Anker SOLIX V1 Smart EV Charger Modbus Protocol
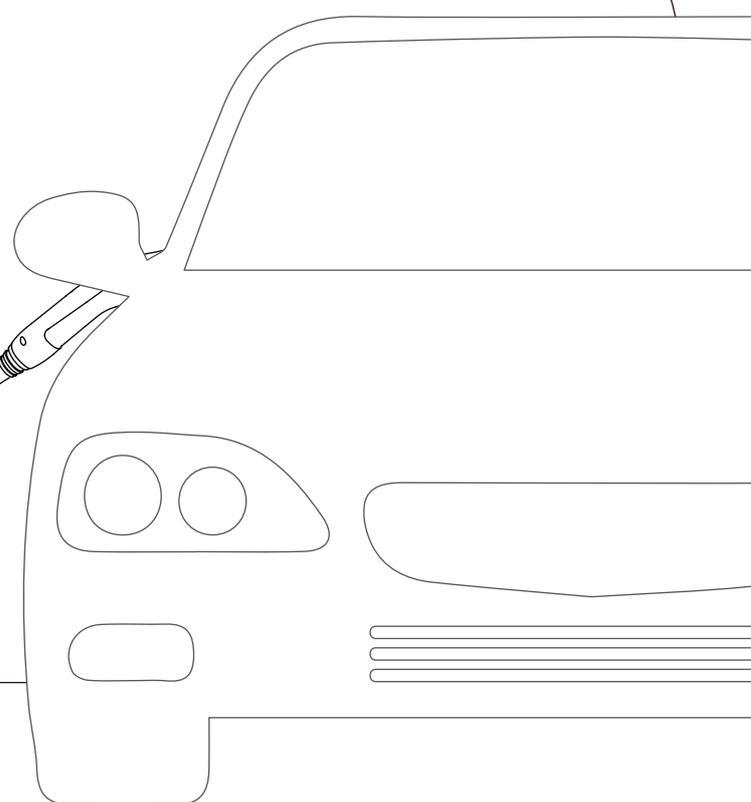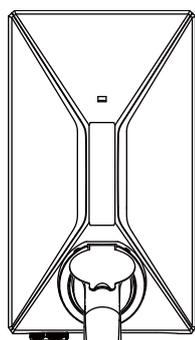
Version: **V 1.0.0**
Date: **30-11-2025**

Anker Innovations Ltd.

ANKER SOLIX

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Revision History

Version	Updated Date	Updated Page	Revisions
V1.0.0	30/11/2025	All	Initial release

Introduction

Supported Devices:

A5191GZ2, A5191GZ3, A5191VZ0, A5191VZ1, A5191GZ4, A5191GZ7, A5191VZ2, A5191VZ3, A51913Z0, A51913Z1, A5191TZ, A5191TZ2

Activate Modbus TCP Communication

Anker SOLIX V1 Smart EV Charger supports the Modbus TCP communication protocol for integration with external monitoring or control systems through Wi-Fi or Ethernet. This enables energy management systems or supervisory controllers to start or stop charging, monitor charger status, collect operational data, and manage charging operations.

Mode	Interface	Role	Port	Remarks
Modbus TCP	Ethernet / Wi-Fi	Server	Port 502	Supports a maximum of two clients connected simultaneously (e.g., EMS and debugging tool).

