



## УКПБ (ВПТС.426471.200)

Battery parameter monitoring device

### Function

Battery (SB) parameters monitoring and writing to the non-volatile memory:

- Battery charge/discharge current (A)
- Battery voltage (V)
- Battery charge level (Ah)
- Ambient temperature (°C)

Wi-Fi, CAN, GSM data transmission

### Application

- Subway cars
- Electric train cars

### Features

- Battery voltage, temperature and current **registration**
- Current battery charge **calculation**
- Received information **analysis**
- Driver and depot personnel **prompts** regarding the necessary **actions** to maintain the battery in good condition
- **Integration** into the general train **diagnostic system**
- Increasing battery **service life**
- Control of the power source of the battery charge circuit to form the **optimal battery charge profile** depending on the battery condition, discharge level and ambient temperature
- Ability to record digital signals
- The solution has been developed on the rolling stock of Russian Railways
- УКПБ device installation:
  - In the undercar box, directly on the battery
  - The УКПБ fastening and current sensor location are adapted to specific conditions
  - It can be performed in a depot during maintenance or factory repair

## Specifications

### Unit power supply parameters

Version	Supply voltage (DC), V	The voltage measurement stage is connected to the unit supply voltage
-00	50-90	✓
-01	50-90	✓
-02	50-140	✓
-03	50-90	x
-04	11-32	✓
-05	50-140	✓

### Average power consumption in sleep mode (storage mode as part of the battery until commissioning on the rolling stock)

Version	Average power consumption in sleep mode, W
-00	<b>6 max</b>
-01, -02, -03, -04, -05	<b>0.8 max</b>

### Voltage measurement ranges

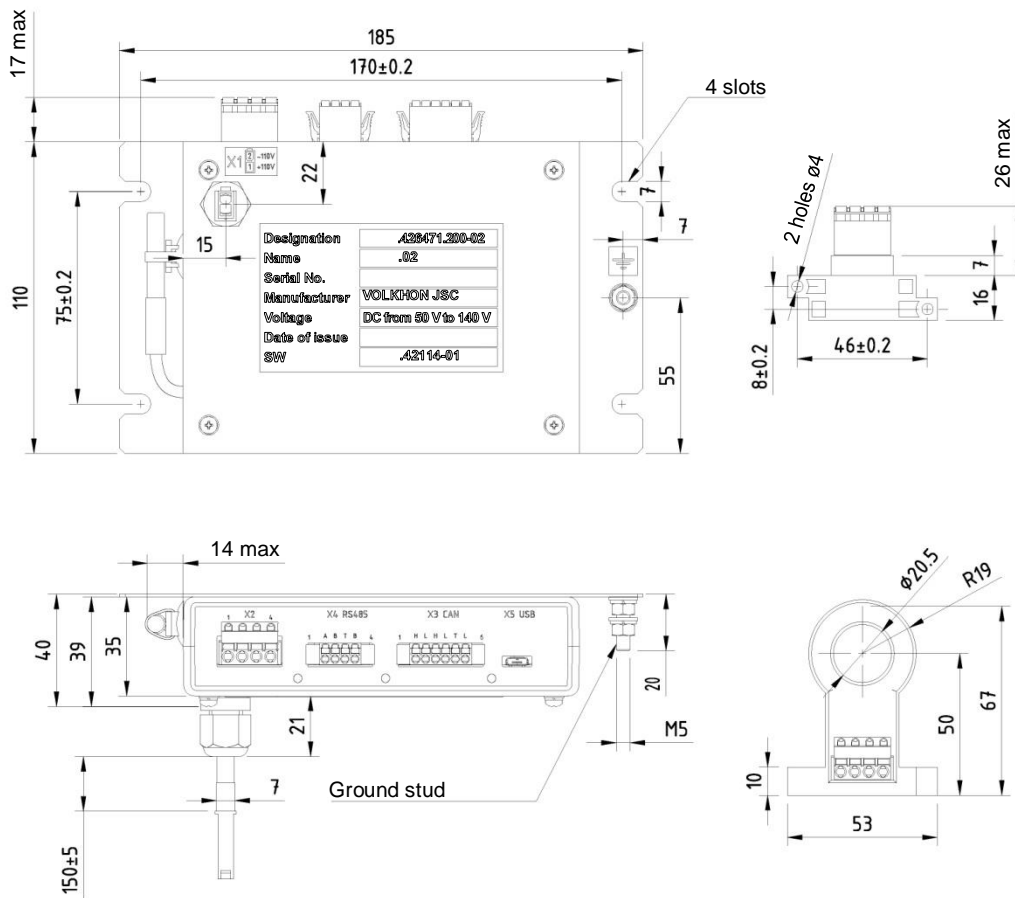
Version	Voltage measurement range, V	Accuracy, V
-00, -01	0-105	±0,5
-02	0-150	±0,7
-03	0-300	±0,7
-04	0-50	±0,25
-05	0-150	±0,7

