Customer value presentation
AX1 Customer values

More intelligent
More reliable
Safer
Kinder to environment
More cost efficient
More Intelligent

“No I can’t close the earth switch now.
The cable is energized.”

Bay computer REF AX1
Communication
Auxiliary power system
Complete monitoring
More intelligent

Bay computer REF AX1

- Protection functions
- Alarms
- Measurements
- Condition monitoring
- Operation
More Intelligent

Bus communication
More intelligent

Integrated battery system as option
More intelligent

Complete monitoring
More reliable

- Main circuit enclosed
- Active arc eliminator
- Complete monitoring
- Robust
- Measuring sensors
- Cable connections
More reliable

Main circuit enclosed
- Primary enclosure
- Operating enclosure
- Lower framework

IP5x

Gas insulated switching apparatuses
More reliable

Active arc eliminator

- No mechanical damages

- Eliminates arc within 5 ms
Active arc eliminator

An arc occurs. The arc is detected by the Arc monitor. A trig signal is sent to the Arc eliminator which starts to operate. All phases are closed to earth potential and the arc is eliminated. The fault current is cleared by the upstream breaker.
More reliable

Complete monitoring

Maintenance on demand
More reliable

Robust
- Primary enclosure
- Tubular busbars
- Spring coil contacts
- Aluminium profiles
More reliable

Measurement by sensors

Current sensor
- Rogovski coil

Voltage sensors
- Capacitive & Resistive
More reliable

Cable connections

- Single phase encapsulated.
- Minimized damage to equipment in case of fault.
Safer

Main circuit enclosed

Active arc eliminator

Safe work environment
Safer

Main circuit enclosed
- Primary enclosure
- Operating enclosure
- Lower framework

IP5x

Gas insulated switching apparatuses
Safer

Safe with open door

Touch proof cable connection

Voltage indication
Kind to environment

ISO14001

Environmental labelling

LCA
Kind to environment

ISO14001
Certified 1998
Kind to environment

Environmental labelling
Kind to environment

LCA
Life cycle assessment

Environmental Load Unit

- Copper manufacturing: 27.8 ELU/kg
- Copper recycling: -26.4 ELU/kg
- Painting: 0.00969 ELU/m²
- Pointwelding 1mm: 0.000078 ELU/pcs
More cost efficient

Simple installation
Low building cost
Complete monitoring
Low LCC
More cost efficient

Simple installation
- Separate framework
- Pre-assembly of cables
More cost efficient

Simple installation

- Tubular busbars
- Spring coil contacts
More cost efficient

Simple installation

- Pre-fabricated wiring
More cost efficient

Simple installation

- Integrated battery system as option.
More cost efficient

Simple installation

- Factory tested functions
More cost efficient

Low building cost
- Compact design

<table>
<thead>
<tr>
<th>Yta (%)</th>
<th>Volym (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AX1 12 och 24 kV</td>
<td>56 40</td>
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<tr>
<td>Konv. 12 kV</td>
<td>72 72</td>
</tr>
<tr>
<td>Konv. 24 kV</td>
<td>100 100</td>
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</table>
More cost efficient

Low building cost
- Integrated functions
More cost efficient

Low building cost

- No pressure relief
- Sliding door
More cost efficient

Low building cost

- High degree of protection
  IP5x on enclosure
  IP6x on joints
  Encapsulated apparatuses
More cost efficient

Complete monitoring
- Maintenance on demand
More cost efficient

LCC
Life cycle cost
### Technical data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>12</th>
<th>15</th>
<th>24</th>
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<tbody>
<tr>
<td>Rated Voltage (kV)</td>
<td>12</td>
<td>15</td>
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<tr>
<td>BIL (kV)</td>
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<td>95</td>
<td>125</td>
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<tr>
<td>Rated current (A)</td>
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<td>3150</td>
<td>2500</td>
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<tr>
<td>Short circuit current (kA)</td>
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<td>40</td>
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<tr>
<td>Internal arc test (kA)</td>
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<td>50</td>
<td>40</td>
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</tbody>
</table>
PFC panel

- Integrated capacitor bank
- Better supervision and control
- Resonance protection
- Less transients

Compensation power
12 - 17,5 kV 1,6 MVAr
Panel types

- **Incomer**
- **Outgoing feeder**
- **Disconn. feeder**
- **Support panel**
- **Sectionalizer**