Station Class
Polymeric Surge Arresters

The essential feature of the internal construction is the homogeneous resin and glass fibre bond over the complete insulated surface of the ZnO varistor elements. The arrester module has good conductivity even when high cantilever loads are applied and provides a uniform dielectric at the insulated surface of the ZnO elements.

- No air gap therefore no internal ionisation
- Light weight compared to porcelain
- Ease of installation
- Non shattering housing
- Vandal proof

110kV Surge Arresters - Estonia

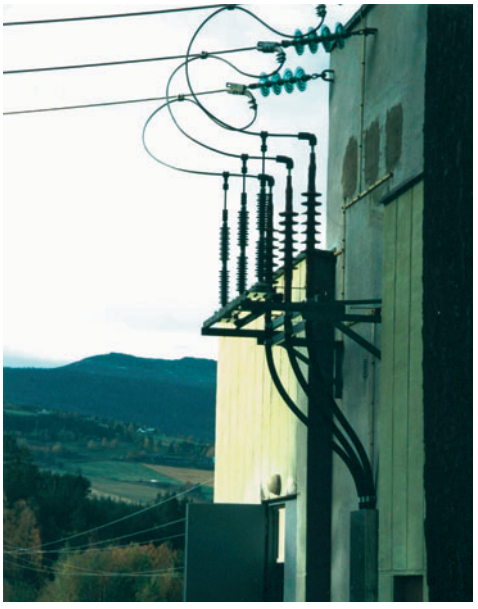
Electrical Performance

Specification:	IEC60099-4
Classification:	10kA
Voltage Rating:	3kV to 132kV
High Current Performance:	100kA
Line Discharge Class:	2
Energy Capability: 4.5kJ/kV at Ur according to IEC60099-4 (Clause 8.4.2 table 5 and 8.5.5)	
HSR	Rated Voltage to 48kV
2HSR	Rated Voltage to 84kV
3HSR	Rated Voltage to 126kV
Insulation Material:	Silicone Rubber

Extended Creepage
HSREP45 Surge Arrester

Typical Applications

- ARC Furnace
- Transformers
- TLA Transmission Line Arresters
- Cable Terminations
- Substations



66kV Surge Arresters - Statkraft, Norway

Station Class
Polymeric Surge Arresters

Accessories

Corona Ring
(Above 84kV)

