

Rittal – The System.

Faster – better – everywhere.

Toptec shore power

Outdoor solutions for
reliable energy supply to ships



ENCLOSURES

POWER DISTRIBUTION

CLIMATE CONTROL

IT INFRASTRUCTURE

SOFTWARE & SERVICES



FRIEDHELM LOH GROUP

Toptec shore power housing



Double-walled outdoor enclosure, fully preassembled with 400 mm high plinth and rain canopy projecting on all sides.

The side panels, rear panel, roof and door are doubled over the entire outside surface.

The enclosure frame with 25 mm system punching in the roof and base frames and in the vertical profiles with two mounting levels is fully available for interior installation.

Material:

- Enclosure frame: Stainless steel 1.4301 (AISI 304)
- Panels and base/plinth trims: Aluminium AlMg₃

Surface finish:

- Powder-coated with UV-resistant pure polyester

Colour:

- RAL 7035 light grey

Impact protection in accordance with IEC 62 262:

- IK 10

Description:

Enclosure frame:

- Stable symmetrical extrusion frame, consisting of rolled hollow profiles with a 25 mm DIN pitch pattern of holes
- All profile edges are rounded
- Horizontal profiles with additional gutter above the seal
- Vertical profiles with two pairs of mounting angles for space-saving interior installation
- Bayable on all sides

Enclosure panels:

- Interior panels and exterior panels are separate from each other, and can be installed separately
- Side panels and rear panel can be removed only after dismantling the roof (theft protection)
- The rear panel can optionally be replaced with a door

Roof:

- Roof plate supplied with fitted eyebolts can be replaced with the enclosed roof mounting screws after the housing has been installed.
- The roof plate can be dismantled only when the door is open (theft protection)

Base/plinth:

- Base/plinth height 400 mm
- Base/plinth trims can be dismantled only when the door is open (theft protection)
- Front base/plinth trim with a 446 x 316 mm cut-out (for 600 mm wide enclosure) or 646 x 316 mm cut-out (for 800 mm wide enclosure) for feeding through shore power connection cables with plugs, sealed at the rear
- Base/plinth closed at the top as partition for the enclosure
- Front base/plinth with 450 x 200 mm cut-out (for 600 mm wide enclosure) or 650 x 200 mm cut-out (for 800 mm wide enclosure) for feeding through shore power connection cables with plugs, covered with brush strips
- Rear base/plinth with 498 x 113 mm cut-out for cable entry, covered with a closed gland plate, interchangeable with size 4 gland plates (see page 7)

Door:

- Door with 4-point fastener and Dirak swing lever handle with integrated ABUS C83N profile half-cylinder with BJ20027 lock – the profile half-cylinder can be replaced on-site
- Door with door stay fitted at the top
- Door with sturdy, screwed-on hinges

Earthing:

- All panels with paint-free earthing points

Interior installation:

