

直流转换开关 DC Transfer Switch

产品概述

转换开关布置于换流站中性线，实现系统切换时，功率不中断传输；开断装置采用H型、双断口、机械联动的布置方案。

Product overview

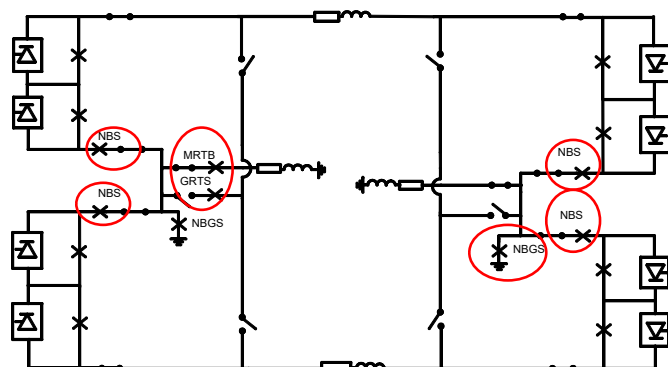
The transfer switch is arranged on the neutral line of the converter station to realize power transmission without interruption when the system is switched; The breaking device is arranged following the scheme of H-type, double fracture and mechanical linkage.

100kV直流转换开关 100kV DC Transfer Switch



位置和作用 Position and Role

直流转换开关的作用：运行方式的转换或故障的切除。
Function of DC transfer switch: Conversion of operation mode or troubleshooting.



