

Control system and drives Door control unit





# DCU DPSU (BNTC.426471.100)

# DCU DPSU-RB (BIITC.426471.124)

## Application

Door positioning system units are used in automatic sliding plug outer doors.

## DCU DPSU (BNTC.426471.100):

Doors of multiple-unit cars, Ural Locomotives LLC

### DCU DPSU-RB (ВПТС.426471.124):

Doors type  $\Phi$ KF $\Pi$ 647.10.00.000 together with automatic adjustable foot rest  $\Phi$ KF $\Pi$ 605.30.00.000 on RA3 rail buses of Metrowagonmash JSC

## Function

### DCU DPSU (BПТС.426471.100)

Devices are intended for control:

- Swing doors operation
- Automatic foot rest operation
- Interaction with the transport lift
- Interaction via the CAN interface with the microprocessor control and diagnostic system (MPCDS) of the electric train according to the agreed data exchange protocol

### DCU DPSU-RB (BПTC.426471.124)

Devices are intended for control:

- Door operation when passenger boarding and deplaning on high platforms
- Coordinated operation of the door and the automatic adjustable foot rest for passenger boarding and deplaning on low platforms
- Coordinated operation of the door and lift for wheelchair disabled person boarding/disembarking
- Interaction of doors, steps and lift via CAN lines with the vehicle control unit (VCU) according to the agreed protocol



### Parameters

- Software and hardware overload protection in the motor control stage
- Discrete inputs and outputs with a rated voltage of 24 V and 110 V
- Digital outputs overload protection
- Protection of digital inputs against overvoltages and connections with polarity violation
- Passenger protection against tightening:
  - By motor current value
  - By motor current shape
  - By motor encoder indications
  - By safety edge (digital input) actuation
- It can be supplied with diagnostic software designed for:
  - Display of inputs / outputs status
  - Display of motors operation parameters
  - Manual control bypassing the main algorithm
  - Recording of doors opening/closing traces
  - Firmware updates
- The solution has been developed on the rolling stock

## Specifications

DCU DPSU (BПТС.426471.100)	DCU DPSU-RB (ВПТС.426471.124)
DC supply voltage	
77 to 144 V	
Maximum current (with DC motor control)	
2	0 A
Operating temperature	
-50 °C to +45 °C	-50 °C to +50 °C
Maximum demanded power in the idle mode	
15 W	
Unit weight	
4 kg, max	
Overall dimensions (HxWxD)	
80 x 175 x 369	
Structural design category	
M25	