

WARNING AND NOTIFICATION

## Electronic Siren ECN 3000-D



## SYSTEM

| Sound Pressure Level                          | 123 dB (A) / 30 m              |
|---|--------------------------------|
| Fundamental Frequency                         | 415 Hz / 425 Hz                |
| Alarms (Warning Tones)                        | 9 (customized)                 |
| Messages (Pre-recorded Voice)                 | 12 (customized)                |
| Standby Time                                  | up to 7 days                   |
| Battery Capacity during 48h<br>without charge | up to 20 minutes<br>activation |

### SIREN HEAD

| Number of Horns / Drivers        | 20                |
|----------------------------------|-------------------|
| Weight Siren Head in kg          | 152               |
| Head Dimension (W x H x D) in mm | 300 x 3550 x 850  |
| Windload at 160km/h              | 2650 N            |
| Material of Horns                | Aluminium (Alloy) |

## SIREN CABINET

| Number of Class-D Amplifiers         | 10  |
|--------------------------------------|---|
| Operating Voltage / Batteries        | 24 VDC                                    |
| Mains Power Supply                   | 230 VAC or 110 VAC +/- 10%                |
| Maximum Charging Current             | 4 A                                       |
| Solar Power Supply                   | optional / on request                     |
| Local Activation and Control         | Foil Keypad with LCD Display              |
| Live PA Announcement                 | Yes                                       |
| Remote Activation and Control        | Depending Communication<br>Infrastructure |
| Cabinet Dimensions (W x H x D) in mm | 600 x 600 x 350                           |
| Cabinet Design                       | Stainless Steel or Powder Coated          |
| Protection Class                     | IP66                                      |
| Weight incl. Batteries in kg         | 88  |
| Cabinet Ambient Temperature Range    | -25 °C +65 °C                             |
|                                      |   |

Specifications are subject to change without notice.

#### SIREN HEAD

Siren head consisting of self-supporting siren horns in modular construction. Single slit diffraction effect leads to 360° omnidirectional sound propagation.



SIREN CABINET Compact and clearly designed, based on 19" plug-in technology and modular construction. Robust assemblies with long design life guarantee maximum reliability.

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## Sound Propagation by the ECN Siren Horn

## VERTICAL SOUND PROPAGATION

The ECN siren horn is a specific development with exponential increase of the horn's cross sectional surface, to propagate alarms and messages with high sound intensity.

This special horn design assures optimum propagation of the sound wave within the horn, is widely in use, thoroughly tested and has proven the high perception by the public.

## HORIZONTAL SOUND PROPAGATION

The siren horn's omnidirectional propagation of the sound wave in horizontal plane is based on the "Huygens principle".

This physical guideline explains the diffraction of a sound wave at a single slit. Diffraction of sound results in a circular sound wave of omnidirectional characteristic, which leads to 360° sound propagation.

## Propagation of Sound Pressure Level (SPL)



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