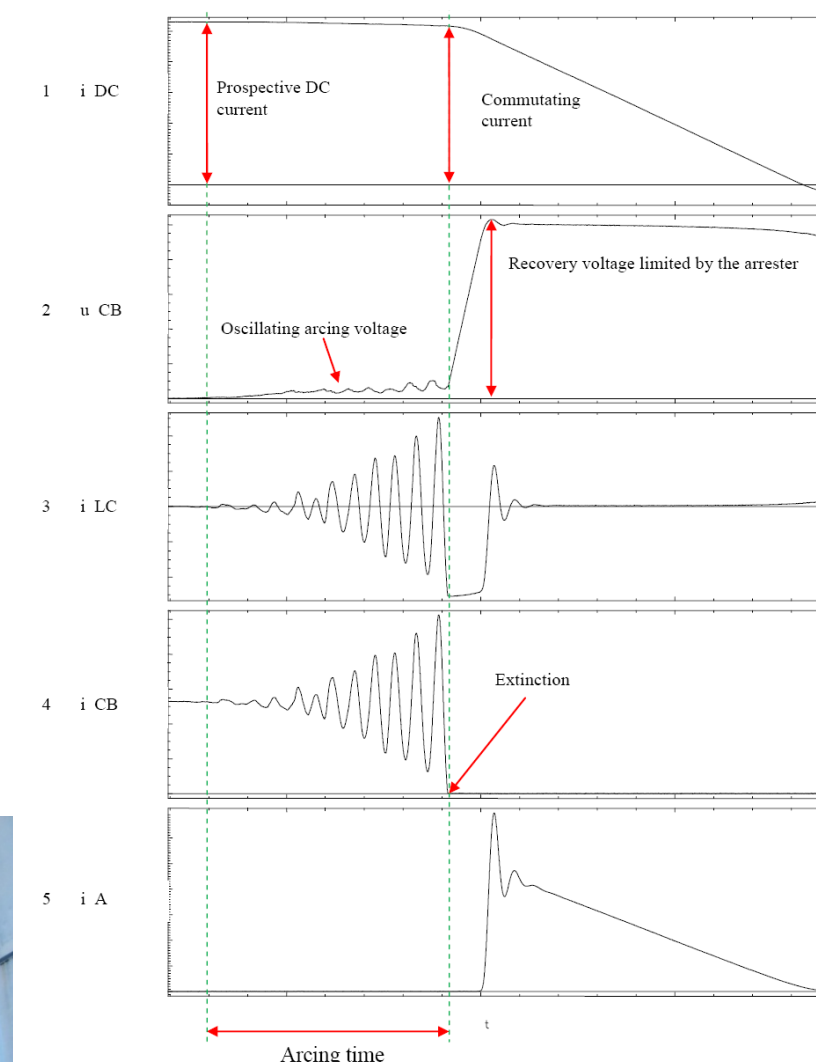
主要技术参数

Main technical parameter

序号 S/N	项目名称 Item	单位 Unit	额定参数 Rated parameters
1	额定运行电压 Rated operating voltage	kV	100
2	额定运行电流 Rated operating current	A	5000
3	额定转换电流 Rated conversion current	A	5100
4	最大持续运行电流 Maximum continuous operating current	A	5500
5	60min直流耐受电压 60min DC withstand voltage	kV	225
6	额定雷电冲击耐受电压（断口） Rated lightning impulse withstand voltage(break) (1.2/50μs)	kV	1050(+205)
7	额定雷电冲击耐受电压（对地） Rated lightning impulse withstand voltage(earth) (1.2/50μs)	kV	1050
8	额定操作冲击耐受电压（断口） Rated switching impulse withstand voltage(break) (250/2500μs)	kV	850(+295)
9	额定操作冲击耐受电压（对地） Rated switching impulse withstand voltage(earth) (250/2500μs)	kV	650
10	机械操作次数 Mechanical operations	次 Nr.	10000
11	最大转换电压（峰值） Maximum conversion voltage (peak)	kV	120

直流转换开关 DC Transfer Switch

直流转换开关在德国IPH试验站已按最新IEC和国标完成全套型式试验并取得试验站的认证资质。
DC transformer has been fully type tested and certified in according with the latest IEC and GB standards in IPH Laboratory, Germany.



开断波形
Breaking waveform

直流转换开关 DC Transfer Switch

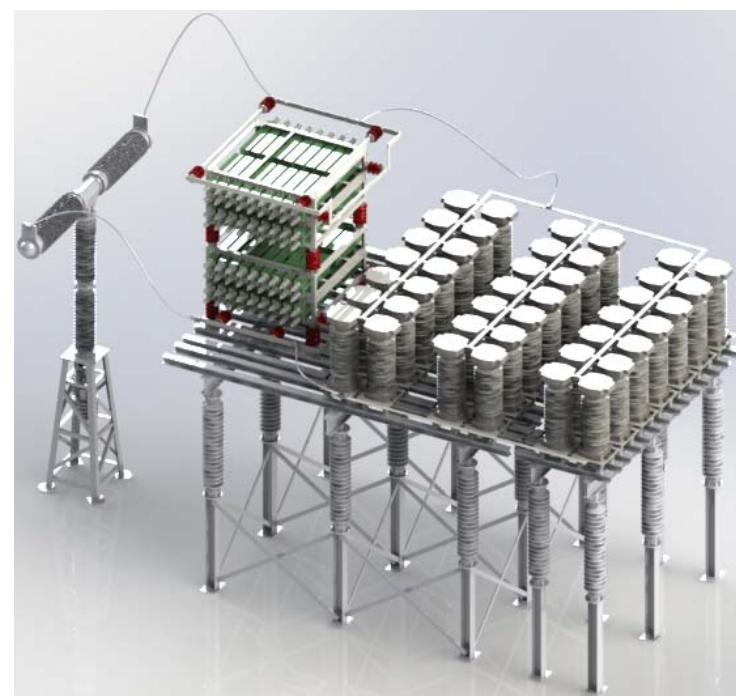
产品概述

开断装置采用双断口、机械联动、T字形布置方案，利于产品的模块化安装布置。

Product overview

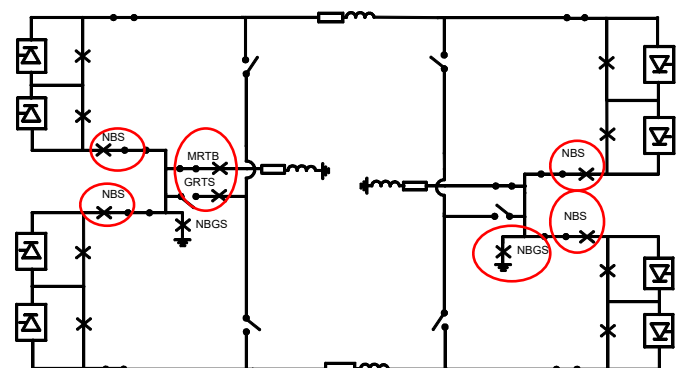
The breaking device is arranged following the scheme of double fracture, mechanical linkage and T-shaped, which is beneficial to modular installation and arrangement of products.

