ERECTION • TESTING • MAINTENANCE

INSTRUCTIONS

Type SV Autovalve Lightning Arresters FOR USE AT HIGH ALTITUDES

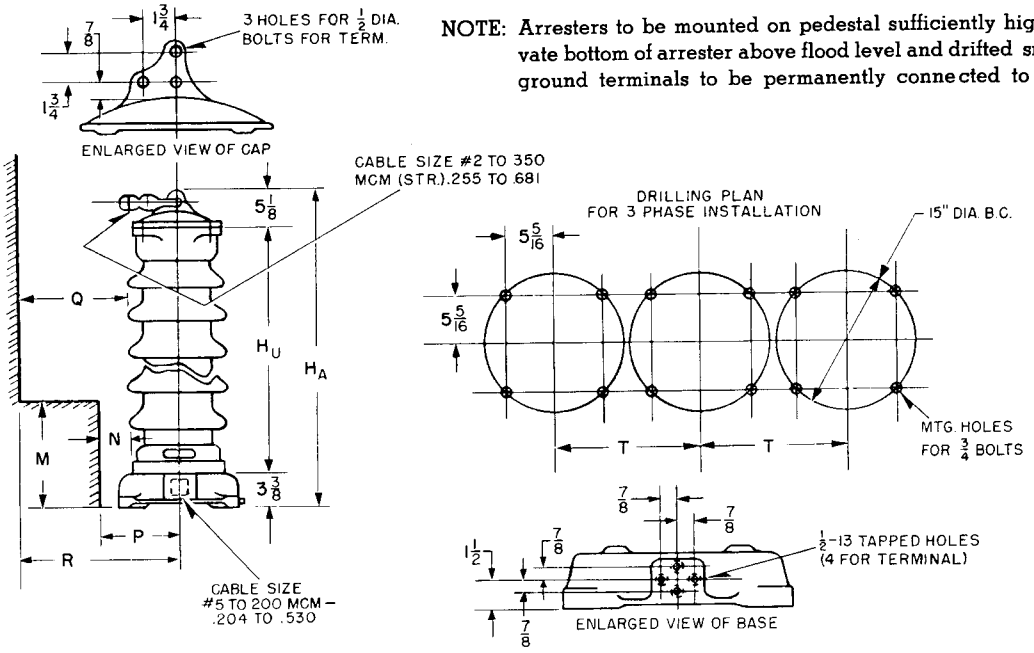
6,001 to 12,000 Feet Above Sea Level — **Indoor or Outdoor Service**

3,000 Through 121,000 Volts Maximum — **For Alternating Current Circuits Only**

For general instructions on construction, erection, testing, maintenance, etc., see I.L. 38-120-1 covering standard SV Autovalve lightning arresters for use at altitudes up to 6,000 feet.

The arresters covered in this leaflet (I.L. 38-120-3) have the same electrical characteristics at altitudes between 6,001 and 12,000 feet as do the standard arresters (described in I.L. 38-120-1) at altitudes between sea level and 6,000 feet. The outline dimensions and clearances are different, however, and are given in this leaflet for arresters to be used at altitudes between 6,001 and 12,000 feet.

NOTE: Arresters to be mounted on pedestal sufficiently high to elevate bottom of arrester above flood level and drilled snow. All ground terminals to be permanently connected to ground.



