

# SmartACU2000D

## Smart Array Controller



With SmartPID2000 Module



Without SmartPID2000 Module



**Smart**

Support one-click commissioning  
Patented anti-PID module



**Simple**

SmartPID2000 & Smartlogger3000B  
pre-installed with multiple interfaces



**Reliable**

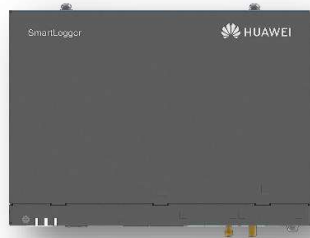
Industrial-level application  
and high reliability

Technical Specifications	SmartACU2000D-D-00	SmartACU2000D-D-02	SmartACU2000D-D-01	SmartACU2000D-D-03
<b>Configuration</b>				
SmartLogger	SmartLogger3000B x 1			
SmartModule1000A	Optional			Standard with SmartModule1000A x 1
RS485	Supported			
Number of MBUS Module <sup>1</sup>	1	2	1	2
Number of SmartPID2000 Module	0	0	1	2
<b>Environment</b>				
Operating Temperature Range	-40°C ~ 60°C (-40°F ~ 140°F)			
Relative Humidity	4% ~ 100%			
Max. Operating Altitude	4,000 m (13,123 ft.)			
<b>Electrical</b>				
AC Input Voltage for Cabinet	100 V ~ 240 V, L / N (L)+ PE			
AC Input Voltage for MBUS	380 V ~ 800 V, 3Ph			
AC Input Voltage for PID	380 V ~ 800 V, 3Ph + FE (Functional Earth)			
AC Input Frequency	50 Hz / 60 Hz			
Power Supply	Standard: 12 V DC, Optional: 24 V DC <sup>2</sup>			
<b>Mechanical</b>				
Cable Entries	Bottom in & out			
Maintenance	Front			
Dimensions (W x H x D)	640 x 770 x 315 mm (25.2 x 30.3 x 12.4 inch)	880 x 770 x 369 mm (34.6 x 30.3 x 14.5 inch)		
Weight	29 kg (63.9 lb.)	32 kg (70.5 lb.)	49 kg (108.0 lb.)	61 kg (134.5 lb.)
Protection Degree	IP65			
Installation Options	Wall Mounting, Rack Mounting, Pole Mounting			

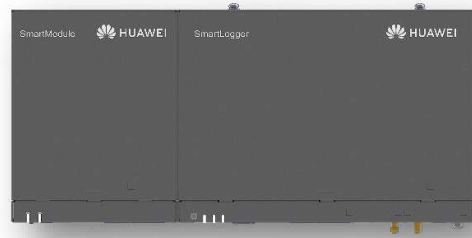
1 - Compatible with communication mode of PLC (Power Line Communication).

2 - 24V DC power supply is optional to power devices that require 24Vdc input and output.

# SmartLogger3000B



Without SmartModule1000A



With SmartModule1000A



## Smart

Connecting up to 150 inverters,  
One-click commissioning



## Simple

Deployment wizard allowed, including  
parameters configuration, devices connection