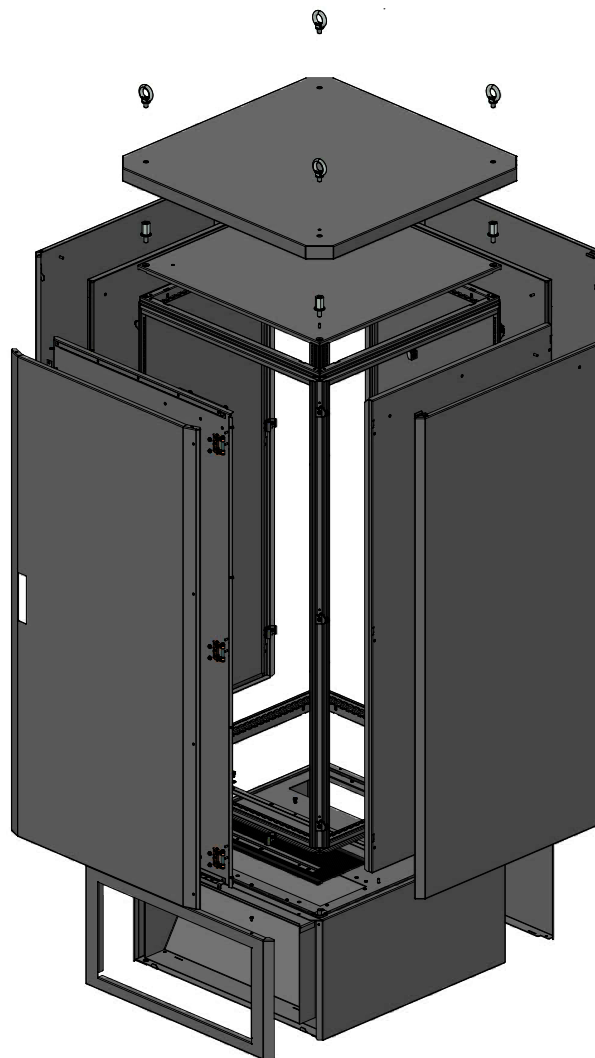
- Individual installation with addition of the Rittal accessories range, e.g. punched section with mounting flange, mounting rails, mounting plates, 19" mounting angles or with wiring systems from third-party companies
- Punched section with mounting flange, mounting rails example: The 25 mm DIN pitch pattern and the two mounting levels of the enclosure frame allow punched section with mounting flange and mounting rails to be mounted at almost any point in the housing
- Mounting plates example: Mounting plates, partial mounting plates and partitions can be mounted at the rear, on the side or at any desired depth in the housing using punched section with mounting flange
- 19" mounting levels example: 19" profiles, 19" mounting frames or 19" swing frames can be mounted in the housing in the 25 mm depth pitch pattern – even with a second mounting level
- Wiring systems example: All known wiring systems from third-party companies can be integrated into the housing
- Rittal power distribution components and climate-control components are matched to the Toptec housing system.

Toptec shore power housing

Technical information

Preferred dimensions nominal width mm	600, 800
Preferred dimensions nominal height without base/plinth mm	1200, 1400, 1600, 1800
Preferred dimensions nominal height with base/plinth mm	1600, 1800, 2000, 2200
Preferred dimensions nominal depth mm	600, 800
Base/plinth height mm	400
External width mm	Nominal width + 50
External height with base/plinth	Nominal height with base/plinth + 45
External depth mm	Nominal depth 50
Internal clearance width mm	Nominal width - 88
Internal clearance height mm	Nominal height without base/plinth - 88
Internal clearance depth mm	Nominal depth - 88
Rain canopy width mm	Nominal width + 94
Rain canopy height mm	45
Rain canopy depth mm	Nominal depth + 94

