



Theben Home Energy Manager

Compatibility list

Energy system components

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The devices in the list have been tested by us, but adjustments made by the manufacturer may lead to incompatibilities. We endeavour to keep the list up to date at all times.

1. PV inverter

Manufacturer	Model	Protocol/s	Communication interface	Firmware	Remark
	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/TCP	Ethernet RJ45	1.32.0	
	Sunny Boy: SB 1.5, 2.5, 3.0-1AV-41, 3.6-1AV-41, 4.0-1AV-41, 5.0-1AV-41, 6.0-1AV-41, 5000SE-10, 3600SE-10, 3000TL-21, 3600TL-21, 4000TL-21, 5000TL-21	Modbus/TCP	Ethernet RJ45	1.32.0	
	Sunny Boy: SB 3.0-1AV-40, 3.6-1AV-40, 4.0-1AV-40, 5.0-1AV-40	Modbus/TCP	Ethernet RJ45	3.0	
	Tripower X (STP 12-50, STP 15-50, STP 17-50, STP 20-50 and STP 25-50)	Modbus/TCP	Ethernet RJ45	1.32.0	
	Tripower Core 1 (STP50-40, STP50-41)	Modbus/TCP	Ethernet RJ45	1.32.0	
	Tripower Core 2 (STP110-60)	Modbus/TCP	Ethernet RJ45	1.32.0	
	SE XXXX (1-phase)	Modbus/TCP	Ethernet RJ45	1.32.0	
	SE XK (3-phase) SE XXX (3-phase) SE XXXX (3-phase)	Modbus/TCP	Ethernet RJ45	1.32.0	
	SE HD Wave / SE XXXXH	Modbus/TCP	Ethernet RJ45	1.32.0	
	SE XK-RWS (hybrid) SE XXX-RWS (hybrid)	Modbus/TCP	Ethernet RJ45	1.32.0	
	Plenticore Plus 4.2, 5.5, 7.0, 8.5, 10	Modbus/TCP	Ethernet RJ45	1.32.0	

	Piko (Old Generation)	Modbus/TCP	Ethernet RJ45	1.32.0	
	Piko IQ 4.2, 5.5, 7.0, 8.5, 10	Modbus/TCP	Ethernet RJ45	1.32.0	
	Piko CI 10, 30, 50, 60	Modbus/TCP	Ethernet RJ45	1.32.0	
	Piko 12, 15, 17, 20	Modbus/TCP	Ethernet RJ45	1.32.0	
	Primo	Modbus/TCP	Ethernet RJ45	1.32.0	
	Galvo	Modbus/TCP	Ethernet RJ45	1.32.0	
	Symo	Modbus/TCP	Ethernet RJ45	1.32.0	
	Gen24	Modbus/TCP	Ethernet RJ45	1.32.0	Requires additional counter
	Verto	Modbus/TCP	Ethernet RJ45	2.0.0	
	SG10KTL / SG12KTL / SG15KTL / SG20KTL / SG30KTL / SG36KTL / SG40KTL / SG60KTL / SG80KTL /	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	1.32.0	
	SG30KU / SG36KU / SG60KU	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	1.32.0	

	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	1.32.0	
	LP_P34KSG	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	1.32.0	
	SG33K3J / SG49K5J / SG34KJ	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	1.32.0	
	SG60KU-M	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	1.32.0	
	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 / SG125CX-P2 /	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	1.32.0	
	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	1.32.0	
	SG250HX / SG250HX-US / SG250HX-IN /	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	1.32.0	
	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	1.32.0	

