☐	2. The wall is smooth and plumb. The wall height is sufficient to mount the Power Link 2000 at the specified height.
☐	3. The Power Link 2000 wall anchor bolts (x6) are in position per the site design plan and per the anchor bolt pattern specified by the *Express Plus Power Block and Power Link 2000 Site Design Guide*. The maximum height of the mounting bracket is 1733 mm (68.2 in) above a finished floor.

Civil Work, Power Link 2000, All Mount Types

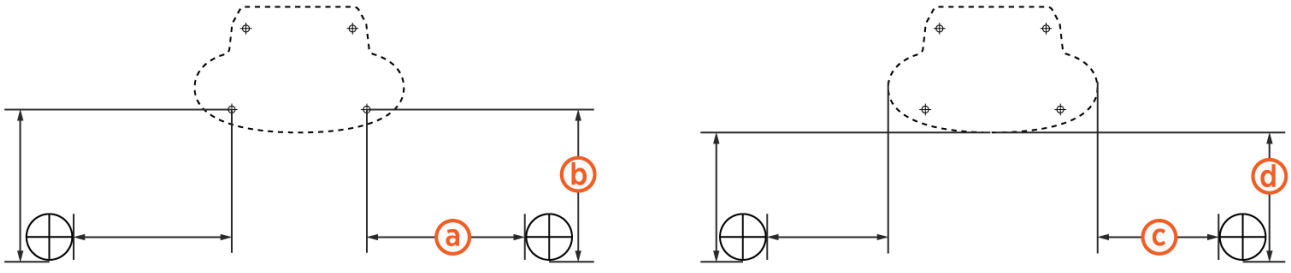
☐	4. The maximum total HV DC wire run length from any Power Block to any connected Power Link 2000 must not exceed 200 m (656 ft).
☐	5. The open space and service clearance requirements are met: LCC Non-LCC

Civil Work, Power Link 2000, All Mount Types



Express Plus		Clearance
(a) Front	Minimum open space	610 mm (2 ft)
(b) Side		305 mm (12 in) at grade, minimum **Note:** 610 mm (24 in) recommended for user service and this 610 mm (24 in) can be shared between Power Link 2000s.
(c) Top	Pedestal or wall-mount	26 mm (1 in) from top of CMK or 305 mm (12 in) from top of Power Link 2000, whichever is higher.
	Overhead-mount	305 mm (12 in) from top of Express Plus
(d) Rear	Pedestal-mount	203 mm (8 in) for non-LCC or 305 mm (12 in) for LCC. This provides service clearance for CMK and LCC. **Note:** At least 610 mm (2 ft) of clearance is required for surface conduit entry. In the case of back-to-back Power Link 2000s, each with surface conduit entry, the clearance can be shared.
(e) Door swing plus station width		730 mm (2 ft 4-3/4 in)

☐ **6.** Bollards (if applicable) placement allow sufficient clearance:



(a) Front anchor bolt to bollard inside edge: 254 mm (10 in)

(b) Front anchor bolt to bollard outside edge: 424 mm (16.7 in)

(c) Power Link 2000 side to bollard inside edge: 122 mm (4.8 in)

Civil Work, Power Link 2000, All Mount Types

(d) Power Link 2000 front to bollard outside edge: 305 mm (12 in)

☐ 7. Charging station sites are positioned such that the front of the station is facing the intended direction.

☐ 8. All signage, parking spot striping, and “EV” markings are completed per site drawings and local code.

Electrical Work

☐ 1. A correctly rated, dedicated breaker is installed for each Power Block per this table:
Charging stations are considered continuous load devices (EVs draw maximum load for long durations). Therefore, electrical branch circuits to EV chargers must be sized at 125% of the load on each leg of a 3-phase panel for North American installations, in accordance with National Electric Code requirements. For other regions, refer to local code. When planning multiple EV charging stations, it is best practice to segment non-continuous and continuous loads, with all branch circuits for EV charging on a dedicated electrical panel assembly with adequate circuit breakers. When sizing new electrical panels dedicated for EV charging, all branch circuits must support continuous load.
Each Power Block requires its own circuit breaker as follows:

Nominal Voltage	Max. AC Input Current	Continuous Load (125%)	Breaker Size
480 V	260 A	325 A	350 A and 400 A

Note: The Power Block has a short circuit current rating of 65 kA.

☐ 2. The transformer nameplate shows that wiring is:

- 230/400 3-phase plus Protected Earth (PE) (Europe)
- 277/480 3-phase plus ground (North America)
- Grounded Wye (Y) connected

Note: Delta (floating or grounded) configuration is not supported.

☐ 3. Breakers have shunt trip capability to each Power Block if the site drawing calls for shunt trip wiring.

☐ 4. All electrical infrastructure has been completed per local codes and ChargePoint specifications for 3-phase power plus ground, with properly sized copper or aluminum wires as defined in the *Express Plus Power Block and Power Link 2000* Site Design Guide. (Do not install Neutral.)

Europe

Conductor	Conductor Rating	# of Poles	Insulation Type	Temp Rating
AC input	315 A, 600 V AC	3 + PE	PVC	90°C (194°F)
HV DC output	200-500 A, 1000 V DC	2 + PE	XLPE	90°C (194°F)
48 V DC	32 A,	2	XLPE	75°C (167°F) required,

Electrical Work

Europe				
Conductor	Conductor Rating	# of Poles	Insulation Type	Temp Rating
	48 V circuit voltage, 1000 V insulation rating			90°C (194°F) recommended

North America				
Conductor	Conductor Rating	# of Poles	Insulation Type	Temp Rating
AC input	260 A, 600 V AC	3 + ground	THHN/THHW/THW-2/THWN-2 based on site condition (dry or wet)	90°C (194°F)
HV DC output	200-500 A, 1000 VDC	2 + ground	XHHW/XHHW-2 based on site condition (dry or wet)	90°C (194°F)
48 V DC	32 A, 48 V circuit voltage, 1000 V insulation rating	2		75°C (167°F) required, 90°C (194°F) recommended

Record conductor size, voltage rating, and insulation type:

Conductor	Size, voltage rating, and insulation type
AC Input	
HV DC	
DC Ground	
48 V DC	

Record maximum conductor lengths:

	Distance
Maximum Power Block to service panel distance	
Maximum Power Block to Power Link 2000 pedestal distance (not applicable if using Power Hub)	

☐ 5. If cables are pulled, attach copies of AC, 48 V DC, and HV DC conductor insulation test reports.

Electrical Work	
☐	6. Outdoor-rated Ethernet Cat6 STP cables are present and without terminations. Cable lengths must accommodate 2 m (6 ft) of service loop at each end. If ethernet wire run length is greater than 100 m, OSP Shielded GameChanger Cable (258340804) is used.
☐	7. Cellular signal strength measurements meet requirements per the *Express Plus Power Block and Power Link 2000 Site Design Guide*.

Acknowledgment

Site Comments

I, _____ hereby certify that the scope of work in this form has been correctly completed.

Signature	Date

chargepoint.com/support

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