

Battery Monitoring System

(Battery monitoring system for larger UPS systems)

BTMS TOUCH DISPLAY MANUAL

(BM-HMI)

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1. BTMS 7" HMI Touch display

Order code: BM-HMI

Highlights & Features

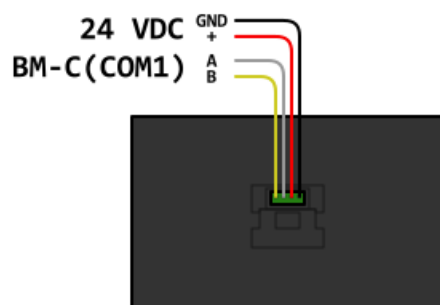


- 7" capacitive touch screen
- Supports up to:
- 32 UPSs (32 BM-C)
- 1024 strings (32 BM-C × 32 BM-SS)
- 122.880 batteries (32 BM-C × 32 BM-SS × 120 BM-CS)

Technical specification

Power supply	24 VDC, 5 W max	
Size	7"	
Resolution	1024 × 600	
Colors	65 k, 16-bit RGB	
Communication	RS 485	
	1200 - 115200 bps	
Dimensions	Width	184 mm
	Height	118 mm
	Depth	15 mm
	Max depth	23 mm

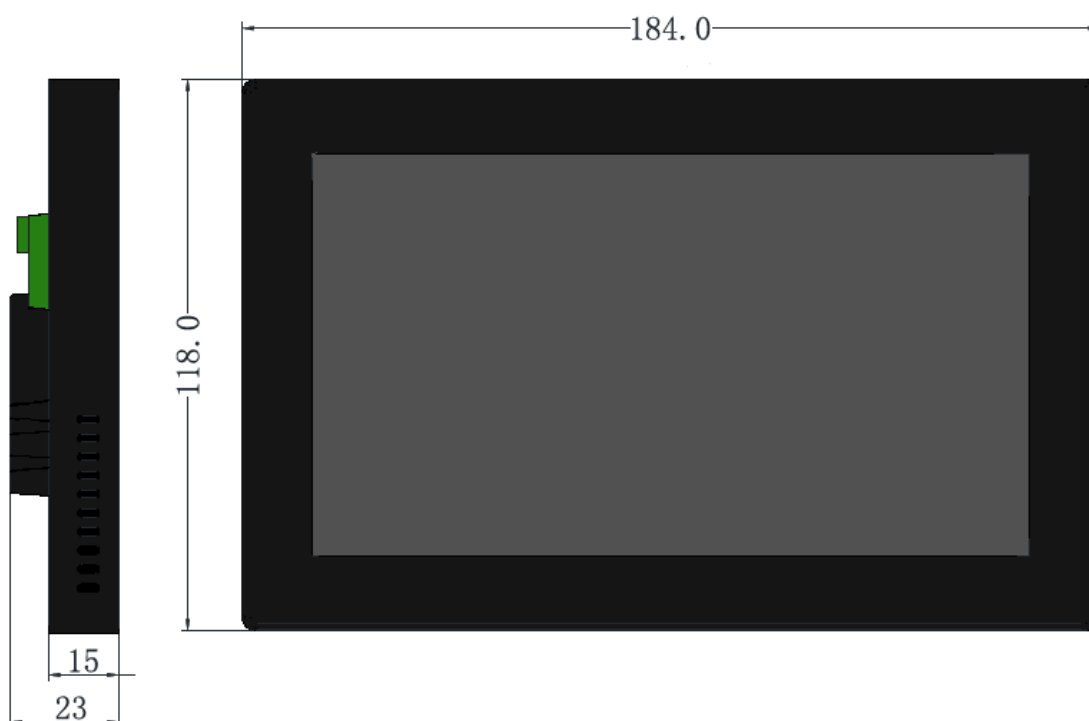
Wiring



Mounting

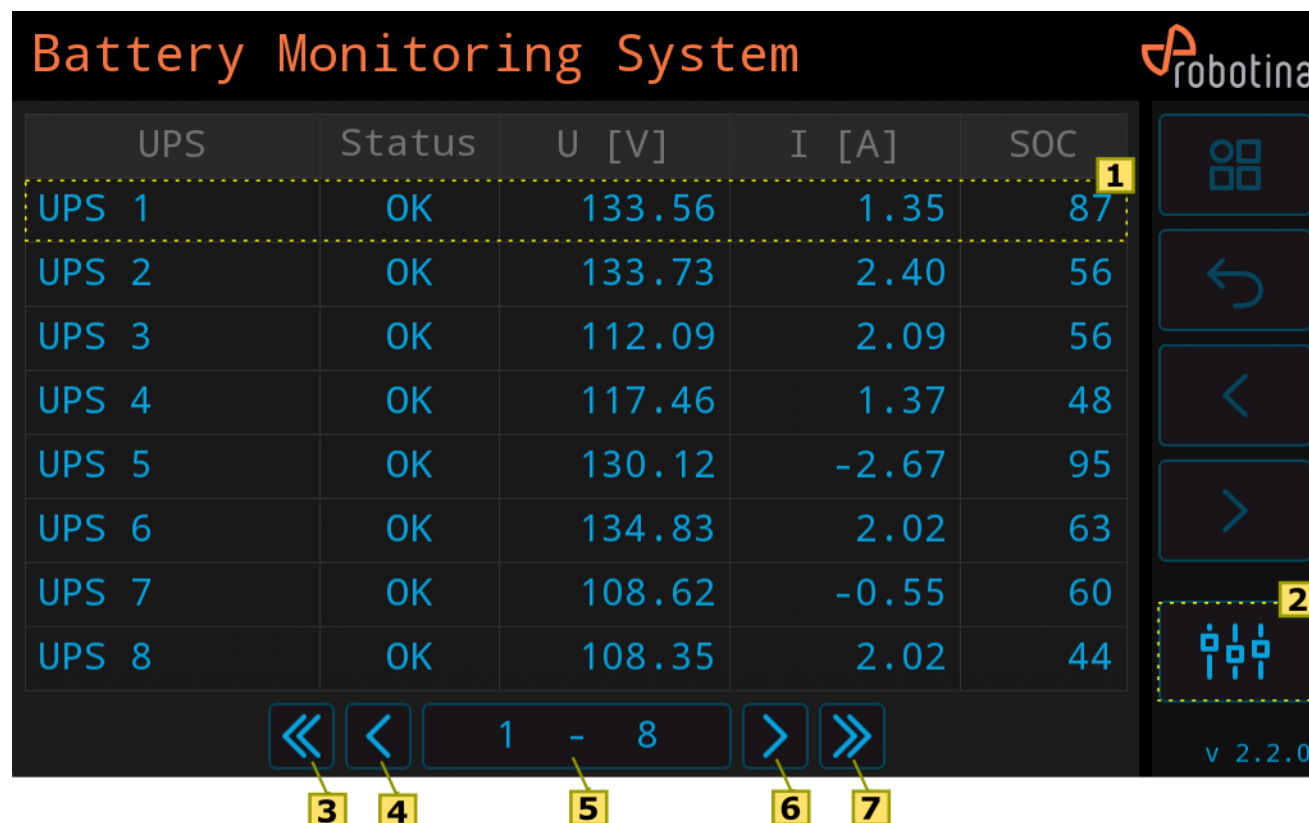
- On the wall
- On the cabinet

Dimensions



2. Touch Panel User Interface

Data center overview

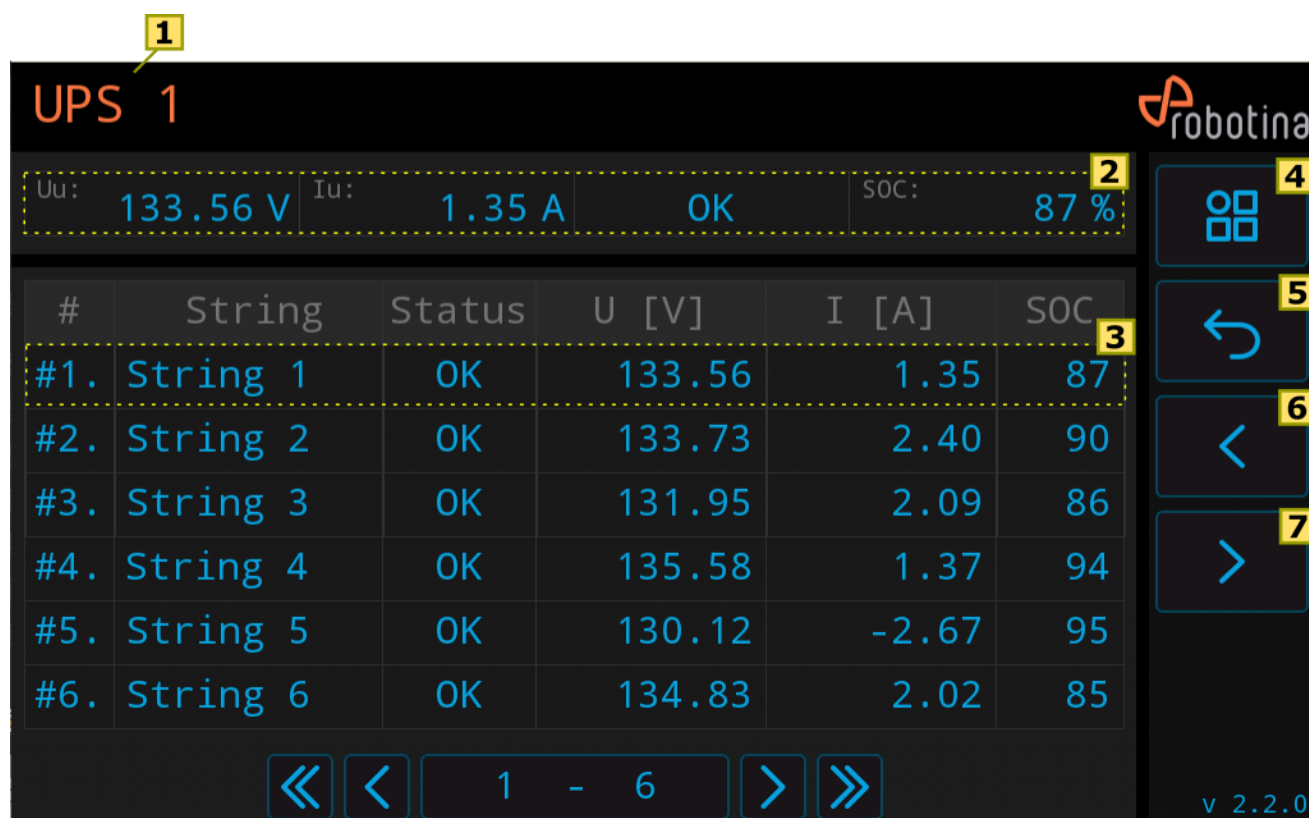


1	UPS status (disabled = dimmed, OK = blue text, error = red border)
	Status: OK, disabled
	U: UPS average voltage [V]
	I: UPS total current [A]
	SOC: UPS average SOC [%]
	Touch → go to UPS overview screen
2	UPS and String settings (Password protected: 3141)
3	To first entry
4	Previous 8 entries
5	Displayed indexes
6	Next 8 entries

7 To last entry

*Buttons 3 to 7 are the same on UPS overview screen and String detailed view screen

