

Service Bulletin

Bulletin No: SB-0030-20-148-FS Effective Date: 05-27-2020 Type: Instructional

Subject: Use of the FlexSCADA™ with Morningstar® Tristar MPPT60 charge controllers

Scope

This service bulletin provides information on the use of the FlexSCADA™ Q5 line of products with single and multiple Morningstar Tristar MPPT60 charge controller installations.

Note: The SunSaver and ProStar series charge controllers are also supported, but require the use of a Morningstar EMC-1 ethernet adapter as they utilize a meterbus connection.

Background

Morningstar Corporation, in conjunction with FlexSCADA™, has developed the capability for a FlexSCADA™ Q5 device to communicate with and display charge controller information. Use of the FlexSCADA™ Q5 not only provides a single communications pathway for multiple SCADA (Supervisory Control And Data Acquisition) and monitoring enabled devices, but also creates a synergistic diagnostic and control platform with simplified communication requirements and lower power draw. In such a configuration, one FlexSCADA™ can control multiple charge controllers and other off-grid devices without the loss of capability from any individual system component.

Integration of the Q5 and Morningstar® systems is accomplished in two simple steps done through the onboard web interface of the Q5 device.

1. Activate the built-in Morningstar plugin located on the device options tab (*Figure 3*)
2. Add your device from the Morningstar charge controllers tab (*Figure 4*)

Physical configurations (single and multiple charge controllers)

FlexSCADA™ Q5 use with a single Morningstar Tristar MPPT60 charge controller

To use the FlexSCADA™ Q5 with a single Morningstar Tristar MPPT60 charge controller, connect the ethernet communication line of the Tristar to a standard network switch (see figure 1). Next connect the Q5 to the same network switch using the main Q5 ethernet port. This allows the two devices to communicate and the Tristar's data to be viewed through the FlexSCADA™ web-interface. Connection of an external communication device (such as a router) to the network switch will further enhance operation of the installation by allowing the system to be viewed remotely through the FlexSCADA™ web-interface.

FlexSCADA™ Q5 use with multiple Morningstar Tristar MPPT60 charge controllers

To use the FlexSCADA™ Q5 with multiple Morningstar Tristar MPPT60 charge controller installations, the standard network switch must have additional ports available for use. Connect the additional charge controller(s) to any available port of the network switch using an ethernet cable (see figure 2).

The charge controllers can now be viewed via the FlexSCADA™ web-interface. The user can also designate each charge controller with a unique identifying name. This allows multiple sites to be monitored without confusion with regards to which charge controller is being viewed.

