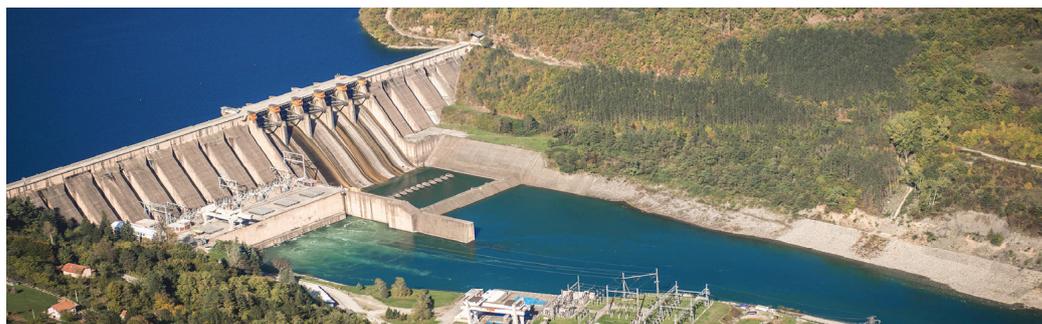


COMPONENTS / SUPPLY PROGRAM FOR INDUSTRY



Sécheron SA, member of the Sécheron Hasler Group, is one of the world leader for the design, the manufacturing and the supply of components and systems used to switch and protect power electric and electronics equipment.

With more than 130 years' experience in these fields, Sécheron SA has developed a tremendous expertise in the switching and protection technologies for high voltage electric circuits dedicated to power plants, to drives for marine-rolling mills-mines or to electric traction vehicles as well as to traction power substations.

A strong international team dedicated in one hand to the development of new product platforms, and in the other hand to the applications of these products, guarantees our customers worldwide to find at Sécheron, not only the right product or system they are looking for, but also an efficient support all along the project life.

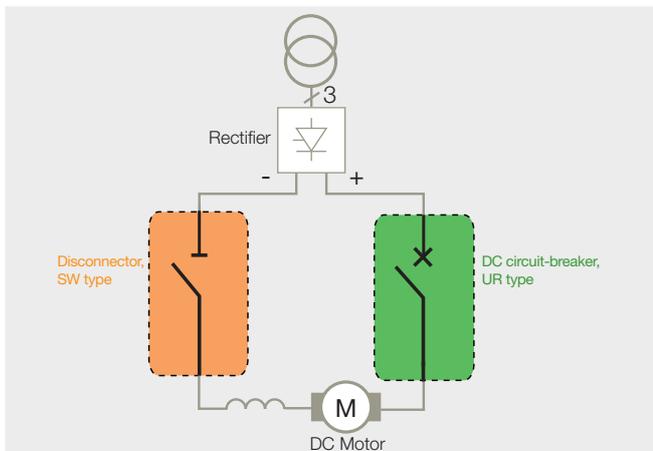
Our solutions, worldwide' service proven, are highly valued by operators for their extremely high reliability (including for severe operational and environmental conditions), as well as for their very low maintenance requirements.

Supply program

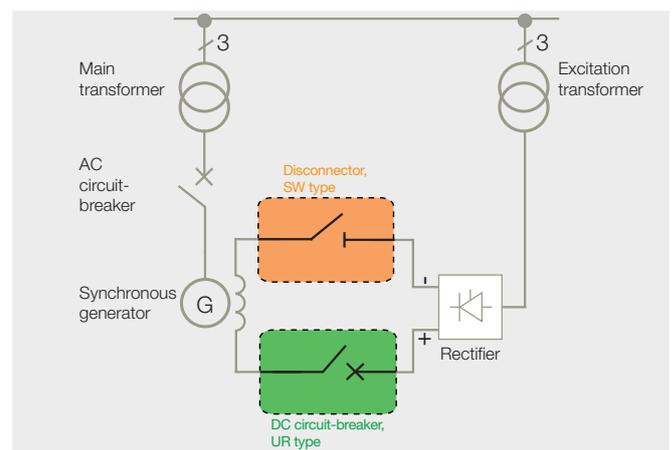
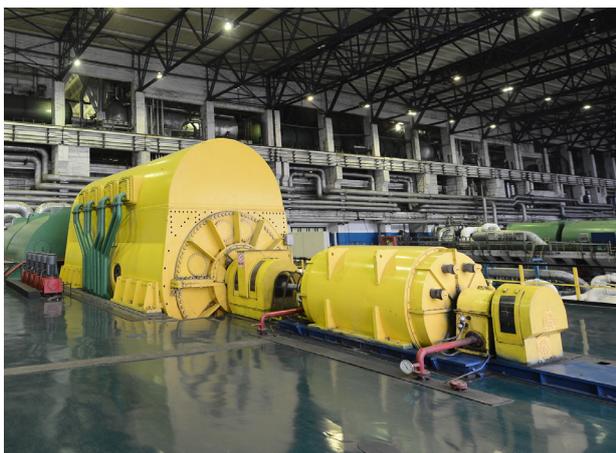
Industrial applications		Products	Pages
DC circuit-breakers	DC high-speed circuit-breakers	UR	4
Contactors	AC/DC power and auxiliary contactors	BMS, SEC, PCC, HS	5
Off load switches	Disconnect switches	SW	6
	Indoor disconnect switches	XMS	6

