E-mobility EcoFlex eHouse

EHouse enclosure to enable EV charging

- Easy to ship, load and offload
- Stackable solution made of ISO standard enclosures for expandibility
- Relocatable solution for temporary power needs
- Robust and scalable solution as several EcoFlex modules can be combined together

The EcoFlex eHouse portfolio covers a wide range of designs applicable to various industry segments including the E-mobility segment. Its robust design and construction make the EcoFlex eHouse easy to transport and install, and ideal for relocatable substations and high power demand applications. Typical configurations consist of medium voltage (MV) switchgear, transformers and low voltage circuit breakers.

Features of solution
- Fully assembled and routine tested in the factory
- Robust construction providing protection for equipment
- Reduced risk via standardized design and production
- Compact design easily and economically transported
- Minimized site works
- Reliable – proven components from a single source
- All doors lockable to prevent unauthorized entry
- Available with MV air insulated switchgear or gas insulated switchgear

Equipment description
The EcoFlex eHouse enclosure is in accordance with ISO 1161 and can be provided with different options of MV switchgear from ABB’s SF₆ or air-insulated switchgear portfolio fitted with ABB’s line of relays for protection, remote monitoring and control. The MV switchgear can be supplied with an SF₆ gas alarm, switch position contacts, plug-in MV surge arresters or auto reclosing functions. MV switchgear can be equipped with smart grid options to allow operation and monitoring via SCADA.

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 4000 kVA</td>
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<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>IP 54/23D (MV SWGR/trafo)</td>
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<tr>
<td>Applicable standards</td>
<td>IEC, GB, AS, GOST, ANSI, CSA, and more</td>
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Optional equipment
- Seismic certifications
- ABB Ability ready
- HVAC system can be added
- Firefighting system
- Access control
- Remote monitoring and control

Installation
- One-piece delivery factory assembled and tested
- Scalable solution
- Reduced site works
- Compact design for reduced footprint
- Stackable solution to realize large substations

Single line diagram

E-mobility EcoFlex eHouse basic SLD