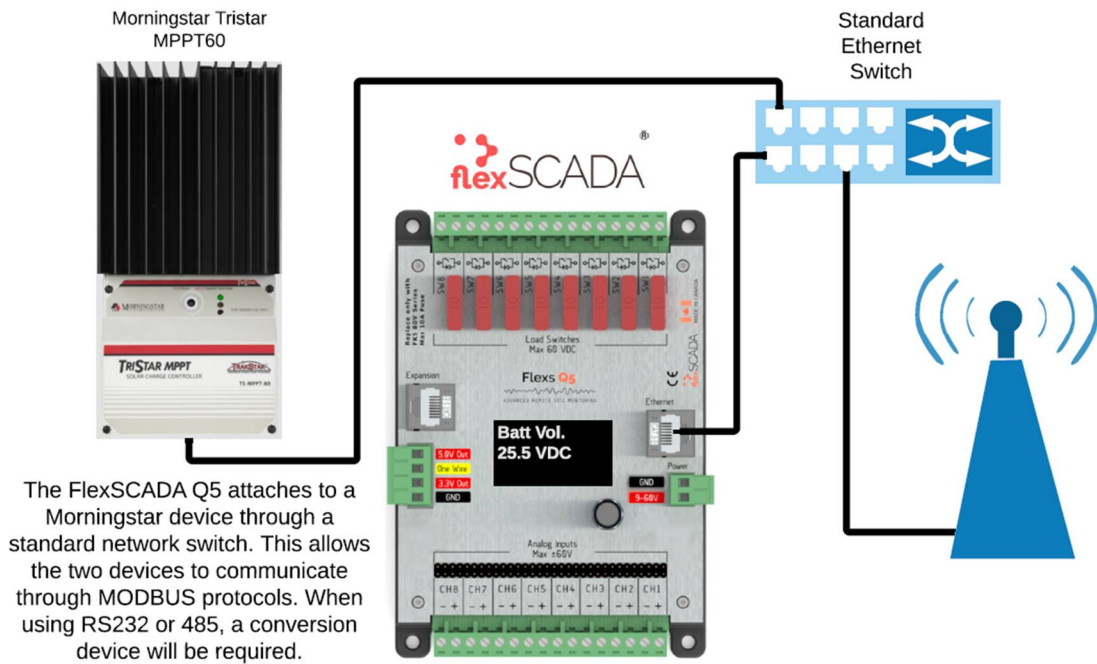


Figure 1

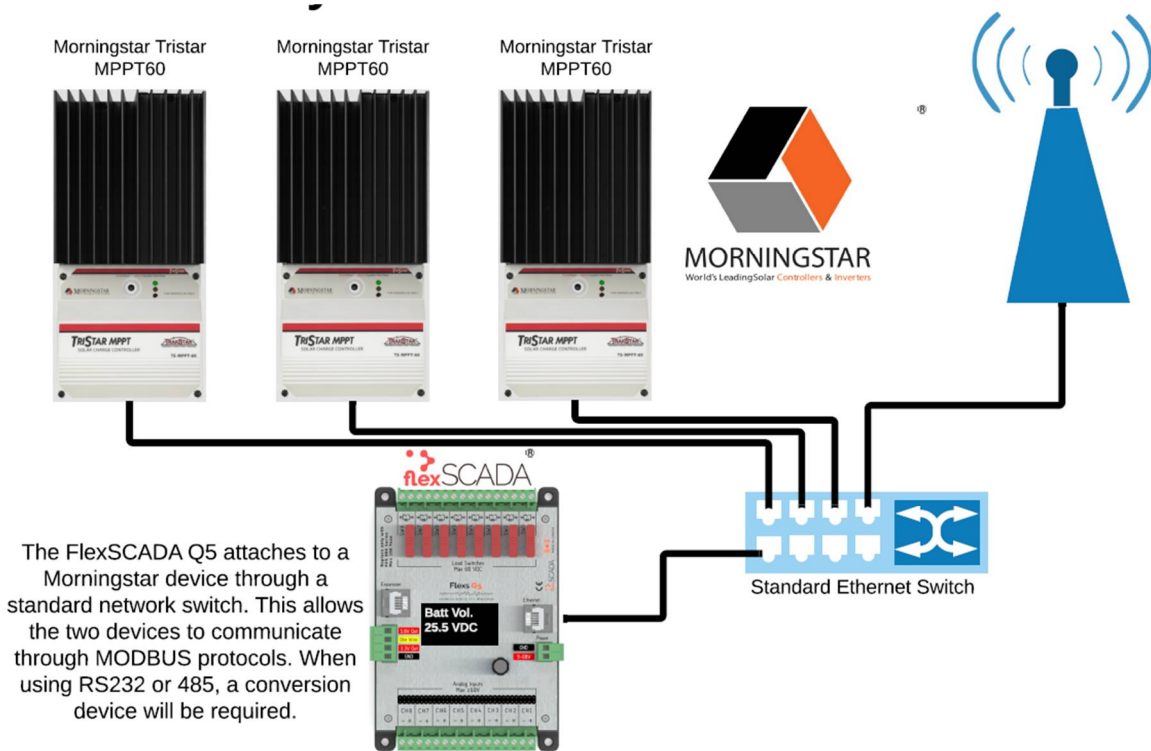


Figure 2

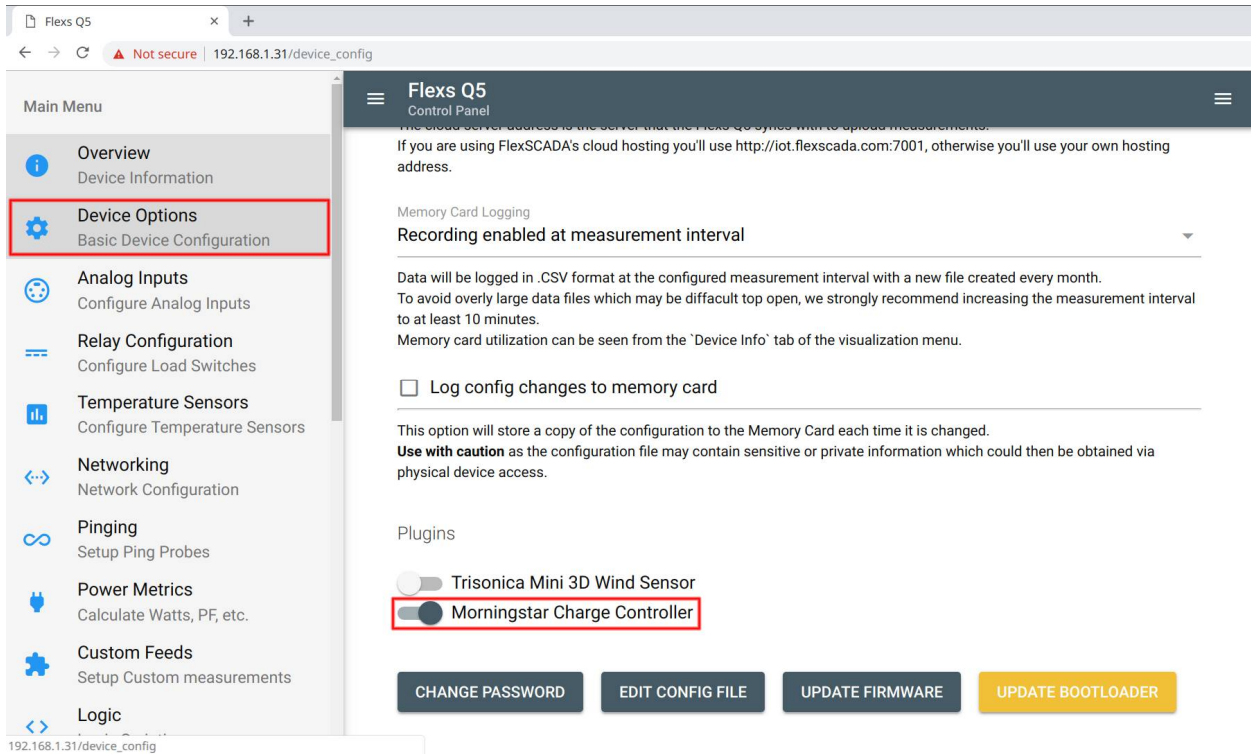


Figure 3

