CODE: **DSO-PRA** v.1.0/III   **EN**
NAME: **19" RACK cabinet for PRAESENSA DSO system.**

System features

- dimensions of RACK cabinets: 24U(600x600), 36U(600x600), 42U(600x600, 600x800), 45U(600x600, 600x800), 50U (600x800)
- CONFI-DSO PRAESENSA is a program for designers that has been designed with BOSCH to support the DSO configuration
- PSG3LA LED panel for optical and acoustic indication compliant with the PN-EN54-16 standard for evaluating DSO system operation
- LZxx-PRA safety strip with overcurrent fuses, surge arresters and a dummy connector
- single-phase or 3-phase power supply
- 230 V AC LDxxxx voltage distribution terminal
- grounding terminals
- protection Class: IP30
- batteries included
- mounting bracket for batteries
- mounting shelves for each cluster
- enclosure of DSOS24VPU firefighter's microphone – available as an option
- AWO506 End of Line (EOL) Supervision Board – available as an option
- forced cooling - fan unit with a thermostat; optional accessory for 24U, standard for 36U, 42U, 45U, 50U
- warranty for DSO-PRA cabin – 2 years from production date
- warranty for batteries – 1 year from installation date

CONFI® DSO

Parameters of DSO system.

Environmental class PN-EN 12101-10:2007	A
Mains connection 230V/400V	Single phase 230 V AC or 3-phase 3x230 V AC / 400 V AC* [1]
Surge protection	type 3 (D) according to EN 61643-11 standard
RACK cabinets	24U(600x600), 36U(600x600), 42U(600x600, 600x800), 45U (600x600, 600x800), 50U (600x800) [1]
Maximum battery capacity	100..230Ah max. [1]
Battery type	Sealed Lead-Acid (SLA) batteries (AGM, gel)
Status indication	panel for optical and acoustic indication., 60dB/1m; compliant with PN EN54 16 standard [1]
Cooling	convection or forced cooling [1]

[1] Depending on DSO configuration.

General description.

19" DSO-PRA RACK cabinet is designed for installation of PRAESENSA voice alarm system devices by Bosch.

Devices of DSO system are placed in 19" RACK cabinet together with appropriate battery banks.

Power supply from power grid can be supplied to cabinet in form of 1-phase or 3-phase connection, which depends on total power consumed by DSOdevices.

CONFI DSO PRAESENSA program is designed for proper and fast configuration of DSO cabinet; based on implemented design parameters, program selects a complete power supply system taking into account required backup time.

The design and all components of the DSO are based on the RACK 19" cabinet (Protection Class: IP30), containing all components of the system. Depending on the system and the number of devices, the height of the cabinet is adjusted individually. The available dimensions are 24U(600x600) to 50U(600x800).

In order to facilitate the installation of devices, especially those of greater weight such as audio amplifiers, mounting brackets are fitted inside. If a call station (firefighter's microphone) is to be mounted in the rack, a dedicated pull out shelf will be added to facilitate the use of the microphone.

The equipment installed inside the cabinet can be accessed via the glass front doors, removable side walls, and rear doors. In addition, the use of two types of locks, separate for the front and rear doors, restricts unauthorized access. The cabinet can be mounted on a metal base with a height of 100 mm or wheels allowing it to move freely.

The LZxx-PRA safety strip.

Safety strip is fitted with circuit breakers, surge arresters, and a dummy connector.

Main overcurrent circuit breaker disconnects 230 V / 400 V mains from all system devices. In addition to the main switch, it is fitted with „type 3" surge arresters compliant with the EN 61643-11 standard.

Dummy connector includes overcurrent circuit breaker which can be switched on regardless of status of main switch.

LZ1F-PRA

LZ3F-PRA

230 V AC LDxxxx voltage distribution terminal.

Voltage distribution terminal is equipped with 230 V connection sockets and it is used to supply components of DSO. Depending on number of devices and amount of power consumption, terminal can have 1-phase or 3-phase connection. 3-phase version enables more uniform load per phase of power grid. Terminal is placed in back of cabinet

LD1F6G

LD3F9G

PSG3LA panel for optical and acoustic indication.

The optional panel for optical and acoustic indication compliant with the PN-EN54-16 standard indicates the status of the entire DSO system. It is equipped with three LEDs, a sounder, and a reset button of acoustic indication.

The panel can indicate three different operating states
CONTROL	– Normal state, indicating the presence of mains power.
ACOUSTIC INDICATION	– Fire alarm status, acoustic indication ON
FAILURE	– Fire alarm status, acoustic indication ON

The indication panel is fitted with two alarm signal inputs:
- ACOUSTIC INDICATION
- FAILURE

Inputs should be connected to the control panel or other signaling device. For proper signalization, the terminals must be normally (without failure) opened; in the case of failure, they must be closed. A voice alarm signal or failure indication triggers the appropriate optical and acoustic indication. The button on the front panel allows muting the acoustic signal, while the optical signal remains unchanged. Once the failure is cleared, the optical and acoustic indication will automatically be stopped and the green indicator will light up to indicate that the system is operating properly.

RAWP600RZ fan panel.

