Phase Couplers for Multi-Phase Enphase Systems in Australia and New Zealand

Overview

Enphase® Microinverter Systems operate with both single-phase and multi-phase applications. In multi-phase, 230/400 VAC 50Hz applications, Enphase Microinverters produce 230 VAC output from line-to-neutral.

The Envoy® Communications Gateway uses power line communications to communicate with the microinverters. In multi-phase applications, power line communications are carried only on the phase supplying power to the Envoy.

For the Envoy to communicate with all of the microinverters in a multi-phase application, you must “couple” the power line communication signal between the phases. This requires the addition of a phase coupler.

The following figures show the power line communications signal on a multi-phase system with and without a phase coupler.

Power Line Communications without a Phase Coupler

```
L1
L2
L3

High Frequency Power Line Communication Signal is restricted to each phase
```

Power Line Communications with a Phase Coupler

```
L1
L2
L3

Power Line Communication Signal is distributed across all phases with a Phase Coupler
```
Legrand 03608 Phase Coupler

Enphase recommends that you install the Legrand 03608 Phase Coupler to distribute the power line communication signal across all phases. It is easy to install and available for purchase from Enphase Authorized Distributors in Australia and New Zealand.

The Legrand Phase Coupler 03608 is suitable for line-to-line voltages up to 440V AC, and for use on two-phase systems with line-to-line voltage less than 440V AC. If line-to-line voltage is greater than 440 VAC, contact Enphase Customer Support.

Installation Tips for the Legrand Phase Coupler

- Install the phase coupler on the same switchboard as the PV array circuit breakers and as close to the circuit breakers as possible.
- You must use a circuit breaker to connect the phase coupler and associated wiring as shown in the example diagram.