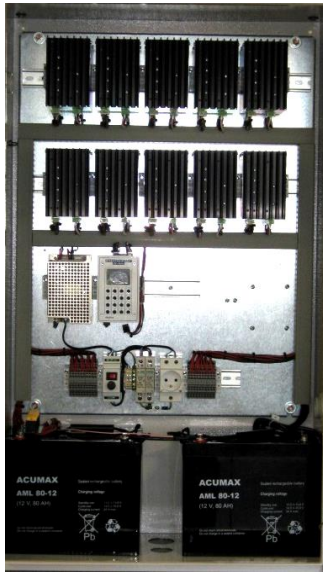
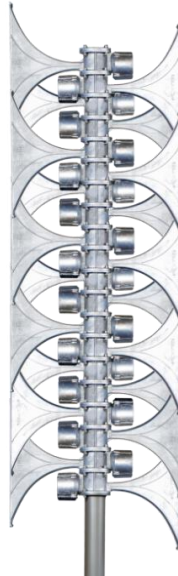


DSE ELECTRONIC SIRENS

Advantages & Functions



Control block with exemplary equipment



Example of mounted horns

DSE ELECTRONIC SIRENS

These modern, high-powered warning sirens are used to warn people of ecological, military, terrorist, catastrophic and other hazards. Electronic sirens are designed to be mounting on the roofs of buildings, posts, masts and inside large industrial facilities.



MAIN FUNCTIONS

- ▶ Warning people and rescue services of a hazard
- ▶ Generating civil defence and fire service alarms
- ▶ Transmitting voice messages about hazards

APPLICATIONS

- ▶ Emergency management centres alarm networks
- ▶ State and voluntary fire service alarm networks
- ▶ Industrial facilities
- ▶ Nuclear power plants
- ▶ Military bases / airports

GENERAL FEATURES

- ▶ Integration of civil defence and fire service systems
- ▶ Management by dispatcher software in two alternatives: WEB or Windows PC desktop application
- ▶ Local control by the local manipulators built in the siren's cabinet
- ▶ Digital communication systems: IP GSM 3G/4G, optional radio VHF/UHF (DMR MotoTrbo® - Motorola solution, FDMA NEXEDGE® - Kenwood solution), optional VSAT
- ▶ Generates any type of sound e.g. bugle calls, ringing bells, chimes
- ▶ Emergency power supply (maintenance-free batteries)
- ▶ API for integration with external IT/PA systems
- ▶ Additional equipment – see: catalogue sheet of DSE series electronic sirens, additional equipment

Available power output from 300 W to 3000 W

Sound Pressure Level from 103dB(A)/30m to 123dB(A)/30m

Horns made of a light aluminium alloy (durability: 30 years)

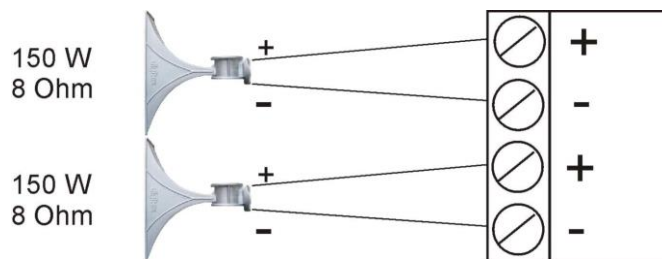
Directional or omni-directional sound coverage

Conforms to CE standards

DSE ELECTRONIC SIRENS MODULES SPECIFICATION

► **AMPLIFIER WSE-300**

Output power 300W. One amplifier operates with two speakres.



Connecting speakers to the amplifier

► **PC-550A CONTROL MODULE**



PC-550A is fitted with illuminated LCD display and a manipulator for local operation of all the siren functions. The controller display shows current information of the siren condition, e.g. type of feeding, battery charging degree, etc. The generator has an alarm control station function which protects the control unit against unauthorized access. The siren central controller is fitted with an extra piezoelectric buzzer.

