# VAISALA

# Road Weather Station RWS200 enclosures

ENC653, ENC652, and ENC722 with radiation shield and cabling box

### Features

- Protects weather station electronics
- Acid-proof against de-icing chemicals (stainless steel AISI 316)
- Available in white color (ENC652 and ENC722) or gray (ENC653)
- Mounting kits for lattice towers and different size of pole masts

Vaisala high-quality weather station enclosures protect weather station electronics from the weather and other damaging elements. Enclosure materials are selected to withstand harsh roadside conditions, where de-icing chemicals constantly try to contaminate the enclosure.

## Robust design

The enclosures are made of stainless steel and the seams are continuously welded for maximum strength and solidity. The enclosures have a backplate to which all electronics are attached.

The door sealing makes the enclosure water proof. Rubber flanges provide cabling access through the bottom of the enclosure.

## Additional shielding

Optional shielding is available for the enclosures. The set contains a cabling box that protects the cabling from vandalism and a radiation shield that protects the enclosure from excessive sunshine.

Like the enclosure itself, the shielding elements are finished with powder coating.

## Easy installation

To ease the installation, the enclosures are delivered with a mounting frame. The mounting frame can be used to install the enclosure on a wall or on the backplate of another enclosure.

Mounting accessories are also available for mounting the enclosure on a thin pole mast, a thick pole mast, or a lattice mast.

The enclosure door has two hinges and a wind lock to keep it open in heavy winds.

## Standard enclosure ENC652

ENC652 is the Vaisala standard enclosure for road weather stations. The enclosure is stainless steel and has IP66 rating. It is glossy white.

## Road-optimized enclosure ENC653

ENC653 is IP65 rated and matte light gray. It is deeper than ENC652 and it has an improved radiation shield.

ENC653 has a 5-point locking system with a swing handle that can be opened with one hand. You can purchase any compatible lock cylinder for the enclosure or order the cylinder from Vaisala.

ENC653 has the following optional accessories:

- Door switch to detect an open enclosure door

- Lights inside the enclosure
- Weather cover to shield you and the electronics inside the enclosure during installation and maintenance work
- Table top for holding your laptop during installation

## Slim enclosure ENC722

ENC722 is designed for places where space is limited. The enclosure offers the same functionality as the larger enclosures except for certain space limitations.
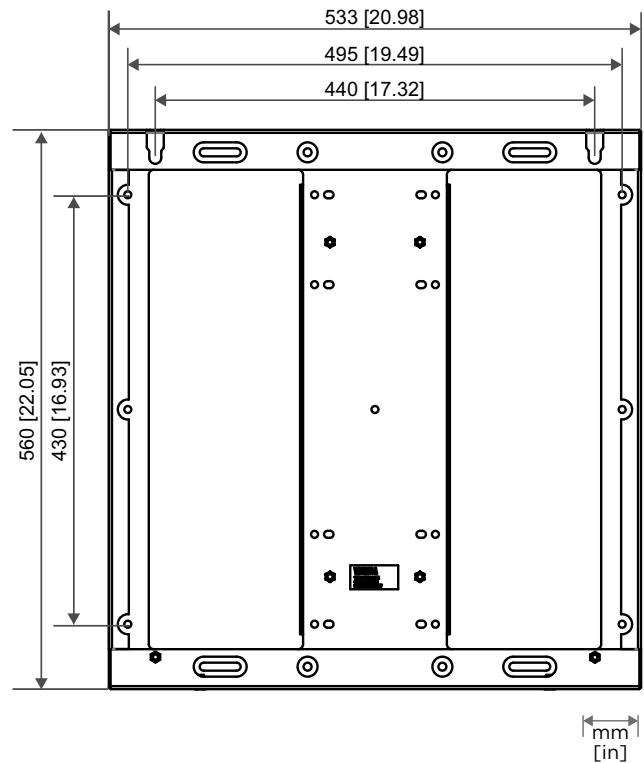
# ENC652 technical data