150kV 直流转换开关 150kV DC Transfer Switch



位置和作用 Position and Role

直流转换开关的作用：运行方式的转换或故障的切除。
Function of DC transfer switch: Conversion of operation mode or troubleshooting.



主要技术参数

Main technical parameter

序号 S/N	项目名称 Item	单位 Unit	额定参数 Rated parameters
1	额定运行电压 Rated operating voltage	kV	150
2	额定运行电流 Rated operating current	A	6600
3	额定转换电流 Rated conversion current	A	6400
4	最大持续运行电流 Maximum continuous operating current	A	8000
5	60min直流耐受电压 60min DC withstand voltage	kV	225
6	额定雷电冲击耐受电压（断口） Rated lightning impulse withstand voltage(break) (1.2/50μs)	kV	1050(+205)
7	额定雷电冲击耐受电压（对地） Rated lightning impulse withstand voltage(earth) (1.2/50μs)	kV	1050
8	额定操作冲击耐受电压（断口） Rated switching impulse withstand voltage(break) (250/2500μs)	kV	850(+295)
9	额定操作冲击耐受电压（对地） Rated switching impulse withstand voltage(earth) (250/2500μs)	kV	650
10	机械操作次数 Mechanical operations	次 Nr.	10000
11	最大转换电压（峰值） Maximum conversion voltage (peak)	kV	120

直流旁路开关 DC Bypass Switch

产品概述

直流旁路开关的作用：换流桥的投入或退出；提高系统可靠性和利用率。

Product overview

Function of DC bypass switch: Input or exit of converter bridge; Improve system reliability and utilization rate.

直流旁路开关 DC Bypass Switch

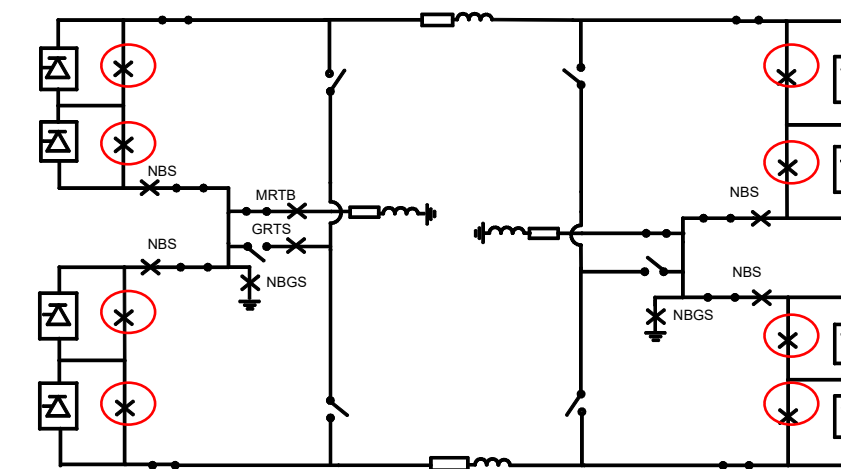


主要技术参数

Main technical parameter

序号 S/N	项目名称 Item	单位 Unit	额定参数 Rated parameters	
1	额定运行电压 Rated operating voltage	kV	1120	816
2	额定短时电流 Rated short-term current	A	6300	8000
3	直流耐受电流 DC withstand current	kV	1680	1224
4	额定雷电冲击耐受电压（断口/对地） Rated lightning impulse withstand voltage(break/earth)	kV	1300/2300	1175/1950
5	额定操作冲击耐受电压（断口/对地） Rated switching impulse withstand voltage (break/earth)	kV	1175/2100	950/1675