With the use of the controller, it is possible to access a series of functions performed by the siren:

- Presentation of DSE general status
- Triggering alarms
- Triggering user defined messages
- Switching the audio path on for live voice messaging
- Testing

- ▶ Arming/ disarming the warning control station
- ▶ Checking the siren settings for service needs
- ▶ Controlling warning lamp
- ▶ Anti-burglar protection

The main screen presents actual information of siren's status:

- ▶ Siren ID
- ▶ System time
- ▶ Charging current of the solar panel
- ▶ Result of the last conducted amplifiers test (O – ok / X – error / - – no amp / ? – no data)
- ▶ Battery voltage (separately for each battery)

▶ **SOLAR CONVERTER Steca 10.10F**



The charge controller in a solar system is a device necessary for the proper operation of the entire system. It is a connector between photovoltaic panels and the battery and receivers. This charge controller ensures that parameters such as current and voltage at the output of the solar panel are transformed so that the battery is charged with the appropriate current and voltage. The omission of the regulator in this system would result in a significant reduction of battery life and its complete deterioration. In addition, the regulator ensures that energy transmitted from loads to the battery is used rationally. This means that when the battery is discharged below the safe level, the regulator disconnects the load, thus preventing excessive discharge of the battery and shortening its service life.

CHARACTERISTIC

- ▶ Automatic detection of 12V / 24V voltage
- ▶ PWM charging
- ▶ Protection against deep discharge
- ▶ Automatic switching after disconnection
- ▶ Possible grounding on the clamp
- ▶ Temperature compensation of the charging voltage
- ▶ Monthly service charge
- ▶ Twilight switch

PROTECTION

- ▶ Battery overcharge
- ▶ Deep discharge of the battery
- ▶ Replace poles on each of the inputs / outputs
- ▶ Short-circuit (except battery)
- ▶ Overvoltage at the panel input
- ▶ Before the return current to the panel
- ▶ Overheating and overloading

TECHNICAL SPECIFICATIONS

System voltage	12V (24V)
Own consumption	< 4 mA
Permissible short-circuit voltage of solar panels (V_{oc})	< 47 mV
Maximum input current	10A
End of charging	13,9V (27,8V)
Service charge	14,4V (28,8V)
Switching on after disconnection	>50% / 12,4V ... 12,7V (24,8V ... 25,4V)
Battery disconnection	<30% / 11,2V ... 11,6V (22,4V ... 23,2)
Working temperature	-25°C - +50°C
Terminals size	4 mm ² / 6 mm ² – AWG 12/9
Protection	IP32
Dimensions: length / height / depth	145 x 100 x 30 mm
Weight	150g

► ZSE-24 POWER SUPPLY



The power supply provides energy for charging 2 pcs of 12V batteries connected in series. The module has short-circuit, anti-overload and overvoltage protection. Voltage and battery temperature measurement systems with the used algorithms supervise the optimal parameters of the loading and unloading process. The built-in balancing system balances the voltage of both accumulators (with an accuracy of 0.1 V), which translates into their longer life. The temperature compensation of the charging process affects the maximum voltage level to which the batteries will be charged according to the recommendations of the battery manufacturer. The higher the temperature, the lower the maximum voltage that the batteries will reach and vice versa - the lower the temperature, the higher the battery voltage will be. Additionally, the power supply is signaled by means of LEDs, among others no mains voltage or disconnection of one or both accumulators.

► DIP-14 IP MODULE



The IP/VPN DIP-14 module is responsible for compiling a secure, encrypted communication channel VPN (Virtual Private Network) within the Internet. This mechanism increases the security of the system and simplifies the configuration of network infrastructure.

DIP-14 extends the functionality of the siren to Text-To-Speech. It involves locally generating a voice message from text sent from CS without having to stream the audio stream "live". This ensures a reduction in occupancy of the transmission medium used.

