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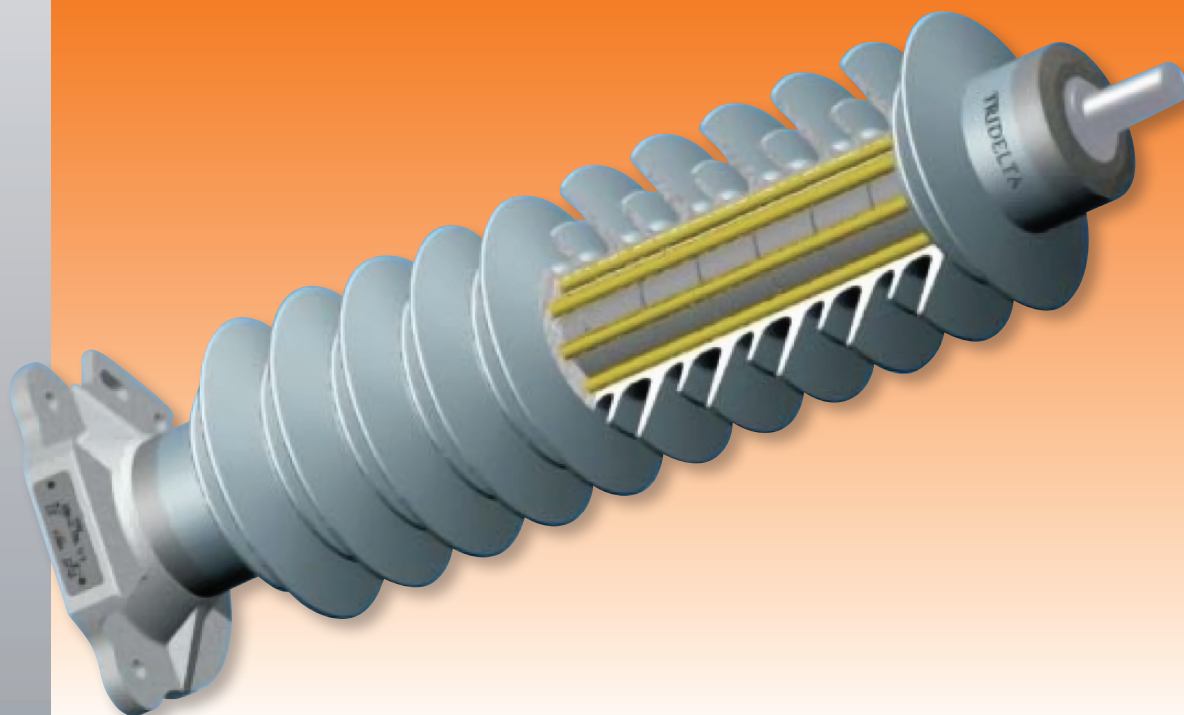


TRIDELTA Überspannungsableiter GmbH

# Metal oxide surge arrester

with polymer cage-design

Type series SBKC 6 to 288/10.3



## Field of application

Protection of transformers, switch-gears and plants against atmospheric and switching overvoltages

## Selection of metal oxide surge arresters

The selection of the rated and the continuous operating voltage of the arresters is depending on the neutral performance of the networks. Guidelines for selection: see DIN VDE 0675/part 5 and IEC 60099-5

## Design

Directly molded and with FRP rods reinforced active part silicon housing: grey RAL 7040 fittings: Al alloy connections: clamps, screws, nuts hot dip galv. or stainless steel

## Optional accessories

Monitoring spark gap, surge counter, diagnostic appliance

## Operating conditions

ambient temperature:  $-60^{\circ}\text{C}$  to  $+55^{\circ}\text{C}$   
rated frequency: 16 cps to 62 cps

