

Hardware

Array Charging (H) - Solo 3

Datasheet

This datasheet contains general information surrounding Pod Point's hardware Array Charging solution for Solo 3 chargers, please always check with Pod Point for specific specifications and details that relate to the charging solution you require,

System Description

Array Charging allows multiple chargers to manage their individual and total charging load within the limits of a fixed supply. An Array system allows many more chargers to be fitted than would normally be the case, as each charger will de-rate as necessary to never overload the incoming mains feed. The system consists of suitable cabinets into which are fitted the Pod Point Array controller electronics and RCBOs. A chosen number of Pod Point chargers are wired to these cabinets (up to 9 for a single-phase system or up to 27 for a three-phase system).

System Requirements

- A Wi-Fi network must be available where the Pod Point EVCPs are installed.
- Total amount of Pod Point EVCPs allowed must be calculated with a safety contingency based on the supply.
- Array Charging System can be installed on single-phase supply or three-phase supply.
- A **dedicated supply** is required, installation should not be done using a common supply.

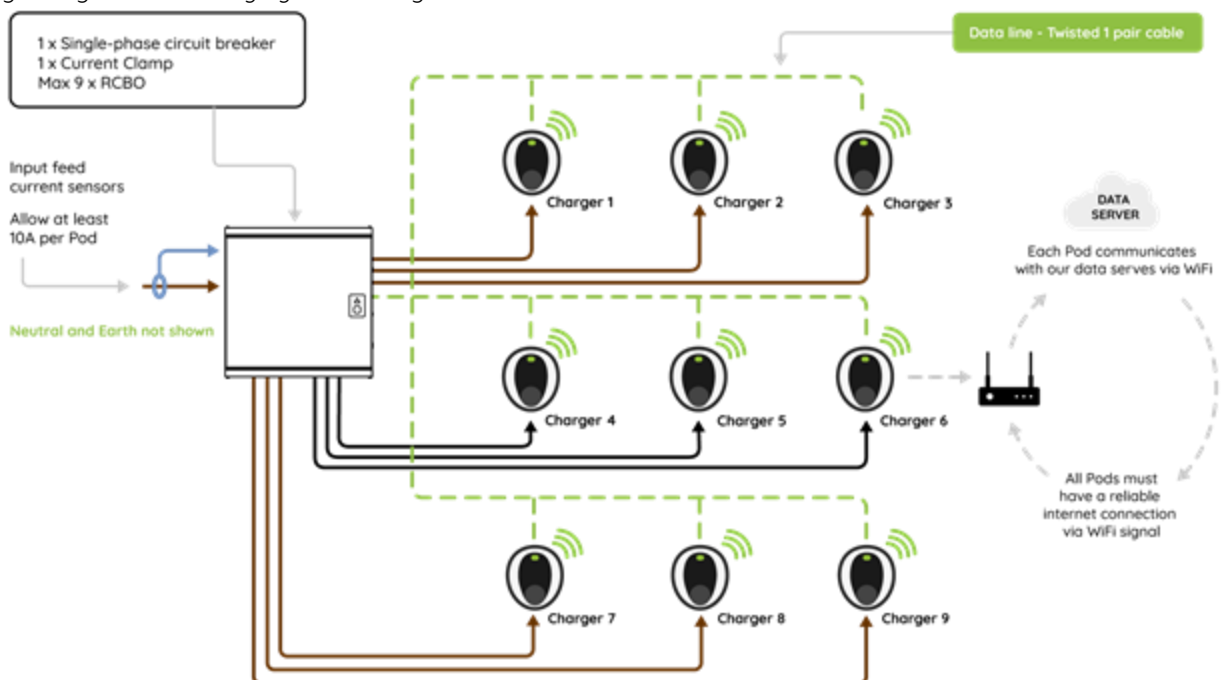
System Diagram

Array Charging is available in different options to cover most system requirements. Pod Point are able to advise on suitable configurations.

