

InSite Energy Management System

SCU200 DEMOBOX Quick guide



SCU200 DEMOBOX User manual - 9AKK108468A7303



1.BOM

Device	Order code	Quantity
DM11 Digital Module	2CCG000245R0001	1
CMS-102PS 18mm Solid-Core Sensor 20A	2CCA880102R0001	1
DM00 Digital Modul	2CCG000246R0001	1
CMS-122PS 18mm Open-Core Sensor 20A	2CCA880212R0001	2
eOVR Digital SPD	2TAM921100R3401	1
Shunt trip S2C-A2	2CDS200909R0002	1
S201-B6NA Miniature Circuit Breaker - 1+NP - B - 6 A	2CDS251103R0065	3
S2C-S/H6R Signal contact/ auxiliary switch 1CO 5	2CDS200922R0001	2
S2C-H6R Auxiliary contact 1CO	2CDS200912R0001	1
M4M 20 Network analyzer MODBUS	2CSG251141R4051	1
B21 112-100, EQ meter, Modbus RS485, Single-phase, 5 A	2CMA100150R1000	1
F202 A-16/0.01 Residual Current Circuit Breaker	2CSF202101R0160	1
M1173 Socket outlet	2CSM110000R0701	3
SCU200-W	2CCG001157R0001	1
INS-PS-1 Split-core Current Transformer - 20A	2CCG001160R0001	1
INS-WM Wireless M-bus Module	2CCG001171R0001	1
INS-S/H Smart Signal/Auxiliary Contact	2CCG001213R0001	1
INS-E3 Energy meter module	2CCG001159R0001	1
CTS-1-20 Split-core Current Transformer - 20A	2CCG001154R0001	1

2.Communication

The next table relates how each device is communicating with the SCU200-W.

Device	Physical layer	Protocol
DM11/DM00 Digital Modules	InSite bus	Modbus RTU
CMS sensors	InSite bus	Modbus RTU
eOVR Digital SPD	RS485	Modbus RTU
M4M 20 Network analyzer MODBUS	RS485	Modbus RTU
B21 112-100, EQ meter, Modbus RS485, Single-phase, 5 A	RS485	Modbus RTU
INS-S/H Smart Signal/Auxiliary Contact	InSite bus	Modbus RTU

3.Powering the DemoBox

Upon opening the DemoBox, ensure that the RCBO located at the top left is in the open position, indicated by the downward orientation. Subsequently, connect the power cable. Following this step, activate the red switch situated at the bottom right. Confirm proper functionality by observing the illumination of the LED on the red switch. Finally, close the RCBO, directing it upwards. The successful execution of these steps should result in the initiation of all connected devices.

To proceed with the next step, kindly wait for a few minutes until status LED on the SCU200-W is fixed green.

4.Access to the control unit

To access the control unit two options are available:

- establish a connection directly to the Wi-Fi network generated by the SCU200-W. The required credentials can be found on stickers applied to the plastic surface of the case.
 - IP Address to login: https://192.168.2.1:8000
 - Default login credentials:
 - username: admin
 - password: admin
- establish a connection from your laptop to SCU200-W through the Ethernet cable. An RJ45 port is available on the right of the CTS-1-20, directly connected to the control unit.
 - o IP Address to login: https://192.168.1.200:8000
 - Default login credentials:
 - username: admin
 - password: admin

IP address of the laptop must be set accordingly to the selected option.

5.Configuration

Once logged, a Wizard starts to help making a basic configuration of SCU200-W and assigning connected devices.

Modbus ID of B21 (34), M4M (33) and e-OVR (35) are already set in advance with addresses compliant with the Modbus range the control unit requires for Modbus device integration.

SCU200-W has factory firmware onboard, that in some cases is not the latest released. It is strongly recommended to upgrade the control unit to the latest firmware, available for downloading at product webpage, in ABB Library or directly from the WebUI (if the control unit is connected to Internet).

For the commissioning of CMS sensors, DM modules and INS-S/H please refer to the SCU200 User Manual available in both product webpage and ABB Library.

6.Suggested use cases

Once completed the Wizard and the commissioning of the devices we encourage you to play with the WebUI creating widgets and many visuals as you want.

It is recommended to initiate testing by exploring the dashboards and connecting loads to the outlets. Verify the readings to gain a comprehensive understanding of the logic behind the connections and overall functionality. To have assistance you can check the User Manual. You can find further information

7.Turning off the DemoBox

When shutting down the DemoBox, it is imperative to turn off the SCU200-W from the WebUI first: to do so go to

System Setup -> General -> System -> Shut Down

Please note that this process may take a few minutes. For additional details, consult the User Manual.



Once all LEDs on the SCU200-W are extinguished, proceed to open the RCBO at the top left of the DemoBox. Subsequently, switch off the red switch located at the bottom right and, finally, disconnect the power cable. This sequence ensures a proper and safe shutdown procedure.