## Technical parameters

rated voltage  $U_r$  : 6 kV to 288 kV  
nominal discharge current : 10 kA  
high current impulse (4/10) : 100 kA  
long duration current impulse: 1000 A  
/2000  $\mu\text{s}$   
Line discharge class : 3  
rated short circuit current: 63 kA  
specific energy withstand acc. to IEC 60099-4; Edition 1.2:  $6,7 \text{ kJ} / \text{kV}_{U_r}$   
double impulse 3000  $\mu\text{s}$ :  $12 \text{ kJ} / \text{kV}_{U_r}$

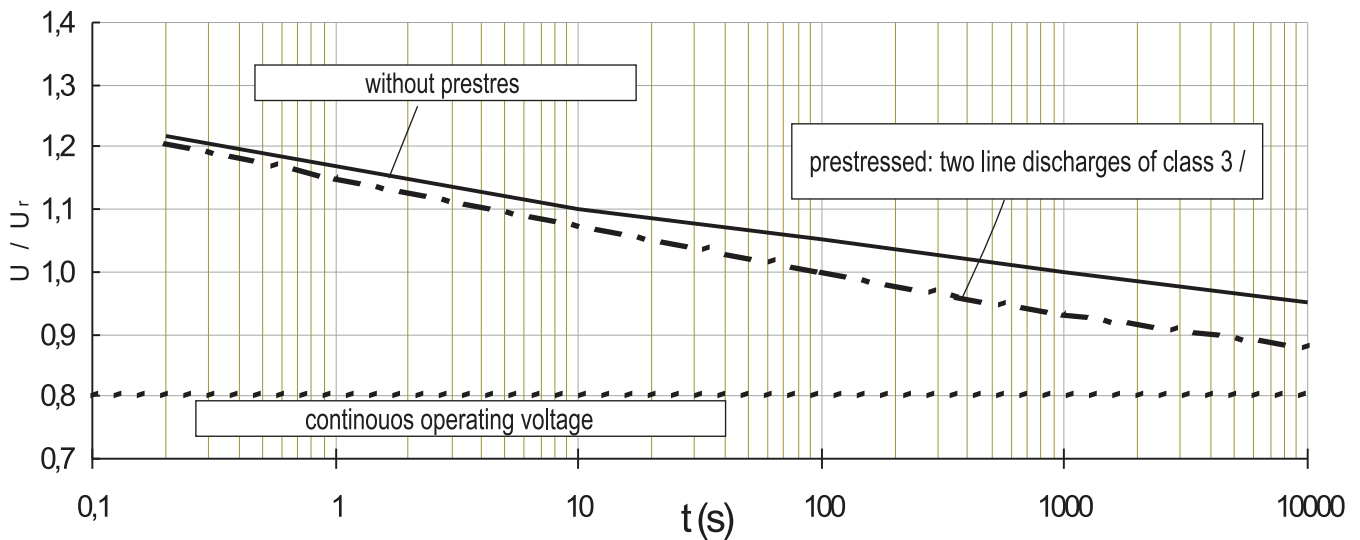
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	rated voltage / $U_r$ kV	continuous operating voltage / $U_c$ kV	temporary overvoltage TOV <sup>1)</sup>		residual voltage at steep, lightning and switching impulse current /										min. housing size / min.
			$U_{1s}$ kV	$U_{10s}$ kV	10 kA (1/2 $\mu$ s)	5 kA (8/20 $\mu$ s)	10 kA (8/20 $\mu$ s)	20 kA (8/20 $\mu$ s)	40 kA (8/20 $\mu$ s)	250 A (30/70 $\mu$ s)	500 A (30/70 $\mu$ s)	1000 A (30/70 $\mu$ s)	2000 A (30/70 $\mu$ s)		
					kV	kV	kV	kV	kV	kV	kV	kV	kV	kV	
SBKC 06/10.3	6	4,8	6,9	6,5	16,6	14,4	15,2	16,6	17,6	12,2	12,5	12,9	13,3	A	
SBKC 12/10.3	12	9,6	13,8	13,0	33,1	28,9	30,4	33,1	35,3	24,3	25,1	25,8	26,7	A	
SBKC 18/10.3	18	14,4	20,7	19,4	49,6	43,2	45,5	49,6	52,8	36,4	37,5	38,7	39,9	A	
SBKC 30/10.3	30	24,0	34,5	32,4	78,5	68,4	72,0	78,5	83,5	57,6	59,4	61,2	63,1	A	
SBKC 36/10.3	36	28,8	41,4	38,9	94,2	82,1	86,4	94,2	100,2	69,1	71,2	73,4	75,8	A	
SBKC 48/10.3	48	38,4	55,2	51,8	125,6	109,4	115,2	125,6	133,6	92,2	95,0	97,9	101,0	B	
SBKC 51/10.3	51	41	59	55	133	116	122	133	142	98	101	104	107	B	
SBKC 90/10.3	90	72	104	97	235	205	216	235	251	173	178	184	189	C	
SBKC 96/10.3	96	77	110	104	251	219	230	251	267	184	190	196	202	C	
SBKC 102/10.3	102	82	117	110	267	233	245	267	284	196	202	208	215	C	
SBKC 186/10.3	186	149	214	201	486	424	446	486	517	357	368	379	391	B+C	
SBKC 192/10.3	192	154	221	207	502	438	461	502	535	369	380	392	404	B+C	
SBKC 198/10.3	198	158	228	214	518	451	475	518	551	380	392	404	417	B+D	
SBKC 210/10.3	210	168	242	227	549	479	504	549	585	403	416	428	442	B+D	

