Weather Protection – Product Overview

# BUILT FOR CHANGING CONDITIONS

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# BUILT FOR CHANGING CONDITIONS

Selected KV2 loudspeakers are now available with IP55-rated protection, independently certified to IEC 60 529. [1]

## STANDARD REFERENCE

### IEC 60 529 — IP Rating

The IEC 60 529 standard, published by the International Electrotechnical Commission, classifies the degree of protection provided by an enclosure against solid objects and water ingress. The rating is expressed as two digits:

| Digit | Value | Protection | Test method |
|---|---|---|---|
| **First** | **5** | Dust-protected — no harmful deposit of dust; complete prevention of contact with live or moving parts | Per IEC 60 529 |
| **Second** | **5** | Water jet — water projected from a 6.3 mm nozzle at 12.5 l/min from any direction causes no harmful effects | Per IEC 60 529 |

[1] *Certification issued by Strojírenský zkušební ústav, s.p. (SZÚ), Brno — Certificate No. B-00598-26*

# PRODUCTS

## IP55 Certified Models

| Model | Description | IP | WP | MG |
|---|---|---|---|---|
| **ESD Cube** | Ultra-compact 5" passive loudspeaker, aluminium enclosure | **55** | • | • |
| **ESD5** | 2-way compact passive loudspeaker, 5" woofer + 1" driver | **55** | • | • |
| **ESD8** | 2-way full-range passive loudspeaker, 8" woofer + 1" compression driver | **55** | • | • |
| **ESD10** | 2-way full-range passive loudspeaker, 10" woofer + 1.75" compression driver | **55** | • | • |
| **ESD12** | 2-way full-range passive loudspeaker, 12" woofer + 3" compression driver | **55** | • | • |
| **ESD25** | 2-way compact passive loudspeaker, dual 5" woofers | **55** | • | • |
| **ES1.0** | Full-range passive loudspeaker | **45 *** | – | – |

*• = available in this variant. * ES1.0 currently certified to IP45; IP55 certification in progress.*

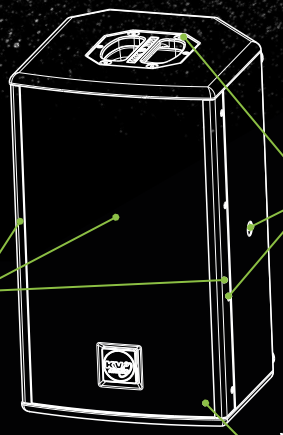
# PROTECTION VARIANTS

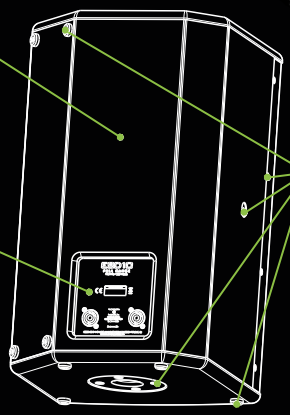
## WP and MG — Two Levels of Weather Protection

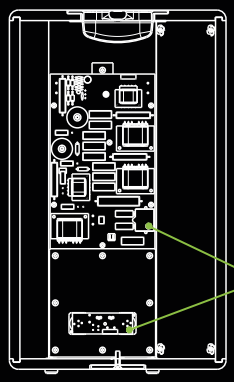
All IP55-certified KV2 loudspeakers are available in two variants. Both variants carry the same IP55 rating. The distinction lies in the grade of metalwork used — not in the IP protection level itself.

