HS Pexlim T

Surge Arrester - System Voltage 245 to 550 kV

Metal Oxide Surge Arrester HS Pexlim T

Protection of switchgear, transformers and other equipment in high voltage systems against atmospheric and switching overvoltages. For use when requirements of lightning intensity, energy capability and pollution are heavy.

Application

The HS Pexlim T gapless metal oxide arrester meets or exceeds all Station Class requirements of ANSI C62.11 (IEEE Standards for Metal Oxide Surge Arresters for AC Power Circuits). The HS Pexlim T arrester is designed to meet the following performance data:

Performance data

Maximum system voltages (V_m)	245 - 550 kV_{rms}
Duty Cycle Rated voltages (V_r)	180 - 420 kV_{rms}
Classifying current (ANSI/IEEE)	10 / 15 / 20 kA_{peak}
Discharge current withstand strength:	
High current 4/10 µs	100 kA_{peak}
Low current 2000 µs	1900 A_{peak}
Energy capability:	
2 impulses, (IEC Cl. 7.5.5) Fulfills/exceeds requirements of ANSI transmission-line discharge test for 550 kV systems.	19.2 kJ / kV of MCOV
Short-circuit / Pressure relief capability:	80 $kA_{rms\ sym}$
Cantilever strength (DIN 48113):	14000 ft - lbs / 19000 Nm
Service conditions:	
Ambient temperature	-40 °C to + 45 °C
Design altitude	6000 ft / 1830 m
Frequency	15 - 62 Hz

1) Higher strength designs available on request

2) Higher altitude designs available on request

Outlines

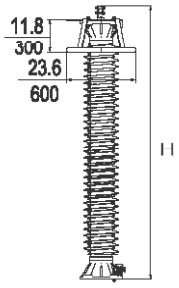


Figure 1

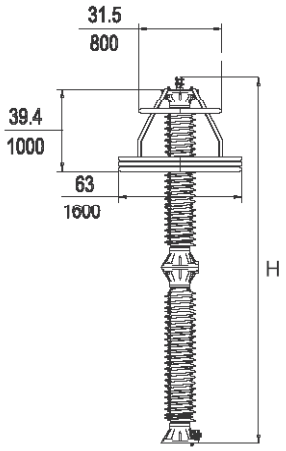


Figure 2

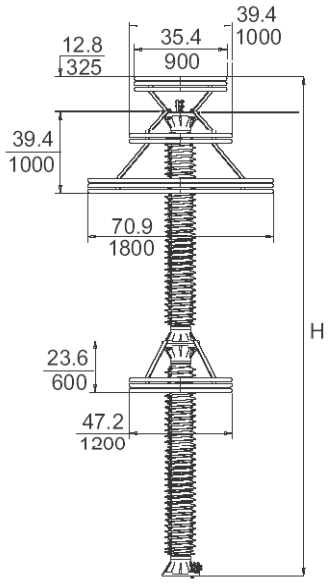


Figure 3

The design, data and dimensions are subject to modification without notice

Guaranteed Performance Data

Power frequency voltage, kV rms						Maximum residual voltage with current wave, kV peak						
Nom. V_n (1)	Max. V_m (2)	Rating V_r (3)	MCOV (4)	TOV (5) 1 s	TOV (5) 10 s	SPL (6) 30/60 µs	LPL (7) 8/20 µs 3 kA	5 kA	10 kA	20 kA	40 kA	FOW (8) 0.5 µs 10 kA
230	245	180	144	217	207	354	379	389	405	438	476	434
230	245	192	152	227	216	369	396	406	423	457	497	452
230	245	228	180	269	256	438	470	482	502	542	590	537
345	362	258	209	321	306	523	560	575	599	647	704	641
345	362	264	212	321	306	523	560	575	599	647	704	641
345	362	276	220	326	310	531	569	583	608	656	714	650
345	362	288	230	340	324	554	593	609	634	685	745	678
500	550	396	318	492	468	825	861	880	916	990	1077	980
500	550	420	335	496	472	807	865	888	924	998	1091	1054

