

### | General description:

SZ50-21U-01 outdoor cabinet designed for installation of power supply system, "front terminal" VRLA batteries and 19" ICT devices .

The main purpose of the cabinet is full protection of the equipment installed inside from the negative effects of environmental factors and intrusion of unauthorized persons.

The other purpose of the cabinet is to maintain in its interior specified thermal conditions suitable for the equipment installed inside.

SZ50-21U-01 cabinet is a product prepared for specific customer requirements. There is a possibility to design the cabinet of a different configuration.

### | Application:

- + telecommunications and teletransmission;
- + IT applications.

### | Features:

- + robust design: excellent protection against corrosion, dust, vandalism and intrusion;
- + double steel walls – air coat forms a natural thermal insulation;
- + different cabinet dimensions can be offered on demand;
- + resistance to harsh climatic conditions;
- + thermodynamic functions of the cabinet:
  - heating during periods of low temperature or high humidity,
  - ventilation during periods of high temperatures or high humidity;
- + integrated intelligent cooling and ventilation systems (climate management): the fan speed is smoothly regulated in the function temperature (as a result: the smaller the amplitude of the internal temperature fluctuations and reduced noise);
- + bracket for installation Krone connectors;
- + double rubber cable glands, 9,5-42mm sealing range, mounted in the floor of the over ground part of cabinet;
- + space for installation of 19" devices, available height is 21U;
- + easy transportation through the use handles (lifting elements in the roof part available after roof removal);
- + the possibility of remote monitoring of cabinets and contained devices;
- + an additional feature reducing the noise level outside of the cabinet in order to respect the local law regulations, while maintaining the maximum permissible temperature inside the cabinet - reducing the fan speed independently during the day and night time;
- + integrated 2kW AC/DC power supply system SDK-40-04 – possibility to install a different system 19" on demand;
- + AC – Power Box with following equipment:
  - connector for single-phase power line with a cross section up to 16 mm<sup>2</sup>,
  - DDS-1Y Single-phase electricity meter accuracy class 1,
  - surge protection
  - power outlets with protections and differential switch.

### | Cabinet design:

Cabinet has a double steel walls and are designed for mounting on a concrete foundation or metal rack adapted to the pedestal.

The bottom of the cabinet is closed by inner shell to protect against water and dust. Cabinet is placed on a pedestal. In order to prevent unauthorized access to the cabinet, all the screws that secure the base side panels are hidden and access to them is possible only when the cabinet door is opened.

Cabinet is equipped with additional space to install a dedicated electrical connection with the power meter.

All the main elements of the cabinet have galvanic connection.

### | Safety and Environmental aspects:

During the system design process following aspects related to environmental protection have been taken into consideration:

- + compliance with the European Union's directive RoHS - restrict the use of certain hazardous substances,
- + compliance with the European Union's directive WEE regarding waste of electrical and electronic equipment,
- + compliance with the European Union's directives LVD and EMC - electrical safety and electromagnetic compatibility.



### Basic parameters of the cabinet:

#### General data:

External dimensions	mm	1585 x 1450 x 500 (W x S x G)
Internal usable dimensions	mm	21U x 390+850 x 450
Height of pedestal	mm	550
Ingress protection	-	IP 54
Lock	-	three-point
Material	-	steel / aluminum
Coating	-	powder paint RAL 7035 anti-graffiti (except door)

#### Ventilation:

The maximum power of heat loss in the cabinet	W	250
Ventilators	-	2
Heater 400W	-	1
Hygrostat	-	1
Noise*	dB	45 (night) 65 (day)
Filtration class	-	G3
Environmental conditions and environmental tests for telecommunications equipment	-	ETSI-EN 300 019-1-4 class 4.1

\* - night - (for power supply controller time between 22.00 - 6.00)  
day - (for power supply controller time between 6.00 - 22.00)  
The noise level is measured in front of the cabinet at a height of 1.5m and in a distance 1m from the cabinet.

### Basic functions of the control unit of SDK 40-04 system:

- + control & display values of:
  - output current,
  - output voltage,
  - battery current (option),
  - battery temperature,
  - ambient temperature (option);
- + temperature compensation of float voltage;
- + current limitation of battery charging;
- + enforcing automatic battery charging mode;
- + signaling of load and battery protections blow-out;
- + battery asymmetry control;
- + creating register of events in control unit's memory;
- + optional control of cut-out battery from the loads – programming cut-out voltage;
- + optional manage of contractor for cut-out not-critical group of loads – programming cut-out voltage;
- + visualization of parameters and actual state of the system on OLED screen;
- + sending out an alarm by the potential-free contact;
- + automatic reporting of alarm states to WinCN supervisory system (option).

### Extended functions of the control unit of SDK 40-04 system:

- + remote computer monitoring of the system by selected Communications medium:
  - Ethernet,
  - PSTN.

### MZK module functions:

MZK climate management module - performs the following functions:

- + measurement and control of temperature inside of the cabinet;
- + control of the door sensor status,
- + control of fan operation,
- + control of heater operation,
- + alarms:
  - door opening,
  - fan alarm,
  - hygrostat alarm,
  - temperature exceed alarm.