| | IP Rating | WP — Weather Proof | MG — Marine Grade |
|---|---|---|---|
| **Metalwork** | **IP55** | KTL (cataphoresis / electrophoretic) treated steel — provides anti-corrosion resistance | Stainless steel grades 1.4301 / 1.4571; fasteners rated A4 for exterior use |
| **Cabinet** | **IP55** | Baltic birch plywood, Polyurea (PCP) hard-coat finish | Baltic birch plywood, Polyurea (PCP) hard-coat finish |
| **Grill** | **IP55** | Acoustically transparent weather-resistant grill cloth | Acoustically transparent weather-resistant grill cloth |
| **Electronics** | **IP55** | PCB conformal coating per IEC 60 529 requirements | PCB conformal coating per IEC 60 529 requirements |
| **Connectors** | **IP55** | Standard SpeakOn — protection maintained by connected mating cable connector | Standard SpeakOn — protection maintained by connected mating cable connector |
| **Recommended environment** | **IP55** | Protected outdoor / semi-exposed | Coastal / Marine / Direct exposure |

# WEATHER PROOF

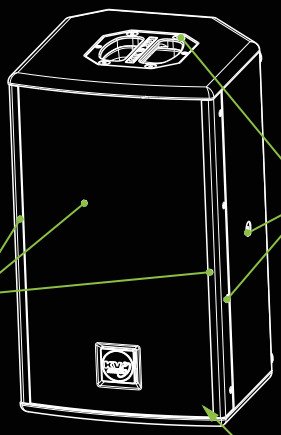


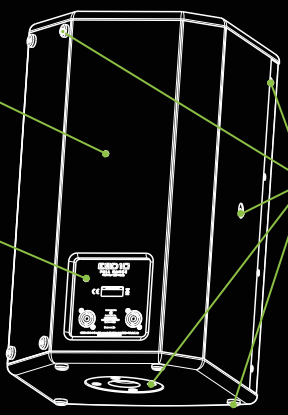



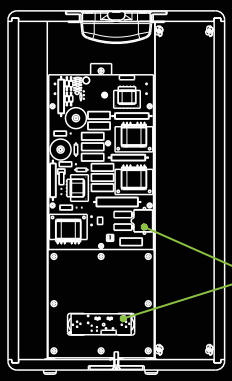




B-B

# MARINE GRADE




D-D

# PRODUCT ENGINEERING

## Standard Protection Features

| Component | Construction | Standard / Notes |
|---|---|---|
| **Cabinet** | Baltic birch plywood with Polyurea (PCP) hard-coat finish — abrasion-resistant, UV-stable, impact-resistant surface. Bonded with single-component PU adhesive and D4 dispersion adhesive (EN 204 D4). | EN 204 D4 |
| **Grill cloth** | Acoustically transparent, liquid-repellent woven fabric (100% polyester) behind the grille — allows full acoustic performance while blocking water and debris from reaching drivers. | UV lightfastness (ISO 105-B02) |
| **Grille mesh (WP)** | Steel mesh with KTL (cataphoresis / electrophoretic) anti-corrosion treatment. | IEC 60 529 |
| **Grille mesh (MG)** | Stainless steel mesh — no additional coating required. | IEC 60 529 |
| **Metalwork (WP)** | Standard steel with KTL (cataphoresis / electrophoretic) treatment — provides anti-corrosion resistance. | IEC 60 529 |
| **Metalwork (MG)** | Stainless steel grades 1.4301 / 1.4571 — brackets, connector panels. Fasteners rated A4 for exterior use. | IEC 60 529 |
| **Electronics** | PCB conformal coating applied per IEC 60 529 requirements — identical treatment on both WP and MG variants. Seals the circuit board against dust and moisture ingress. | IEC 60 529 |
| **Connectors** | Standard SpeakOn connectors — ingress protection maintained by the connected mating cable connector. | IEC 60 529 |

# ATMOSPHERIC CONDITIONS

## Operating Conditions

Loudspeakers are optimised for performance under the following static or variable conditions:

| Parameter | Specification |
|---|---|
| **Operating temperature** | –5 °C / 23 °F to +50 °C / 122 °F |
| **Humidity** | Up to 95% RH |
| **UV resistance** | UV rating for cabinet finish and grill fabric |

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# BUILT FOR CHANGING CONDITIONS

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