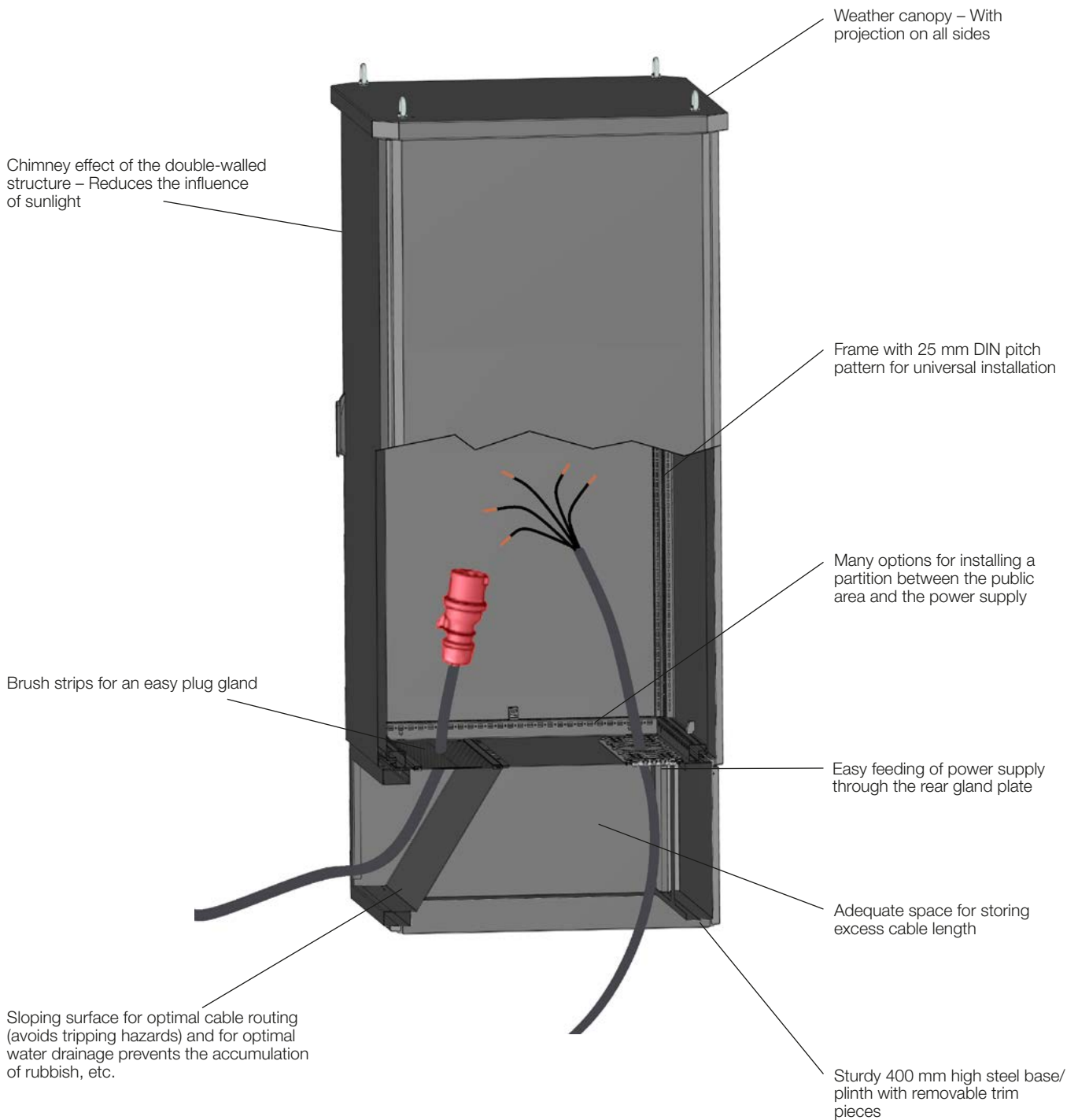
Other sizes available on request.



