

### main specifications of TGE MOV

No.	series	type	suggested rated voltage (kV)	MCOV (kV)	diameter (mm)	height (mm)	DC $U_{1mA}$ (kV)	$I_L$ at 75% of $U_{1mA}$ ( $\mu A$ )	$U_{res}$ (kV)	typical $U_{res} / U_{1mA}$	repetitive charge transfer $Q_{rs}$ (C)	2ms withstand test (A)	4/10 $\mu s$ high current test (kA)	nominal discharge current $I_n$ (kA)	accelerated ageing test
1	AC	D28H23.5	3.6	3.1	28±0.7	23.5±0.3	5.52±0.3	≤ 10	9.7±0.5	1.75	0.3	150	65	5	115°C 0.9* $U_{1mA}\sqrt{2}$ Kct ≤ 1.0
2		D28H29	4.5	3.8	28±0.7	29±0.3	6.82±0.35	≤ 10	12.0±0.6	1.75	0.3	150	65	5	
3		D30H23.5	3.6	3.1	30±0.7	23.5±0.3	5.52±0.3	≤ 10	9.5±0.5	1.72	0.3	200	65	5	
4		D30H29	4.5	3.8	30±0.7	29±0.3	6.82±0.35	≤ 10	11.7±0.6	1.72	0.3	200	65	5	
5		D33H23.5	3.6	3.1	33.5±0.7	23.5±0.3	5.52±0.3	≤ 10	9.2±0.5	1.67	0.4	250	65	5	
6		D33H29	4.5	3.8	33.5±0.7	29±0.3	6.82±0.35	≤ 10	11.4±0.6	1.67	0.4	250	65	5	
7		D33H35	5.4	4.6	33.5±0.7	35±0.3	8.22±0.4	≤ 10	13.7±0.7	1.67	0.4	250	65	5	
8		D36H23.5	3.6	3.1	36±0.7	23.5±0.3	5.52±0.3	≤ 15	9.9±0.5	1.81	0.5	350	100	10	
9		D36H29	4.5	3.8	36±0.7	29±0.3	6.82±0.35	≤ 15	12.2±0.6	1.81	0.5	350	100	10	
10		D36H35	5.4	4.6	36±0.7	35±0.3	8.22±0.4	≤ 15	14.8±0.7	1.81	0.5	350	100	10	
11		D38H23.5	3.6	3.1	38.5±0.7	23.5±0.3	5.52±0.3	≤ 15	9.8±0.5	1.77	0.5	400	100	10	
12		D38H29	4.5	3.8	38.5±0.7	29±0.3	6.82±0.35	≤ 15	12.1±0.6	1.77	0.5	400	100	10	
13		D38H35	5.4	4.6	38.5±0.7	35±0.3	8.22±0.4	≤ 15	14.6±0.7	1.77	0.5	400	100	10	
14		D40H23.5	3.6	3.1	40±0.7	23.5±0.3	5.52±0.3	≤ 15	9.6±0.5	1.75	0.5	450	100	10	
15		D40H29	4.5	3.8	40±0.7	29±0.3	6.82±0.35	≤ 15	11.9±0.6	1.75	0.5	450	100	10	
16		D40H35	5.4	4.6	40±0.7	35±0.3	8.22±0.4	≤ 15	14.3±0.7	1.75	0.5	450	100	10	
17		D42H23.5	3.8	3.2	42±0.7	23.5±0.3	5.52±0.3	≤ 15	9.55±0.5	1.73	0.6	500	100	10	
18		D42H29	4.6	3.9	42±0.7	29±0.3	6.82±0.35	≤ 15	11.8±0.6	1.73	0.6	500	100	10	
19		D42H35	5.6	4.8	42±0.7	35±0.3	8.22±0.4	≤ 15	14.2±0.7	1.73	0.6	500	100	10	
20		D46H23.5	3.7	3.1	46±1	23.5±0.3	5.17±0.3	≤ 20	8.8±0.5	1.7	1.2	650	100	10	
21		D46H29	4.5	3.8	46±1	29±0.3	6.38±0.35	≤ 20	10.9±0.6	1.7	1.2	650	100	10	
22		D46H35	5.4	4.6	46±1	35±0.3	7.70±0.4	≤ 20	13.1±0.7	1.7	1.2	650	100	10	
23		D48H23.5	3.7	3.1	48±1	23.5±0.3	5.17±0.3	≤ 20	8.8±0.5	1.7	1.6	750	100	10	
24		D48H29	4.5	3.8	48±1	29±0.3	6.38±0.35	≤ 20	10.9±0.6	1.7	1.6	750	100	10	
25		D48H35	5.4	4.6	48±1	35±0.3	7.70±0.4	≤ 20	13.1±0.7	1.7	1.6	750	100	10	
26		D50H23.5	3.7	3.1	50±1	23.5±0.3	5.17±0.3	≤ 20	8.8±0.5	1.7	1.6	800	100	10	
27		D50H29	4.5	3.8	50±1	29±0.3	6.38±0.35	≤ 20	10.9±0.6	1.7	1.6	800	100	10	
28		D50H35	5.4	4.6	50±1	35±0.3	7.70±0.4	≤ 20	13.1±0.7	1.7	1.6	800	100	10	
29		D55H23.5	3.7	3.1	55±1	23.5±0.3	5.17±0.3	≤ 20	8.6±0.5	1.67	1.8	950	100	10	