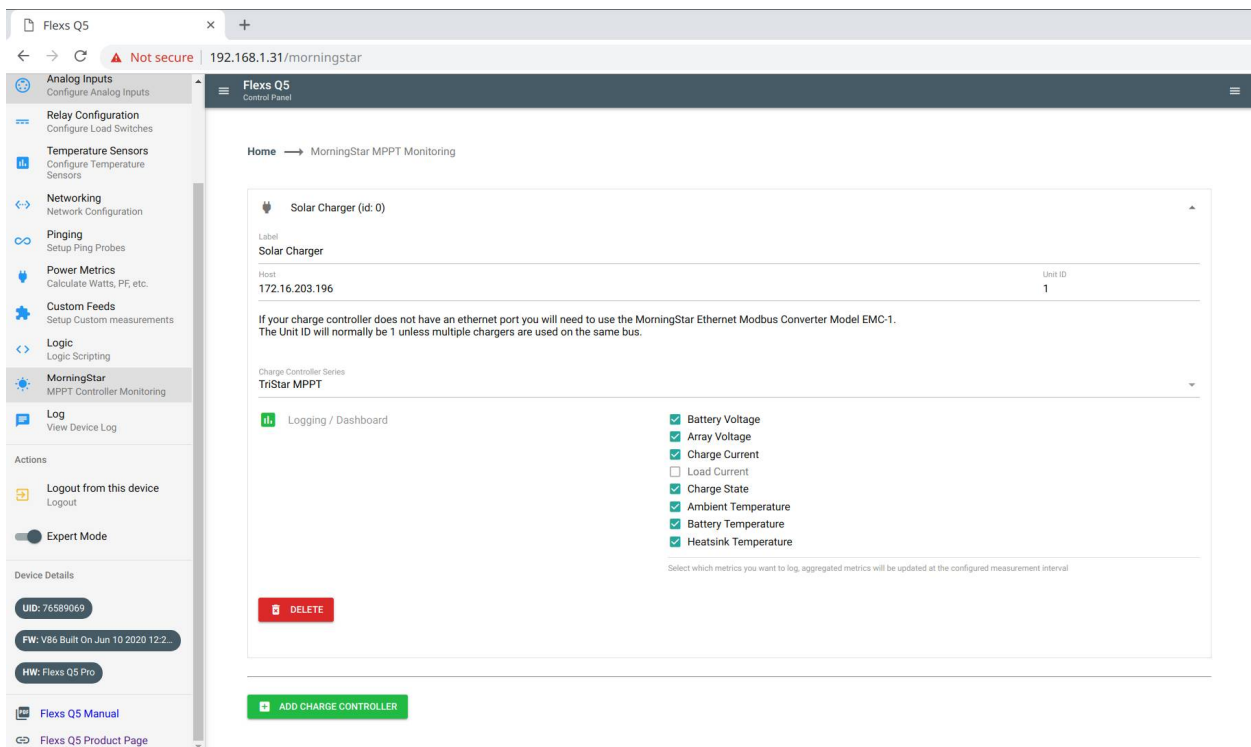


Figure 4

For more information please contact Mission Critical Energy at (716) 276-8465 or visit us at www.flexscadafusion.com.