



SHIFTING THE LIMITS

INSTALLATION TIPS TO CONSIDER

TECHNICAL ARTICLE

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EXECUTIVE SUMMARY

/ There is a group of solar installers having lunch at a solar convention, shooting the breeze and swapping install stories. Sooner or later, the topic of stressful installations will emerge in the conversation. As one installer reminisces on a particular installation that went awry, every installer who is listening is sure to respond with, “Been there, done that!” The truth is that installing a solar inverter is not as easy as buckling a seat belt or changing a light bulb. In this article, Fronius’ Product Manager Sebastian Hassell shares with us some of his tips and tricks to consider to help get that seamless inverter installation.

INSTALLING YOUR INVERTER

The process of proficiently installing, commissioning, and connecting data communications for inverters has traditionally been a complex task in the solar industry. Although the installation crew typically arrives at a given site with a thorough set of specific installation plans, they are still responsible for the final steps of the layout and installation. Having an inverter that simplifies this process leads to not only faster installations, but also higher profits for the installation companies. Choosing an inverter that is lightweight and offers convenient access for commissioning is certainly a good start. An ideal inverter installation offers better esthetics, increased chances of passing inspections, fewer chances of making mistakes, and the highest level of safety.

LOCATION, LOCATION, LOCATION

Choosing a proper location is a crucial step in a successful installation. Today’s solar equipment should last up to twenty years, but location plays a role in that lifetime. Although many inverter warranties are not voided by installation in direct sunlight, it is best practice to install in a location that provides the cleanest, coolest setting possible. In the end, these are power electronics. Power electronics will always perform better by not derating on hot days, and their components will last longer in the shade. Aside from the environment of the inverter, positioning of the inverter is important to consider as well. Consider a position that allows ease of access, as servicing or repairing the inverter may need to be done following an install. The standard for an inverter rating for an install should be NEMA 4X, this is because then the inverter is well-rated for harsh conditions when the install doesn’t allow for that convenient, shady ease of access point.



/ The Fronius SnapINverter line offers a convenient, lightweight solution to install issues. All wiring is done on the bracket then the power stage is simply snapped on, making these installs the most streamlined in the solar industry.

WIRING AND MOUNTING

Wiring and mounting is also an important component of the installation process to keep in mind while trying to lower your costs as an installer. Keep it simple. Inspectors will scrutinize your installations less if they see wiring that is clean and well-organized. Some inverters can be very different than others when it comes to wiring. Keep the simple thought in mind that easily-accessible compartments are crucial. Product familiarity is another key aspect in successful installations. As the solar industry evolves and the NEC code changes, it helps an installer to be up to date on the latest inverter innovations available on the market. Not only are inverters now more ergonomic and sleekly-designed, manufacturers like Fronius have made commissioning more streamlined and easy to perform.



THE LIFE OF THE INVERTER

/ It's also a great practice of a dedicated installer to educate his customer on the power electronic just installed. Needs will surface throughout the life of their system, as customers will usually require post-installation assistance such as servicing and commissioning the inverter. A customer who is prepared to handle the post-install life of his/her inverter is a customer who is poised to save both time and money, setting the stage for a positive experience with solar energy.

CONCLUSION

/ The advancement in solar technology in recent years has given installers the ability to streamline not only a more efficient inverter, but also a more enjoyable installation process. The result is a perfect storm for the entire industry, as esthetically pleasing products continue to perform better than ever while also driving down the cost of solar for modern consumers. If installers as a whole are able to combine the best installation practices with the best inverters on the market, it won't be long until those lunch table discussions are exclusively tales of success.



CONTACT US

/ If you have any questions about this or if you want to learn more about our solar solutions, do not hesitate and contact us at (219)734-5500 or PV-Support-USA@Fronius.com. We are happy to help you!

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/ Whether welding technology, photovoltaics or battery charging technology – our goal is clearly defined: to be the innovation leader. With around 3,000 employees worldwide, we shift the limits of what's possible - our record of over 1,000 granted patents is testimony to this. While others progress step by step, we innovate in leaps and bounds. Just as we've always done. The responsible use of our resources forms the basis of our corporate policy.

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