



INDUSTRIAL OUTDOOR SOLUTIONS

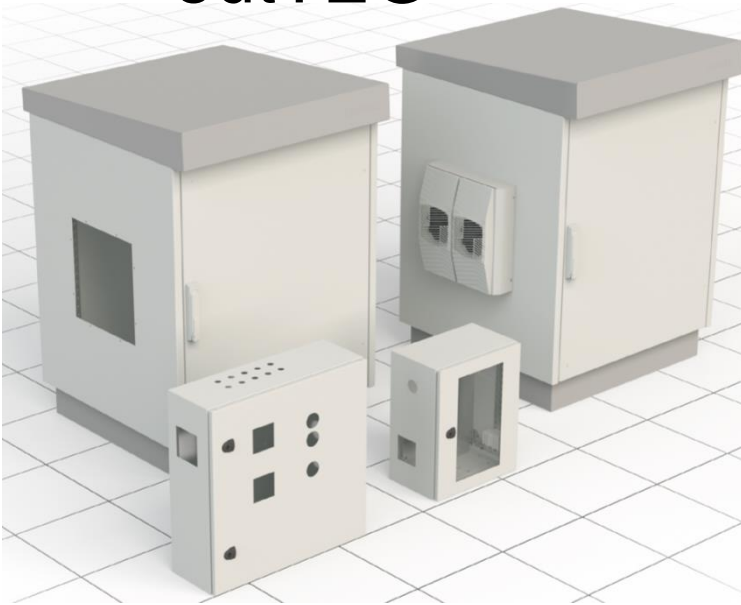
6. 5. 2020

Marek Schiller

CONTEG

Industrial portfolio CONTEG

outTEG



inTEG



Industrial enclosures – inTEG

- FSE – Free Standing Enclosure
- FSM – Free Standing Compact
- WME – Wall Mount Enclosures
- WME-G – WME with glazed doors
- WME-X – WME stainless steel



Industrial enclosures – inTEG

- Free-standing, Compact and Wall Mount Enclosures
- Single-door and double-door options
- Materials: sheet steel, stainless steel 304 or 316L, powder-coated stainless steel
- Stability and Robustness
- Wide Range of Accessories
- Customized Solutions – cutouts and holes



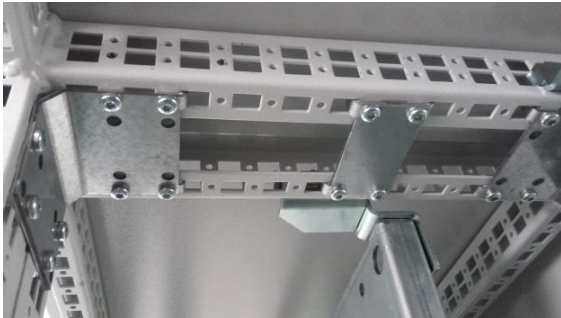
inTEG FSE - MAIN ADVANTAGES

- Welded frame construction made of special rolled profile - powder coated
- The closed rolled profile is made out of a zinc-plated sheet steel and welded by a laser
- Load capacity 1500 kg
- Single-door and two-door cabinet designs
- Can be installed without an additional supporting plinth

inTEG FSE - MAIN ADVANTAGES

- Designed swing handle - the standard for all rack types
- Easy to close doors thanks to a special locking system and side panel fixing thanks to the possibility of hanging
- Maximum use of interior space
- 46 sizes from 1800x400x500 mm up to 2200x1200x800 mm
- Norms EN 61439, EN 62208, IP 55, IK 10
- UL 508A – Industrial Control Panels