(1) V_n = Nominal System Voltage per ANSI C84.1

(2) V_m = Maximum System Voltage per ANSI C84.1

(3) V_r = Duty Cycle Rated Voltage per ANSI C62.11

(4) MCOV = Maximum Continuous Operating Voltage per ANSI C62.11

(5) TOV = Temporary Overvoltage with No Prior Energy

(6) SPL = Switching Protective Level

1,000 A 144 - 240 kV
2,000 A 258 - 444 kV

(7) LPL = Lightning Protective Level

(8) FOW = Front of Wave

Technical data for housings

Rating V_r	Style No.	Height H		Creepage		Weight		Phase to Ground S		Phase to Phase T		Figure
		in	mm	in	mm	lb	kg	in	mm	in	mm	
245	T180TH245A	94	2392	271	6900	374	170	85	2159	101	2566	1
245	T192TH245A	94	2392	271	6900	374	170	85	2159	101	2566	1
245	T228TH245A	94	2392	271	6900	374	170	85	2159	101	2566	1
362	T258TH362A	141	3580	389	9900	583	265	114	2896	147	3734	2
362	T264TH362A	141	3580	389	9900	583	265	114	2896	147	3734	2
362	T276TH362A	141	3580	389	9900	583	265	114	2896	147	3734	2
362	T288TH362A	141	3580	389	9900	583	265	114	2896	147	3734	2
550	T396TH550A	192	4880	543	13800	852	388	135	3429	180	4572	3
550	T420TH550A	192	4880	543	13800	858	390	135	3429	180	4572	3

1) Increase clearances "S" and "T", 3% per each 1000 ft / 305 m over 6000 ft / 1830 m

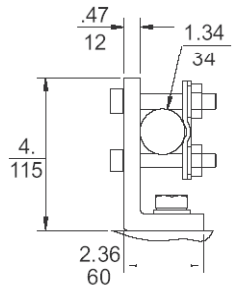
2) Arrester assembly consists of arrester unit, line, ground terminals and grading rings

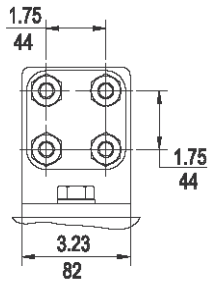
3) Minimum dimensions for arresters, other apparatus standards and other specifications or local codes may require greater spacing

4) Line and ground terminals can accomodate Cu or Al cable size Number 2 to 1000 MCM, (0.25 / 6.35 mm to 1.19 / 30 mm diameter)

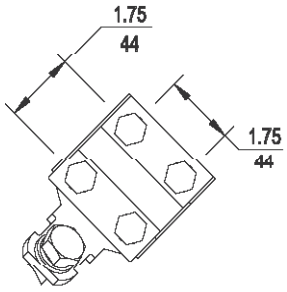
Standard Hardware

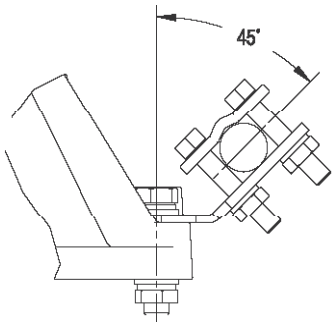
Line terminal



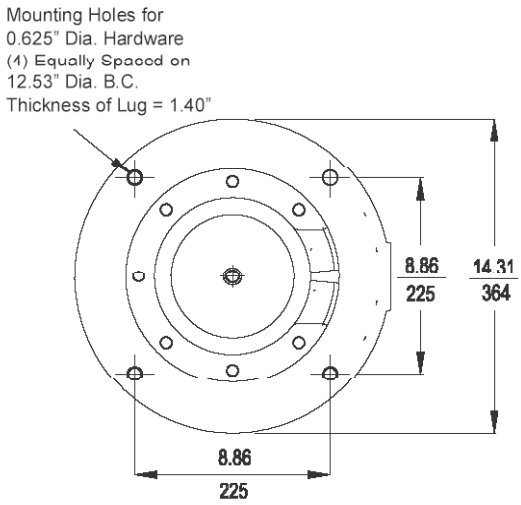


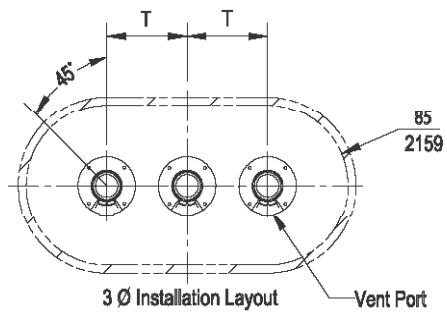
Ground terminal





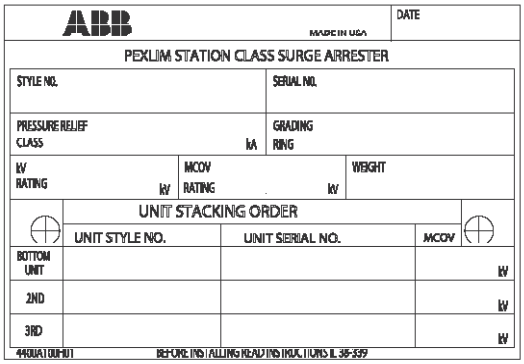
Drilling plan





1) Line and ground terminals can accomodate copper or aluminum cable size Number 2 to 1000 MCM / 0.25 to 1.19 in / 6 to 30 mm diameter. Ground terminal can be located on any lug.

Nameplate



Notes