

Pod Point Array Charging System

System Description

The Pod Point Array Charging System 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 RCDs. 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.

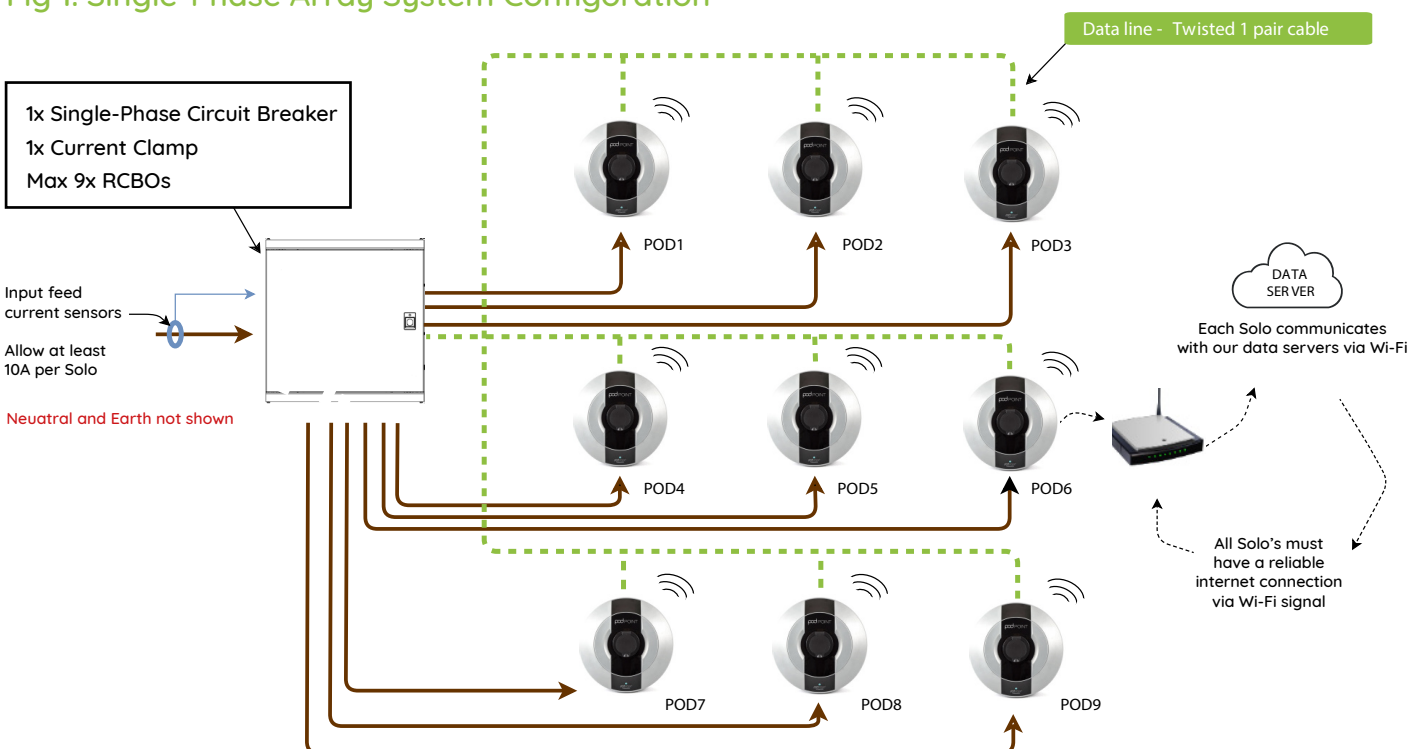
System Diagram

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 Pod Points

For a supply of 100A up to 9 Pod Points EVCPs can be installed. See Fig 1

Fig 1. Single-Phase Array System Configuration

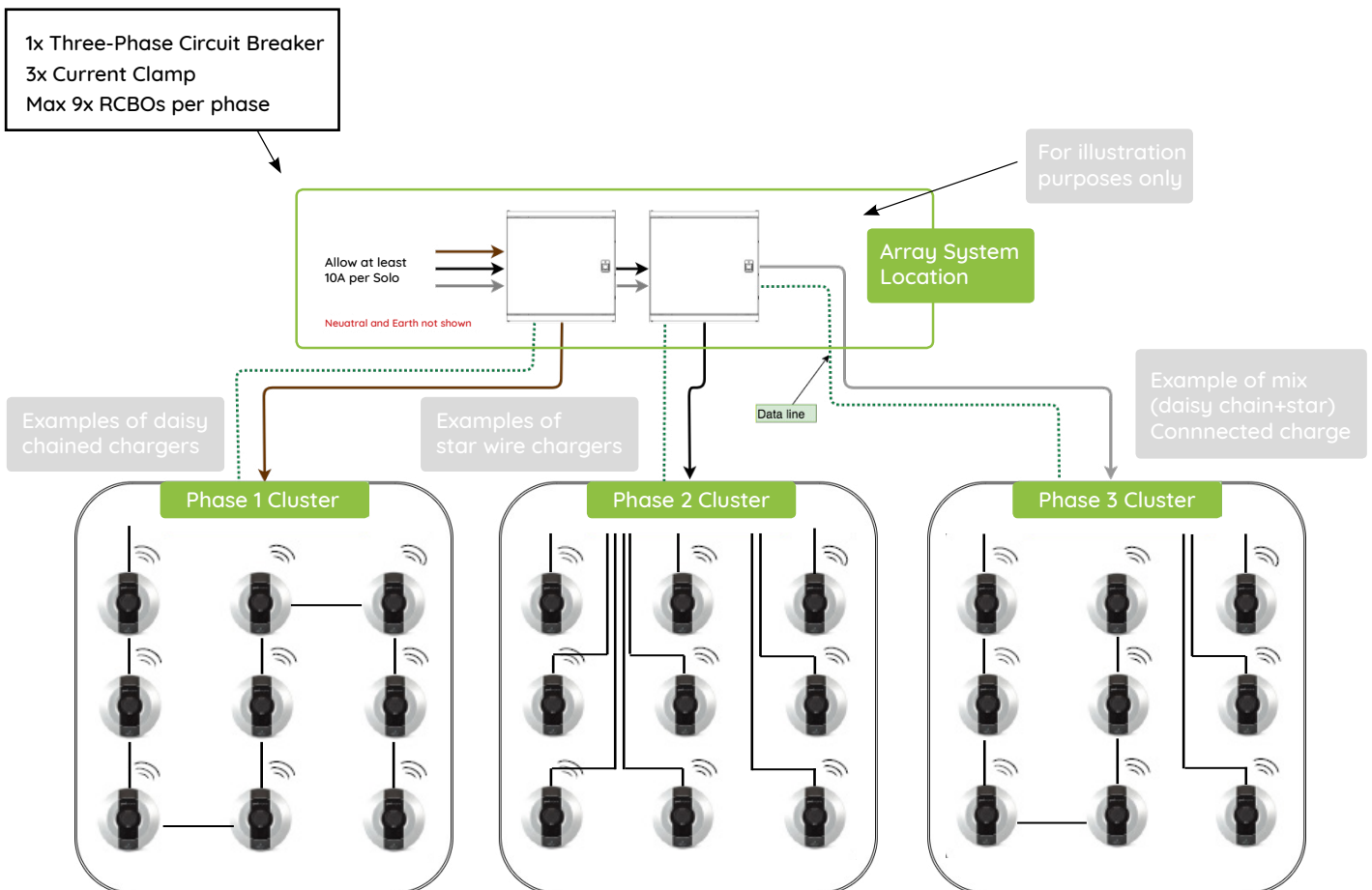


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Three-Phase Supply – Up to 27 Pod Points

