Modbus TCP

Issuing Commands Via Modbus TCP

SolarEdge inverters support the reading of inverter-level monitoring data and configuring its power control settings directly through a non-SolarEdge local device. Direct connection to a monitoring and control system is useful when a network connection is unavailable, when extensive custom data processing is required, or when authorities require direct access to monitoring data and remote power control setting. In many cases it is possible (and recommended) to employ a direct connection alongside a SolarEdge monitoring portal connection. Connection to the SolarEdge monitoring portal enables all monitoring benefits, primarily:

- Proactive installer maintenance and real-time troubleshooting by SolarEdge support, using the physical mapping available only in the SolarEdge monitoring portal
- Module-level monitoring

Required Documentation

Please review the SunSpec Implementation Application Note for setup, configuration, and register information. Please review the supplemental Power Control Protocol Application Note which describes the register mapping of the inverter power control data.

These two documents will provide all the information needed to successfully setup your Sunspec/Modbus TCP monitoring configuration.

It is essential to follow the documents closely – the vast majority of Modbus TCP issues are related to failure to adhere to the commands, mappings and timings listed in the Application Notes above.

Troubleshooting

Note that SolarEdge Technical Support cannot support the writing or debugging of your Modbus code. Please use care to follow the instructions in the above documents precisely to minimize any issues when configuring your Modbus configuration

If you experience issues using the Modbus TCP protocol with SolarEdge equipment, please verify the following:

- Confirmation that your commands and timeouts are according to the App notes above.

If you must contact SolarEdge Technical Support, please have the following information ready:

- A specific list of commands being sent – in the sequence they are being sent and the timings.
- This information must be logical information and not binary or hex.
- Packet sniffer recordings showing at least 3 cycles of commands (use a free program like Wireshark).
- Assistance cannot be provided without the information requested above.

It is recommended to submit any Modbus TCP questions or problems via the SolarEdge Support Portal as the review of your code and timings cannot be done with you over the phone.

Additionally, it is **highly recommended** to have internet communication established to the device.