 Clean power for all	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	1.32.0	
 HUAWEI	SmartLogger	Modbus/TCP	Ethernet RJ45	1.32.0	The control of batteries via connected Huawei hybrid inverters is not yet supported.
	PV inverter models	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	2.0.0	The control of batteries using Huawei hybrid inverters is not yet supported. If Modbus/RTU is used, the parity bit cannot be set. This means that only devices that use parity none can be connected.
 Advanced Energy	AE REFUsoI 008K	Modbus/TCP	Ethernet RJ45	1.32.0	Some REFUsoI models that have been revised with the AE interface are supported. REFUsoI models that only have an old REFUsoI interface and no AE identifier are not supported.
	AE REFUsoI 010K	Modbus/TCP	Ethernet RJ45	1.32.0	
	AE 3TL 17-IEC (Gen3)	Modbus/TCP	Ethernet RJ45	1.32.0	
	AE 3TL 20-IEC (Gen3)	Modbus/TCP	Ethernet RJ45	1.32.0	

2. Hybrid/battery inverter

Manufacturer	Model	Protocol/s	Communication interface	Firmware	Remark
	Sunny Island: SI3.0M-11, SI4.4M-11, SI4.4M-12, SI6.0H-11, SI6.0H-12, SI8.0H-11, SI8.0H-12	Modbus/TCP	Ethernet RJ45	1.32.0	
	Sunny Boy Storage: SBS 2.5, 3.7, 5.0, 6.0	Modbus/TCP	Ethernet RJ45	1.32.0	
	Inverter Manager	Modbus/TCP	Ethernet RJ45	1.32.0	
	Sunny Tripower Storage: STPS30, STPS50	Modbus/TCP	Ethernet RJ45	1.32.0	External electricity meter required
	Sunny Tripower Smart Energy: STP5.0SE, STP6.0SE, STP8.0SE, STP10.0SE	Modbus/TCP	Ethernet RJ45	3.0.0	
	Colour Control GX	Modbus/TCP	Ethernet RJ45	1.32.0	
	Venus GX	Modbus/TCP	Ethernet RJ45	1.32.0	
	Cerbo GX	Modbus/TCP	Ethernet RJ45	1.32.0	
	Multiplus II GX	Modbus/TCP	Ethernet RJ45	1.32.0	
	Power Storage AC	TCP	Ethernet RJ45	1.32.0	
	Power Storage DC	TCP	Ethernet RJ45	1.32.0	PV throttling only possible with external electricity meter
	BT	Modbus/TCP	Ethernet RJ45	1.32.0	

	ET	Modbus/TCP	Ethernet RJ45	1.32.0	
	Gridcon PCS	Modbus/TCP	Ethernet RJ45	1.32.0	Only with Tesvolt storage systems
	SH3.0RS / SH3.6RS / SH4.0RS / SH5.0RS / SH6.0RS	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	1.32.0	
	SH5.0RT / SH6.0RT / SH8.0RT / SH10RT	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	1.32.0	
	SH8.0RS / SH10RS / SH5T-V11 / SH6T-V11 / SH8T-V11 / SH10T-V11 / SH12T-V11 / SH15T-V11 / SH20T-V11 / SH25T-V11	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	>2.0.1	
	Redox flow battery	Modbus/TCP	Ethernet RJ45	1.32.0	
	ENERTRONIC modular storage	Modbus/TCP	Ethernet RJ45	1.32.0	UPS system
	TRANSOTRONIC modular storage	Modbus/TCP	Ethernet RJ45	1.32.0	
	Hoppecke	Modbus/TCP	Ethernet RJ45	2.0.0	Compatible with third-party battery from Hoppecke (lead-acid).
	Industrial storage tank 500	Modbus/TCP	Ethernet RJ45	1.32.0	
	H3	Modbus/RTU	RS485	2.0.0	PV and battery can be added read-only, but not controlling.

	Home 5.8kWh (PRIMO-1-6-5-230)	Modbus/TCP	Ethernet RJ45	2.0.0	External meter is required. Control either independently on mains connection meter or via AMPERIX®. The external control must then be enabled by SAX Support.
	Home 7.7kWh (PRIMO-1-8-5-230)	Modbus/TCP	Ethernet RJ45	2.0.0	
	ASW05kH-T2 ASW06kH-T2 ASW08kH-T2 ASW10kH-T2 ASW12kH-T2 ASW05kH-T2-O ASW06kH-T2-O ASW08kH-T2-O ASW10kH-T2-O ASW12kH-T2-O ASW08kH-T3 ASW10kH-T3 ASW12kH-T3 ASW08kH-T3-O ASW10kH-T3-O ASW12kH-T3-O	Modbus/TCP	RS485	3.0.0	
	X3-Hybrid-5.0-D, 6.0-D, 8.0-D, 10.0-D, 12.0-D, 15.0-D	Modbus/TCP, Modbus/RTU	Ethernet RJ45	3.1 (planned)	