- **Welded frame**
- **Mounting plate**



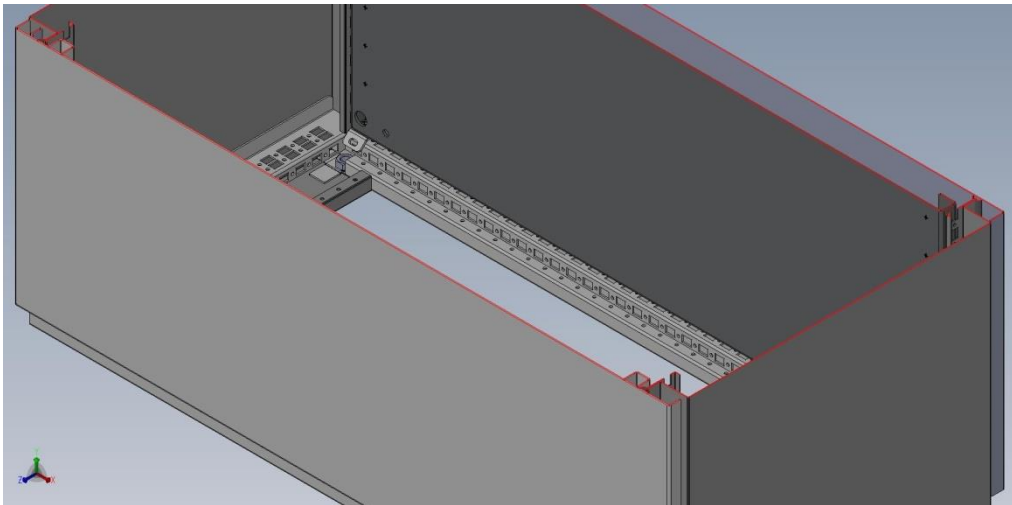
inTEG COMPACT enclosure FSM

- Construction with integrated side panels
- Similar accessories with FSE – doors, panels, MP and accessories



inTEG COMPACT enclosure FSM

- Height – 1400, 1600, 1800 and 2000 mm
- Width – 600, 800, 1000, 1200 and 1600 mm
- Depth – 300, 400 and 500 mm



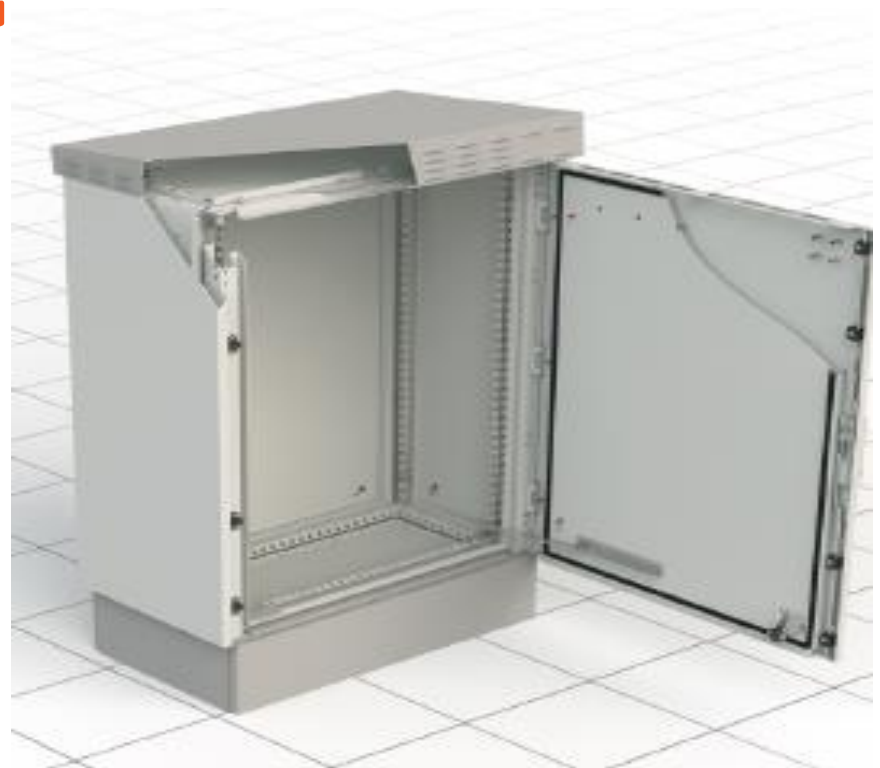
Industrial enclosures – outTEG

- OMR-DN – outTEG II Double Natural
- OMR-DL – outTEG LITE
- WME-O – WME outdoor (SS)
- Outdoor climate control solution



Outdoor cabinets – outTEG

- Designed specifically for outdoor applications
- Simple, useful
- Double-wall functional construction
- The highest protection against corrosion
- Perfect protection against weather
- PUR non-porous gasket – suitable for extreme temperature ranges
- High Stability for earthquake zones by Bellcore GR-63-CORE Zone 3 (Zone 4 upon request)