1) With a prior energy stress of two line discharges of class 3.

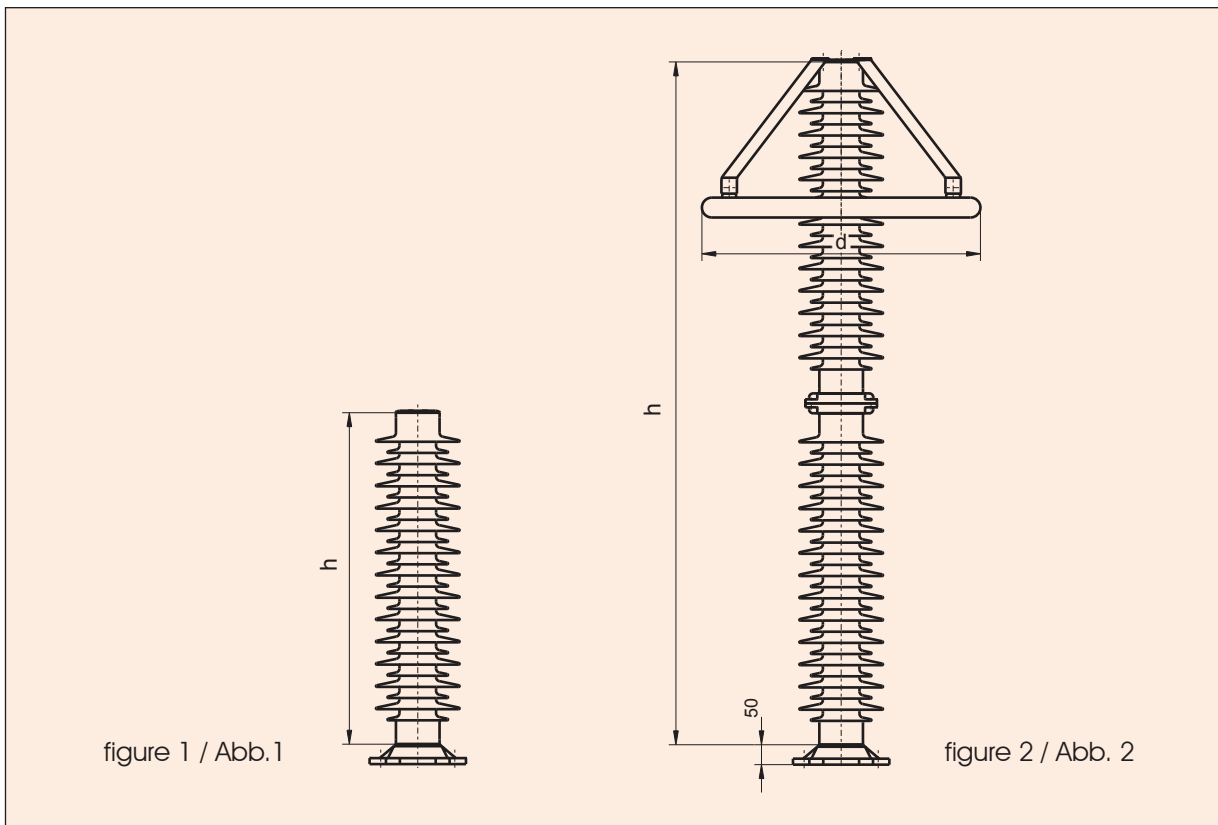
Power frequency voltage versus time characteristic (initial temperature +60°C)