Typical schematics

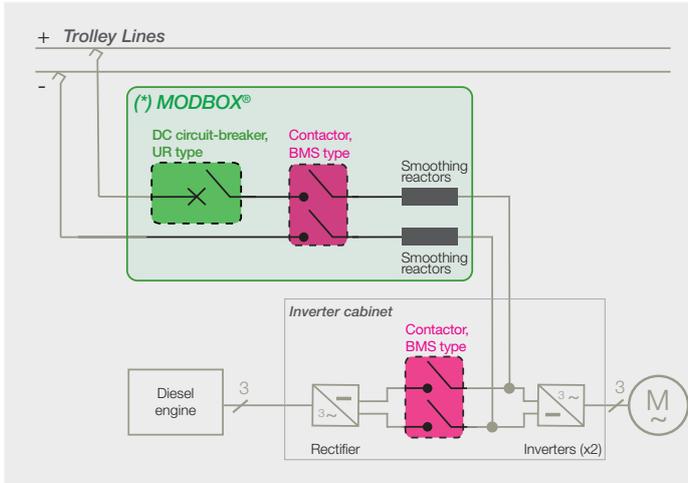
- Rolling mill DC drive for steel / aluminium factories



- Static excitation for power plant generator

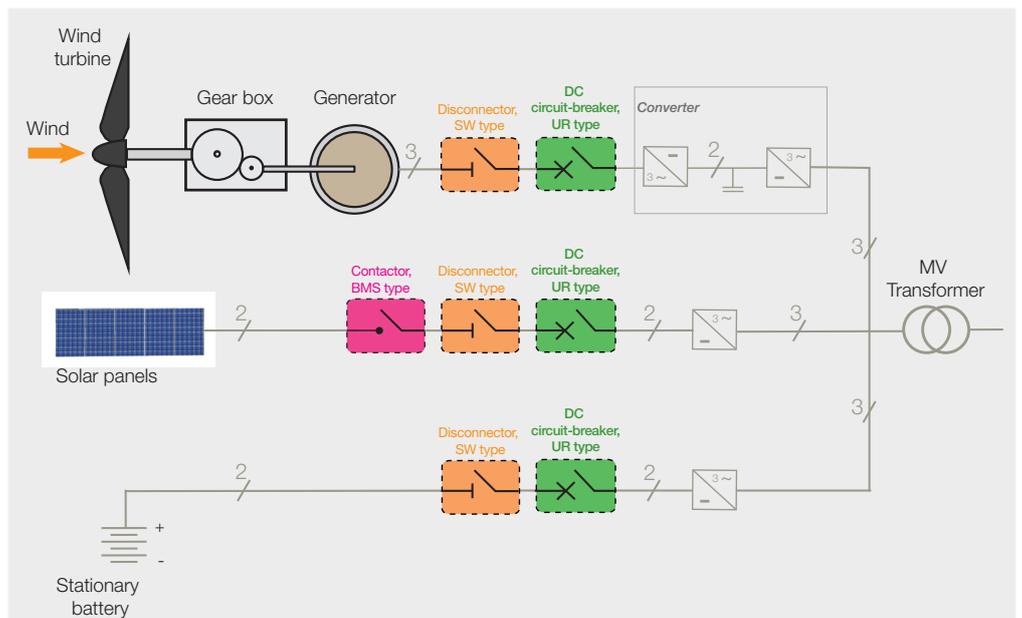


• Electric mining haul trucks



(*) MODBOX® is an integrated system, compact and modular, for safe integration of high-voltage components on traction vehicles, running on AC or DC networks. Please refer to Sécheron brochure SG580044BEN.

