Secondary Skid Unit

E-mobility application

A Secondary Skid Unit (SSU) is an assembly comprised of an LV distribution board, a transformer, and medium voltage switchgear packaged for power distribution in e-mobility applications. The SSU distributes low voltage power to feed the high power charging stations. The SSU is a solution usually fenced in a non-accessible area.

Features
- Simple and quick installation
- Units pre-tested at the factory
- Drop in place and connect cables
- Pre-engineered products to reduce time to quote and supply, while reducing risks
- Engineered for efficient cooling in order to extend the life of the equipment
- No exposed live parts
- SCADA ready
- All equipment contained in the E-Mobility modules are type tested according to their relevant standards
- Easy access to equipment for visual inspection and service
- Open-air cooling for maximum efficiency
- Compact and easily transportable

Equipment description
The SSU is designed and manufactured to be installed with liquid filled or dry type transformers. The transformer can be provided with an alarm and trip contacts for temperature and gas pressure.

The SSU can be provided with different options of medium voltage switchgear from ABB’s SF₆ or air insulated switchgear portfolio. The MV switchgear can be provided with an SF₆ gas alarm, switch position contacts, plug-in MV surge arresters or auto reclosing functions.

The low voltage compartment can be equipped with different solutions of distribution boards, either with MCCBs or with fuses to protect the LV cables.

Technical data

<table>
<thead>
<tr>
<th>Key specifications</th>
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<tbody>
<tr>
<td>Medium voltage level</td>
<td>from 2.4 – 40.5 kV</td>
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<tr>
<td>Typical ratings (kVA)</td>
<td>up to 3150 kVA</td>
</tr>
<tr>
<td>Secondary voltage</td>
<td>400-480 V</td>
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<tr>
<td>Trafo type</td>
<td>Oil or dry</td>
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<tr>
<td>Protection degree</td>
<td>IP44</td>
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Optional equipment
- Smart grid ready for easy connection to any SCADA
- Remote terminal unit (RTU) to monitor SSU and store data
- Local and remote monitoring commands available

Installation
- One piece delivery factory assembled and tested
- Solutions with foundation and oil pit, or without foundation
- Reduced site works
- Compact design for reduced footprint

Single line diagram

E-mobility Secondary skid unit MV switchgear

E-mobility Secondary skid unit with direct connection