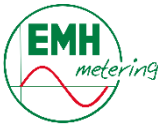
3. Charging stations

Manufacturer	Model	Protocol/s	Communication interface	Firmware	Charging Points (LP)	Charging type		Max. Charge Power per LP	Energy meter			Access control		Remark
						AC	DC		Uncalibrated	MID	ME	RFID	Key	
	P30 c-series	Modbus/TCP, UDP	Ethernet RJ45	1.32.0	1	✓		22 kW	Opt.	Opt.	Opt.	Opt.		
	P30 x-series	Modbus/TCP, UDP	Ethernet RJ45	1.32.0	1	✓		22 kW	Opt.	Opt.	Opt.	Opt.		
	Germany Edition	Modbus/TCP, UDP	Ethernet RJ45	1.32.0	1	✓		11 kW	Opt.	Opt.	Opt.	Opt.		
	Pro	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	1.32.0	1	✓		22 kW		✓		✓	✓	External counter recommended
	Eco 2.0 22 kW	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	1.32.0	1	✓		22 kW				Opt.	✓	
	Amtron Xtra	Modbus/TCP	Ethernet RJ45	1.32.0	1	✓		22 kW		✓		✓	✓	
	Amtron Premium	Modbus/TCP	Ethernet RJ45	1.32.0	1	✓		22 kW		✓		✓	✓	
	Amtron Professional(+) PnC	Modbus/TCP	Ethernet RJ45	1.32.0	1	✓		22 kW		✓		✓		
	Amtron Charge Control	Modbus/TCP	Ethernet RJ45	>2.0.0	1	✓		11 kW AC		✓		✓		
	Belatron Modular T2	Modbus/TCP	Ethernet RJ45	>2.0.0	1-3	✓	✓	22 kW AC / 30-480 kW DC		✓		✓		
	Energy Control	Modbus/RTU	RS485	1.32.0	1	✓		11 kW				Opt.	✓	
	connect.home	Modbus/TCP	Ethernet RJ45	1.32.0	1	✓		11 kW				✓		
														
	ECOLECTRA	Modbus/TCP	Ethernet RJ45	1.32.0	2	✓		22 kW		✓		✓		On request and only with Modbus/TCP-capable baseboard
	basicEvo	Modbus/RTU	RS485	1.32.0	1	✓		11 kW				Opt.	Opt.	
	smartEvo	Modbus/TCP	Ethernet RJ45	1.32.0	1	✓		11 kW		✓		✓		
	Duo WM/PM/BM	Modbus/TCP	Ethernet RJ45	1.32.0	2	✓		22 kW		✓		✓		

	(formerly Advanced)												
	CITO 500	Modbus/TCP	Ethernet RJ45	1.32.0	2	✓	✓	22 kW AC / 50 kW DC		✓		✓	
PRACHT®	Alpha XT	Modbus/RTU	RS485	1.32.0	2	✓		11 kW				Opt.	
HARDY BARTH emobilität	cPμ1	HTTP	Ethernet RJ45	1.32.0	1	✓		13.8 kW					Only controllable via external eCB1 counter
	Cph1	HTTP	Ethernet RJ45	1.32.0	1	✓		22 kW		✓		✓	✓ Internal eCB1 counter available
alpitronic® hypercharger by alpitronic	HYC50	Modbus/TCP	Ethernet RJ45	1.32.0	2		✓	50 kW		✓		✓	
	HYC150	Modbus/TCP	Ethernet RJ45	1.32.0	2	○	✓	150 kW		✓		✓	Optionally with AC interface
	HYC200	Modbus/TCP	Ethernet RJ45	1.32.0	2		✓	200 kW		✓		✓	
	HYC300	Modbus/TCP	Ethernet RJ45	1.32.0	2	○	✓	300 kW		✓		✓	Optionally with AC interface
	HYC400	Modbus/TCP	Ethernet RJ45	1.32.0	2		✓	400 kW		✓		✓	
ABL	eM4	Modbus/TCP	Ethernet RJ45	1.32.0	2	✓		22 kW		✓		✓	
hesotec electrify	eSat r20	Modbus/TCP	Ethernet RJ45	2.0.0	1	✓		11 kW		✓		✓	
	eBox wr30	Modbus/TCP	Ethernet RJ45	2.0.0	1	✓		22 kW		✓		✓	