To Activate Modbus TCP

1. Open the Anker app, select V1 Smart EV Charger, and tap the Settings icon on the device details page.

2. Select **Integrations** from the menu.

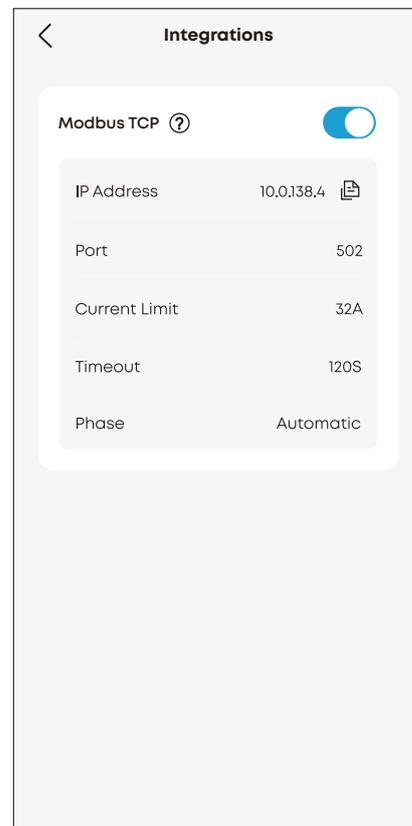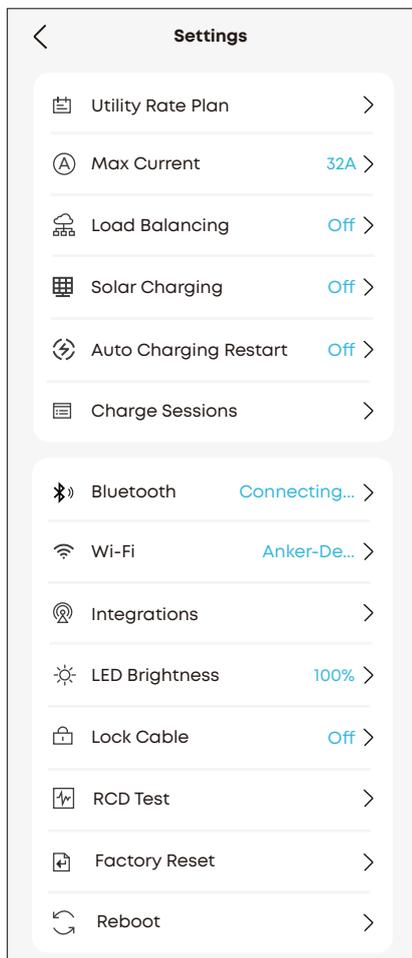3. Toggle the switch to enable the **Modbus TCP** function.

> **Note**
> The local IP address and port number are obtained automatically from the connected network. You can copy these values for communication with external systems.

4. Configure **Max Current**, **Timeout**, and **Phase** via the connected systems within the following ranges:

• **Max Current**: 0 - 16A / 32A (The maximum current depends on the rated current of your V1 Smart EV Charger. Charging pauses automatically when the current is below 6A.)

• **Timeout**: > 5 s

• **Phase**: Fixed Single-phase, Fixed Three-phase, or Automatic

> **Note**
> When set to Automatic, the charger automatically follows its own control strategy.

Settings	
📋 Utility Rate Plan	>
Ⓐ Max Current	32A >
🔀 Load Balancing	Off >
▦ Solar Charging	Off >
⚡ Auto Charging Restart	Off >
🗒 Charge Sessions	>
🔵 Bluetooth	Connecting... >
📶 Wi-Fi	Anker-De... >
📡 Integrations	>
☀ LED Brightness	100% >
🔒 Lock Cable	Off >
🔌 RCD Test	>
⎗ Factory Reset	>
↻ Reboot	>

Integrations	
Modbus TCP ❓	●
IP Address	10.0.138.4 📋
Port	502
Current Limit	32A
Timeout	120S
Phase	Automatic

> If both Wi-Fi and Ethernet are connected, the system will prioritise Ethernet for IP and port display.

Description

Function Code

Function	Signal Name	R/W	Type	Unit	Gain	Number	Address	Comment
Intrinsic Information	Product Number	RO	UINT16	/	/	1	20000	
	Model Name	RO	STRING	/	/	10	20001	
	Serial Number	RO	STRING	/	/	12	20011	
	Software Version	RO	STRING	/	/	6	20023	
	Hardware Version	RO	STRING	/	/	6	20029	
	Rated Power (Pn)	RO	INT32	W	1	2	20035	
	Minimum Output Current	RO	INT32	W	1	2	20037	
	Maximum Output Current	RO	INT32	KVA	1	2	20039	
Alarm	Alarm Information 1	RO	UINT16	/	1	1	20041	Each BIT represents an alarm, refer to the alarm list for details.
	Alarm Information 2	RO	UINT16	/	1	1	20042	
	Alarm Information 3	RO	UINT16	/	1	1	20043	
	Alarm Information 4	RO	UINT16	/	1	1	20044	
	Alarm Information 5	RO	UINT16	/	1	1	20045	
	Alarm Information 6	RO	UINT16	/	1	1	20046	
	Alarm Information 7	RO	UINT16	/	1	1	20047	
	Alarm Information 8	RO	UINT16	/	1	1	20048	
	Alarm Information 9	RO	UINT16	/	1	1	20049	
	Alarm Information 10	RO	UINT16	/	1	1	20050	
	Alarm Information 11	RO	UINT16	/	1	1	20051	
	Alarm Information 12	RO	UINT16	/	1	1	20052	
AC Charging Information	L1-N Voltage	RO	UINT16	V	10	1	20053	
	L2-N Voltage	RO	UINT16	V	10	1	20054	
	L3-N Voltage	RO	UINT16	V	10	1	20055	
	L1-L2 Voltage	RO	UINT16	V	10	1	20056	
	L2-L3 Voltage	RO	UINT16	V	10	1	20057	
	L3-L1 Voltage	RO	UINT16	V	10	1	20058	
	L1 Current	RO	UINT16	A	100	1	20059	
	L2 Current	RO	UINT16	A	100	1	20060	
	L3 Current	RO	UINT16	A	100	1	20061	
	L1 Active Power	RO	UINT32	W	1	2	20062	
	L2 Active Power	RO	UINT32	W	1	2	20064	
	L3 Active Power	RO	UINT32	W	1	2	20066	
	Total Charging Active Power	RO	UINT32	W	1	2	20068	
	L1 Reactive Power	RO	UINT32	W	1	2	20070	