位置和作用 Position and Role



直流穿墙套管 DC Wall Bushing

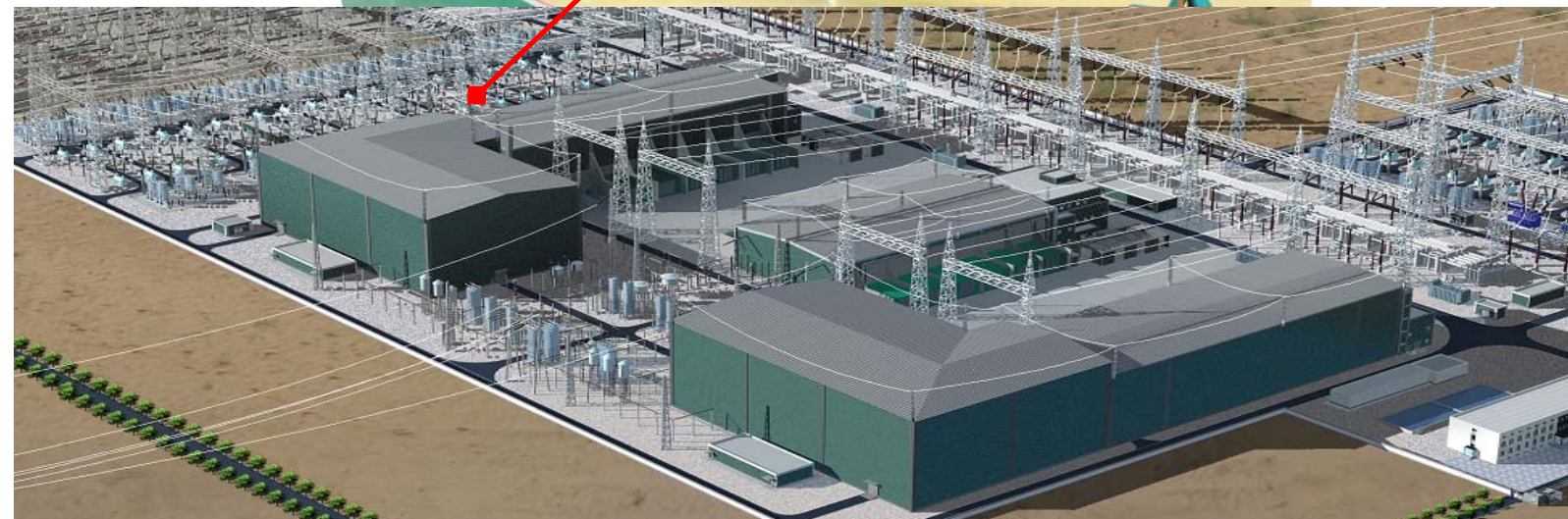
产品概述

特高压直流穿墙套管是阀厅内部和外部高电压大容量电气设备的电气连接，是直流输电系统的“咽喉”，单体承受全电压和全电流，是制约工程建设的瓶颈。

Product overview

EHVDC DC wall bushing is the electrical connection of high voltage and large capacity electrical equipment inside and outside the valve hall, as the "throat" of DC transmission system. The single one bears full voltage and current, which is the bottleneck of restricting engineering construction.

直流穿墙套管 DC Wall Bushing



主要技术参数 Main technical parameter

产品 Product	±1100kV直流穿墙套管 ±1100kV DC wall bushing	±800kV直流穿墙套管 ±800kV DC wall bushing	±550kV直流穿墙套管 ±550kV DC wall bushing	±408kV直流穿墙套管 ±408kV DC wall bushing	±150kV直流穿墙套管 ±150kV DC wall bushing
额定电压 (kV) Rated voltage (kV)	1100	800	550	400	150
连续直流电流(Ade) Continuous DC current (Ade)	7025	7025	7025	5000	5000
雷电冲击试验电压 (kVpeak) Lightning impulse test voltage (kVpeak)	2420	1870	1300	903	600
操作冲击试验电压 (kVpeak) Switching impulse test voltage (kVpeak)	2100	1675	1175	825	550
工频1min试验电压 (kVrms) Power frequency 1min test voltage (kVrms)	1273	865	620	500	285
工频1h试验电压 (kVrms) Power frequency 1h test voltage (kVrms)	1190	865	595	435	150
直流2h试验 (kVdc) + 局放 DC 2h test (kVdc) + PD	1683	1224	840	612	225
直流极性反转试验 (kVdc) + 局放 (90/90/45min) DC polarity inversion test (kVdc) + PD (90/90/45min)	-1403/+1403 /-1403	-1020/+1020 /-1020	-700/+700 /-700	-510/+510 /-510	—
直流湿态耐受电压(kVdc) DC wet withstand voltage (kVdc)	1403	1020	700	510	188
地震烈度 Earthquake intensity	AG5	AG5	AG5	AG5	AG5



舟山站
DC Transfer Switch



南阳站
DC Bypass Switch



昌吉站
DC Wall Bushings