

# Eaton's Pow-R-Station DC Quick Charger

The EVSE solution for quick turn around charging



## Overview

Plug-in electric vehicles offer improved fuel economy, lower emissions and strong acceleration with a quiet operation—all from a domestic energy source. Therefore, it is no surprise that automakers are bringing plug-in electric vehicles to the mass market. In fact, industry forecasts predict an annual volume of 400,000 battery electric vehicles in North America by 2020. These electric vehicles will require a substantial residential, commercial and public infrastructure.

**Eaton® provides a solution for curbing range anxiety with the Pow-R-Station™ DC Quick charger. Eaton's Pow-R-Station family of solutions is the electric transportation industry's premier EVSE.**

The DC Quick Charger (DCQC) supplies a connection to the grid for drivers on-the-go with a fast direct charge of electricity needed to refill the battery. Installations of the quick charger will not only supply power to the EV, it will also provide range confidence for the driver.

## Fast charging solutions

Internal combustion engine car drivers on the road today demand diversity in their refueling options. The requirements for EVs will be no different. To speed up the adoption of EVs, an infrastructure must be built with charging options at destination locations as well as at points along the way. In either case, Eaton has an electric vehicle charger targeted to meet that need.

The Pow-R-Station DC Quick Charger is a rapid charging EVSE housed in a free-standing Nema 3R structure. The enclosure is robustly constructed of stainless steel treated with textured paint for durability and long life.

The DCQC operates with 125A, significantly higher than Level 2 stations. In addition, the charger uses a direct current flow to charge the EV's battery in 20–30 minutes making it the perfect solution for secure public charging.

## A charge for moving

The Pow-R-Station DC Quick electric vehicle charger utilizes a CHAdeMO compliant power connector. This connector represents the proposed global industry standard for high-voltage DC quick charging.



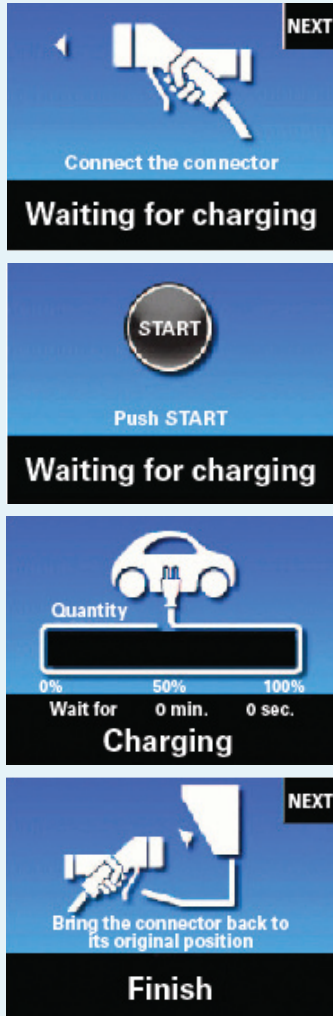
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## Plug and touch operation

Operating the Pow-R-Station DC Quick Charger is just a matter of plugging in and following a series of touch screen prompts. Just like with our Level 2 product, there are five basic steps of operation:

1. Plug in the power connector to the vehicle's inlet
2. Touch "Next" on the touch screen display
3. Press Start button
4. EV Charging
5. Dock the connector after charging session is finished



## User safety

Like with Eaton's Level 2, there are various communications between the electric vehicle and the Pow-R-Station DC Quick charger to ensure user safety. These safety checks verify that there is no chance of injury to the user or the equipment. For example, until the vehicle has confirmed it is connected to an EVSE, the five pins on the connector have no DC power.

In addition, electric vehicles are required to have an interlock deactivating the ignition while connected. If anything happens to disrupt the connection, such as a user pressing the release lever, the power flow to the vehicle will immediately stop.

## Installation

Installation of the Pow-R-Station DC Quick Charger can be performed by a suitably qualified person or organization. The charger is bottom connected with front access. It is equipped with separate integral service disconnects for the control and main power functions.

An electrician can also verify whether the size of the branch circuit is correct per NFPA 70 and NEC 625.14 standards.

Eaton manufactures all products that may be needed to support an electrical system upgrade, if it is required for installation. Eaton's Electrical Services and Systems (EESS) team of electrical engineers is available nationwide and can be augmented by Eaton's network of national, local and specialty commercial electrical contractors and system integrators.

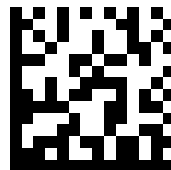
## Technical specifications

<b>Input voltage</b>	208VAC
<b>Input current</b>	125A 3 phase 3 wire 50/60 Hz
<b>Output voltage</b>	400VDC
<b>Output power</b>	50kW Max
<b>Output current</b>	10A-125A
<b>Connector/cable</b>	CHAdeMO compliant
<b>Cable length</b>	9 foot
<b>Charging station dimensions (H x W x D) in inches (mm)</b>	66.00" x 44.00" x 17.75" (1675 x 1120 x 450)
<b>Charge time</b>	20-30 minutes
<b>Charging station weight</b>	Approximate weight 772lbs (350kg)
<b>Operation</b>	Touch screen interface, start and stop buttons, emergency stop button
<b>Operating environment</b>	Ambient temperature: -10 to 40°C (14 to 104°F) Ambient humidity: 5 to 80% Altitude: 1,000 m (3,281 ft) or lower Atmosphere: Containing no corrosive gas
<b>Enclosure</b>	NEMA Type 3R
<b>Efficiency</b>	90% or greater
	Secure connector locking system
	Connector insulation verification system
	Ground fault protection, 500mA
	Integrated overcurrent protection

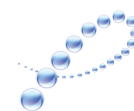
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