Technical data sheet

Secondary Skid Unit (SSU)
Wind Power Collection application

Secondary Skid Unit (SSU)

A Secondary Skid Unit (SSU) is an assembly comprising of MV switchgear and a transformer packaged for power collection in wind parks. Depending on turbine setup, only MV switchgear enclosure can be used. The SSU is the power collection unit which converts the energy generated by the wind turbine into a usable grid voltage. The SSU is a plug-and-play solution usually installed as close to the power generation as possible, enabling wind power to be easily and rapidly connected to the electrical grid.

Features

- Simple and quick installation – pre-test units 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
- All ABB designs are green to support the environment
- No exposed live parts, more safe for operator and personnel
- SCADA ready
- All equipment contained in the SSU 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
- Economic solution
- Locking system for MV compartment to prevent unauthorized entry

Transformer

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

Medium voltage

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 SF6 gas alarm, switch position contacts, plug-in MV surge arresters or auto reclosing functions.

Low voltage

Low voltage switchgear can be configured for different ratings and protection schema.

Smart Grid

- Smart grid ready for easy connection to any SCADA system through any standard communication protocols
- Remote Terminal Unit (RTU) to monitor the SSU and store data for operation, maintenance and fault analysis
- Local and remote monitoring commands available
- Smart grid compatibility provides supervision and operation of substations from a central office by utilizing end user communication and infrastructure and ABB Station automation device

Pre-engineered solution technical data

Pre-designed solutions are available for optimized designs and quicker delivery. Power ratings are aligned with the most common inverter power ratings. The solutions are equipped with medium voltage switchgear SafeRing CCV configuration (cable loop with breaker and relay protection). The transformer includes standard integrated protection for pressure and gas. Product datasheets are available with an overview of other options available. Pre-designed solutions for Power Collection are shown below:

Style number	SSU-S-1510-0CCV-4000	SSU-S-3010-0CCV-3000
Enclosure type	Skid	Skid
Overall parameters		
Length x Width x Height, mm	3400 x 2550 x 2800	3400 x 2550 x 2800
Approximate weight (metric tons)	8	12
MV switchgear		
Switchgear type	SafeRing CCV	SafeRing CCV
Protection Relay	REJ603	REJ603
Transformer		
Transformer type	oil immersed	oil immersed
Power rating, kVA	1500	3000
LV Voltage level, V	690	690
MV Voltage level, kV max	13.8	40.5
Standard protection	RIS	RIS

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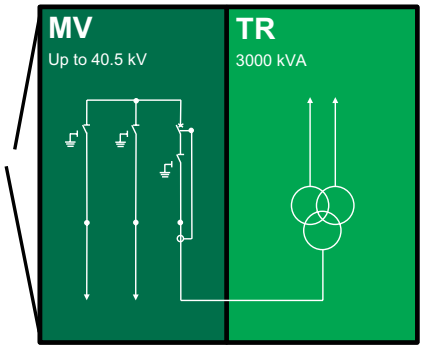
Single line diagram/layout



For more information please contact:

E-Mail: get.ph@ph.abb.com

www.abb.com/mediumvoltage
http://new.abb.com/medium-voltage/by-customer-segment/wind

General technical data

Nominal output voltage range	6 kV to 40.5 kV
Ambient temperature range	-25 °C to +40 °C
Relative humidity, non-condensing	95%
Max altitude above sea level w/out derating	1000m
Corrosion class (ISO 12944-2)	C5M
IP rating	IP44

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