

TESVOLT ENERGY MANAGER — COMPATIBILITY OVERVIEW

Software version 3.0

Table of content

PV inverters	4
Charging stations	7
Electricity meters	9
Heat pumps	9
Heating rods	10
CHP units	10
Dynamic electricity tariffs.....	10
List of abbreviations	11
Imprint.....	11





Scope of application




All devices are compatible with TESVOLT Energy Manager KC4S and Amperix and only with the latest software version 3.02 or higher. If you do not have this version, please contact TESVOLT. Devices that can process Modbus protocols (Modbus TCP/IP) can be analysed by us in order to be included in the TESVOLT compatibility list on request. The analysis does not mean immediate inclusion. The Modbus protocols themselves must be provided by the customer.

PV inverters

The PV inverter should be equipped with the latest firmware.

Warning: Not every inverter on the compatibility list is fully suitable for zero feed-in (due to slow control rate). If zero feed-in is planned, please contact TESVOLT so that unrestricted use with the planned inverter can be checked.



Manufacturer	Modell	Protocols	Communication interface	Note
	AE REFUsol 008K	Modbus/TCP	Ethernet RJ45	REFUsol models that have been revised with the AE interface are supported. REFUsol models that still have an old REFUsol interface and no AE identifier are not supported.
	AE REFUsol 010K	Modbus/TCP	Ethernet RJ45	
	AE 3TL 17-IEC (Gen3)	Modbus/TCP	Ethernet RJ45	
	AE 3TL 20-IEC (Gen3)	Modbus/TCP	Ethernet RJ45	
	Symo	Modbus Sunspec	Ethernet RJ45	Requires additional meter.
	Gen24	Modbus Sunspec	Ethernet RJ45	
	SmartLogger 3000	Modbus/TCP	Ethernet RJ45	
	Plenticore Plus 4.2, 5.5, 7.0, 8.5, 10	Modbus Sunspec	Ethernet RJ45	
	Piko alt	Modbus Sunspec	Ethernet RJ45	
	Piko IQ 4.2, 5.5, 7.0, 8.5, 10	Modbus Sunspec	Ethernet RJ45	
	Piko CI 10, 30, 50, 60	Modbus Sunspec	Ethernet RJ45	

	Tripower STP 4.0, STP 5.0, STP 6.0, STP 8.0, STP 10.0, 5000TL-20, 6000TL-20, 7000TL-20, 8000TL-10, 8000TL-20, 9000TL-20, 10000TL-10, 10000TL-20, 11000TL-20, 12000TL-10, 12000TL-20, 15000TL-10, 15000TL-30, 17000TL-10, 20000TL-30, 25000TL-30	Modbus Sunspec	Ethernet RJ45		
	Sunny Boy: SB 1.5, 2.5, 4.0, 5000SE-10, 3600SE-10, 3000TL-21, 3600TL-21, 4000TL-21, 5000TL-21				
	Sunny Boy: SB 3.0-1AV-40, SB 3.6-1AV-40 SB 4.0-1AV-40, SB 5.0-1AV-40	Modbus Sunspec	Ethernet RJ45		
	Tripower X	Modbus Sunspec	Ethernet RJ45	Compatible with STP X (STP12-50, STP15-50, STP20-50, STP25-50).	
	Tripower Core 1 (STP50-40, STP50-41)	Modbus Sunspec	Ethernet RJ45		
	Tripower Core 2 (STP110-60)	Modbus Sunspec	Ethernet RJ45		
	SE XXk (dreiphasig)	Modbus Sunspec	Ethernet RJ45		
	SE HD Wave / SE XXXXH	Modbus Sunspec	Ethernet RJ45		
	SE XXK-RWS	Modbus Sunspec	Ethernet RJ45		
	SG10KTL, SG12KTL, SG15KTL, SG20KTL, SG30KTL, SG36KTL, SG40KTL, SG60KTL, SG80KTL	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485		
 Clean power for all	SG30KU, SG36KU, SG60KU	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485		
	SG5KTL-MT, SG6KTL-MT, SG8KTL-M, SG10KTL-M, SG10KTL-MT, SG12KTL- M, SG15KTL-M, SG17KTL- M, SG20KTL-M, SG30KTL- M, SG30KTL-M-V31, SG33KTL-M, SG36KTL-M, SG40KTL-M, SG50KTL-M, SG50KTL-M-20, SG60KTL-M, SG80KTL-M, SG80KTL-20	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485		
	LP_P34KSG	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485		