## ENC652 specifications

| | |
|---|---|
| IP rating | IP66 |
| UL 50E (NEMA) rating | Type 4X |
| Maximum operating wind speed | 75 m/s (168 mph) |
| Maximum door opening angle | 100° |
| **Materials** | |
| Enclosure | Stainless steel AISI 316, painted white (RAL9003, gloss 80) |
| Backplate | Fe/Zn |
| Flanges | Rubber (TPE) |
| Radiation shield | Aluminum EN AW-5754 |
| **Dimensions (H × W × L)** | |
| Enclosure only | 600 × 500 × 207 mm (23.62 × 19.68 × 8.15 in) |
| With radiation shield, mounting frame, and cabling box | 787 × 581 × 270 mm (30.98 × 22.87 × 10.62 in) |
| Backplate only | 555 × 455 × 42 mm (21.85 × 17.91 × 1.65 in) |
| **Weight** | |
| Enclosure only | 14.2 kg (31.3 lb) |
| Lifting weight (enclosure with backplate, without battery) | Approx. 27 kg (59.5 lb) |
| **RWS200 shipping package** | |
| Dimensions | Approx. 91 × 72 × 44 cm (36 × 28 × 17 in) |
| Weight | Approx. 60 kg (132 lb) |

## ENC652 spare parts and accessories

| Spare part or accessory | Order code |
|---|---|
| Enclosure ENC652 with locks and flanges, mounting frame, backplate, radiation shield, and cabling box | ENC652KIT |
| Cabling box | ASM210466SP |
| Radiation shield | ASM210463SP |
| Rubber flange | DRFLANGE10SP |
| Enclosure lock | ASM213869SP |
| Backplate | ASM211817SP |
| Pressure port | 16941DM |
| Enclosure accessories:<br>• Cable ties 2.5×100 mm (20 pcs)<br>• Cable tie holders FTH-13R-01 (5 pcs)<br>• DIN rail end brackets (10 pcs)<br>• Washers with EPDM gasket 6.8/16×1.5/A2/EPDM (4 pcs)<br>• Hex screws M6×16 ISO7380 A4 (2 pcs)<br>• Hex nuts M6 Wulock Fe/Zn (2 pcs)<br>• Torx screws M4×8 ISO14583 TX A4 (10 pcs)<br>• Flat washers A6.4 DIN125 A4 (4 pcs) | BOX652ACC1SP |
| Accessory set including screws and washers | 262928 |
| Enclosure grounding cable, 16 mm$^2$ (5 AWG), 1.4 m (4 ft 7 in) | CBL210759 |
| Table top | ASM213554 |



ENC652 and ENC653 mounting frame dimensions

## ENC652, ENC653, and ENC722 mounting kit options

| Mounting kit | Order code |
|---|---|
| Mounting kit for lattice mast [1] | ASM210998 |
| Mounting kit for 60 mm (2.36 in) pole mast [2] | APPK-SET60 |
| Mounting kit for 75 mm (2.95 in) pole mast [2] | APPK-SET75 |
| Mounting kit for 100 mm (3.94 in) pole mast [2] | APPK-SET100 |
| Mounting kit for 80 … 600 mm (3.15 … 23.62 in) pole mast, excluding stainless steel band and locks [2] [3] | DRUNIV-US |
| Mounting kit for 80 … 600 mm (3.15 … 23.62 in) pole mast, including stainless steel band and locks [2] | DRUNIV |

[1] Installation requires 1 mounting kit.
[2] Installation requires 2 mounting kits.
[3] You can use any suitable stainless steel band and locks for attaching the mounting support to the pole mast, for example, Band-It 19.1 mm (0.75 in) with Ear-Lokt buckles. If you are only doing a few installations, use the DRUNIV mounting kit instead.
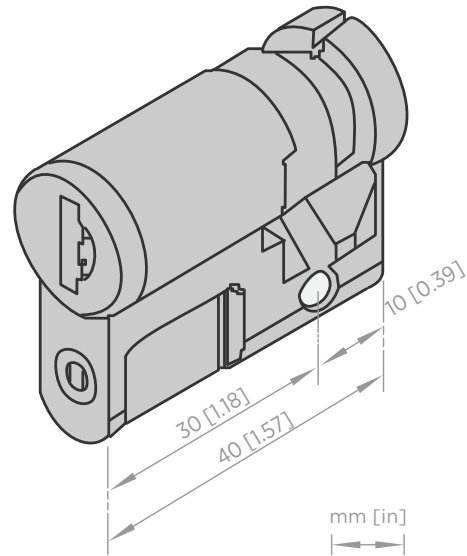
# ENC653 technical data