	EVTAP-11k	Modbus/TCP	Ethernet RJ45	2.0.0	1	✓		11 kW	✓			✓		
	EVTAP-22k	Modbus/TCP	Ethernet RJ45	2.0.0	1	✓		22 kW	✓			✓		
	EVTAP-180K-5M-2C	Modbus/TCP	Ethernet RJ45	2.0.0	2		✓	180 kW	✓					
	X1-EVC-7.2K	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	3.1 (planned)	1			7.2 kW						
	X3-EVC-11K	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	3.1 (planned)	1			11 kW						
	X3-EVC-22K	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	3.1 (planned)	1			22 kW						

4. Electricity meter

Manufacturer	Model	Protocol/s	Communication interface	Firmware	Phases		Measurement type		Remark
					1	3	Direct (I _{max})	Secondary current (I _{max}) with separate converter	
	Base counter	SML	Optical read head via USB	1.32.0	✓	✓			occasional PIN flashing
	eHz	SML	Optical read head via USB or OKK-BKE Gen. F	1.32.0	✓	✓			occasional PIN flashing
	Base counter	SML	Optical read head via USB	1.32.0	✓	✓			occasional PIN flashing
	eHz	SML	Optical read head via USB or OKK-BKE Gen. F	1.32.0	✓	✓			occasional PIN flashing
	Base counter	SML	Optical read head via USB	1.32.0	✓	✓			occasional PIN flashing
	eHz	SML	Optical read head via USB	1.32.0	✓	✓			occasional PIN flashing
	Base counter	SML	Optical read head via USB	1.32.0	✓	✓			occasional PIN flashing
	ET/EM 100 Series	Modbus/RTU	RS485	1.32.0	✓		65 A		
	ET/EM 300 Series	Modbus/RTU	RS485	1.32.0	✓	✓	65 A		
	EM 24 series	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	1.32.0	✓	✓	65 A	5 A	

Janitza®	B21, B23 and B24	Modbus/RTU	RS485	1.32.0	✓	✓	65 A	5 A (only B24)	B21 single-phase only
	UMG 512, 604, 801, 806, 20 CM and 96 RM-EL	Modbus/RTU	RS485	1.32.0	✓	✓	65 A	5 A	
	SDM220	Modbus/RTU	RS485	1.32.0	✓		80 A		
	SDM630	Modbus/RTU	RS485	1.32.0	✓	✓			
	SDM72DM V1	Modbus/RTU	RS485	1.32.0	✓	✓			
	SDM72DM V2	Modbus/RTU	RS485	1.32.0	✓	✓			
	EM 300	Modbus/TCP	Ethernet RJ45	1.32.0	✓	✓			
SIEMENS	Sentron PAC1665	Modbus/TCP	Ethernet RJ45	1.32.0	✓	✓			
	Sentron PAC2200	Modbus/TCP	Ethernet RJ45	1.32.0	✓	✓			
	Sentron PAC3200	Modbus/TCP	Ethernet RJ45	1.32.0	✓	✓			
	Sentron PAC4200	Modbus/TCP	Ethernet RJ45	1.32.0	✓	✓			
	EnergyMeter	Speedwire	Ethernet RJ45	1.32.0	✓	✓	63 A	5 A	
	PM5300 Series	Modbus/TCP	Ethernet RJ45	1.32.0	✓	✓			
	EcoCount S	Modbus/RTU	RS485	1.32.0	✓	✓	85 A	5 A	
	EEM-EM3XX	Modbus/RTU	RS485	1.32.0	✓	✓	80 A		
	EEM-EM3XX	Modbus/TCP	Ethernet RJ45	1.32.0	✓	✓	80 A		