 <p>Clean power for all</p>	SG33K3J, SG49K5J, SG34KJ	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	
	SG60KU-M	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	
	SG111HV, SG125HV, SG125HV-20, SG125HX, SG125HX-JP, SG200HX- US, SG285HX, SG333HX, SG350HX-US, SG320HX, SG320HX- 20, SG350HX, SG350HX-20, SG75CX-P2, SG110CX-P2, SG125CX- P2	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	
	SG25CX-SA, SG30CX, SG33CX, SG36CX-US, SG40CX, SG50CX, SG60CX-US, SG75CX, SG100CX, SG100CX-JP, SG110CX, SG49.5CX- JP, SG25CX-P2, SG30CX-P2, SG33CX-P2, SG36CX-P2, SG40CX-P2, SG50CX-P2, SG15CX-P2-LV, SG20CX- P2-LV, SG25CX-P2- LV	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	
	SG250HX, SG250HX-US, SG250HX-IN	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	
	SG3.0RT, SG4.0RT, SG5.0RT, SG6.0RT, SG7.0RT, SG8.0RT, SG10RT, SG12RT, SG15RT, SG17RT, SG20RT, SG22RT, SG23RT, SG25RT, SG3.0RT-P2, SG4.0RT-P2, SG5.0RT- P2, SG6.0RT-P2, SG7.0RT-P2, SG8.0RT-P2, SG10RT-P2, SG12RT-P2, SG15RT-P2, SG17RT-P2, SG20RT-P2, SG23RT-P2, SG25RT-P2	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	
	SG5.5RS-JP, SG2.0RS-S, SG2.5RS-S, SG3.0RS- S, SG3.0RS, SG3.6RS, SG4.0RS, SG5.0RS, SG6.0RS, SG8.0RS, SG9.0RS, SG10RS, SG5.0RS-ADA, SG3.0RS-L, SG4.0RS-L, SG5.0RS-L, SG6.0RS-L, SG8.0RS-L, SG9.0RS-L, SG10RS-L	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	

Battery inverters


Warning: Not every inverter on the compatibility list is fully suitable for zero feed-in (due to slow control rate). If zero feed-in is planned, please contact TESVOLT so that unrestricted use with the planned inverter can be checked.

Manufacturer	Modell	Protocols	Communication interface	Note
	Sunny Tripower Storage X (STPS30-20, STPS50-20)	Modbus/TCP	Ethernet RJ45	Compatible cabinet system: TS HV 30-80 E Compatible container system: TPS HV 80 E
	Sunny Tripower Storage 60	Modbus/TCP	Ethernet RJ45	TS HV 70 & TS HV 70 E (SMA Inverter Manager (IM20) is required)
	TESVOLT PCS/Gridcon PCS	Modbus/TCP	Ethernet RJ45	Compatible cabinet systems: TS-I HV, TS-I HV (E)




Charging stations

Manufacturer	Modell	Protocols	Communication interface	Charging points (CP)	Charging points (CP)		Max. charging power per CP	Energy meter			Access control		Note
					AC	DC		Uncalibrated	MID	ME	RFID	Key	
	Eve Single Pro-Line	Modbus/TCP	Ethernet RJ45	1	✓		22 kW		✓		✓		
	Eve Double Pro-Line	Modbus/TCP	Ethernet RJ45	2	✓		22 kW		✓		✓		
	Eve Double PG-Line	Modbus/TCP	Ethernet RJ45	2	✓		22 kW		✓		✓		
	HYC50	Modbus/TCP	Ethernet RJ45	2	✓		50 kW				✓		
	HYC150	Modbus/TCP	Ethernet RJ45	2	✓		150 kW				✓		opt. AC-Interface
	HYC200	Modbus/TCP	Ethernet RJ45	2	✓		200 kW				✓		
	HYC300	Modbus/TCP	Ethernet RJ45	2	✓		300 kW				✓		opt. AC-Interface
	HYC400	Modbus/TCP	Ethernet RJ45	2	✓		400 kW				✓		