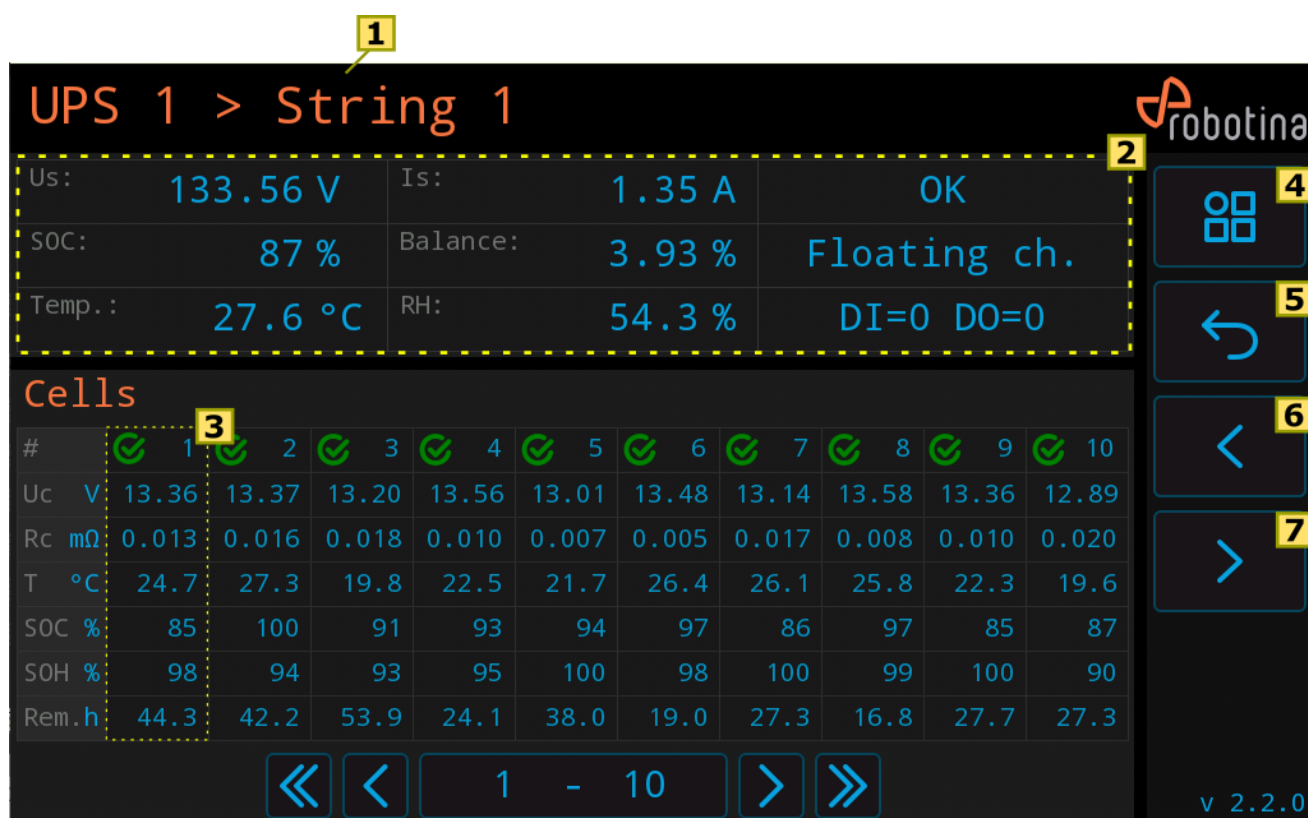
UPS overview



1	Displayed UPS Index
2	Selected UPS data (Uu: UPS voltage [V], Iu: UPS current [A], Status: OK/disabled, SOC [%])
3	String status (disabled = dimmed, OK = blue text, error = red border)
	Status: OK, disabled
	U: String average voltage [V]
	I: String total current [A]
	SOC: String average SOC [%]
	Touch → go to String detailed view

4	Touch → go to Main screen
5	Touch → go to Previous screen
6	Touch → select Previous UPS
7	Touch → select Next UPS

String detailed view



1	Displayed String Index
2	Selected string data
	Us (String voltage) [V]
	Is (String current) [A]
	String status (disabled, OK, error)
	SOC [%]
	Balance [%]

String state (floating charge, equalizing charge, discharge, idle, abnormal)
Temperature (ambient temperature) [°C]
RH (relative ambient humidity) [%]
DI DO: Digital input and Digital output status (0=disabled, 1=enabled)

3	Cell data
	Icon (disabled = gray X + dimmed, OK = green ✓, error = red X) and index
	Uc (cell voltage) [V]
	Rc (cell resistance) [m ohm]
	T (cell temperature) [°C]
	SOC (Cell state of charge) [%]
	SOH (Cell state of health [%])
	Rem.h (remaining cell time in hours)
4	Touch → go to Main screen
5	Touch → go to Previous screen
6	Touch → select Previous String
7	Touch → select Next String