Stainless Steel Terminal Assembly

Die Cast Aluminium Sealing End

Aluminium End Block

ZnO Varistor Element

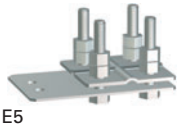
Glass Fibre Wrap

Silicone Rubber Housing

L5
Line Clamp
to suit cables
up to Ø35 mm

L2
Line Clamp
to suit cables
up to Ø16 mm

L6
Aluminium Stem
Ø30 x 80mm high



E5
Earth Clamp
to suit cables
up to Ø35 mm

E2
Earth Clamp
to suit cables
up to Ø16 mm

M5
4 Hole Pedestal Base
127-140 PCD

E1
2 x M10 x 20mm
Hexagon headed
set screws and
spring washers

M3
Set of 4 Polyfibre Base
Insulators used with M5

M10
Single Polyfibre Base
Insulator

Example: 3 HSRC 96 L1 E1 M0

No. of Sections

Arrester Housing

Voltage

Mounting

Earth Terminal

Line Terminal

Station Class
Polymeric Surge Arresters

Protective Characteristics

Product code	Rating voltage kV	Max cont. operating voltage (COV) kV	Temporary over-voltage capability for 1 sec (TOV) kV	Max residual voltage kV crest with current wave									Steep current residual voltage*	
				Switching surge 30/60 µS					Lightning current 8/20 µS					
				125A kV crest	250A kV crest	500A kV crest	1000A kV crest	2000A kV crest	5kA kV crest	10kA kV crest	20kA kV crest	40kA kV crest	10kA kV crest	20kA kV crest
HSRA(P)6L1E1M0(5)	6	4.80	7.08	12.2	12.5	13.0	13.5	14.1	15.4	16.6	18.2	20.8	17.8	19.6
HSRA(P)9L1E1M0(5)	9	7.20	10.9	19.5	20.1	20.8	21.6	22.6	24.6	26.5	29.2	33.2	28.4	31.4
HSRA(P)10.5L1E1M0(5)	10.5	8.40	12.4	22.0	22.6	23.3	24.3	25.5	27.7	29.8	32.8	37.4	32.0	35.3
HSRA(P)12L1E1M0(5)	12	9.60	14.2	24.4	25.1	25.9	27.0	28.3	30.8	33.1	36.5	41.5	35.5	39.3
HSRA(P)15L1E1M0(5)	15	12.0	17.7	29.3	30.1	31.1	32.4	33.9	37.0	39.7	43.8	49.8	42.6	47.1
HSRB(P)15L1E1M0(5)	15	12.0	17.7	29.3	30.1	31.1	32.4	33.9	37.0	39.7	43.8	49.8	42.6	47.1
HSRB(P)18L1E1M0(5)	18	14.4	21.2	36.6	37.6	38.9	40.5	42.4	46.2	49.7	54.7	62.3	53.3	58.9
HSRB(P)21L1E1M0(5)	21	16.8	24.8	41.5	42.7	44.1	45.9	48.1	52.4	56.3	62.0	70.6	60.4	66.8
HSRB(P)24L1E1M0(5)	24	19.2	28.3	48.8	50.2	51.9	54.0	56.6	61.6	66.2	73.0	83.0	71.1	78.5
HSRB(P)27L1E1M0(5)	27	21.6	31.9	53.7	55.2	57.1	59.3	62.2	67.8	72.8	80.3	91.3	78.2	86.4
HSRB(P)30L1E1M0(5	30	24.0	35.4	58.6	60.2	62.3	64.7	67.9	73.9	79.4	87.6	99.6	85.3	94.3
HSRC(P)27L1E1M0(5)	27	21.6	31.9	53.7	55.2	57.1	59.3	62.2	67.8	72.8	80.3	91.3	78.2	86.4
HSRC(P)30L1E1M0(5)	30	24.0	35.4	58.6	60.2	62.3	64.7	67.9	73.9	79.4	87.6	99.6	85.3	94.3
HSRC(P)36L1E1M0(5)	36	28.8	42.5	70.8	72.8	75.2	78.2	82.0	89.3	96.0	106	120	103	114
HSRC(P)39L1E1M0(5)	39	31.2	46.0	78.2	80.3	83.0	86.3	90.5	98.6	106	117	133	114	126
HSRC(P)42L1E1M0(5)	42	33.6	49.6	83.0	85.3	88.2	91.7	96.2	105	113	124	141	121	134
HSRC(P)45L1E1M0(5)	45	36.0	53.1	87.9	90.3	93.4	97.1	102	111	119	131	149	128	141
2HSRB(P)30L1E1M0(5)	30	24.0	35.4	58.6	60.2	62.3	64.7	67.9	73.9	79.4	87.6	99.6	85.3	94.3
2HSRB(P)45L1E1M0(5)	45	36.0	53.1	87.9	90.3	93.4	97.1	102	111	119	131	149	128	141
2HSRB(P)48L1E1M0(5)	48	38.4	56.6	95.2	97.8	101	105	110	120	129	142	162	139	153
2HSRB(P)60L1E1M0(5)	60	48.0	70.8	117	120	125	129	136	148	159	175	199	171	189
2HSRC(P)48L1E1M0(5)	48	38.4	56.6	95.2	97.8	101	105	110	120	129	142	162	139	153
2HSRC(P)60L1E1M0(5)	60	48.0	70.8	117	120	125	129	136	148	159	175	199	171	189
2HSRC(P)72L1E1M0(5)	72	57.6	85.0	142	146	150	156	164	179	192	212	241	206	228
2HSRC(P)75L1E1M0(5)	75	60.0	88.5	147	151	156	162	170	185	199	219	249	213	236
2HSRC(P)84L1E1M0(5)	84	67.2	99.1	166	171	176	183	192	209	225	248	282	242	267
3HSRC(P)96L1E1M0(5)	96	76.8	113	188	193	200	208	218	237	255	281	320	274	302
3HSRC(P)108L1E1M0(5)	108	86.4	127	212	218	226	235	246	268	288	317	361	309	342
3HSRC(P)120L1E1M0(5)	120	96.0	142	234	241	249	259	272	296	318	350	399	341	377
3HSRC(P)126L1E1M0(5)	126	101	149	247	253	262	272	286	311	334	369	419	359	397