## ENC653 mechanical specifications

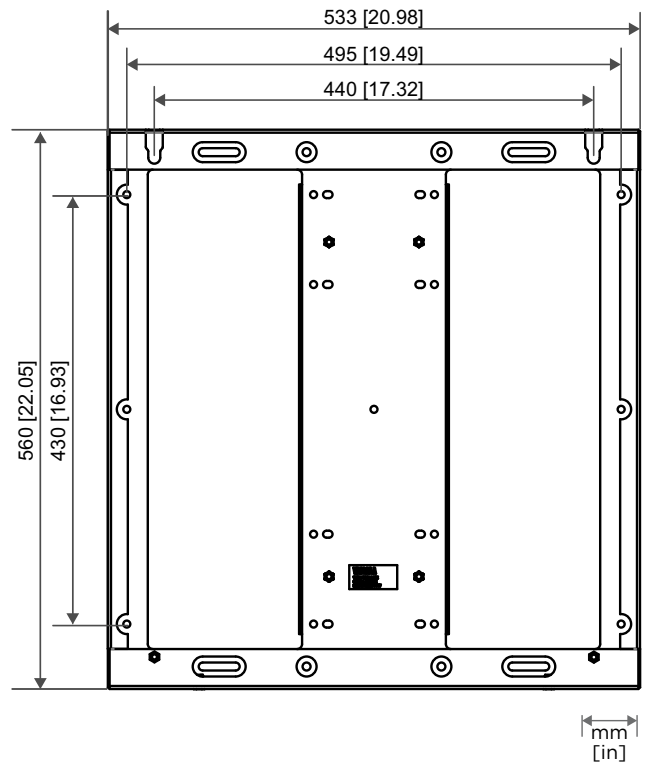| | |
|---|---|
| IP rating | IP65 |
| Maximum door opening angle | 120° |
| **Materials** | |
| Enclosure | Stainless steel AISI 316L, painted gray (RAL7035, gloss 30) |
| Backplate | Fe/Zn |
| Flanges | Rubber (TPE) |
| Radiation shield | Aluminum EN AW-5754 |
| **Dimensions (H × W × L)** | |
| Enclosure only | 600 × 500 × 250 mm (23.62 × 19.69 × 9.84 in) |
| With radiation shield, mounting frame, and cabling box | 796 × 592 × 324 mm (31.34 × 23.31 × 12.76 in) |
| **Weight** | |
| Enclosure only | 14.2 kg (31.3 lb) |
| Lifting weight (enclosure with backplate, without battery) | Approx. 27 kg (59.5 lb) |

## ENC653 spare parts and accessories

| Spare part or accessory | Order code |
|---|---|
| Enclosure ENC653 with flanges, mounting frame, backplate, radiation shield, and cabling box | ENC653KIT |
| Enclosure | ENC653SP |
| Cabling box | ASM215259SP |
| Radiation shield | ASM213010SP |
| Mounting frame | ASM213223SP |
| Rubber flange | DRFLANGE10SP |
| Backplate | ASM211817SP |
| Pressure port | 16941DM |
| Wind lock | 253494SP |
| Door locking system with swing handle | 258058SP |
| Lock cylinder | 277205SP |
| Door switch with mounting bracket, for use with LED light | ASM213613SP |
| Door switch with mounting bracket, for use without LED light | ASM215220SP |
| LED light with wiring | CBL210842+MARKERSP |
| LED fuse, 1 A (10 pcs) | 232177SP |
| Wire assembly between backup battery, DMU703, door switch, and LED light | CBL211326SP |
| Enclosure accessories:<br>• Cable ties 2.5×100 mm (20 pcs)<br>• Cable tie holders FTH-13R-01 (5 pcs)<br>• DIN rail end brackets (10 pcs)<br>• Washers with EPDM gasket 6.8/16×1.5/A2/EPDM (4 pcs)<br>• Hex screws M6×16 ISO7380 A4 (2 pcs)<br>• Hex nuts M6 Wulock Fe/Zn (2 pcs)<br>• Torx screws M4×8 ISO14583 TX A4 (10 pcs)<br>• Flat washers A6.4 DIN125 A4 (4 pcs) | BOX652ACC1SP |
| Accessory set including screws and washers | 262928 |
| Enclosure grounding cable, 16 mm² (5 AWG), 1.4 m (4 ft 7 in) | CBL210759 |
| Weather cover | ASM213363 |
| Table top | ASM213554 |

You can purchase a standard lock cylinder from Vaisala for the lock or use any suitable Euro profile lock cylinder (DIN 18252). Before purchasing your own lock cylinder, check that the cylinder fits inside the locking system.



