TriStar MPPT Live View
Web Pages

Glossary of Displayed Values

v01
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Synopsis:
A glossary of definitions for values and settings displayed in the TriStar
Live View webpages. These webpages are served by the TriStar MPPT
Ethernet-enabled charge controllers.

Live Data View

Battery Voltage - instantaneous battery bank voltage

Target Voltage - voltage setpoint to which the battery will be charged given the charge state and battery temperature.

Charge Current - instantaneous current into the battery

Charge State - the current stage of the 4-stage charging algorithm

Output Power - instantaneous power into the battery

Array Voltage - instantaneous solar array voltage

Array Current - instantaneous solar array current

Sweep Vmp - the maximum power voltage of the array measured during the last sweep. Only updated when the battery is in Bulk charge stage.

Sweep Voc - the open circuit voltage of the array measured during the last sweep. Only updated when the battery is in Bulk charge stage.

Sweep Pmax - the maximum power produced by the array during the last sweep. Only updated when the battery is in Bulk charge stage.

Battery Temperature - battery temperature if a Remote Temperature Sensor is attached.

Heatsink Temperature - the internal temperature of the finned heatsink.

Amp Hours - resettable amp hour counter, clear with TriStar meter or MSView

Kilowatt Hours - resettable kWhr counter, clear with TriStar meter or MSView

Alarms - instantaneous alarms reported

Faults - instantaneous faults reported

Network Settings

NETBIOS Name - a unique address that can be used instead of the IP address to view the TSMPPT webpages; may not be supported by all operating systems such as MAC.

MAC address - an address that uniquely identifies the TSMPPT hardware on the network. unlike an IP, this address never changes.

IP Address - the network address assigned to the TSMPPT. may be static (never changes) or dynamically assigned by the DHCP server.

Subnet Mask / Default Gateway / Primary & Secondary DNS - manually assigned network settings for TCP networks. Refer to the *Ethernet Network Configuration* document for more information.

Controller Name - the name reported in email, text message, and SNMP notifications

DHCP or Static IP option - choose between manually specifying the network settings or allowing DHCP to automatically assign them. Refer to the *Ethernet Network Configuration* document for more information.

HTTP Port - specify the port for all web traffic, port 80 is the default. only change if necessary.

ModbusIP Port - specify the port for all ModbusIP communication, port 502 is the default. only change if necessary.

Modbus Server ID - an address that uniquely identifies the TSMPPT on a Modbus network, this address is used for all Modbus communication through RS-232, EIA-485, and Ethernet

MeterBus ID - an address that uniquely identifies the TSMPPT on Morningstar's proprietary MeterBus network

SNMP destination NMS port - specify the port for all SNMP TRAP notifications and other traffic, port 162 is the default.

MIB file - link to the TSMPPT SNMP management information base (MIB) file, contains definitions and information about the properties supported by the TSMPPT

Bridge Modbus requests option - select this option to allow incoming ModbusIP requests that are not addressed to the receiving TSMPPT to be re-broadcast on the EIA-485 network, this feature allows communication with other Modbus compliant devices that are networked to the TSMPPT through EIA-485 to share the Ethernet connection.

Ethernet Power Saving Mode option - enables "Green Ethernet" functionality; powers down the Ethernet port to save energy and periodically checks for a connection to a network.

Datalog

Day - label for each column of logged data, specifies number of days ago, a -4 = 4 days ago
Events - displays the number of events that occur each day, hold the mouse over the number to display the list of events.

Hourmeter - the value of the timestamp for each daily record

Max. Battery Voltage - the highest battery voltage recorded for the day, this value may or may not be the same as the long term maximum battery value reported by the meter or MSView

Min. Battery Voltage - the lowest battery voltage recorded for the day, this value may or may not be the same as the long term minimum battery value reported by the meter or MSView

Max. Array Voltage - the highest array input voltage recorded for the day

Max. Output Power - the highest battery output power recorded for the day

Amp hours - the total Ah accumulated each day

Watt hours - the total Wh accumulated each day

Max. Battery Temp. - the highest battery temperature recorded for the day

Min. Battery Temp. - the lowest battery temperature recorded for the day

Equalize timer - number of minutes the battery was in Equalize charge stage each day.

Float timer - number of minutes the battery was in Equalize charge stage each day.

Absorption timer - number of minutes the battery was in Equalize charge stage each day.

Faults - faults logged each day

Alarms - alarms logged each day