

## Technical data

Table 1 Switchgear

Switchgear model	HICLAD 20GB	HICLAD 30GB						
Switchgear type	NBG-24	BGB-36						
Applicable standards	IEC62271-200							
Classification of switchgear	SF <sub>6</sub> -insulated metal-enclosed							
Service condition	<ul style="list-style-type: none"> <li>● Altitude &lt; 1000m</li> </ul>	<ul style="list-style-type: none"> <li>● Ambient temperature Max. 40°C, Min. -5°C</li> <li>24h. average &lt; 35°C</li> </ul>	<ul style="list-style-type: none"> <li>● Relative humidity 24h.average &lt; 95%</li> <li>1 month average &lt; 90%</li> </ul>					
Rated voltage (kV)	24	36						
Rated current (A)	1250, 2000	1250, 2000, 2500						
Rated frequency (Hz)	50/60							
Insulation level	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">1 min power frequency (kV rms)</td> <td style="padding: 2px; text-align: center;">50</td> <td style="padding: 2px; text-align: center;">70</td> </tr> <tr> <td style="padding: 2px;">1.2 × 50 μs impulse (kV peak)</td> <td style="padding: 2px; text-align: center;">125</td> <td style="padding: 2px; text-align: center;">170</td> </tr> </table>	1 min power frequency (kV rms)	50	70	1.2 × 50 μs impulse (kV peak)	125	170	
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1.2 × 50 μs impulse (kV peak)	125	170						
Rated short-time withstand current (kA-s)	25-3	31.5-3						
Degree of protection	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">HV compartment</td> <td style="padding: 2px; text-align: center;">IP65</td> </tr> <tr> <td style="padding: 2px;">LV compartment</td> <td style="padding: 2px; text-align: center;">IP40</td> </tr> </table>	HV compartment	IP65	LV compartment	IP40			
HV compartment	IP65							
LV compartment	IP40							
Gas pressure	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Rated pressure (MPa)</td> <td style="padding: 2px; text-align: center;">0.05</td> <td style="padding: 2px; text-align: center;">0.08</td> </tr> <tr> <td style="padding: 2px;">Alarm pressure (MPa)</td> <td style="padding: 2px; text-align: center;">0.02</td> <td style="padding: 2px; text-align: center;">0.06</td> </tr> </table>	Rated pressure (MPa)	0.05	0.08	Alarm pressure (MPa)	0.02	0.06	
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Operation of 3-position isolator	Motorized / Manual							
Auxiliary voltage	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Control circuit (V)</td> <td style="padding: 2px; text-align: center;">DC 30, 110, 125, 220</td> </tr> <tr> <td style="padding: 2px;">Motor circuit (V)</td> <td style="padding: 2px; text-align: center;">AC 220, 230, 240 / DC 110, 125</td> </tr> </table>	Control circuit (V)	DC 30, 110, 125, 220	Motor circuit (V)	AC 220, 230, 240 / DC 110, 125			
Control circuit (V)	DC 30, 110, 125, 220							
Motor circuit (V)	AC 220, 230, 240 / DC 110, 125							

Table 2 Vacuum Circuit-Breaker (VCB)

VCB model	NVG-22	VGB-33						
Applicable standards	IEC62271-100							
Rated voltage (kV)	24	36						
Rated current (A)	1250, 2000	1250, 2000, 2500						
Rated frequency (Hz)	50/60							
Insulation level	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">1 min power frequency (kV rms)</td> <td style="padding: 2px; text-align: center;">50</td> <td style="padding: 2px; text-align: center;">70</td> </tr> <tr> <td style="padding: 2px;">1.2 × 50 μs impulse (kV peak)</td> <td style="padding: 2px; text-align: center;">125</td> <td style="padding: 2px; text-align: center;">170</td> </tr> </table>	1 min power frequency (kV rms)	50	70	1.2 × 50 μs impulse (kV peak)	125	170	
1 min power frequency (kV rms)	50	70						
1.2 × 50 μs impulse (kV peak)	125	170						
Rated short-circuit breaking current (kA)	25	31.5						
Rated short-circuit making current (kA peak)	63	82						
Rated short-time withstand current (kA-s)	25-3	31.5-3						
Operating duty*	O-0.3sec.-CO-3min-CO							
Rated closing time (s)	0.05							
Rated opening time (s)	0.05							
Rated break time (s)	0.07							
Rated TRV for terminal fault	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Rate of rise (kV/μs)</td> <td style="padding: 2px; text-align: center;">0.47</td> <td style="padding: 2px; text-align: center;">0.57</td> </tr> <tr> <td style="padding: 2px;">TRV peak voltage (kV)</td> <td style="padding: 2px; text-align: center;">41</td> <td style="padding: 2px; text-align: center;">62</td> </tr> </table>	Rate of rise (kV/μs)	0.47	0.57	TRV peak voltage (kV)	41	62	
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TRV peak voltage (kV)	41	62						
Type of operating mechanism	Motor charged spring							

\* : Other duties, O-0.3sec.-CO-15sec.-CO, O-0.3sec.-CO-1min-CO-1min-CO are also available.