BENNING	30 kW BELATRON Modular T2	Modbus/TCP	Ethernet RJ45	2	opt.	✓	30 kW						
	60 kW BELATRON Modular T2	Modbus/TCP	Ethernet RJ45	2+1	✓	✓	60 kW						
	180 kW BELATRON Modular T2	Modbus/TCP	Ethernet RJ45	2+1	✓	✓	180 kW						
	480 kW BELATRON Modular T2	Modbus/TCP	Ethernet RJ45	2+1	✓	✓	480 kW						Split system
COMPLEO	Duo WM/PM/BM (former Advanced)	Modbus/TCP	Ethernet RJ45	2	✓		22 kW		✓		✓		
	CITO 500	Modbus/TCP	Ethernet RJ45	2	✓	✓	22 kW AC 50 kW DC		✓		✓		
ev tap-	EVTAP-11k	Modbus/RTU	RS485										
	EVTAP-22k	Modbus/RTU	RS485										
	EVTAP-180k-5m-2c	Modbus/RTU	RS485	2		✓	180 kW		✓		✓		
HEIDELBERG	Energy Control	Modbus/RTU	RS485	1	✓		11 kW				opt.	✓	
	connect. home	Modbus/TCP	Ethernet RJ45	1	✓		11 kW				✓		
hesotec electrify	eSat r20	Modbus/TCP	Ethernet RJ45	1	✓		22 kW		opt.		✓		
	eBox wr30	Modbus/TCP	Ethernet RJ45	1	✓		22 kW		opt.		✓		
KEBA	P30 c-series	Modbus/TCP, UDP	Ethernet RJ45	1	✓		22 kW	opt.	opt.	opt.	opt.		
	P30 x-series	Modbus/TCP, UDP	Ethernet RJ45	1	✓		22 kW	opt.	opt.	opt.	opt.		
	Deutschland Edition	Modbus/TCP, UDP	Ethernet RJ45	1	✓		11 kW	opt.	opt.	opt.	opt.		
MENNEKES®	Amtron Xtra	Modbus/TCP	Ethernet RJ45	1	✓		22 kW		✓		✓	✓	
	Amtron Premium	Modbus/TCP	Ethernet RJ45	1	✓		22 kW		✓		✓	✓	
	Amtron Charge Control	Modbus/TCP	Ethernet RJ45	1	✓		11 kW		✓		✓		
	Amtron Professional (+) PnC	Modbus/TCP	Ethernet RJ45	1	✓		22 kW		✓		✓		

	Pro	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	1	✓		22 kW		✓ ext. meter rec.		✓	✓
	Eco 2.0 22 kW	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	1	✓		22 kW			opt.	✓	

Electricity meters

Manufacturer	Modell	Protocols	Communication interface	Phases		Measurement type		Digital contacts		Note
				1	3	Direct (I _{max})	Secondary electricity (I _{max}) with separate transformer	Input	Output	
	UMG 604, 806	Modbus/TCP	RS485, Ethernet RJ45	✓	✓			✓	✓	The TS-I HV 80/100 E and TS HV 30-80 E systems received the VDE-FNN certificate with the Janitza UMG 604.
	Sentron PAC2200	Modbus/TCP	Ethernet RJ45	✓	✓			✓	✓	The TS-I HV 80/100 system received the VDE-FNN certificate with the Siemens Sentron PAC2200.
	EnergyMeter	Speedwire	Ethernet RJ45	✓	✓	63 A	5 A			


Heat pumps

Manufacturer	Modell	Protocols	Communication interface	Note
				ON/OFF via potential-free contact (relay contact via digital output) of the TESVOLT Energy Manager



Heating rods

Manufacturer	Modell	Protocols	Communication interface	Note
	AC THOR	Modbus/TCP	Ethernet RJ45	
	AC THOR 9s	Modbus/TCP	Ethernet RJ45	
	AC ELWA-E	Modbus/TCP	Ethernet RJ45	

CHP units

Manufacturer	Modell	Protocols	Communication interface	Note
	g-box 50plus	Modbus/TCP	Ethernet RJ45	An Anybus gateway and a g-box are required to communicate with the CHP unit. If the connection is interrupted, the CHP unit must be manually returned to the external control mode so its output can be controlled. Otherwise, the measurement values can only be read.

Dynamic electricity tariffs

Provider	Temporal resolution	Protocols	Communication interface	Note
	hourly	Modbus/TCP	Tibber API	When used without a smart meter, monthly billing is based on a standard load profile. When using a tibber Pulse electricity tracker, consumption can be displayed in real time via an app.
	hourly	Modbus/TCP	aWATTar API	When used without a smart meter, monthly billing is based on a standard load profile.

List of abbreviations

Abbreviation used	Meaning
ext.	extern
dig.	digital
int.	intern
opt.	optional
PV	photovoltaics
rec.	recommended

Imprint

TESVOLT Headquarters

TESVOLT AG
Am Heideberg 31
06886 Lutherstadt Wittenberg
info@tesvolt.com