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



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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
	Amount of Solos per system	
40A	3	9 (3 x 3)
60A	5	15 (3 x 5)
80A	7	21 (3 x 7)
100A (default)	9	27 (3 x 9)

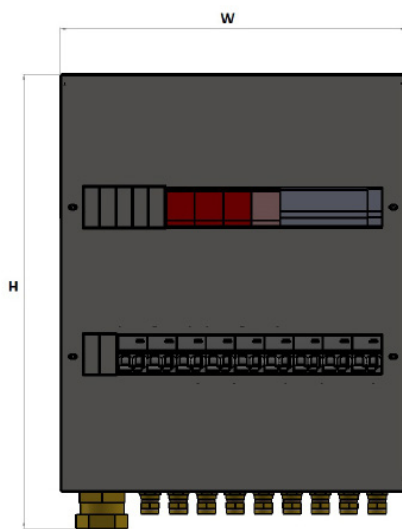


Fig 3 Front of DB

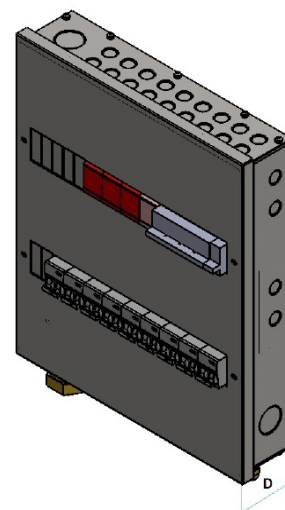


Fig 4. Side of DB

Table 2. Dimensions of Array Distribution Boards

System	Dimension H (mm) Fig 3	Dimension W (mm) Fig 3	Dimension D (mm) Fig 4
Single-Phase	513	417	100
Three-Phase	DB 1: 513 DB 2: 513	DB 1: 417 DB 2: 417	DB 1: 100 DB 2: 100