Function	Signal Name	R/W	Type	Unit	Gain	Number	Address	Comment
AC Charging Information	L2 Reactive Power	RO	UINT32	W	1	2	20072	
	L3 Reactive Power	RO	UINT32	W	1	2	20074	
	L1 Apparent Power	RO	UINT32	W	1	2	20076	
	L2 Apparent Power	RO	UINT32	W	1	2	20078	
	L3 Apparent Power	RO	UINT32	W	1	2	20080	
	Current Charging Session Duration	RO	UINT32	s	1	2	20082	
	Current Charging Capacity	RO	UINT32	Wh	1	2	20084	
	PWM Enabled Status	RO	UINT16	/	/	1	20086	0: Disabled 1: Enabled
	Single / Three-Phase Operating Mode	RO	UINT16	/	/	1	20087	1: Single-Phase 3: Three-Phase
	Charging Mode	RO	UINT16	/	/	1	20088	0: Solar + Grid 1: Only Solar
	Load Balancing Enabled Status	RO	UINT16	/	/	1	20089	0: Disabled 1: Enabled
	Solar Power Balancing Enabled Status	RO	UINT16	/	/	1	20090	0: Disabled 1: Enabled
	CP Acquisition Voltage	RO	UINT16	/	/	1	20091	
	CP Signal Status	RO	UINT16	/	/	1	20092	0: (A: 12V) 3: (B1: 9V) 4: (B2: 9V) 5: (C1: 6V) 6: (C2: 6V) 7: Error 8: (D1: 3V) 9: (D2: 3V) 10: (E: 0V) 11: (F: -12v)
	Relay 1 Temperature	RO	INT16	°C	1	1	20093	
	Relay 2 Temperature	RO	INT16	°C	1	1	20094	
	Boost Mode	RO	UINT16	/	/	1	20095	0: Disabled 1: Enabled
	LED Light Brightness	RO	UINT16	%	1	1	20096	0 - 100%
	Charging Status	RO	UINT16	/	/	1	20097	0: Idle 1: Preparing 2: Charging 3: Charger Paused 4: Vehicle Paused 5: Charging Completed 6: Reserving 7: Disabled 8: Error
	Reserved for Future Use	RO	UINT16	/	/	1	20098	
	OCPP Connection Status	RO	UINT16	/	/	1	20099	0: Not Connected 1: Connecting 2: Connected
	MQTT Connection Status	RO	UINT16	/	/	1	20100	0: Not Connected 1: Connected
AC Control Information	Charging Command	RW	UINT16	/	/	1	21000	1: Start Charging 2: Stop Charging
	Maximum Current Setting	RW	UINT16	W	10	1	21001	The system will pause if the current is below the system's maximum (6A).
	Boost Mode	RW	UINT16	/	1	1	21002	1: On (Effective once per current charging session)
	Set Timeout	RW	UINT16	A	1	1	21003	s > 5 s
	Reserved for Future Use	RW	UINT16	A	10	1	21004	
	Set the Number of Charging Phases	RW	UINT16	A	/	1	21005	0: Default (Device automatically switches between fixed single-phase and fixed three-phase.) 1: Fixed Single-Phase 2: Fixed Three-Phase