Outdoor cabinets – outTEG

- Stainless steel frame and plinth
- Aluminum casing
- PUR sealing – **IP66**



Frame construction - 2 mm thick welded stainless steel with perforation



PUR non-porous gasket – operation temperature – 40 to + 60 °C



Mounting covers with clips that ensure maximum pressure on the seal



Vandal proof – side panels, rear panel and roof are screwed from the inside. The front door has hidden hinges and a metal handle

Outdoor cabinets – outTEG

- Free standing enclosure
- Possible to row installation
- Possible to place at concrete plinth



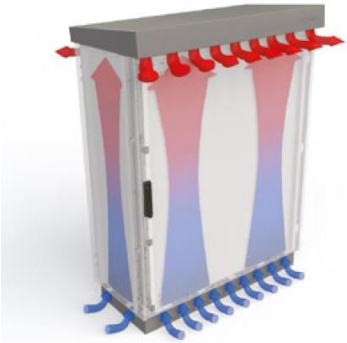
Outdoor cabinets – outTEG

- 19'' extrusions
- Mounting plate
- System rails

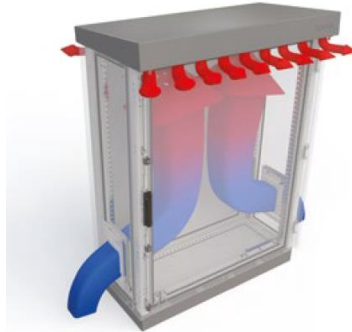


Climate control of Outdoor cabinets

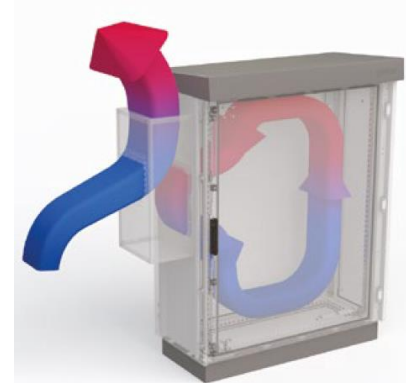
Natural vented solution



Forced ventilation fan solution



Cooling unit



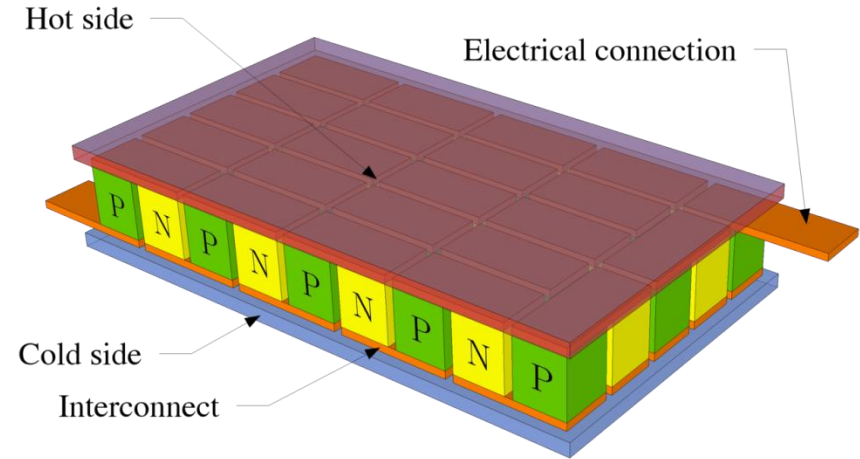
Climate control of Outdoor cabinets

- Ventilation of side panels
- Perforated roof with ventilation unit
- Cooling unit
- Thermoelectric unit - Peltier
- Heating unit



Thermoelectric Unit

- Peltier effect
- Electric potential creates a temperature difference
- Used material is bismuth telluride



Calculation for optimal solution design

Rozměry skříně

Výška: mm
Šířka: mm
Hloubka: mm

Parametry

Zrůstový výkon instalovaného zařízení: W
Hmotnost instalovaného zařízení: kg
Min. požadovaná vnitřní teplota: °C
Max. požadovaná vnitřní teplota: °C
Lokalita umístění: ▼

Cabinet Dimensions

Height: mm
Width: mm
Depth: mm

Parameters

Heat dissipation of installed equipment: W
Weight of installed equipment: kg
Min. required internal temperature: °C
Max. required internal temperature: °C
Location: ▼

Vypočtené hodnoty

Spotřeba pro vytápění: kWh
Počet hodin překročení dané min. teploty: h
Procento času: %
Spotřeba pro chlazení: kWh
Počet hodin překročení dané max. teploty: h
Procento času: %