## Reliable

Safety improvement  
by lightning protection module

Technical Specifications	SmartLogger3000B	SmartLogger3000B with SmartModule1000A
<b>Device Management</b>		
Max. Number of Manageable Devices	200	
Max. Number of Manageable Inverters	150	
<b>Communication Interface</b>		
WAN	WAN x 1, 10 / 100 / 1,000 Mbps	
LAN	LAN x 1, 10 / 100 / 1,000 Mbps	LAN x 3, 10 / 100 / 1,000 Mbps
Optical Ethernet	SFP x 2, 100 / 1,000 Mbps	
MBUS	MBUS x 1, 115.2 kbps, Compatible with PLC	
RS485	COM x 3, 1,200 / 2,400 / 4,800 / 9,600 / 19,200 / 115,200 bps	COM x 6, 1,200 / 2,400 / 4,800 / 9,600 / 19,200 / 115,200 bps
Digital / Analog Input / Output	DI x 4, DO x 2, AI x 4	DI x 8, DO x 2, AI x 7
PT100 / PT1000	0	2
Active DO	12 V, 100 mA (connection with relay, sensor)	
<b>Communication Protocol</b>		
Ethernet	Modbus-TCP, IEC 60870-5-104	
RS485	Modbus-RTU, IEC 60870-5-103 (standard), DL / T645	
<b>Interaction</b>		
LED	LED Indicator x 3 – RUN, ALM, 4G	LED Indicator x 5 – RUN, ALM, 4G (Smartlogger3000B) & RUN, ALM (SmarModule1000A)
WEB	Embedded Web	
USB	USB 2.0 x 1	
APP	Communication by WLAN for commissioning	
<b>Environment</b>		
Operating Temperature Range	-40°C ~ 60°C (-40°F ~ 140°F)	
Storage Temperature Range	-40°C ~ 70°C (-40°F ~ 158°F)	
Relative Humidity (Non-condensing)	5% ~ 95%	
Max. Operating Altitude	4,000 m (13,123 ft.)	
<b>Electrical</b>		
Power Adapter	AC input: 100 V ~ 240 V, 50 Hz / 60 Hz; DC output: 12 V, 2 A	
DC Power Supply	24 V, 0.8 A	
Power Consumption	Typical 9 W, Max. 15 W	Typical 10 W, Max. 18 W
<b>Mechanical</b>		
Dimensions (W x H x D, without mounting ears)	225 x 160 x 44 mm (8.9 x 6.3 x 1.7 inch)	350 x 160 x 44 mm (13.8 x 6.3 x 1.7 inch)
Weight	2 kg (4.4 lb.)	3 kg (6.6 lb.)
Protection Degree	IP20	
Installation Options	Wall Mounting, DIN Rail Mounting, Tabletop Mounting	

# SmartPID2000 Module Inside Smart Array Controller



The SmartPID2000 Module is installed in the SmartACU2000D cabinet to reduce the negative effect of the Potential Induced Degradation (PID), and support 1000 V / 1100 V / 1500 V DC system.



## Smart

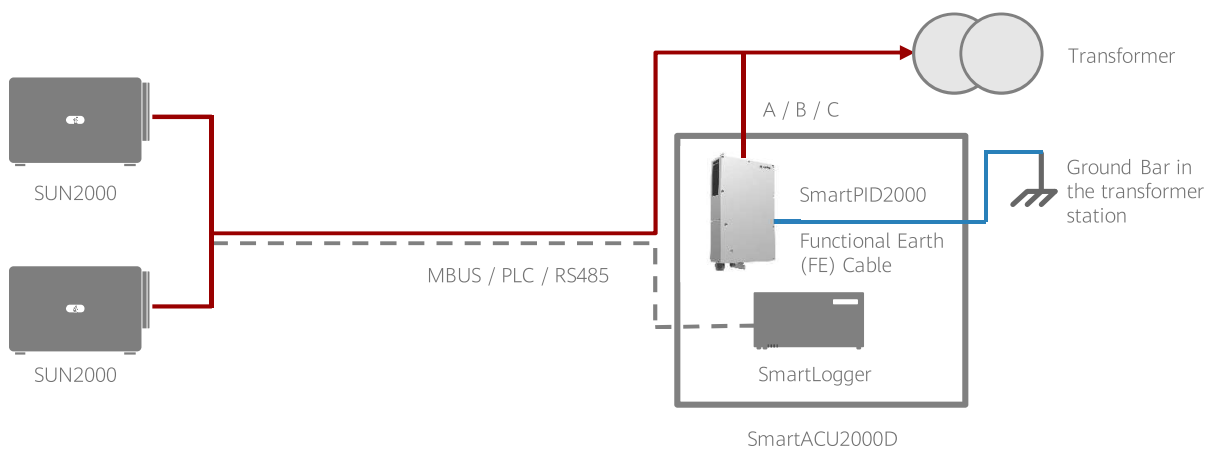
Data read and software upgrade through USB or the embedded Web