• Renewable energies combined with Energy Storage System (ESS)

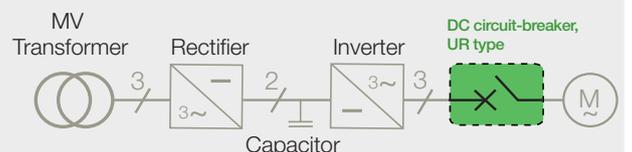


Note: The following examples show possible arrangements of Sécheron components in exemplary manner. Please consult Sécheron for a specific project request.

• Other types of applications

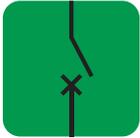
- Data Centers (Uninterruptible power supplies)
- Mining (DC drives for hoists or grinding mills, electric mining haul trucks,..)
- Chemical plants (electrolysis,..)
- Electromobility (Battery charging station)
- Marine (Azimuth thrusters, Cycloconverter drives,...)
- Test stands for vehicles (DC dynamometers)
- Heavy AC drives with low system frequencies
- Others...

Example of Azimuth thruster drive



UR

DC high-speed circuit-breakers



For DC applications, Sécheron proposes a complete range of high-speed current limiting circuit-breakers rated up to 8000 A and up to 3600 V_{DC}. These DC circuit-breakers are used in various applications to protect equipment against short-circuit currents and overloads. They are used in industrial installations such as steel/aluminium rolling mills, electric mining trucks, marine converters, renewable energy plants, chemical plants or mines etc...

The DC circuit-breakers **UR** range has achieved worldwide acceptance as a well proven design for use in fixed installations. The complete range has been regularly upgraded and adapted to new standard requirements and for different applications over the years, continuously improving the level of performance and functionality. These have led to an impressive service track record throughout the world for the **UR** product range.

Combining a compact design with a high making and breaking capacity, the UR range, with its low number of parts also guarantees high reliability and low maintenance requirements.

Sécheron has also developed a unique expertise and competencies with its DC MODBOX® platform, where the DC circuit-breaker is enclosed in a light metal enclosure, together with other high and low voltage components (contactors, disconnectors, resistors, voltage and current sensors...), to be delivered as a fully tested Plug&Play unit for installation on traction vehicles such as electro-buses and electric mining haul trucks with trolley assist.



UR10-41



UR15-42



UR26-81



UR40-81



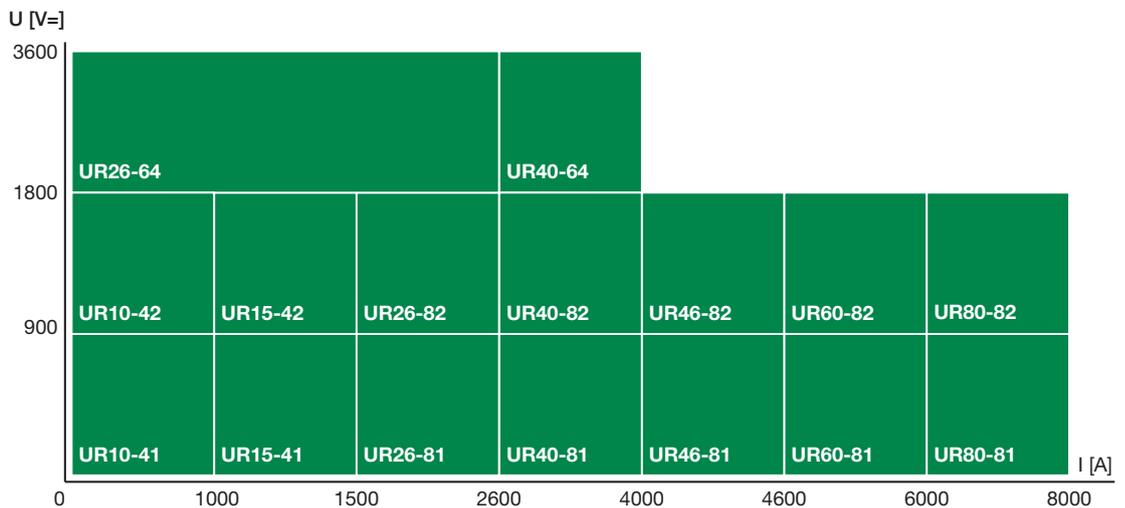
UR46-81



UR60-81



UR80-81



Refer to the corresponding brochure for more detailed information on our products.