Požadovaný výkon pro topnou a chladič jednotku

Topný výkon: W
Chladič výkon: W

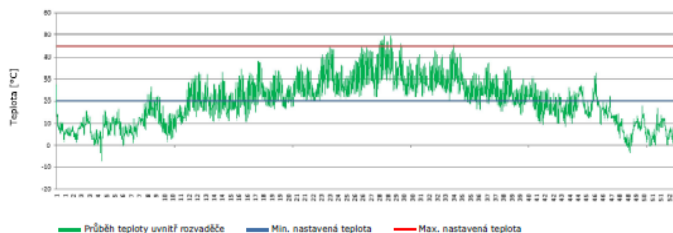
Results

Power consumption for heating: kWh
Number of hours exceeding the min. temperature: h
Time percentage in year: %
Power consumption for cooling: kWh
Number of hours exceeding the max. temperature: h
Time percentage in year: %

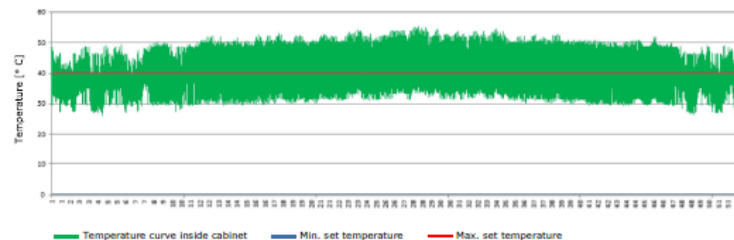
Required capacity of heating and cooling unit

Thermal output: W
Cooling capacity: W

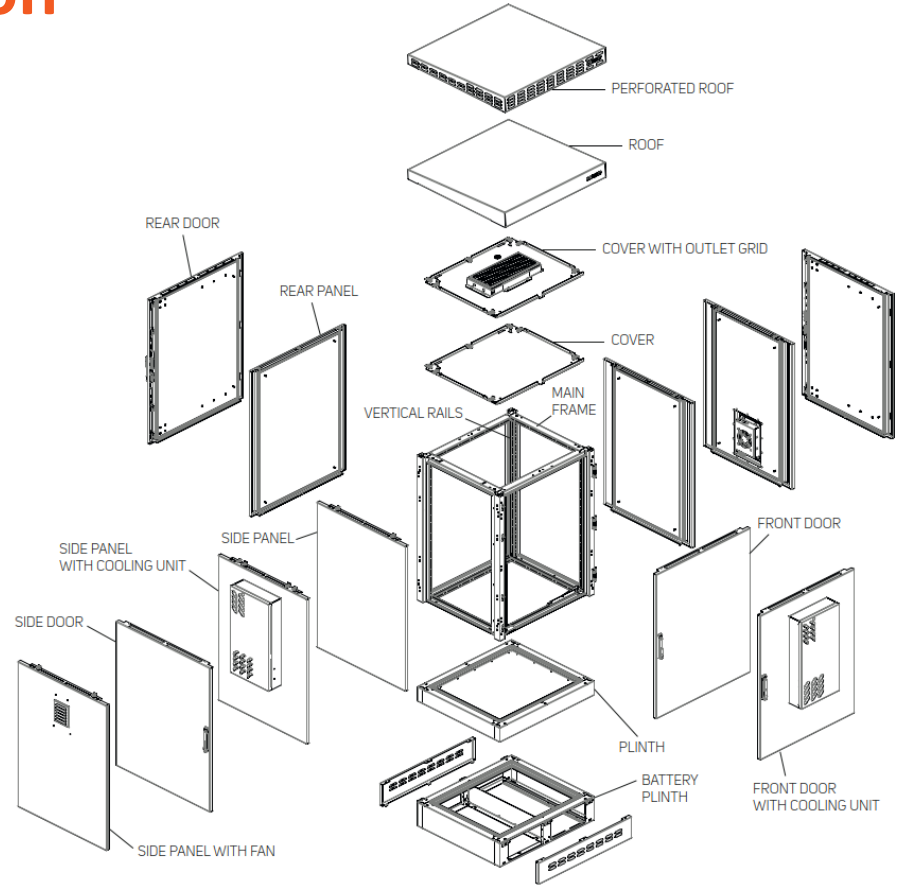
Teplota ve venkovním rozvaděči
- roční průběh -



