

# ENERGY MANAGEMENT ASSISTANT

Model: EMMA-A02



**Accurate**  
Class 1 measurement accuracy




**Easy**  
Built-in WLAN module for easy commissioning



**Intelligent** Optimization of PV and ESS scheduling based on prediction



**Flexible**  
Management for PV, ESS, Charger and home appliances

 Model: EMMA-A02  
**Technical Specifications**

Technical Specification		EMMA-A02	
<b>General Data</b>			
Dimension(W × H × D)	108 mm × 100 mm × 65 mm		
Mounting type	DIN35 Rail		
Height requirement of cabinet	≥ 47.5 mm		
Weight	0.5 kg		
<b>Power Supply</b>			
AC Voltage	1P2W: 100 ~ 240V, 50 / 60Hz	3P3W: 346 ~ 415V, 50 / 60Hz	3P4W: 346 ~ 415V, 50 / 60Hz
Typical power consumption	4 W		
<b>Interface</b>			
Power output	9.5~13.2V @ 100mA, ≤ 3m		
LAN	10 / 100Mbps, ≤ 100m		
WAN	10 / 100Mbps, ≤ 100m		
WLAN	AP + STA, 802.11b/g/n (2.412GHz ~ 2.484GHz)		
RS485	9600 / 19200 / 115200bps, × 2, ≤ 50m		
Digital input	× 2, ≤ 20 m		
Digital output	× 2, ≤ 20 m		
<b>Interaction</b>			
LED	LED Indicator × 3 RUN, ALM, COM		
Button	RST		
APP	Communication by WLAN for Commissioning		
<b>Measurement Range</b>			
Current range	Direct connection: ≤ 63 A, external CT <sup>1</sup> : > 63 A		
Voltage range	1P (L-N): 85 ~ 299 Vac; 3P (L L): 148 ~ 520 Vac		
Energy accuracy	±1%		
<b>Device Management</b>			
Smart energy controllers	up to 3		
Smart chargers	up to 2		
Heat pump	up to 1 <sup>2</sup>		
Shelly device	up to 20		
<b>Environment</b>			
Operating temperature range	-25 °C ~ +60 °C		
Storage temperature range	-40 °C ~ +85 °C		
Relative humidity range	5% ~ 95% RH (non condensing)		
Max. operating altitude	4000m (derating over 2000m)		
Degree of protection	IP2X		
<b>Compatible Device</b>			
WLAN	SUN2000-2-6KTL-L1 SUN2000-8-10K LCO SUN2000-3-10KTL-M1 SUN2000-12-25KTL-M5 SUN2000-12-25K-MB0		
Smart charger	SCharger-7KS/22KT-S0		
Heat pump	SG-ready		
Shelly device	Shelly Plus Plug S, Shelly Plus 2PM, Shelly Pro 2PM <sup>3</sup>		

\*1 The ESS smart scheduling feature of EMMA is free for two years starting from the initial trial date. We reserve the right to charge for this service after the two-year trial period.

\*2 The secondary current of CTs should be 50 mA, and the length of cable can be up to 30 m.

\*3 Heat Pumps are allowed to directly connect to EMMA-A02. More can be connected via shelly device

\*4 The supported firmware version of shelly devices can be found in user manual.