BMS, SEC, PCC, HS

AC/DC power and auxiliary contactors



With the **BMS** and **SEC** contactors / switches, Sécheron offers product platforms particularly well adapted to several industrial applications such as renewable energy plants.

The SEC contactor is a high duty class component, designed to withstand the most severe applications in terms of environment and required performances.

With its high modularity, the BMS offers variants and options that enable our customers to find the most appropriate version of medium or high power line contactors to fit their application, either as a stand alone contactor or delivered coupled with a Secheron dedicated pre-charging contactor type PPC18 . Industrial customers looking for complete Power Contactor Modules (PCM), that integrate line and pre-charging contactors, but also current measurement, with all high voltage and low voltage connections will also find at Sécheron “plug & play” units convenient to order and easy to install. This range of contactor is also particularly well adapted to switch and isolate photovoltaic strings or array or battery storages.



BMS09.08



BMS18.08



BMS09.08 / 2 poles



BMS18.10



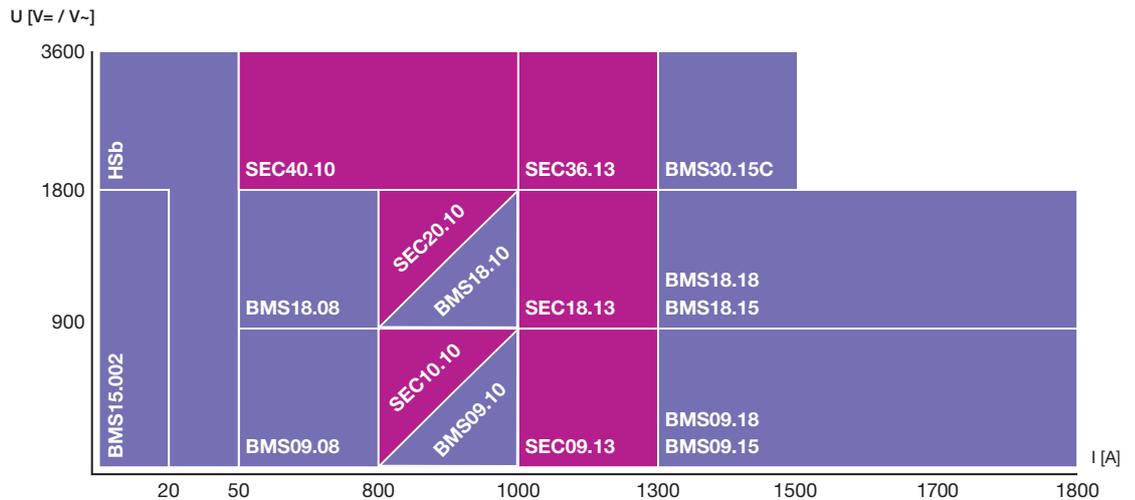
SEC10.10



SEC20.10



SEC40.10



Note! Electro-pneumatic contactors type BPS are still in Sécheron’s delivery program even if not represented on the above matrix.

Refer to the corresponding brochure for more detailed information on our products.