Temperature inside the outdoor cabinet
- Annual -

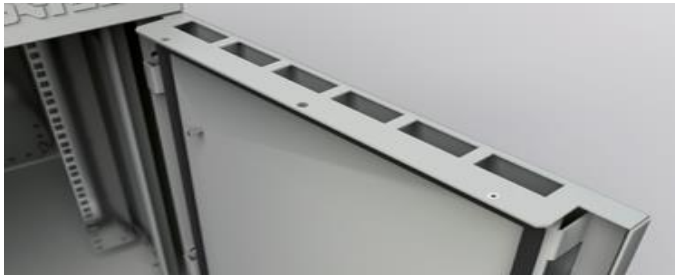


Flexible solution



outTEG LITE

- Double wall
- IP 65
- IK 10
- Light aluminium construction
- Anti-vandal solution



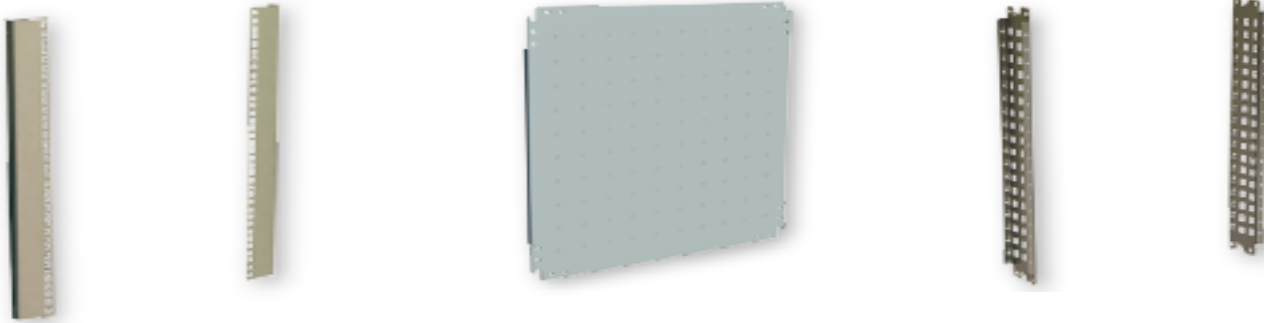
outTEG LITE

- Pole mount
- Wall mount
- Installation on the plinth



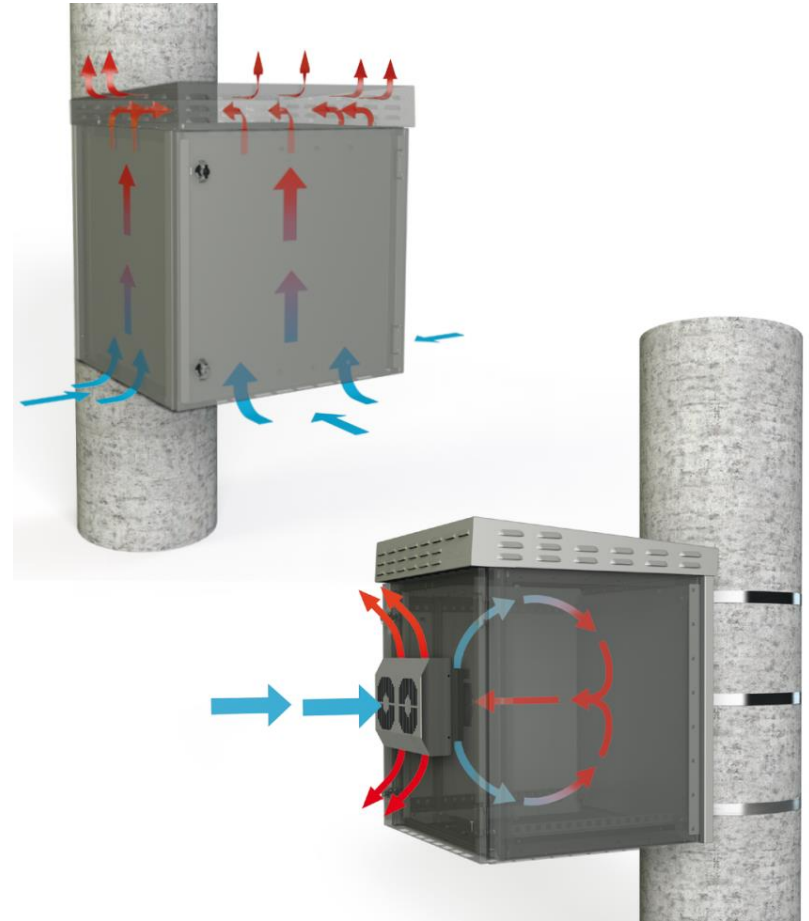
outTEG LITE

- 19" extrusion
- Mounting plate
- System rails



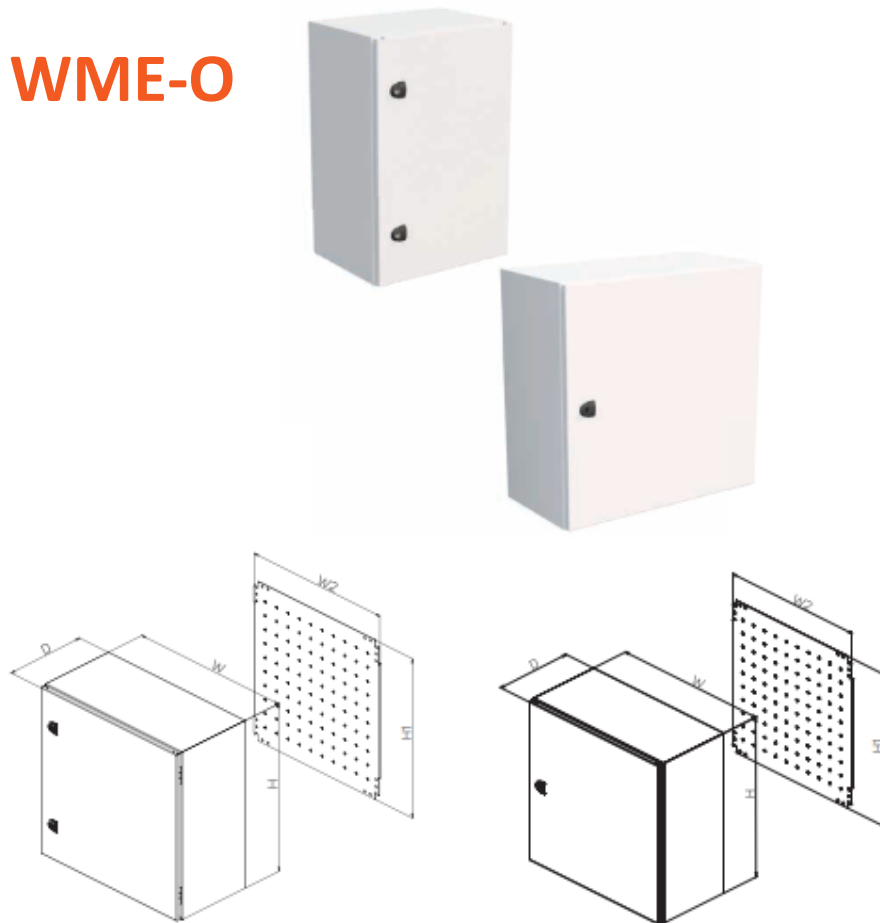
Climate control of OutTEG LITE

- Natural ventilation
- Thermoelectric unit



outTEG Wall Mount Enclosure WME-O

- Clean design thanks to laser welding
- 28 sizes from 300×200×155 mm all the way up to 1200×800×400 mm
- One-door version
- Stainless steel
- Powder coated stainless steel
- Maximum mounting plate size