	MMB 700	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	1.32.0	✓	✓			
	eMeter	Modbus/RTU	RS485	1.32.0	✓	✓			
	eCB1	HTTP	Ethernet RJ45	1.32.0	✓	✓			Can also be connected and read out via HTTP via eCB1: B-control Energy Manager, KLEFR 6934 Energy Meter, RCT Power measuring point, Tesla Powerwall measuring point
	Professional II	Modbus/TCP	Ethernet RJ45	1.32.0	✓	✓			
	Diris A-40	Modbus/TCP	Ethernet RJ45	2.0.0	✓	✓			
	Count 3	Modbus/RTU	RS485	2.0.0		✓			

5. Heat and cooling meters

Manufacturer	Model	Protocol/s	Communication interface	Firmware	Remark
	MULTICAL 603	Modbus/TCP	Ethernet RJ45	1.32.0	
	Ultramess 603	Modbus/TCP	Ethernet RJ45	1.32.0	
	Supercal 531	Modbus/TCP	Ethernet RJ45	1.32.0	

6. Compressed air and gas meters

Manufacturer	Model	Protocol/s	Communication interface	Firmware	Remark
 Member of VIV/VIS	BMG 1020	Modbus/TCP, Modbus/RTU	Ethernet RJ45, RS485	1.32.0	

7. Heat pumps

Manufacturer	Model	Protocol/s	Communication interface	Firmware	Remark
		UDP	USB, Digital contacts, Separate KMTronic hardware	1.32.0	On request

8. Heating elements

Manufacturer	Model	Protocol/s	Communication interface	Firmware	Remark
 Empowering the Solar Future	AC THOR	Modbus/TCP	Ethernet RJ45	1.32.0	
	AC THOR 9s	Modbus/TCP	Ethernet RJ45	1.32.0	
	AC ELWA-E	Modbus/TCP	Ethernet RJ45	1.32.0	

9. Fuel cells

Manufacturer	Model	Protocol/s	Communication interface	Firmware	Remark
	BlueGEN BG-15	Modbus/TCP	Ethernet RJ45	1.32.0	
	Fuel cell	Modbus/TCP	Ethernet RJ45	1.32.0	On request

10. CHP

Manufacturer	Model	Protocol/s	Communication interface	Firmware	Remark
	g-box 50plus	Modbus/TCP	Ethernet RJ45	1.32.0	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 switched back to external control mode in order to be able to control the output. Otherwise, the measured values can only be read.

11. Electrolysers

Manufacturer	Model	Protocol/s	Communication interface	Firmware	Remark
	Electrolysers	Modbus/TCP	Ethernet RJ45	1.32.0	On request

12. External specifications

External specifications are those signals that are sent to the system as part of telecontrol technology outside the system.

12.1 Ripple control receiver

The outputs of the ripple control receiver of a local distribution network operator can be connected to the AMPERIX® via digital contacts. The wiring provided by the network operator must be observed. Up to four contacts can be used. The respective power limits per signal combination can be configured as required. Available from firmware 1.32.0.

12.2 Marketer interface

It is possible to incorporate external control signals into the energy management of your system via a partner's marketer interface in order to operate generation systems more profitably. Available from firmware 2.0.0.

12.3 Dynamic electricity tariffs

Manufacturer	Model	Protocol/s	Communication interface	Firmware	Remark
	Monthly	HTTP	Tibber API	2.0.0	
	Hourly	HTTP	Tibber API	2.0.0	Only with SMGW or the additional Pulse hardware from Tibber
	Hourly	HTTP	aWATTar API	2.0.0	
	Hourly	HTTP	EPEX API	3.0.0	Price zone Germany-Luxembourg

