



EN Modbus TCP free
(Based on Version 1.0)

Solar-Log™

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1 Solar-Log™ ModbusTCP free

The intention of this interface is to give easy access to the Solar-Log™ internal data for external SCADA like systems. The interface is designed to read out main configuration and live data of the attached devices. Possible devices are inverters, digital meters and I/O boxes like pyranometers. The interface is not designed to configure the Solar-Log™ or the attached devices. All configuration must be done via the standard Solar-Log™ Web access either local or remote. Same applies for the alarm functions. All further analysis on the data like performance ratio and alarm situations must be done either in the Solar-Log™ Web or in the external system (SCADA).

ModbusTCP port:

- 502

Required Solar-Log™ firmware:

- 2.8.1 Build 49

Slave ID:

- 1

Implemented Modbus functions:

- 04 (ReadNInputRegister) to read one or multiple 16 bit words
- 06 (Write1Register) to write one 16 bit word
- 16 (WriteNRegister) to write multiple 16 bit words

The Solar-Log™ Modbus implementation uses different byte and word orders. The Modbus protocol byte order follows the big-endian Modbus specification and is thus compatible with standard Modbus implementations. Therefore, the higher byte in value is transferred first.

The proprietary-specific register order for 32-bit values uses a little-endian word order. For a 32-bit value, the lower value word is stored in the first register and the higher value word in the second register.

1.1 Live data compact – summarized (complete plant)

Live data “compact” summarized is mapped from register 3500-3999.

Data	Unit	Value-Range	Address	Number Reg.	Func Code	Since Firmware	Description
lastUpdateTime	Sec	32bit unsigned	3500	2	04		Unixtime when last register update has happened. 0=no live data yet
Pac	W	32bit unsigned	3502	2	04		Total Pac of all inverters and inv-type meters
Pdc	W	32bit unsigned	3504	2	04		Total Pdc of all inverters
Uac	V	16bit unsigned	3506	1	04		Average Uac of all inverters
Udc	V	16bit unsigned	3507	1	04		Average Udc of all inverters
Daily yield	Wh	32bit unsigned	3508	2	04		Summarized daily yield of all inverters
Yesterday yield	Wh	32bit unsigned	3510	2	04		Summarized daily yield of all inverters
Monthly yield	Wh	32bit unsigned	3512	2	04		Summarized monthly yield of all inverters
Yearly yield	Wh	32bit unsigned	3514	2	04		Summarized Yearly yield of all inverters
Total yield	Wh	32bit unsigned	3516	2	04		Summarized Total yield of all inverters
Pac consumption	W	32bit unsigned	3518	2	04		Total Pac of all consumption meters
Daily yield cons.	Wh	32bit unsigned	3520	2	04		Summarized daily yield of all consumption meters
Yesterday yield cons.	Wh	32bit unsigned	3522	2	04		Summarized daily yield (yesterday) of all consumption meters
Monthly yield cons.	Wh	32bit unsigned	3524	2	04		Summarized monthly yield of all consumption meters
Yearly yield cons.	Wh	32bit unsigned	3526	2	04		Summarized Yearly yield of all consumption meters
Total yield cons.	Wh	32bit unsigned	3528	2	04		Summarized Total yield of all consumption meters
TotalPower	Wh/Wp	32bit unsigned	3530	2	04		Total installed generator power

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