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WHITE PAPER 160505 – May 5, 2016

ADVANTAGES OF 1P T-CABLES

1. Problems

Installing PV systems can range from very simple to extremely challenging. We all want to have those ideal systems with the perfect roof pitch, no obstructions, faces due south and fits all on a single plane; however, that rarely happens. In most cases, on-site engineering is required to ensure the system fits and produces the desired result. Even though microinverters simplify the installation process by reducing the need for complicated engineering solutions, there are still some challenges with the use of trunk cables.

Problem #1

Trunk cable is usually sold in reels. This is okay if you only install microinverters and can use the remaining drops on other projects; otherwise, you end up with leftover trunk cable.

Problem #2

More challenging PV systems may need joiners and end caps that can take a fair amount of time to install, reducing the overall profitability of the installation.

2. Solutions

There is a simpler, less wasteful and less time consuming option: 1P T-cable, a single element trunk cable. Installing a system with the 1P T-cable is very simple. One connector connects to the microinverter AC connector in the same fashion as a normal trunk cable. The other connectors, one male and one female, connect in series with other 1P T-cables to form a PV branch circuit. The end of the branch (not connected to the AC interconnect point) is sealed with a simple cover that requires no wiring or complicated assembly; it just snaps in place. The grid connection can be made using a transition cable or by cutting off the last 1P T-cable connector and “transitioning” to standard THHN/THWN via a junction box and conduit.

Standard Trunk Cable

1P T-Cable

3. Advantages

The Pros of Using 1P T-Cables

- ✓ Easy to install; no need to strip wires
- ✓ Positive lock feedback
- ✓ One-to-one ratio simplifies ordering process and inventory management
- ✓ No need for joiners and end caps
- ✓ Reduces time on the roof