



# **POWER SUPPLY SYSTEM PS-CBI**

## POWER SUPPLY SYSTEM PS-CBI

Power supply system PS-CBI is implemented for power supply of electric interlocking on railway stations and open lines with autonomous and electric traction of trains. The system provides uninterrupted power supply for electrical (computer-based) interlocking.

Power supply system is located in the premises of the capital buildings and transportable modules.

### Main advantages of PS-CBI:

- ✓ Simple design for each delivery object
- ✓ Modular design of components
- ✓ Computer-based diagnostic system
- ✓ Multi-stage overvoltage and interference protection system
- ✓ Reliability and quick recovery time



### PS-CBI includes the following functional components:

- ✓ Input-switching panel
- ✓ Automatic switching and reserve panel
- ✓ Isolation transformer
- ✓ Power distribution panel
- ✓ Uninterruptible power supply cabinet
- ✓ Battery cabinet
- ✓ Remote power off panel



**POWER SUPPLY SYSTEM PS-CBI****Functions:**

- ✓ connection and power supply from three-phase AC feeders
- ✓ automatic switching from one feeder to another in case of mismatch in the parameters
- ✓ power supply redundancy by means of the uninterruptible power supply cabinet in case of parameter mismatch for both feeders
- ✓ switching on the feeder when the phase voltage increase to the normalized  $U_f$  value
- ✓ two modes of work for switching on feeders with the ability to switch to the mode of dominance of the first feeder and the mode of equivalent feeders
- ✓ manual switching from one feeder to another
- ✓ disconnection of feeders for repair and maintenance
- ✓ overvoltage protection
- ✓ monitoring the status of feeders power
- ✓ monitoring of the power supply circuits
- ✓ signaling of circuit breakers and protection mode
- ✓ measurement of voltage and current



- ✓ measurement of electricity consumption of power supply feeders
- ✓ control of the correct phase rotation of the power supply feeders
- ✓ supply of 24 V DC
- ✓ switching power modes of traffic lights (day/night)
- ✓ power supply redundancy for all types of loads from 2h and more
- ✓ transmission of diagnostic information to the automated workplace via a standard digital interface

**POWER SUPPLY SYSTEM PS-CBI**
**TIME PARAMETRES:**

No	Title	Value
1	Switching time from one feeder to another (in manual mode), max, seconds	0,1
2	Switching time from one feeder to another (in automatic mode) when the voltage in the operating feeder drops, max, seconds	12,1
3	Switching time from one feeder to another (in automatic mode) when the voltage rises, violation of the phase sequence, phase imbalance in the operating feeder, max, seconds	1,1
4	The time when the feeder is ready for operation, after restoring the parameters of the feeder, seconds	100
5	Return time to the first feeder, after restoring the parameters of the first feeder (in the mode of dominance of the first feeder), seconds	120 + time when the feeder is ready for operation
6	Time of fixing the malfunction of the magnetic starters of the first, second feeder, max, seconds	1

**COMPLIANCE WITH THE STANDARDS :**

- ✓ **GOST 34012–2016 – class K1;**
- ✓ **GOST 34012–2016 – class MC1.**