Single-Phase Supply - Up to 9 Solo 3 chargers

For a supply of 100A up to 9 Solo 3 chargers EVCPs can be installed. See Fig 1

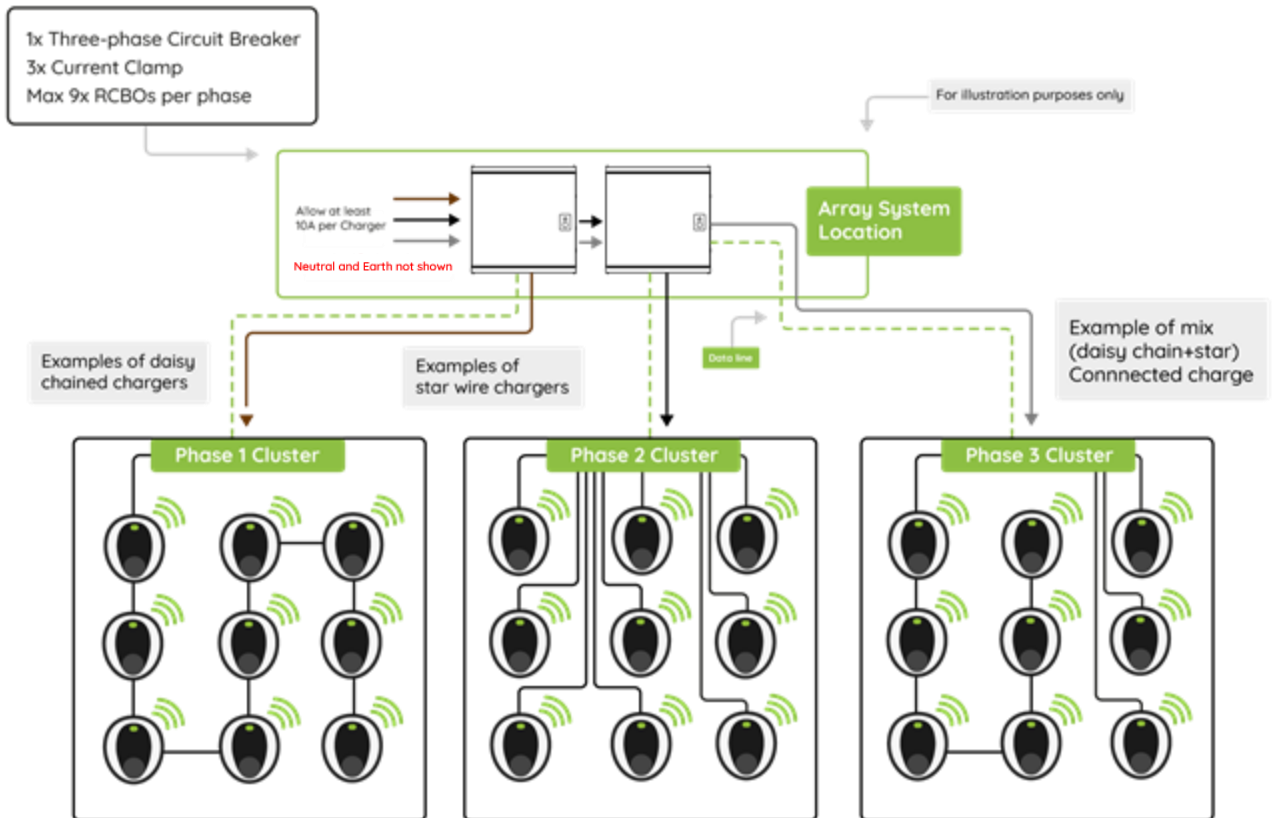
Fig 1. Single-Phase Array System Configuration



Three-Phase Supply – Up to 27 Solo 3 Chargers

Option 2 is Pod Point preferred option. It allows to load manage up to 27 chargepoints on a 100A TPN (Three-Phase). See Fig 2. On a 100A system (Fig 2), the Pod Point EVCPs must be installed in clusters of a maximum of 9 units (per phase). Each cluster connects to one phase of the supply.

Fig 2. Three-Phase Array System Configuration



Array Charging Distribution Board

- Fully assembled Three-Phase system includes: 40A 2-pole RCBOs, 3x current clamps, 1x three-phase circuit breaker
- Up to 9x Pod Point EVCPs per phase (for 100A supply). See Table 1 for different supplies/amount of EVCPs allowed

Table 1. Maximum supplies available for Array System

| Max Supply | Single-Phase System | Three-Phase System |
|----------------|---------------------|--------------------|
| 40A | 3 | 9 (3x3) |
| 60A | 5 | 15 (3x5) |
| 80A | 7 | 21 (3x7) |
| 100A (default) | 9 | 27 (3x9) |

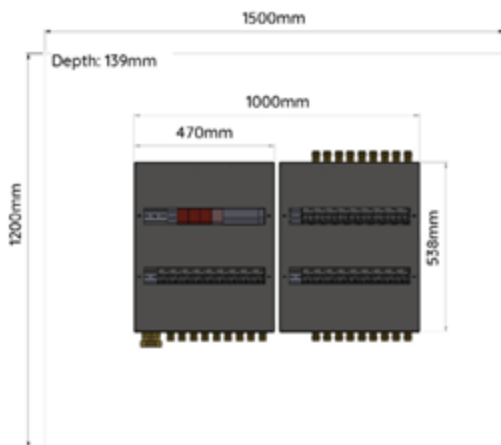


Fig 3. Horizontal installation of Three-Phase system

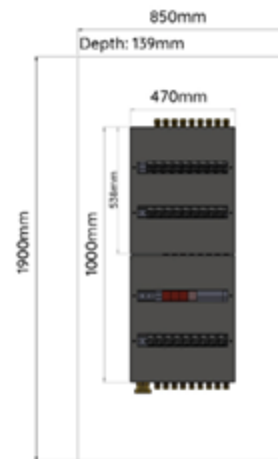


Fig 4. Vertical installation of Three-Phase system

Table 2. Dimensions of Array System Installation

| System | Height | Width | Depth |
|--------------------------------|--------|-------|-------|
| Three-Phase Horizontal (Fig 3) | 1200 | 1500 | 139 |
| Three-Phase Vertical (Fig 4) | 1900 | 800 | 139 |

*Single-Phase system comprises of one DB box

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