- Standard gear - mounting plate with a 50 × 50 mm marked raster for all types
- Outdoor use
- Norm EN 62208, IP66





Traffic Control

- Double-walled
- Thermoelectric unit for cooling and heating (200 W)





Control Cabinet

- Double-Walled
- Thermoelectric unit with regulator for cooling or heating





Air Traffic Management

- Double-walled
- Customized cover
- Battery plinth
- Free-standing
- Wall mount





Railway Automation

- Double-walled
- Outdoor AC unit
- Customized



Railway Automation

- Assembled in row
- Battery plinth
- Forced ventilation





Railway Automation





Railway Automation





Traffic Control

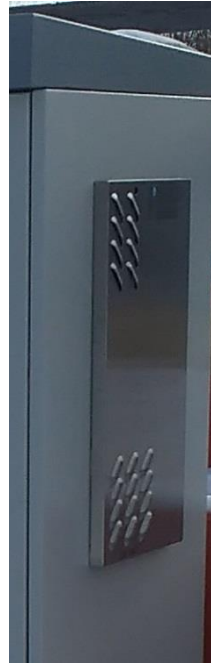
- Forced natural ventilation walls
- IP 66
- Internal temp. is lower by 10%
- Cabinet usable without AC unit
(savings = no input investment and operation energy)





