

COMPARISON BETWEEN GB/T & IEC & HD629

Date: 2016/8/18

No	Tests	Requirements	36kV			42kV		
			IEC 60502-4 18/30(36) kV	GB/T 12706.4 18/30(36) kV	HD629.1 18/30(36)	IEC 60502-4 No 42kV	GB/T 12706.4 26/35(40.5) kV	HD629.1 20.8/36(42) kV
1	AC voltage	AC 5min	81kV	81kV	81kV	X	117kV	93.5kV
2	DC voltage	DC 15min	72kV	72kV	108kV	X	104kV	125kV
3	Partial discharge	@<10pC	30kV	30kV	30kV	X	45kV	36kV
4	Impulse	10 impulses of each polarity	170kV	170kV	170kV	X	200kV	200kV
5	Thermal short-circuit (screen)	2 short-circuits at I_{sc} of the cable screen. No visible deterioration.						
6	Thermal short-circuit (conductor)	2 short-circuits to raise conductor to θ_{sc} of the cable. No visible deterioration.						
7	Dynamic	One short-circuit at I_d . No visible deterioration						
8	Heating cycles in air	N cycles at θ_t and $2.5 U_0$	N=30 45kV	N=30 45kV	N=63 45kV	X	N=30 65kV	N=63 52kV
9	Heating cycles under water	N cycles at θ_t and $2.5 U_0$	N=30 45kV	N=30 45kV	N=63 45kV	X	N=30 65kV	N=63 52kV
10	Disconnect/connec Five times	No visible deterioration to contact. No test above 630A.						
11	Operating eye	Axial Force F for 1min. Torque 14N · m	1300N	2200N	1300N	X	2200N	1300N
12	Screen resistance	Max. 5000Ω						
13	Screen leakage current	Max 0.5mA at U_m						