* Residual voltage correction factor as per IEC recommendation 10kV/10kA/m

Station Class
Polymeric Surge Arresters

Mechanical and Reference Information

Total creepage mm (nom)	Overall height mm (max)	Recommended minimum phase centres mm	Recommended minimum distance line to earth mm	Maximun applied cantilever load N	Drawing reference		Data sheet reference
					M0	M5	
600	228	140	33	2513	BOW-2-001	BOW-4-001	BOW-EPP-HSRA6/HSRAP6
600	228	145	49	2513	BOW-2-001	BOW-4-001	BOW-EPP-HSRA9/HSRAP9
600	228	160	57	2513	BOW-2-001	BOW-4-001	BOW-EPP-HSRA10.5/HSRAP10.5
600	228	170	65	2513	BOW-2-001	BOW-4-001	BOW-EPP-HSRA12/HSRAP12
600	228	200	82	2513	BOW-2-001	BOW-4-001	BOW-EPP-HSRA15/HSRAP15
930	321	200	82	1760	BOW-2-002	BOW-4-002	BOW-EPP-HSRB15/HSRBP15
930	321	230	98	1760	BOW-2-002	BOW-4-002	BOW-EPP-HSRB18/HSRBP18
930	321	255	114	1760	BOW-2-002	BOW-4-002	BOW-EPP-HSRB21/HSRBP21
930	321	285	130	1760	BOW-2-002	BOW-4-002	BOW-EPP-HSRB24/HSRBP24
930	321	315	147	1760	BOW-2-002	BOW-4-002	BOW-EPP-HSRB27/HSRBP27
930	321	340	163	1760	BOW-2-002	BOW-4-002	BOW-EPP-HSRB30/HSRBP30
1325	476	315	147	1210	BOW-2A-001	BOW-4-003	BOW-EPP-HSRC27/HSRCP27
1325	476	340	163	1210	BOW-2A-001	BOW-4-003	BOW-EPP-HSRC30/HSRCP30
1325	476	400	196	1210	BOW-2A-001	BOW-4-003	BOW-EPP-HSRC36/HSRCP36
1325	476	425	212	1210	BOW-2A-001	BOW-4-003	BOW-EPP-HSRC39/HSRCP39
1325	476	455	228	1210	BOW-2A-001	BOW-4-003	BOW-EPP-HSRC42/HSRCP42
1325	476	480	244	1210	BOW-2A-001	BOW-4-003	BOW-EPP-HSRC45/HSRCP45
1860	642	340	163	1400	BOW-2B-002	BOW-4-004	BOW-EPP-HSRC45/HSRCP45
1860	642	477	243	1400	BOW-2B-002	BOW-4-004	BOW-EPP-2HSRB30/2HSRBP30
1860	642	510	260	1400	BOW-2B-002	BOW-4-004	BOW-EPP-2HSRB45/2HSRBP45
1860	642	625	326	1400	BOW-2B-002	BOW-4-004	BOW-EPP-2HSRB60/2HSRBP60
2650	952	510	260	900	BOW-2B-003	BOW-4-005	BOW-EPP-2HSRC48/2HSRCP48
2650	952	625	326	900	BOW-2B-003	BOW-4-005	BOW-EPP-2HSRC60/2HSRCP60
2650	952	735	391	900	BOW-2B-003	BOW-4-005	BOW-EPP-2HSRC72/2HSRCP72
2650	952	765	408	900	BOW-2B-003	BOW-4-005	BOW-EPP-2HSRC75/2HSRCP75
2650	952	840	456	900	BOW-2B-003	BOW-4-005	BOW-EPP-2HSRC84/2HSRCP84
3975	1428	1213	518	600	BOW-2B-006	BOW-4-006	BOW-EPP-3HSRC96/3HSRCP96
3975	1428	1326	583	600	BOW-2B-006	BOW-4-006	BOW-EPP-3HSRC108/3HSRCP108
3975	1428	1436	648	600	BOW-2B-006	BOW-4-006	BOW-EPP-3HSRC120/3HSRCP120
3975	1428	1495	680	600	BOW-2B-006	BOW-4-006	BOW-EPP-3HSRC126/3HSRCP126

Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.

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