TECHNICAL DATA SHEET

EcoFlex eHouse

Temporary power application

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EcoFlex with cover

Relocatable via standard transport means, providing cost-effective temporary power solutions for industry and utility applications

Robust by design and suited to harsh environments and/or construction zones

The EcoFlex eHouse portfolio covers a wide range of designs applicable to various industry segments. Its robust design and construction makes the EcoFlex eHouse easy to transport and install, and ideal for temporary power applications. It consists of medium voltage (MV) switchgear, transformers and low voltage (LV) circuit breakers.

Features

- Reduced risk via standardized design and production
- Robust construction for ease of transport and installation
- Fully assembled and routine tested in the factory
- Compact design and easily transported
- Minimum site works, requires only cable connections
- Reliable – proven components from a single source
- All doors lockable to prevent unauthorized entry
- Available with air or gas-insulated MV switchgear
- Forced air cooling

Transformer

EcoFlex can be supplied with either oil immersed or dry type transformers. The transformer can be provided with alarm and trip contacts for temperature and gas pressure.

Medium voltage

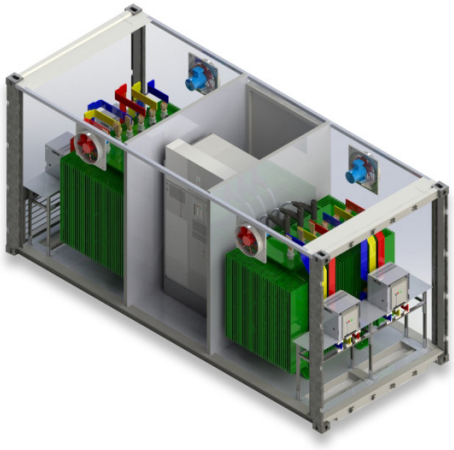
The EcoFlex product line can generally be provided with different options of MV switchgear from ABB's SF_6 or air-insulated switchgear portfolio, and fitted with ABB's line of relays for protection, remote monitoring and control. The MV switchgear can be provided with SF_6 gas alarm, switch position 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. For the temporary power EcoFlex, the switchgear will be 1 x ABB SafePlus with VVV (V = Circuit Breaker) configuration.

Low voltage

There are various numbers and ratings of outgoing feeders (ACB or MCCB) based on transformer rating and customer needs. EcoFlex can be equipped with devices to allow remote control and monitoring.

Housing

EcoFlex, in accordance with ISO/1161, is provided with corner fittings for lifting and transport. Enclosure standard dimensions are according to ISO 1496-1. It is constructed with steel frames, full vertical corrugated steel side and end walls, steel flooring, die-stamped corrugated steel roof and corrugated double hinged doors. All the steelwork is constructed by semi-automatic and automatic MIG arc welding. All exterior welding seams, including those on the base structure, are continuous to give perfect water-tightness.



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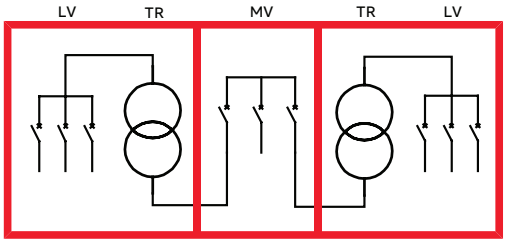
01 EcoFlex without cover

General technical data

Maximum voltage rating, kV	Up to 40.5 kV
Ambient temperature range, °C	-25 to +40 °C
Relative humidity, non-condensing	95%
Max altitude above sea level without derating	1000m
Corrosion class (ISO 12944)	C5M
IP rating, MV compartment/transformer	IP54/IP43

Single line diagram/layout



Pre-engineered solution technical data

Predesigned solutions are available for optimization and quicker delivery. The solutions are equipped with MV switchgear SafePlus VVV configuration (other configurations are available upon request). The transformer includes standard integrated protection for pressure and gas. Product datasheets are available with an overview of other options available. Pre-designed solutions are shown below:

Enclosure type	**Steel**	**Steel**	**Steel**
Overall parameters			
Length x width x height, mm	6058 x 2438 x 2896	6058 x 2438 x 2896	6058 x 2438 x 2896
Weight, approximate in metric tons	12	14.5	17.5
Medium voltage switchgear			
Switchgear type	SafePlus VVV	SafePlus VVV	SafePlus VVV
Protection relay	REJ 603	REJ 603	REJ 603
Transformer			
Transformer type	oil immersed	oil immersed	oil immersed
Power rating, kVA	2 x 2400	2 x 3150	2 x 4000
Low voltage level, V	400	400	400
Medium voltage level, kV max	up to 40.5	up to 40.5	up to 40.5
Standard protection	RIS*	RIS*	RIS*

*RIS is an integrated transformer protection unit consisting of pressure, gas and 2 levels of temperature switches.

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ABB Ltd.

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