

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 and home
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	
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 ³

*1 2nd current should be 50mA, length ≤ 30m

*2 1 Heat Pumps are allowed to directly connect to EMMA-A02. More can be connected via shelly device

*3 Firmware version should be: 0.12.99 plugsprod1 or 0.14.4 for Shelly Plus Plug S, 0.10.2 beta4 for Shelly Plus 2PM, 0.10.2 beta 1 or 1.0.3 for Shelly Pro 2PM³