DSO cabinet is equipped with a ventilation panel located in upper part of housing to force air flow to heat emitting devices. Normally, ventilation panel is mounted in a 36U, 42U, 45U, 50U, and (optionally) 24U cabinet.

Fans are controlled by a nearby bimetallic thermostat that allows setting activation temperature in range 0-60ºC with adjustment knob. Fans are powered from 230 V mains; in case of power loss, they are switched off.
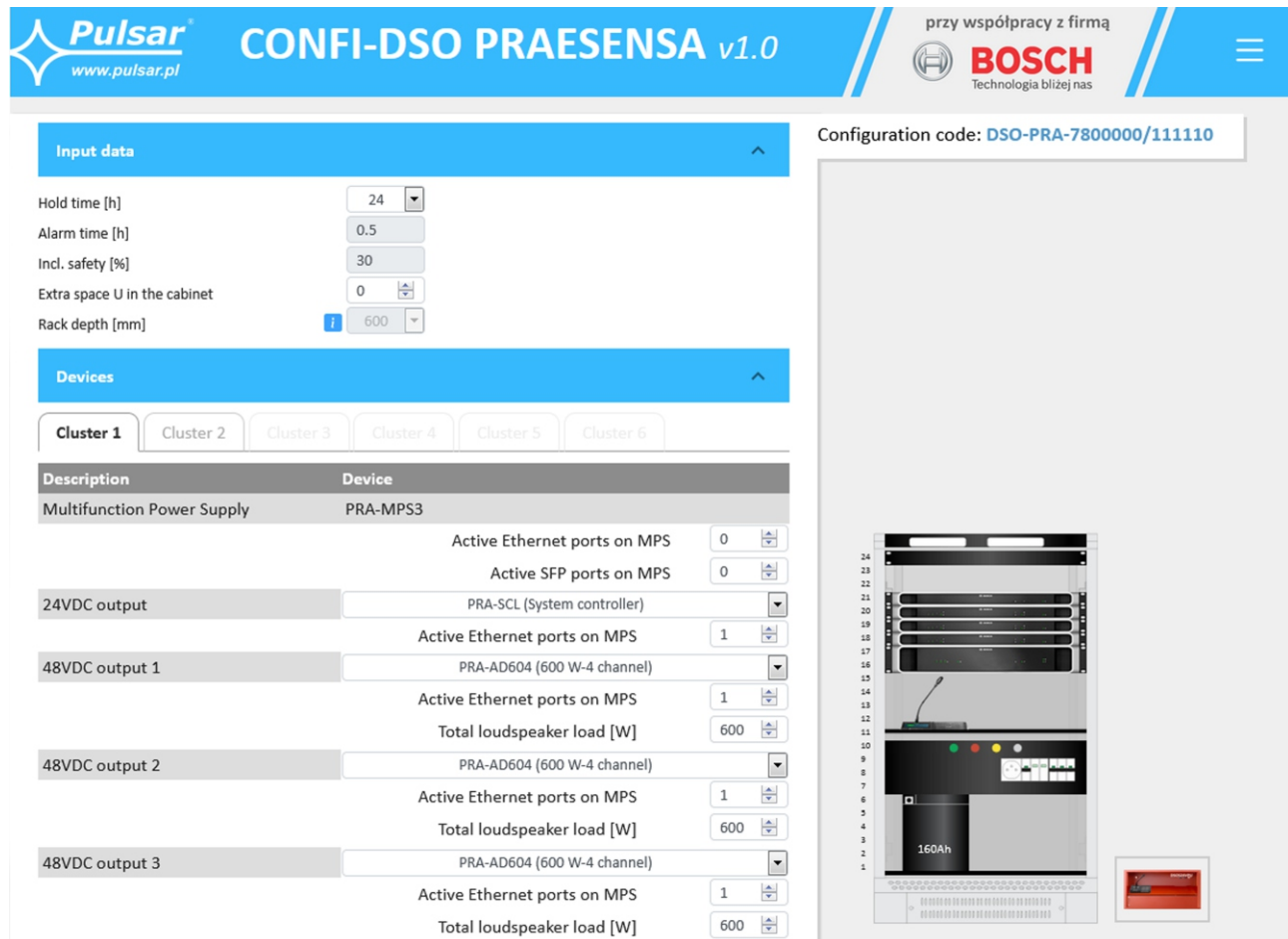
CONFI-DSO program for designers

CONFI-DSO program is designed for proper and fast configuration of CONFI-DSO PRAESENSA cabinet; based on implemented design parameters, program selects a complete power supply system taking into account required backup time.

Programme consists of several separate parts: input data, devices, accessories, results and graphical representation of DSO cabinet.

Devices in cabinet are grouped in so-called clusters. Each cluster consists of MPS3-PRA power supply and its own battery, thus ensuring full autonomy of powered devices.

Start using the program by entering the input data based on the assumed parameters of the designed DSO voice alarm system. These include: required system backup time and additional space in RACK cabinet.

When entering data, CONFI-DSO software performs calculations on basis of which required battery capacity is automatically selected. These effects can be observed both in graphic part and in output data area where technical parameters are additionally displayed.

After completing the system configuration, user is able to print prepared documentation, which they can use later as an appendix to documentation of designed DSO system.