SW series

Disconnect switch for fixed installations

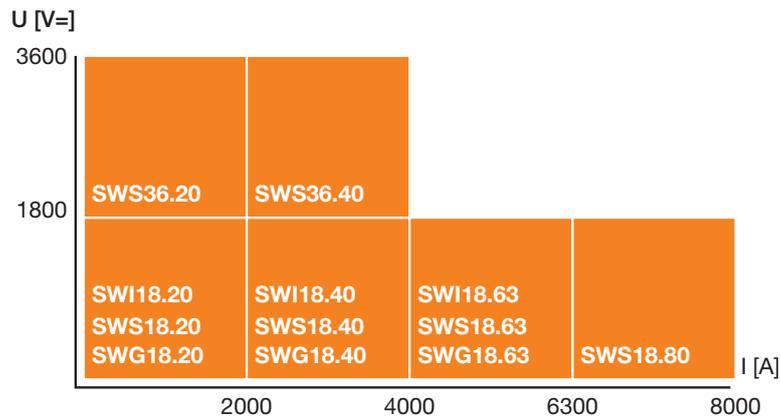

SWS18.20 MA

SWS18.63 MO

SWI18.63 MA

SWG18.20 MA

The SW switch is a complete range designed to cover all the applications to be met in industrial applications. Its modular concept enables to build single pole or double poles SWS disconnect switches, SWI change-over switches or SWG disconnect and earthing switches, for insulation voltages 3000 V_{AC/DC} or 4800 V_{AC/DC} and rated thermal current from 2000 to 8000 A. Installed inside cubicles, the SW switch can be operated either manually or electrically, and the customer can select among standard options, safety interlocking made via key locks, and/or electro-magnets. The severe testing procedures applied for the type testing as well as for the serial testing make the SW switch a safe component with a unique design and a high level of reliability.


SWS

SWI

SWG

XMS

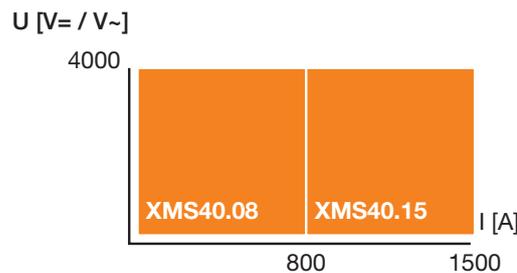
Disconnecter


XMS40.08 / 1 pole

XMS40.08 / 3 pole

The XMS switch is a modular off-load disconnecter, covering rated insulation voltages up to 4000VAC/DC and rated thermal currents up to 1500A, configurable in 1, 2 or 3 poles.

It features a short switching time, as well as a high short-time withstand current well adapted to specific industrial applications.



Refer to the corresponding brochure for more detailed information on our products.



Example of industrial applications references

Project management



Efficient teams, including Project Managers and Technical Specialists, support our customers throughout their projects and help them to select the most appropriate solutions within our standard product platforms, or propose customized products and complete integrated solutions for their applications.

Engineering support



Sécheron has developed unique core competences related to its activity and can provide our customers with high-value engineering services to support their projects.

The Computer Aided Engineering (CAE) multi-physics tool allows our experts to analyze, simulate and optimize the products and solutions we design, while reducing the technical risks and shortening development times and test cycles.

Our in-house testing laboratories and resources provides rapid temperature rise measurements, dielectric tests, mechanical endurance tests, load interruption (limited) tests, vibrations & shock tests and climate tests, while other tests can be performed externally with the support of our technicians.

Documentation



Documentation to be delivered at different stages of a project has currently become more diversified and more substantial. It is also a key issue for our customers.

Here again, our team of specialists work to prepare and promptly provide customers with detailed Maintenance & Operations manuals, RAMS analysis, product material lists, type test certificates, fire & smoke certificates, structural simulations, when necessary, and all other useful documents.

After sales service



The strategy of Sécheron SA is to provide our customers with strong support and dedicated services throughout all equipment purchase and installation phases, as well as during the lifetime of the material once it enters service. To satisfy this commitment, Sécheron has set up a worldwide network of over 40 Sales and Service Points which enable our customers to obtain find local support, whenever possible, and thus be able to address their requests in the most efficient way.

The After-Sales Service, provided on a global or local basis, covers at least the following requirements:

- Preventive maintenance
- Training
- Diagnosis and repair



In order to guarantee the reliability and the performance of Sécheron's safety devices, only Sécheron's original spare parts must be used through the complete product lifetime.

These original parts, manufactured and checked following rigorous processes, are now stamped with the Sécheron's logo and the traceability number, either on the parts themselves or on their original packaging.

Contact Sécheron or our official partners (www.secheron.com/World-Wide-Presence) to be supplied with guaranteed original parts.

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Secheron's selling partners:

For partners selling Sécheron's product refer to www.secheron.com/Worldwide-Presence

www.secheron.com

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