

SmartLogger5000B

Smart Monitor and Data Logger



Product Description

The SmartLogger5000B is a highly integrated device dedicated for centralized monitoring and management of PV/PV+ESS systems in C&I scenario. It implements functions such as access and convergence, protocol conversion, data collection, data storage, centralized monitoring, centralized maintenance, and power control for all devices in PV+ESS systems. In addition, multiple industrial communication protocols are supported to interconnect with third-party systems.

Key Features



Huawei-developed quad-core CPU, improving computing power by 3.5 times



Huawei-developed power operating system, millisecond-level real-time control



Voltage/current/frequency direct sampling



Closed-loop control for zero feed-in within 2s
Closed-loop peak shaving and capacity limit control within 5s



PV+ESS+charger unified monitor



Multiple southbound IoT ports, such as MBUS, RS485, FE, DI, DO, and AI



Intelligent control of active and reactive power, supporting multiple power control policy overlay



APP wizard-based deployment, simplified experience

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Communications ports	
WAN	WAN x 1, 10/100/1000 Mbit/s
LAN	LAN x 1, 10/100/1000 Mbit/s
MBUS	Maximum AC voltage: 1000 V ($\pm 10\%$); maximum communication distance: 500 m
RS485	COM x 3; maximum communication distance: 1000 m
2G/3G/4G	Supported
DI/DO	DI x 4, DO x 2. DI ports can receive passive dry contact signals, and DO ports support a maximum of 12 V signal voltage.
AI/DI	AI x 4 (three channels of current-type input + one channel of voltage-type input). The AI mode can be set to DI mode through software. Current-type: 0–20 mA or 4–20 mA; input precision: less than 10 mA Voltage-type: 0–10 V; input precision: less than 1 V
Electricity measurement	
Voltage measurement	Input: 3 channels; measurement precision: 0.5% Measurement range: L-N: 57.7–277 V (L-L: 100–480 V) (three-phase three-wire or three-phase four-wire)
Current measurement	Input: three channels; measurement range: 5A; measurement precision: 0.5%
Frequency measurement	measurement range: 40Hz–70Hz; measurement precision: ± 0.01 Hz
Software functions	
Scenario	Support only PV and PV+ESS management in grid-connected scenario
Maximum number of connected devices	Only PV: 80*inverters; only Battery: 50*ESS cabinets, 10MWh; PV+Battery: 30*inverters+20*ESS cabinets <i>*Note: SmartModule is required when access more than 1 ESS cabinet</i>
Southbound protocol	Modbus-RTU, Modbus-TCP, and GOOSE
Northbound protocol	Modbus-TCP, IEC 60870-5-104, and GOOSE
Display	
LED	LED x 3 – RUN, ALM, 4G
USB	USB 2.0 x 1
App	WLAN connection, used for commissioning
Environment	
Operating temperature	–40°C to +60°C (–40°F to +140°F)
Storage temperature	–40°C to +70°C (–40°F to +158°F)
Relative humidity (non-condensing)	5%–95%
Maximum altitude	5000 m (16,404 ft.)
Electrical specifications	
AC power supply	Adapter: 100–240 V AC, 50 Hz/60 Hz
DC power supply	12 V/24 V
Power consumption	Typical: 9 W; maximum: 12 W
Mechanical specifications	
Dimensions (W x H x D)	225 mm x 160 mm x 44 mm (excluding mounting ears and antennas)
Weight	2 kg (4.4 lb.)
IP rating	IP20
Installation mode	Wall-mounted, guide rail-mounted, or desk-mounted