

REQUIREMENTS

REINFORCED CONCRETE FOUNDATION

Component	Requirement
Metal parts of a reinforced concrete foundation	Provide a reliable connection between fittings. The preferred method is welding, clamping connections are acceptable
Different foundation slabs and piles	Provide a metal connection between the reinforcement of different foundation slabs, between the foundation reinforcement and the pile reinforcement
Foundation and walls of the building	Provide a metal connection between the reinforcement of foundation slabs and the reinforcement of the building walls
Foundations and supporting metal structure of the railway station	Provide a metal connection between the reinforcement of foundation slabs and the supporting metal structure of the railway station
Platform canopy and foundation	Provide a metal connection between the reinforcement of foundation slabs and the platform canopy

DC TRACTION NETWORK 3 KV

Component	Requirement
Stray current	Ensure the values of leakage currents to earth are not more than 2.5 mA/m (average stray current per length of a single track line) by EN 50122-2
Separation of the station and traction network earthing	Eliminate connection between grounding. If necessary, connect via voltage limiting devices

METAL CONSTRUCTIONS

Component	Requirement
Roof of the railway station and roof of the platform	<ol style="list-style-type: none">1. The thickness of the sheets must be at least 0.5 mm for steel and at least 0.65 mm for aluminum.2. The metal roof covering must have a PVC coating of no more than 0.5 mm or a thin layer of paint.3. The structure must provide contact between the sheets due to: reliable connection with the supporting metal structure or reliable connection to each other. It is preferable to use special connectors; it is possible to ensure contact through fasteners
Supporting metal structure of the stations and platforms	Individual metal structures must have a metal connection. It is preferable to use special connectors; it is possible to ensure contact through fasteners

ROOF GLAZING ELEMENTS

Component	Requirement
Glazing frames	<ol style="list-style-type: none">1. The metal thickness of the frames must be at least 0.65 mm;2. Metal contact must be ensured between the individual frame elements; a thin layer of paint between frame parts is acceptable;3. Frames must have a metal connection with the metal supporting structure of the station building; it is preferable to use special connectors; it is possible to ensure contact through fasteners; each frame must have at least four points of connection from different sides to the supporting structure.

COMMUNAL LINES (water, heating, sewerage etc)

Component	Requirement
Lines	1. Connect to the equipotential bonding system at the line entry into the building 2. Specify points for earthing pins for connection to the equipotential bonding system in the building

INTERNAL ENGINEERING SYSTEMS

Component	Requirement
Ventilation, air conditioning, heating constructions, fire systems, storm sewer and similar constructions	1. Specify points for earthing pins 2. Connect to the equipotential bonding system at every level

ELEVATOR EQUIPMENT

Component	Requirement
Elevator metal structures	1. Connect to the equipotential bonding system

EXISTING EARTHING

Component	Requirement
Earthing elements	1. Connect the existing building earthings to the new earthing system

ELECTRICAL EQUIPMENT

Component	Requirement
Potential equalization	1. Specify points for earthing pins; 2. Connect to the equipotential bonding system
Immunity	Provide equipment immunity: - to surge according to IEC 61000-4-5: LPZ0 – 4 kV, LPZ1 – 4 kV, LPZ2 – 2 kV, LPZ3 – 2 kV; - to magnetic field according to IEC 61000-4-9: LPZ0 – 1000 A/m, LPZ1 – 300 A/m, LPZ2 – 100 A/m, LPZ3 – 100 A/m.

ELECTRONIC EQUIPMENT

Component	Requirement
Potential equalization	1. Specify points for earthing pins; 2. Connect to the equipotential bonding system
Immunity	Provide equipment immunity: - to surge according to IEC 61000-4-5: LPZ0 – 4 kV, LPZ1 – 2 kV, LPZ2 – 1 kV, LPZ3 – 1 kV; - to magnetic field according to IEC 61000-4-9: LPZ0 – 1000 A/m, LPZ1 – 300 A/m, LPZ2 – 100 A/m, LPZ3 – 100 A/m.