Traffic Control

- Royal Police Oman
- AC unit – internal mounting position





Telecom

- AC unit – external mounting position





Measuring of air pollution

- Not only for electrical or IT applications





Airport

- Robust construction
- „Truck“ protection
- After a collision with a truck, equipment OK, we delivered only new cabinet





Compression stations for gas line

- Forced ventilation
- Battery plinth





Internet

- Assembled in row
- Front nad rear doors





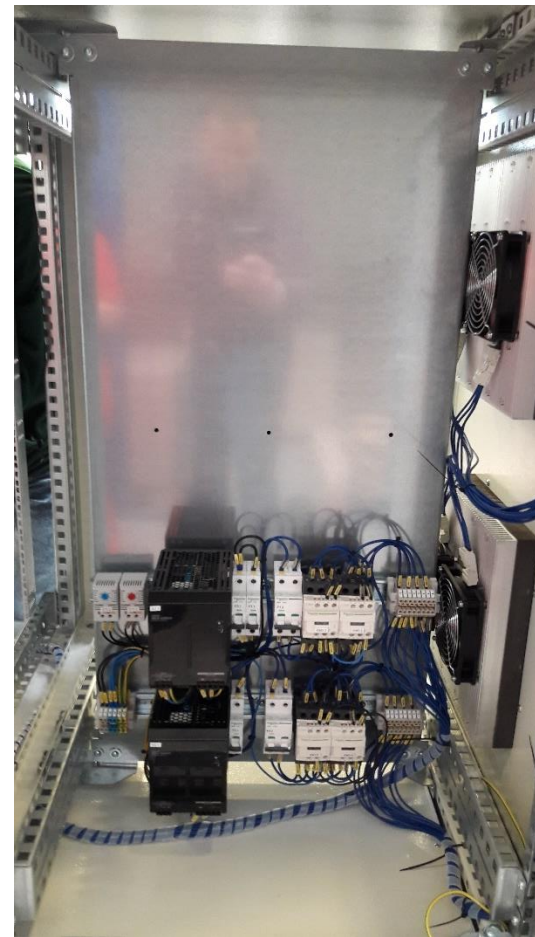
2018 FIFA World Cup

- Thermoelectric units 4 x 200 W
- Control and regulation cooling / heating
- 2 compartments, 4 doors





2018 FIFA World Cup



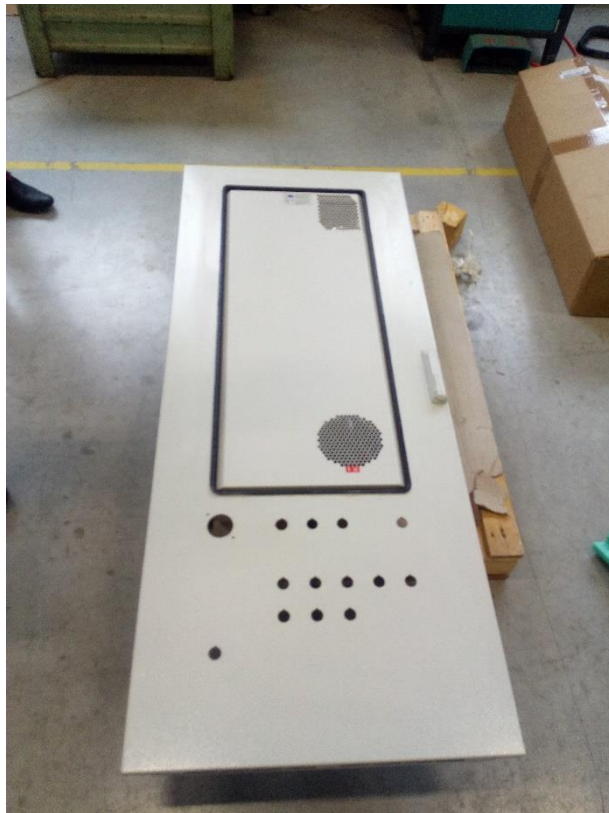


Prague Wilson Railway Station





Modification



CONTEG

www.conteg.cz