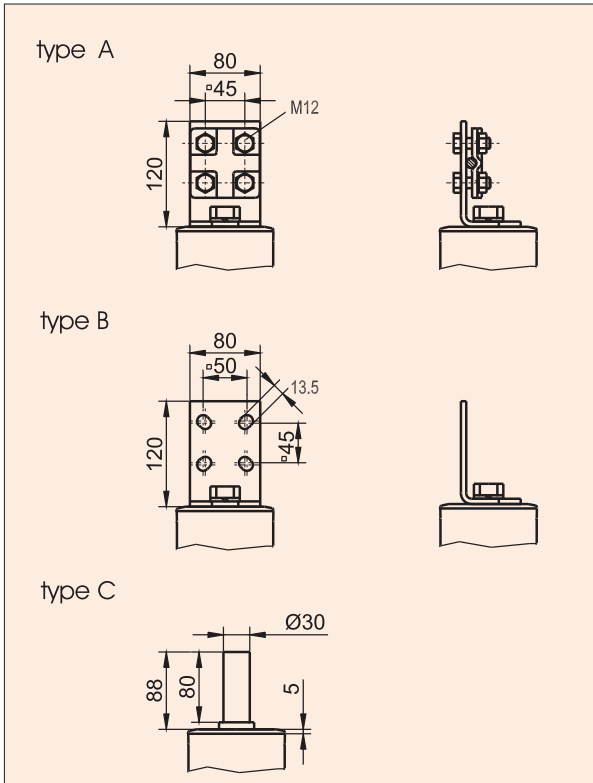
housing size	height h mm	min. creepage distance mm	max. weight ≈ m kg	grading ring / Potential-ring d mm	figure	insulation of arrester housing (applied to standard atmosphere)		
						p.f. withstand voltage (wetted)  PFWL 50 Hz kV	lightning impulse withstand voltage  LIWL 1.2/50 kV	switching impulse withstand voltage (wetted)  SIWL 250/2500 kV
A	497	1470	17	-	1	130	310	185
B	721	2270	21	-	1	190	410	270
C	1337	4500	27	-	1	350	680	515
D	1505	5100	42	-	1	390	750	575
B+C	2098	6770	50	700	2	525	990	785
B+D	2266	7370	63	700	2	570	1055	845
C+C	2714	9000	61	700	2	682	1253	1030
C+D	2882	9600	70	900	2	725	1325	1090
D+D	3050	10200	85	900	2	770	1400	1150

