

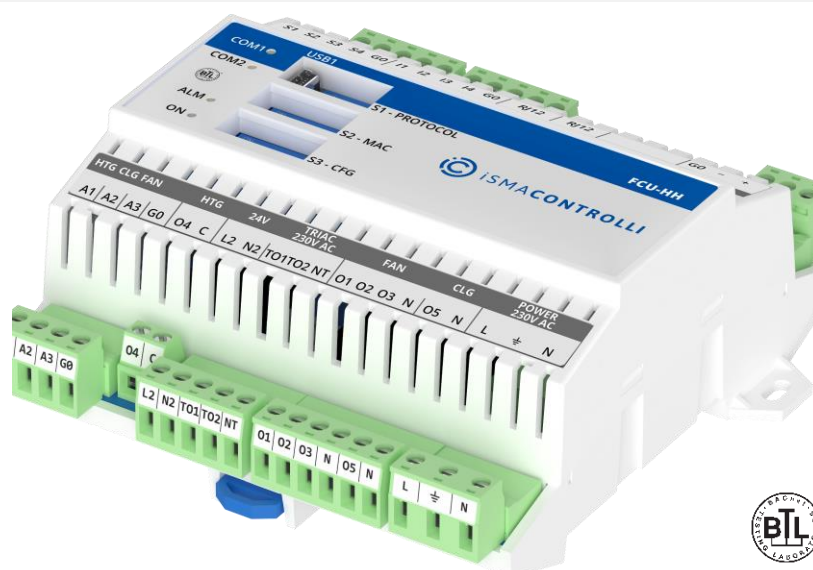
iSMA-B-FCU

The **fully programmable controller iSMA-B-FCU**, is built with the aim of controlling the FCU. The controller is factory-equipped with the two most popular open communication protocols **Modbus RTU/ASCII and BACnet MS/TP**, which are selected using DIP switches.

To minimize time and simplify the commissioning process the controller is delivered with a default application, which supports the most popular types of FCU. A dedicated DIP switch allows for adjusting the parameters of the application. Additionally, in the BACnet protocol, the application has a built-in function that allows automatically to bind Master and Slave controllers in the groups (20 groups on the bus, up to 6 devices in one group). If the default application does not meet the project requirements, it can be modified or created from scratch by the freeware iSMA Tool. Changing the application is possible in real-time by USB. There are three hardware versions with different types of Triac Outputs and power supplies.

Key Features

- Universal default application
- Support 2-pipe or 4-pipe systems
- Application adjustable by dedicated DIP-switch
- Programming in real-time
- Addressing from 0 to 255 by DIP-switch
- Sedona Framework 1.2 support
- iSMA Tool – free of charge programming soft
- Mini USB to manage application (provides power)
- Real-time programming
- Onboard 18 Inputs/Outputs
- Fast processor with ARM core
- Modbus ASCII/RTU or BACnet MS/TP higher-level system connection
- 2x RJ12 (1x RS485) for wall panels connection
- Built-in 24 V AC for an external equipment (version 230 V AC).
- Easy firmware management, backup, and restore with FCU Updater



iSMA-B-FCU

Specification

Inputs

- 4x Special Input - voltage, resistance, dry contact
- 4x Digital Input – dry contact

Outputs

- 3x Digital Output 6 A (Fan Speed)
- 1x Digital Output 10 A (electric heater)
- 1x Digital Output 6 A (cooling actuator)
- 2x Triac 0,5 A @ 230 V AC or 0,5 A/0,3 A* @ 24 V AC (heating and cooling, actuators) with PWM mode.
- 3x Analog Outputs 0-10 V DC (heating, cooling actuators and Fan Speed)

Platform

- ARM Cortex-M4

Power Supply

- 230 V AC or 24 V AC

Communication

- Interface RS485 half-duplex
- Up to 128 devices on the bus
- Protocols: Modbus or BACnet
- Baud rate: 4800 to 115200 bps

Housing

- Dimension: 123,6 x 136,6 x 54,5 mm (4.87 x 5.38 x 2.15 in), 123,6 x 171,2 x 54,9 mm (4.87 x 6.74 x 2.17 in) with plastic cover for terminals
- Construction: plastic, self-extinguishing (PC/ABS)
- DIN rail mounting DIN (DIN EN 50022 norm)
- Cooling: internal air circulation

Environment

- Operating temperature: -10°C to 50°C (14°F to 122°F)
- Storage temperature: -40°C to 85°C (-40°F to 185°F)
- Relative humidity: 5% to 95%, non-condensing
- Ingress Protection Rating: IP40 – for indoor installation

$$* I_{max}=0,3A=I_{T01}+I_{T02}+I_{24V out}$$

Ordering	Power supply 230 V AC	Power supply 24 V AC	Triac 0,5 A 230 V AC	Triac 0,5 A/0,3 A 24 V AC*
iSMA-B-FCU-HH	✓		✓	
iSMA-B-FCU-HL	✓			✓*
iSMA-B-FCU-LL		✓		✓
iSMA-B-TC-7S	Mounting accessory – set of plastic terminal covers			

