

ENERGY MANAGEMENT ASSISTANT

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, Heat Pump and
other appliances

EMMA

Technical Specifications

Technical Specification	EMMA-A02
General Data	
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
Power Supply	
AC Voltage	1P2W: 100 ~ 240V, 50 / 60Hz 3P3W: 346 ~ 415V, 50 / 60Hz 3P4W: 346 ~ 415V, 50 / 60Hz
Typical power consumption	4 W
Interface	
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
Interaction	
LED	LED Indicator × 3 RUN, ALM, COM
Button	RST
APP	Communication by WLAN for Commissioning
Measurement Range	
Current range	Direct connection: ≤ 63 A, external CT ¹ : > 63 A
Voltage range	1P (L-N): 85 ~ 299 Vac; 3P (L L): 148 ~ 520 Vac
Energy accuracy	±1%
Device Management	
Smart energy controllers	up to 3
Smart chargers	up to 2
Heat pump	up to 1 ²
Shelly device	up to 20
Environment	
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
Compatible Device	
Smart energy controller	SUN2000-2-6KTL-L1, SUN2000-8-10K LC0, SUN2000-3-10KTL-M1, SUN2000-12-25KTL-M5, SUN2000-12-25K-MB0, SUN5000-8/12K-MAP0, SUN5000-17/25K-MB0
Smart charger	SCharger-7KS/22KT-S0
Heat pump	SG-ready
Shelly device	Shelly Plus Plug S, Shelly Plus 2PM, Shelly Pro 2PM ³
Smart Scheduling ⁴	SUN2000-2-6KTL-L1, SUN2000-8-10K-LC0, SUN2000-3-10KTL-M1, SUN2000-12-25K-MB0, SUN5000-8/12K-MAP0, SUN5000-17/25K-MB0 + LUNA2000-5/10/15-S0 / LUNA2000-7/14/21-S1

*1. The secondary current of an external CT connected shall be 50 mA, and the cable length can be up to 30 m.

*2. A heat pump can be directly connected to EMMA-A02. More appliances can be connected through a Shelly device.

*3. For the Shelly device firmware version supported, please refer to the user manual.

*4. The smart scheduling function of the EMMA is offered free of charge for two years from the trial start date. After this period, we reserve the right to charge for this service.