

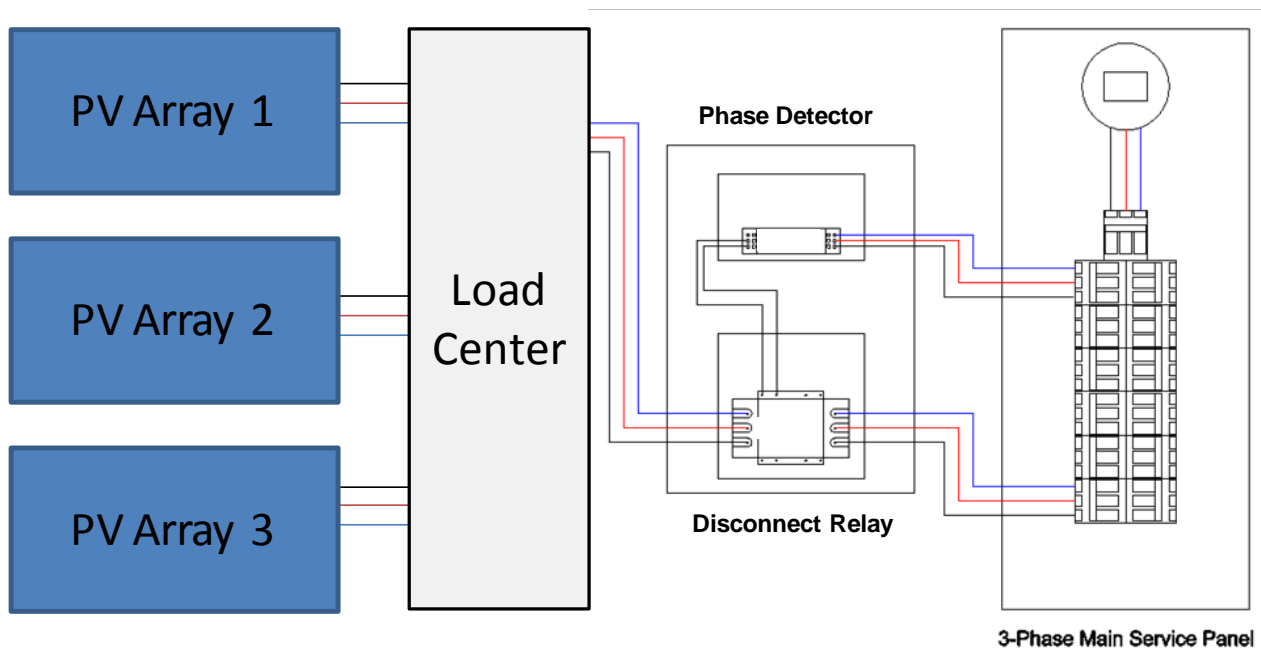
TECHNICAL BULLETIN

Phase Imbalance Shutdown of Microinverters

Date: 8/7/2019

Chilicon microinverters are suitable for 3-Phase 240V or 208V applications. Since individual microinverters output only a single phase of 208V or 240V, a suitable three phase design must first balance the number of microinverters that supply each phase of a 3-Phase load side connection. For example: a 60 kW system should be split into three 20 kW single phase sections.

In addition to this design consideration, some authorities having jurisdiction (AHJs) require a PV system to disconnect all three phases if any single phase should fail. To achieve this, Chilicon Power recommends the configuration as shown below (based on ABB devices), which includes a phase detector and a disconnect relay. The ABB CM-PFS.31S phase detector is coupled with the AF-260-30-11-71 disconnect relay. The configuration also performs phase sequence monitoring. For additional information on this topic, please contact Chilicon Power.



References:

- (1) ABB Model CM-PFS.31S datasheet