TECHNICAL SPECIFICATIONS

Description	IP / VPN network control module based on dual-core CPU ARM 32-bit, 1GB DDR3 SDRAM, 120GB SSD, OS Linux
Power consumption	24 V DC / 0.17 A DC
Network interfaces	4x Gigabit LAN, 1x Gigabit WAN, 1x WLAN 802.11b/g/n
Serial interfaces	4x RS-232, 1x USB 2.0 HOST, 1x micro-USB 2.0 OTG
A/V interfaces	1x HDMI, 1x 3,5 mm LINE OUT
Power indication	1 LED diode (red)
Failure indication	1 LED diode (green)
Working temperature	-30°C to +70°C
Dimensions and weight	155 mm x 113 mm x 30 mm, 535 g

ELECTRONIC SIRENS – TECHNICAL SPECIFICATIONS

Model	DSE-300S	DSE-600S	DSE-900S	DSE-1200S	DSE-1500S	DSE-1800S	DSE-2400S	DSE-3000S
Output power	300 W	600 W	900 W	1200 W	1500 W	1800 W	2400 W	3000W
SPL bi-directional horns	103 dB(A)/ 30 m	109 dB(A)/ 30 m	112 dB(A)/ 30 m	115 dB(A)/ 30 m	116 dB(A)/ 30m	118 dB(A)/ 30m	121 dB(A)/ 30 m	123 dB(A)/ 30 m
SPL one-directional horns	109 dB(A)/ 30 m	115 dB(A)/ 30 m	118 dB(A)/ 30 m	121 dB(A)/ 30 m	122 dB(A)/ 30m	124 dB(A)/ 30 m	127 dB(A)/ 30 m	129 dB(A)/ 30 m
Number of horns	2	4	6	8	10	12	16	20
Number of amplifiers	1 x 300 W	2 x 300 W	3 x 300 W	4 x 300 W	5 x 300 W	6 x 300 W	8 x 300 W	10x300 W
Basic frequency	dual-tone: 400-430 Hz (frequency range: from 300 Hz up to 5000 Hz)							
Memory for the recordings	2GB up to 16GB							
Main power supply	220 – 240 VAC / 50 – 60 Hz (110 – 250 V / 50 Hz)							
Backup supply – solar panels	100 W – 250 W						Optional: 2 x 100 W – 250 W	
Emergency power supply (maintenance-free batteries)	2 x 12 V 33 Ah up to 80 Ah		2 x 12 V 50 Ah – 120 Ah				Optional: 4 x 12 V 75 Ah – 80 Ah	
Power consumption in stand-by mode (without additional accessories)	max. 3 W							
Battery charging current (depends on installed equipment)	max. 3 A						max. 10 A	
Number of alarms with emergency power supply	7 days + 5 x 6 min alarms							
Time of operation without main power supply (<i>stand-by</i> mode)	up to 30 days in <i>stand-by</i>							

Control options (digital transmission up to 9600 bit/s, preferred)	▶ PC-550 digital control module for DMR (TDMA) and NEXEDGE (FDMA) ▶ IP (LAN/WAN, VPN, WiFi, WiMax, VSAT) ▶ GSM/GPRS/3G/LTE/CDMA ▶ interfaces: USB, RS-232, RS485/422
Control options (analogue transmission up to 1200 bit/s)	▶ Radio VHF/UHF (FSK)
Control options (local)	▶ wall mounted manipulator with microphone ▶ desk manipulator with microphone ▶ clock controller SZS-24 ▶ DMR-150 microphone ▶ digital inputs (up to 15 alarms)
Types of sounds	▶ 64 alarm signals (rerecorded on SD card) ▶ 64 voice messages (rerecorded on SD card) ▶ real-time voice messages from the control centre ▶ Text to speech (not all languages)
Operating temperature	▶ aluminium horns: -30°C to +70°C ▶ control block (IP55 indoor): 0°C to +50°C ▶ control block (IP65 outdoor): -20°C (-30°C as an optional) to +65°C
Dimensions (H x W x D) / Weight	▶ aluminium horns: 610 x 600 x 140 mm/ 8 kg ▶ control block (standard DSE-300S - DSE-1800S): 600 x 600 x 250 mm/ 30 kg without batteries ▶ control block (DSE-2400S and DSE-3000S): 1000 x 600 x 250 mm/ 50 kg without batteries
Control cabinet material	▶ metal housing with powder coating, RAL 7035, 2 locks, IP55/ IP65 for outdoor ▶ anti-burglary internal unit
Horn material	▶ aluminium alloy ▶ optional anti-mosquito protection