Toptec shore power housing

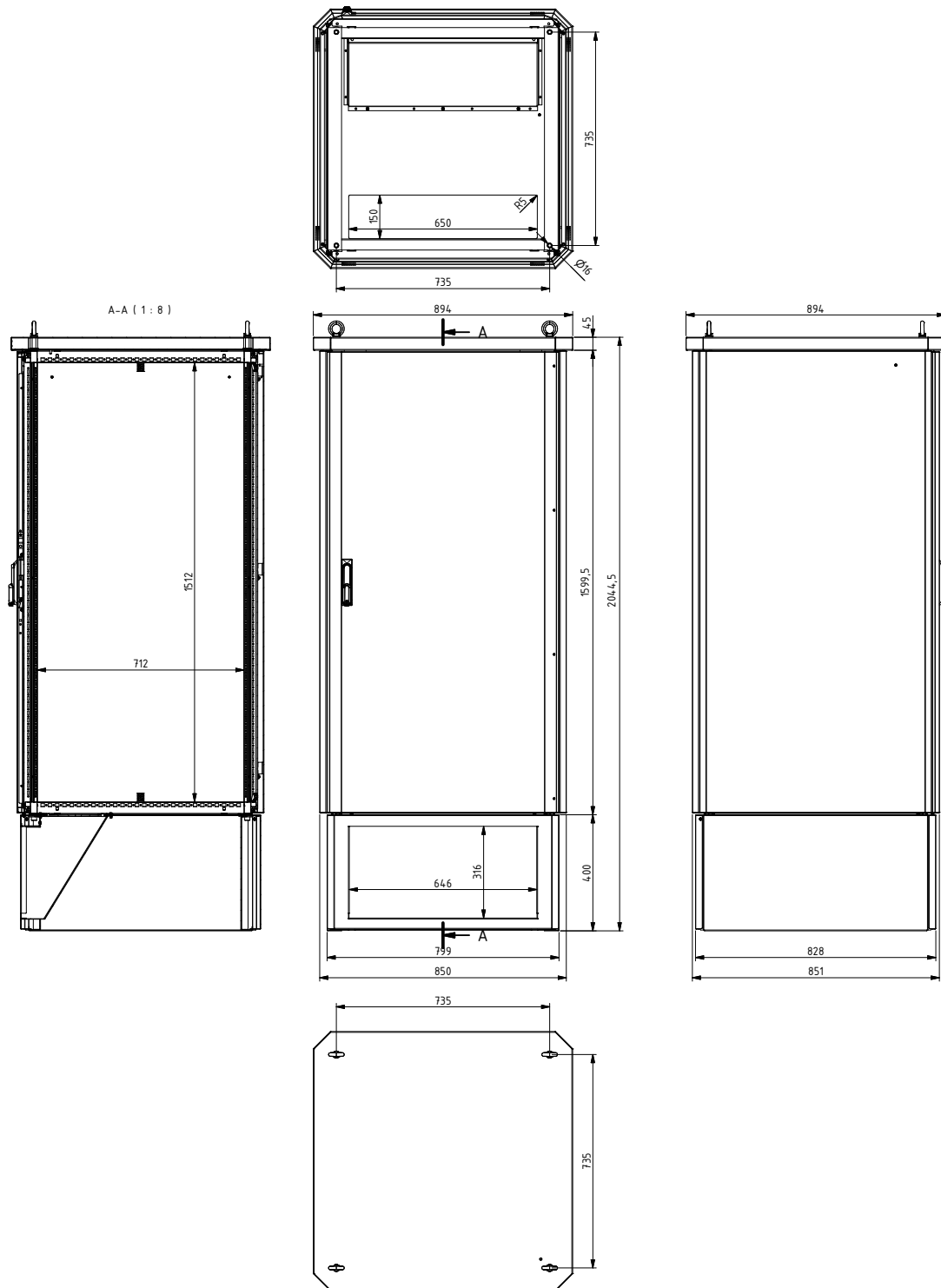
Technical information

Advantages



Drawing

Example: Nominal width 800 mm, nominal height 1600 mm, nominal depth 800 mm



Toptec shore power housing

Accessories



Mounting plate

To accommodate additional components inside the enclosure.

Material:

- Sheet steel

Dimensions (W x H):

- 499 mm x 1,096 mm

Surface finish:

- Zinc-plated

Supply includes:

- Assembly parts

Note:

- Depending on the mounting situation, additional parts, such as punched section with mounting flange may be required, see

To fit width mm	To fit height mm	Dimension mm	Pack	Model No.
600	1,200	499 x 1,096	1 pc(s).	5051033
600	1,400	499 x 1,296	1 pc(s).	5051034
600	1,600	499 x 1,496	1 pc(s).	5051035
600	1,800	499 x 1,696	1 pc(s).	5051036
800	1,200	699 x 1,096	1 pc(s).	5051039
800	1,400	699 x 1,296	1 pc(s).	5051040
800	1,600	699 x 1,496	1 pc(s).	5051041
800	1,800	699 x 1,696	1 pc(s).	5051042



Punched section with mounting flange, 17 x 73 mm

For universal skeleton structures or partial assembly. Simply locate into the punchings and secure.