ENC653 lock cylinder dimensions



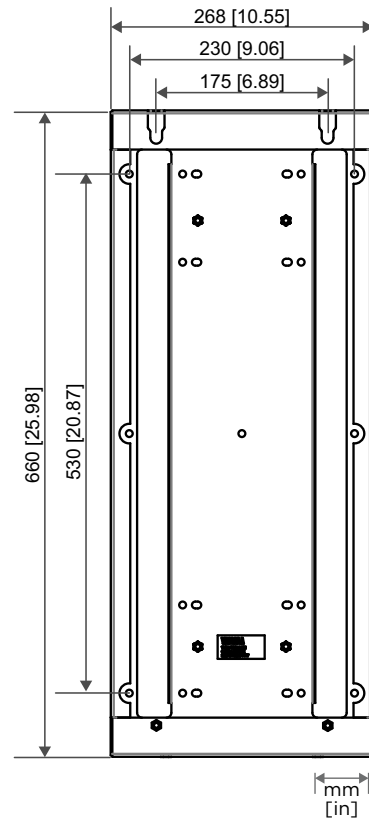ENC652 and ENC653 mounting frame dimensions

# ENC722 technical data

## ENC722 specifications

| | |
|---|---|
| IP rating | IP66 |
| Maximum door opening angle | 100° |
| **Materials** | |
| Enclosure | Stainless steel AISI 316, painted white (RAL9003, gloss 80) |
| Backplate | Steel |
| Radiation shield | Aluminum EN AW-5754 |
| Flange, gaskets | Rubber (TPE) |
| **Dimensions (H × W × D)** | |
| Enclosure only | 700 × 200 × 207 mm (27.55 × 7.87 × 8.14 in) |
| With radiation shield, mounting frame, and cabling box | 887 × 322 × 270 mm (34.92 × 12.67 × 10.62 in) |
| **Weight** | |
| Enclosure only | 9.5 kg (20.9 lb) |
| Lifting weight (enclosure with backplate and battery) | Approx. 19.4 kg (42.8 lb) |
| **RWS200 shipping package** | |
| Dimensions | Approx. 86 × 40 × 34 cm (34 × 16 × 13 in) |
| Weight | Approx. 50 kg (110 lb) |

## ENC722 spare parts and accessories

| Spare part or accessory | Order code |
|---|---|
| Enclosure ENC722 with locks and flanges, mounting frame, backplate, radiation shield, and cabling box | ENC722KIT |
| Cabling box | ASM211127SP |
| Radiation shield | ASM211081SP |
| Rubber flange | DRFLANGE10SP |
| Enclosure lock | ASM213869SP |
| Enclosure accessories:<br>• Cable ties 2.5×100 mm (20 pcs)<br>• Cable tie holders FTH-13R-01 (5 pcs)<br>• DIN rail end brackets (10 pcs)<br>• Washers with EPDM gasket 6.8/16×1.5/A2/EPDM (4 pcs)<br>• Hex screws M6×16 ISO7380 A4 (2 pcs)<br>• Hex nuts M6 Wulock Fe/Zn (2 pcs)<br>• Torx screws M4×8 ISO14583 TX A4 (10 pcs)<br>• Flat washers A6.4 DIN125 A4 (4 pcs) | BOX652ACC1SP |
| Accessory set including screws and washers | 262928 |
| Enclosure grounding cable, 16 mm² (5 AWG), 1.4 m (4 ft 7 in) | CBL210759 |



268 [10.55]
230 [9.06]
175 [6.89]
660 [25.98]
530 [20.87]
mm [in]

ENC722 mounting frame dimensions