### Current measurement ranges

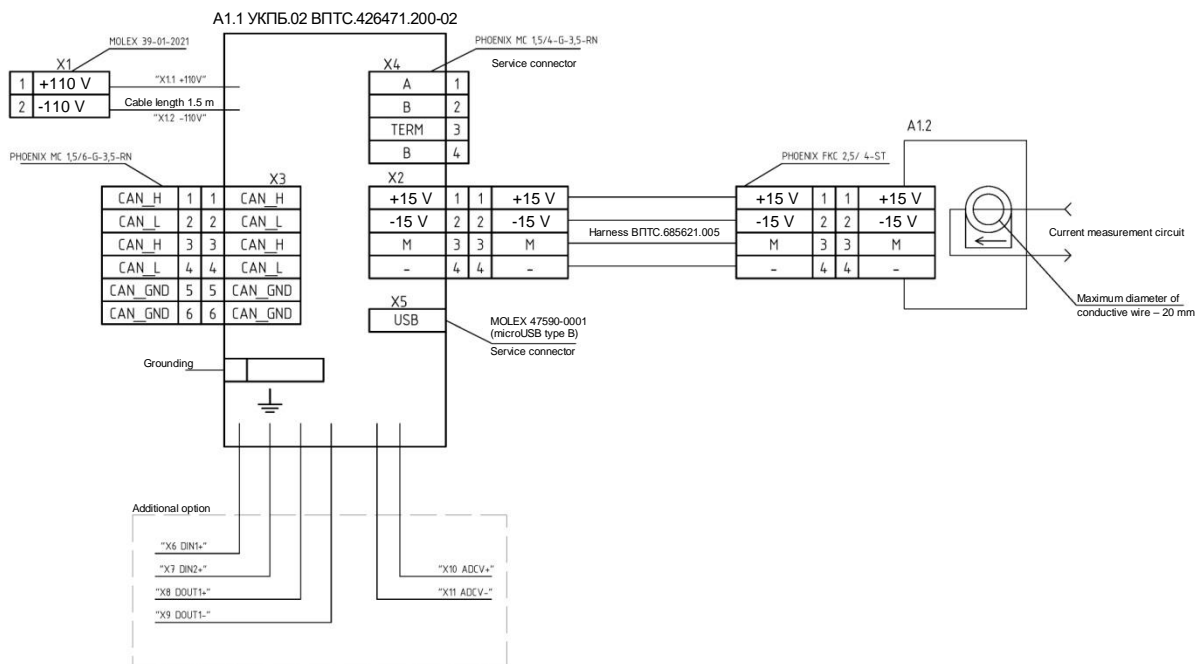
Version	Current measurement range, A	Accuracy, A
-00	-72..+72	±0,5
-01	-100..+100	±0,5
-02	-120..+120	±1
-03	-100..+100	±0,5
-04	-1500..+1500	±7,5
-05	-100..+100	±0,5

Temperature measurement range: from minus 50 °C to plus 60 °C, measurement accuracy ±1 °C. The unit weight is 1.2 kg max.

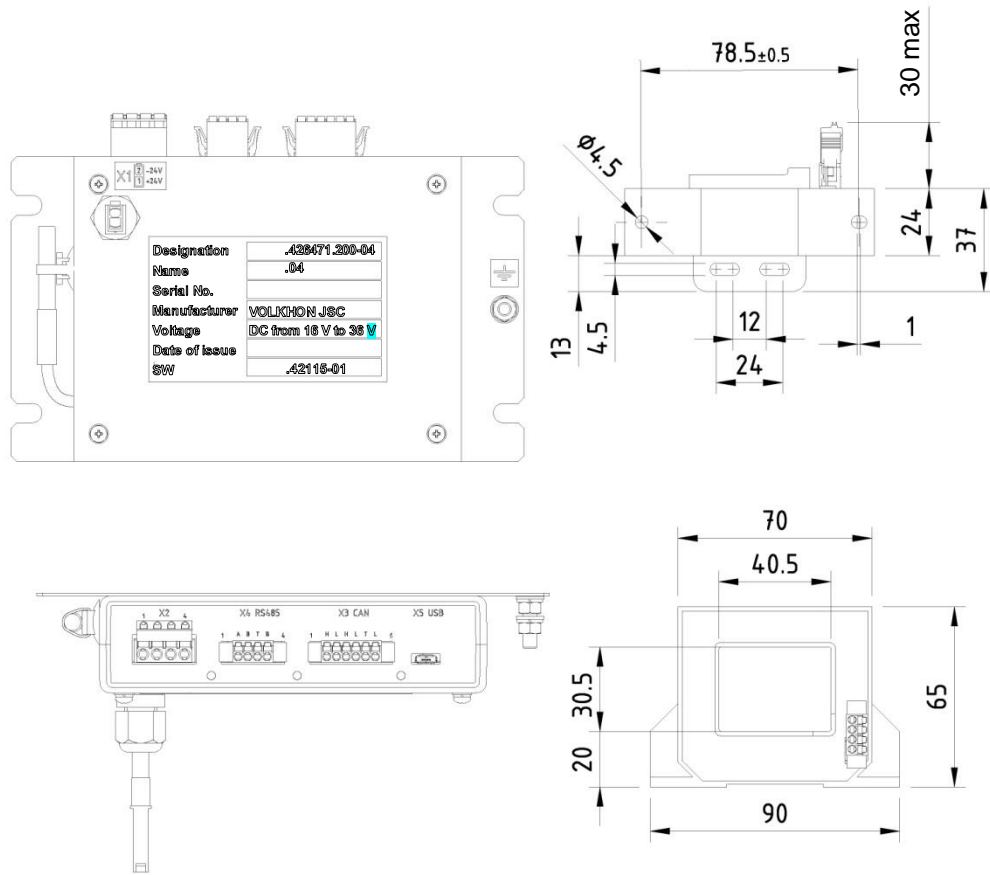
**Outline drawing УКПБ.02 (ВПТС.426471.200-02)**



**Connection diagram УКПБ.02 (ВПТС.426471.200-02)**



**Outline drawing УКПБ.04 (ВПТС.426471.200-04)**



**Connection diagram УКПБ.04 (ВПТС.426471.200-04)**