Installation options:

- On the vertical enclosure section
 - On the outer mounting level, all-around, at the same height
 - On the inner mounting level, all-around, height-offset
- On the horizontal section
 - Can be mounted at the top downwards

Material:

- Sheet steel

Surface finish:

- Zinc-plated

Supply includes:

- Assembly screws

For the outer mounting level

For enclosure width/depth mm	Pack	Model No.
300	4 pc(s).	8612130
400	4 pc(s).	8612140
500	4 pc(s).	8612150
600	4 pc(s).	8612160

For the inner mounting level

For enclosure width/depth mm	Length mm	Pack	Model No.
300	290	4 pc(s).	8612030
400	390	4 pc(s).	8612040
500	490	4 pc(s).	8612050
600	590	4 pc(s).	8612060



Toptec shore power housing

Accessories

Plastic gland plate

Size 4, with membranes

Simply pierce the plastic with a sharp object, and pull through the cable

Protection category IP to IEC 60 529:

- IP 66 if installed correctly

Number of cable entries:

- 28 pc(s) Ø 5 – 11 mm
- 48 pc(s) Ø 10 – 15 mm
- 8 pc(s) Ø 15 – 25 mm
- 2 pc(s) Ø 19 – 34 mm
- 2 pc(s) Ø 26 – 36 mm
- 2 pc(s) Ø 26 – 54 mm
- 1 pc(s) Ø 50 – 110 mm

Pack	Model No.
1 pc(s).	2564300

Material:

- Plastic to UL 94-V0

Colour:

- Similar to RAL 7035



Metal gland plate

Size 4, with metric pre-stamping for cable glands

Simply pierce the plastic knockouts for the cable glands using a screwdriver.

Protection category IP to IEC 60 529:

- IP 66 if installed correctly

Number of cable entries:

- 1x M12
- 6x M16
- 8x M20
- 11x M25
- 6x M32
- 4x M40

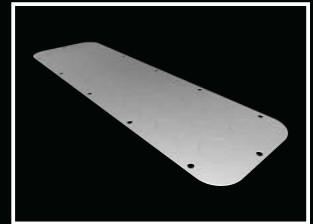
Pack	Model No.
1 pc(s).	2574100

Material:

- Sheet steel, spray-finished

Colour:

- RAL 7035



Enclosure heater

Continuous thermal output 10 – 150 W without fan

Enclosure heaters to regulate relative humidity, prevent temperatures from dropping below the dew point and stop condensation forming inside the enclosure. Consequential damage caused by corrosion or electrical short-circuit is prevented.

Material:

- Aluminium, anodised

Protection category IP to IEC 60 529:

- IP 20

Protection class:

- II (all-insulated)

Supply includes:

- PTC heater
- Quick-connection terminal
- Assembly parts

Note:

- A thermostat is recommended for precise temperature control inside the enclosure
- In order to prevent condensation on assemblies, a hygostat is recommended to control heating
- In larger enclosures, even heat distribution is best achieved by installing several low-output heaters

Approvals:

- Available on the Internet



Accessories:

- Thermostat, 3110000
- Hygostat, 3118000
- Digital enclosure internal temperature display and thermostat, 3114200
- Bottom-mounted adaptor, 3110200



Width mm	Height mm	Depth mm	Continuous thermal output at $T_u = 10\text{ }^\circ\text{C W}$	Rated operating voltage V, ~, Hz	Pack	Model No.
45	120	46	8 - 10	110 - 240, 1~, 50/60		3105310
45	12	46	18 - 20	110 - 240, 1~, 50/60		3105320
64	155	56	23 - 30	110 - 240, 1~, 50/60		3105330
64	155	56	49 - 50	110 - 240, 1~, 50/60		3105340
64	230	56	63 - 75	110 - 240, 1~, 50/60		3105350
90	165	75	86 - 100	110 - 240, 1~, 50/60		3105360
90	180	75	130 - 150	110 - 240, 1~, 50/60		3105370

We reserve the right to further developments and technical modifications of our products. Such modifications, along with errors and printing errata, shall not constitute grounds for compensation. We refer customers to our Terms of Sale and Delivery.

Rittal – The System.

Faster – better – everywhere.

- Enclosures
- Power Distribution
- Climate Control
- IT Infrastructure
- Software & Services

You can find the contact details of all Rittal companies throughout the world here.



www.rittal.com/contact

X1WW00318EN2505

ENCLOSURES

POWER DISTRIBUTION

CLIMATE CONTROL

IT INFRASTRUCTURE

SOFTWARE & SERVICES



FRIEDHELM LOH GROUP