## Reliable

Protection degree of IP65

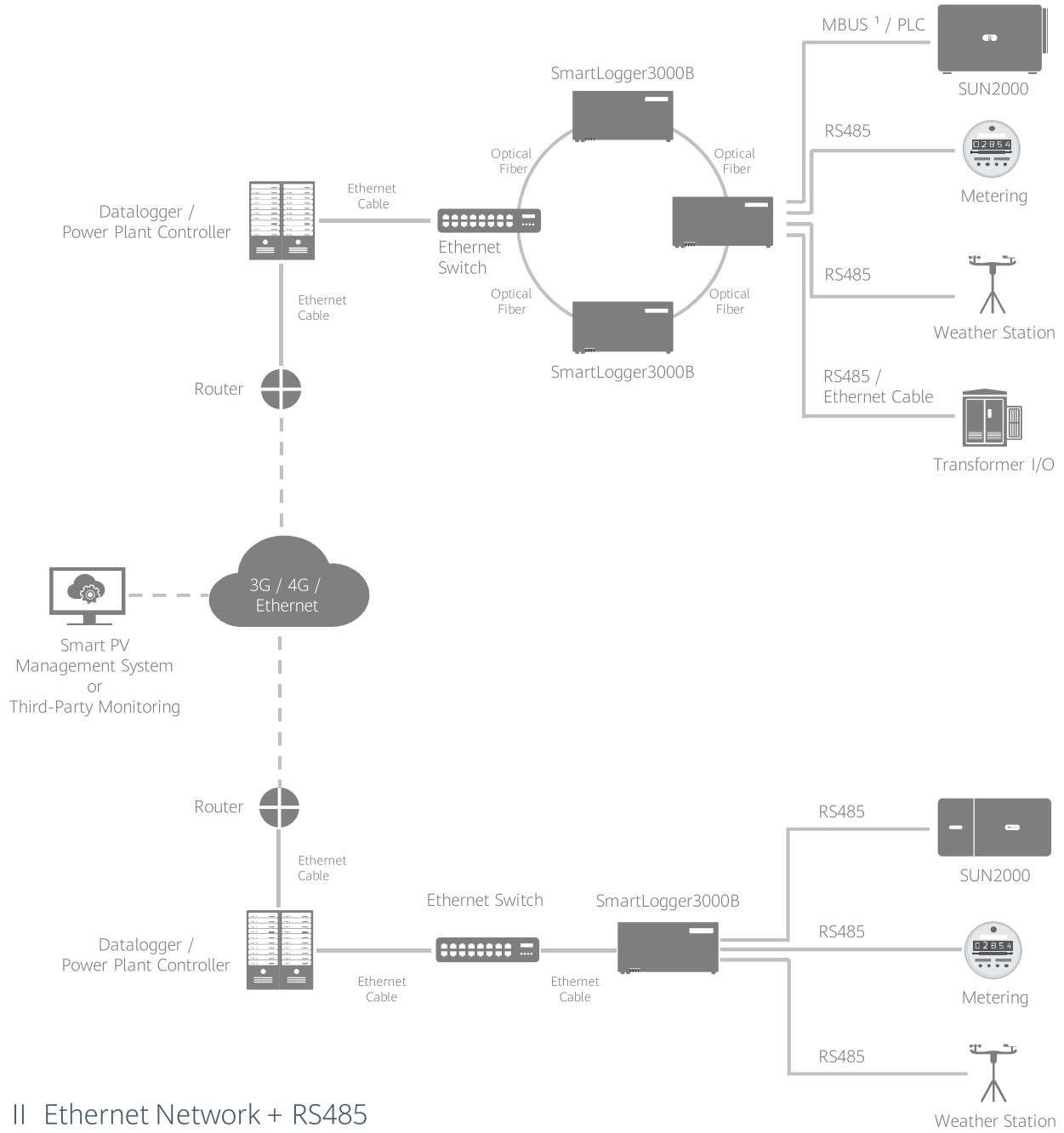
## SmartPID2000 Solution Diagram



Note:  
1 - The Anti-PID solution could ONLY be deployed in utility installations which are normally connected to the medium voltage (MV) grid running WITHOUT neutral line.  
2 - The Anti-PID module must work with Huawei SmartLoggers and Huawei inverters.

# Network Applications

## I Optical Fiber Ring Network + MBUS / PLC



## II Ethernet Network + RS485

1 - Compatible with communication mode of PLC (Power Line Communication).