

**SOLUTION SHEET** 

# **E-mobility Compact Secondary Substation (CSS)**

## UniPack to support high-power charging with storage





Internally arc tested as per IEC 62271-202, a safer design for equipment, personnel and public environment



Pre-assembled solution, pre-tested and assembled, to minimize site works



Ease of handling, transportation, unloading and connection



Reduced site activities decrease safety-related risks

E-mobility CSS with integrated energy storage

The e-mobility CSS solution with integrated energy storage provides electrification to power cabinets, while simultaneously providing a buffer of power in parallel to the grid. This solution's typical application is the peak power demand control. The ease of installation of a pre-wired solution drastically reduces site activities in terms of man-hours, excavation and civil works activities. Different internal layouts are available.

### Features of solution

- Available in multiple enclosure materials:
  - Steel for rural areas
  - Glass reinforced polyester (GRP) for harsh and challenging environmental conditions
- Internal arc tested design assures high safety standards for service personnel and public
- Lockable enclosure to prevent unauthorized entry
- Compact design to reduce footprint installation
- Fire tested according to ISO 834
- Flammability according to UL 94
- Toxicity according to EN 45545

### **Equipment description**

The CSS typically houses medium voltage switchgear (up to 40.5 kV), transformers (oil or dry type), a low voltage switchboard with protection devices, ie circuit breakers or fused disconnects, and integrated energy storage. The CSS is compartmentalized to isolate the sections to reduce risk of accidental handling.

## Technical data

Key specifications	
Medium voltage level	from 2.4 – 40.5 kV
Typical ratings (kVA)	up to 1250 kVA
Secondary voltage	400-480 V
Storage power	300 kW
Storage capacity	300 kWh
Trafo type	Oil or dry
Protection degree	IP 54/23D (MV SWGR,
	LV and storage /trafo)
Applicable standards	IEC, GB, AS, GOST,
	ANSI, CSA, and more

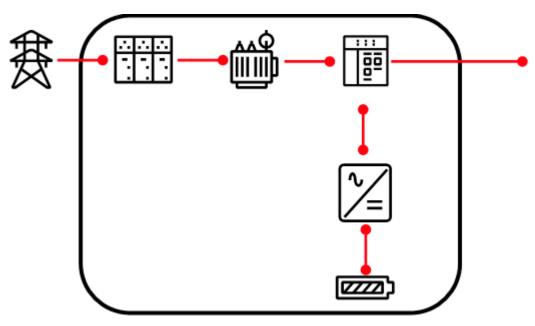
## Optional equipment

- Seismic certifications
- IP35 or IP45 protection for challenging conditions
- Cooling area chosen to fit different conditions
- SCADA ready
- Remote monitoring
- Remote monitoring and control
- Energy management systems

#### Installation

- One-piece delivery factory assembled and tested
- MV connection and power cabinet connection needed at site
- Reduced site works
- Compact design for reduced footprint
- No heavy crane needed

## Single line diagram



E-mobility CSS solution with integrated energy storage

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