30		D55H29	4.5	3.8	55±1	29±0.3	6.38±0.35	≤ 20	10.7±0.6	1.67	1.8	950	100	10	
31		D55H35	5.4	4.6	55±1	35±0.3	7.70±0.4	≤ 20	12.9±0.7	1.67	1.8	950	100	10	
32		D60H23.5	3.7	3.1	60±1	23.5±0.3	5.17±0.3	≤ 20	8.5±0.5	1.64	2	1100	100	10	
33		D60H29	4.5	3.8	60±1	29±0.3	6.38±0.35	≤ 20	10.5±0.6	1.64	2	1100	100	10	
34		D60H35	5.4	4.6	60±1	35±0.3	7.70±0.4	≤ 20	12.6±0.7	1.64	2	1100	100	10	
35		D62H23.5	3.7	3.1	62±1	23.5±0.3	5.17±0.3	≤ 20	8.4±0.5	1.63	2.4	1200	100	10	
36		D62H29	4.5	3.8	62±1	29±0.3	6.38±0.35	≤ 20	10.4±0.6	1.63	2.4	1200	100	10	
37		D62H35	5.4	4.6	62±1	35±0.3	7.70±0.4	≤ 20	12.5±0.7	1.63	2.4	1200	100	10	
38		D71H22.5	3.5	3	71±1	22.5±0.3	4.95±0.3	≤ 20	7.9±0.5	1.59	3.2	1600	100	20	
39		D78H22.5	3.6	3.1	78±1	22.5±0.3	4.95±0.3	≤ 20	7.8±0.5	1.58	4	2000	100	20	
40		D85H22.5	3.6	3.1	86±1	22.5±0.3	4.95±0.3	≤ 20	7.65±0.5	1.55	4.4	2200	100	20	
41		D99H22.5	3.6	3.1	100±1.2	22.5±0.3	4.95±0.3	≤ 20	7.55±0.5	1.53	6	2800	100	20	
42		D105H22.5	3.6	3.1	105±1.2	22.5±0.3	4.95±0.3	≤ 20	7.5±0.5	1.52	6	3000	100	20	
43		D115H22.5	3.6	3.1	117±1.2	22.5±0.3	4.95±0.3	≤ 20	7.45±0.5	1.51	7.2	3500	100	20	
44	DC	D71H22.5	5	4	71±1	22.5±0.3	4.95±0.3	≤ 20	7.9±0.5	1.59	3.2	1600	100	20	115°C 0.85* $U_{1mA}$ Kct ≤ 1.0
45		D78H22.5	5	4	78±1	22.5±0.3	4.95±0.3	≤ 20	7.8±0.5	1.58	4	2000	100	20	
46		D86H22.5	5	4	86±1	22.5±0.3	4.95±0.3	≤ 20	7.65±0.5	1.55	4.4	2200	100	20	
47		D99H22.5	5	4	100±1.2	22.5±0.3	4.95±0.3	≤ 20	7.55±0.5	1.53	6	2800	100	20	
48	high gradient	D71H22.5	5.8	4.9	71±1	22.5±0.3	8.1±0.45	≤ 20	12.6±0.7	1.55	1.6	800	100	10	115°C 0.9* $U_{1mA}\sqrt{2}$ Kct ≤ 1.0
49		D78H22.5	5.9	5	78±1	22.5±0.3	8.1±0.45	≤ 20	12.4±0.7	1.53	2	1000	100	10	
50		D86H22.5	5.9	5	86±1	22.5±0.3	8.1±0.45	≤ 20	12.25±0.7	1.51	2.4	1200	100	20	
51		D99H22.5	5.6	4.8	100±1.2	22.5±0.3	7.65±0.45	≤ 20	11.4±0.7	1.49	3.2	1600	100	20	
52	D115H22.5	5.6	4.8	117±1.2	22.5±0.3	7.65±0.45	≤ 20	11.3±0.7	1.48	4	2000	100	20		
53	for EGLA	D33H23.5	4.9	4.2	33.5±0.7	23.5±0.3	7.05±0.4	≤ 10	11.6±0.7	1.67	0.2	150	65	5	115°C 0.9* $U_{1mA}\sqrt{2}$ Kct ≤ 1.0
54		D36H23.5	4.9	4.2	36±0.7	23.5±0.3	7.05±0.4	≤ 10	12.5±0.7	1.8	0.3	250	100	10	
55		D38H23.5	4.9	4.2	38.5±0.7	23.5±0.3	7.05±0.4	≤ 10	12.3±0.7	1.77	0.4	300	100	10	

- 1) repetitive charge transferring test: D28-D42, use lightning impulse 8/20 $\mu s$  for non EGLA; D46-D115, use 2ms impulse; D33-D38 for EGLA, use 90/200 $\mu s$  impulse.
- 2) test according to Chinese National Standard GB11032 & GB/T32520, IEC60099-4, IEC60099-8 and IEEE Std C62.11.
- 3) suggested rated voltage is based on center value of  $U_{1mA}$  and test according to ICE60099-4.
- 4)  $U_{res}$  is measured at 5kA for D28-D33,  $U_{res}$  is measured at 10kA for D36-D115.