### Mechanical guarantee data

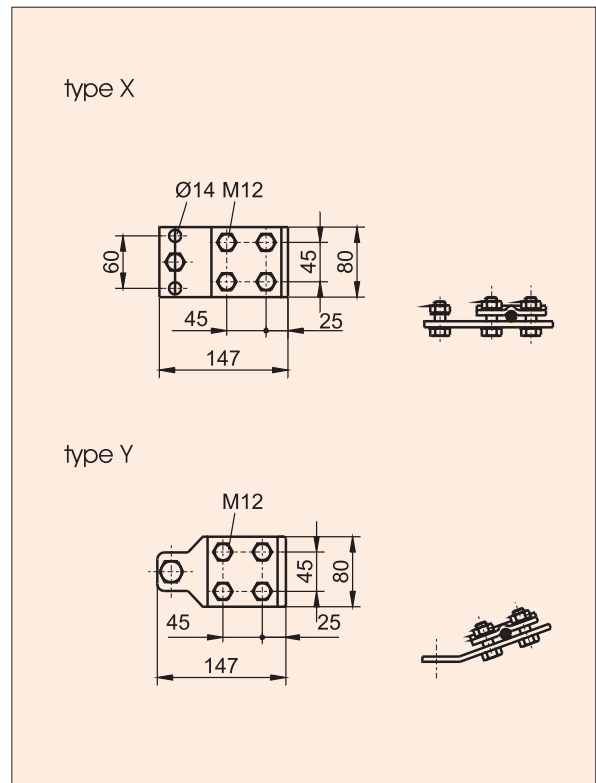
torsional strength	:	500 Nm
maximum permissible service load	:	3500 Nm
tensile strength	:	10 kN



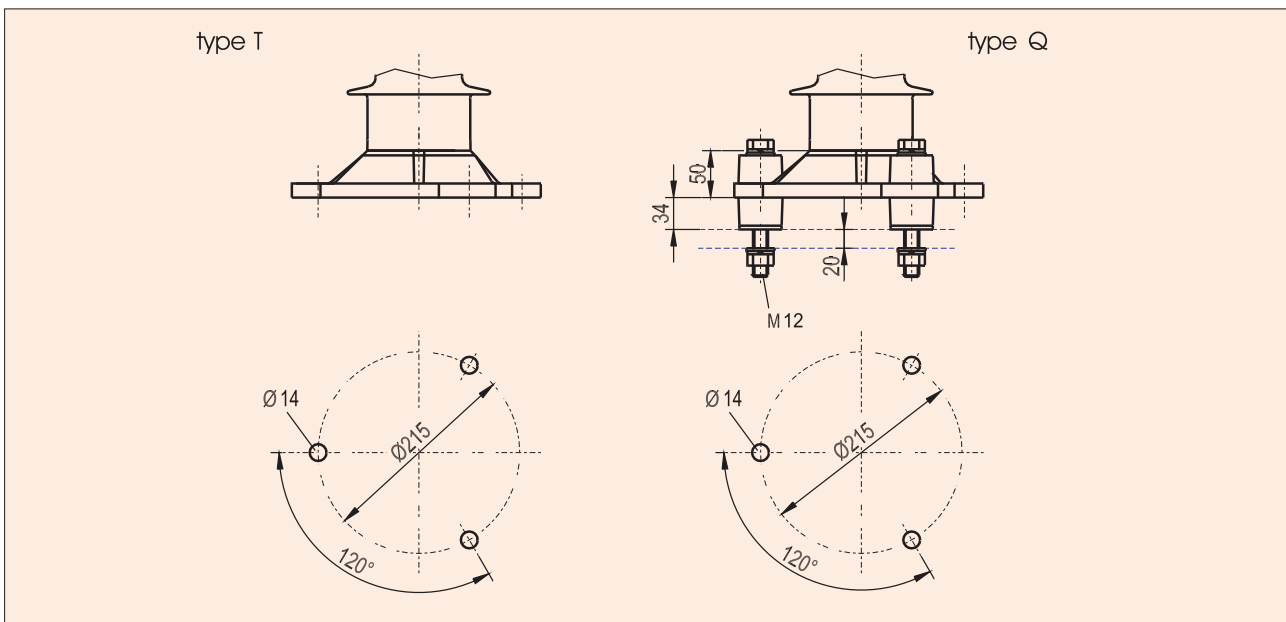
line terminals



earth terminals



variants of installation and drilling plan



How to order

Metal oxide surge arrester with polymer housing / SBKC 60/10.3

Housing size B

line connection A

variant of installation Q

earth connection X

Specifications in this leaflet are subject to change without notice.