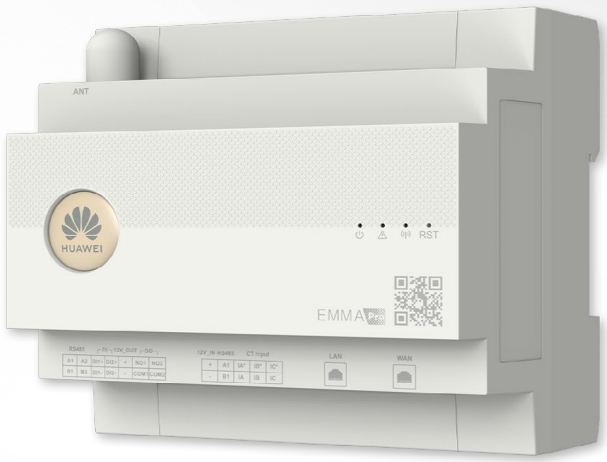
HUAWEI

ENERGY MANAGEMENT ASSISTANT

EMMA-A02



Unified management
One-stop management of inverters, ESS, optimizers, chargers and appliances

More intelligent
Peak shaving, PV preference, feed-in power limitation, and automatic start/stop of diesel generators.

More economical
Automatically connect to Nord Pool, supporting peak-valley price arbitrage and zero-power feed-in during negative price periods.

Open to 3rd parties
Supports Modbus-TCP and third-party VPP integration, enabling FCR-D frequency modulation.

Version No.: 02-202410

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	SUN2000-2/3/3.68/4/4.6/5/6KTL-L1, SUN2000-8/10K-LC0, SUN2000-3/4/5/6/8/10KTL-M1, SUN2000-12/15/17/20/25KTL-M5, SUN2000-12/15/17/20/25K-MB0, SUN2000-5/6/8/10/12K-MAP0, 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]	SUN2000-2/3/3.68/4/4.6/5/6KTL-L1, SUN2000-8/10K-LC0, SUN2000-3/4/5/6/8/10KTL-M1, SUN2000-12/15/17/20/25KTL-M5, SUN2000-12/15/17/20/25K-MB0, SUN2000-5/6/8/10/12K-MAP0, SUN5000-8/12K-MAP0, SUN5000-17/25K-MB0 + LUNA2000-5/10/15-S0 / LUNA2000-7/14/21-S1		
Dynamic tariff	Automatically connect to Nord Pool electricity market and obtain day-ahead dynamic tariff. (Available in Sweden, Denmark, Finland, Norway, Lithuania, Estonia, Latvia, and the Netherlands.)		

*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.

Disclaimer: the preceding values are measured by an internal laboratory of Huawei in a specific environment. The actual values may vary with products, software versions, usage conditions, and environmental factors.