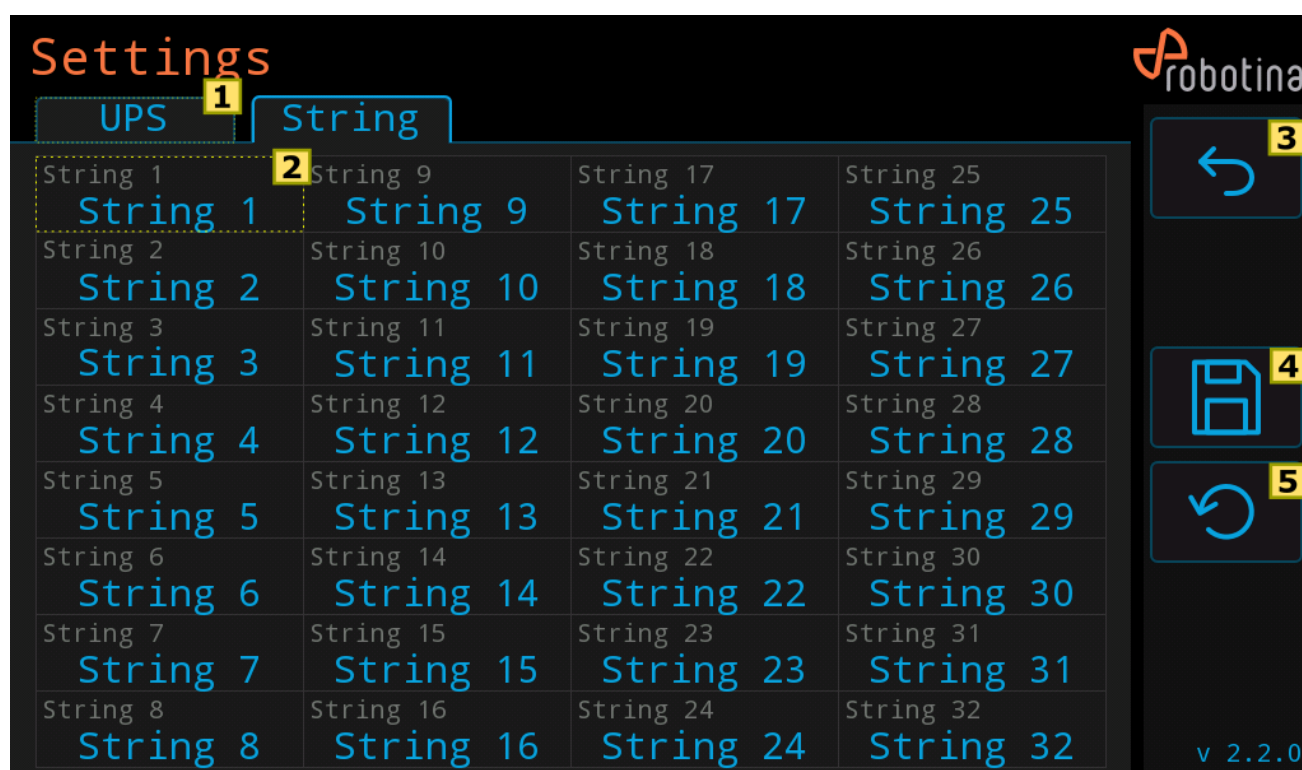
Settings

UPS settings



1	Touch → go to String settings
2	Touch → change UPS default name
3	Touch → go to Previous screen
4	Touch → save settings
5	Touch → revert settings to defaults

String settings



1	Touch → go to UPS settings
2	Touch → change String default name
3	Touch → go to Previous screen
4	Touch → save settings
5	Touch → revert settings to defaults

Alarm indications

Battery Monitoring System

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UPS	Status	U [V]	I [A]	SOC
UPS 1	OK	528.47	77.28	25
UPS 2	OK	540.10	-88.56	79
UPS 3	OK	745.93	-39.97	44
UPS 4	OK	763.68	28.43	83
UPS 5	OK	561.18	-109.91	28
UPS 6	OK	452.90	-83.42	66
UPS 7	OK	554.09	-104.03	83
UPS 8	OK	466.29	198.26	2

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|---|---------------------------------------|
| 1 | Common alarm indicator |
| 2 | Red border → shows where is the alarm |

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