UniSec AirPlus™ HBC

Eco-efficient air-insulated secondary switchgear up to 24kV
To enhance eco-efficiency and reduce environmental impact, ABB has been developing and deploying alternatives to the greenhouse gas sulfur hexafluoride (SF$_6$).

ABB now offers medium-voltage switchgear with AirPlus™, a groundbreaking eco-efficient gas mixture which reduces global warming potential (GWP) by 99.99%.

**AirPlus benefits**

- Global warming potential GWP $<$1
- Not covered by SF$_6$ regulations
- Non-flammable, practically non-toxic

Eco alternative with AirPlus™ in UniSec HBC panel
UniSec AirPlus™ HBC

HBC panel

**HBC benefits**

**General UniSec HBC benefits**
- Compact: 500mm wide @ 24kV 630A 16kA
- Only 1 apparatus combining CB, Disconnector & ES:
  - Interlocks fully integrated
  - Reduced spare parts
- Cable connection well accessible at 600mm height

**UniSec AirPlus™ HBC**
- Easy replacement and integration: Same compact dimensions as the proven UniSec HBC with SF$_6$-insulated HySec
- Safe and Reliable: Highest level of personnel safety and same power supply availability as the proven UniSec HBC with SF$_6$-insulated HySec

Same benefit of the SF$_6$ version... but with GWP<1
UniSec AirPlus™ HBC
HBC panel

**Ratings and performances**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Voltage</td>
<td>up to 24KV</td>
</tr>
<tr>
<td>Frequency</td>
<td>50-60Hz</td>
</tr>
<tr>
<td>Test and Impulse Voltage</td>
<td>up to 50/125KV</td>
</tr>
<tr>
<td>Branch Current</td>
<td>630A</td>
</tr>
<tr>
<td>Busbars Current</td>
<td>630/800/1250A</td>
</tr>
<tr>
<td>Internal Arc Current</td>
<td>A-F, A-FL A-FLR 16KA 1s</td>
</tr>
<tr>
<td>Short Circuit Current</td>
<td>16KA 3s (40kA peak)</td>
</tr>
<tr>
<td>IAC Classification</td>
<td>LSC2</td>
</tr>
<tr>
<td>Minimum operating temp.</td>
<td>-10°C</td>
</tr>
<tr>
<td>N° of mechanical op. CB</td>
<td>10.000 class M2</td>
</tr>
<tr>
<td>N° of mechanical op. Disc. &amp; ES</td>
<td>1.000 class M0</td>
</tr>
</tbody>
</table>

Same benefit of the SF₆ version... but with GWP<1
UniSec AirPlus™ HBC
HySec apparatus

**HySec details**

1. **Vacuum** pole
2. Fixed contact of Line Switch (AirPlus)
3. Moving part in isolated position (AirPlus)
4. Fixed contact of Earthing Switch (AirPlus)

Robust Interlock between Circuit Breaker and Disconnector position is integrated for safe operation.

Eco, Compact and Safe
Thanks to flexibility in use and application of the HySec apparatus, the HBC panel can be used to protect and control both the incoming and outgoing feeders.
UniSec AirPlus™ HBC

Applications

Compact secondary substation

Utility

Residential and Commercial building

Light industry

Suitable for numbers of applications