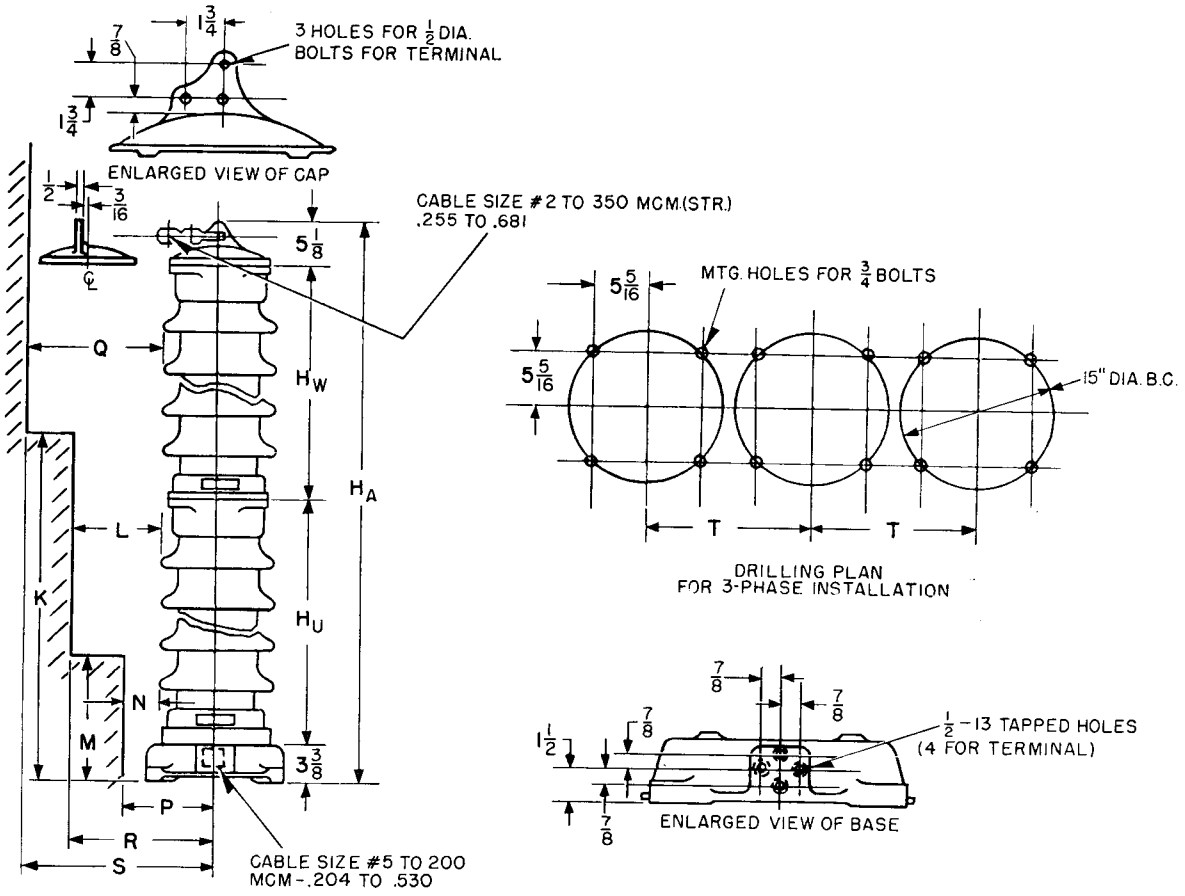
VOLTAGE RATING KV RMS	STYLE NUMBER*	NO. SHEDS	DIMENSIONS IN INCHES							
			H_A	H_U	M△	N	Q	P	R	T∅
3	1533 210	1	20½	12	7	2½	3½	7⅞	8⅞	18
6	1533 211	1	20½	12	7	3	4½	8⅜	9⅞	18
9	1533 212	2	24½	16	7	4	6	9⅜	11⅜	18
12	1533 213	4	28½	20	8	4½	7½	9⅞	12⅞	24
15	1533 214	7	38½	30	9¼	5½	9	10⅞	14⅜	26
20	1533 215	7	38½	30	11½	6½	11	11⅞	16⅜	29
25	1533 216	9	44½	36	13½	7½	13½	12⅞	18⅞	32
30	1533 217	9	44½	36	15	8½	16	13⅞	21⅜	36

* Style number covers one complete single pole arrester. For three-phase installation, three poles are required.

△ If a near-by grounded object does not exceed "M" in height, then the minimum clearance dimensions N & P may be used as shown in the figure.

∅ Minimum distance center line to center line between arrester phase legs.

FIG. 1. Outline Dimensions for 3 to 30 kv Type SV High Altitude Lightning Arresters



NOTE: Arresters to be mounted on pedestal sufficiently high to elevate bottom of arrester above flood level and drifted snow. All ground terminals to be permanently connected to ground.

VOLTAGE RATING KV RMS	ARRESTER STYLE NUMBER*	DIMENSIONS IN INCHES											
		M△	N	P	K◉	L	R	Q□	S	Hu	Hw	Ha	T
37	1533 218	8	4½	10	36	13	18½	23	28½	20	36	64½	40¾
40	1533 219	11½	7	12½	44	16	21½	29	34½	30	30	68½	48½
50	1533 220	13½	7	12½	46	19	24½	35	40½	36	36	80½	56¼
60	1533 221	15	7	12½	46	23	28½	42	47½	36	36	80½	65½

* Style number covers one complete single pole arrester. For three-phase installation, three poles are required.

△ If a near-by grounded object does not exceed "M" in height, then the minimum clearance dimensions N & P may be used as shown in the figure.

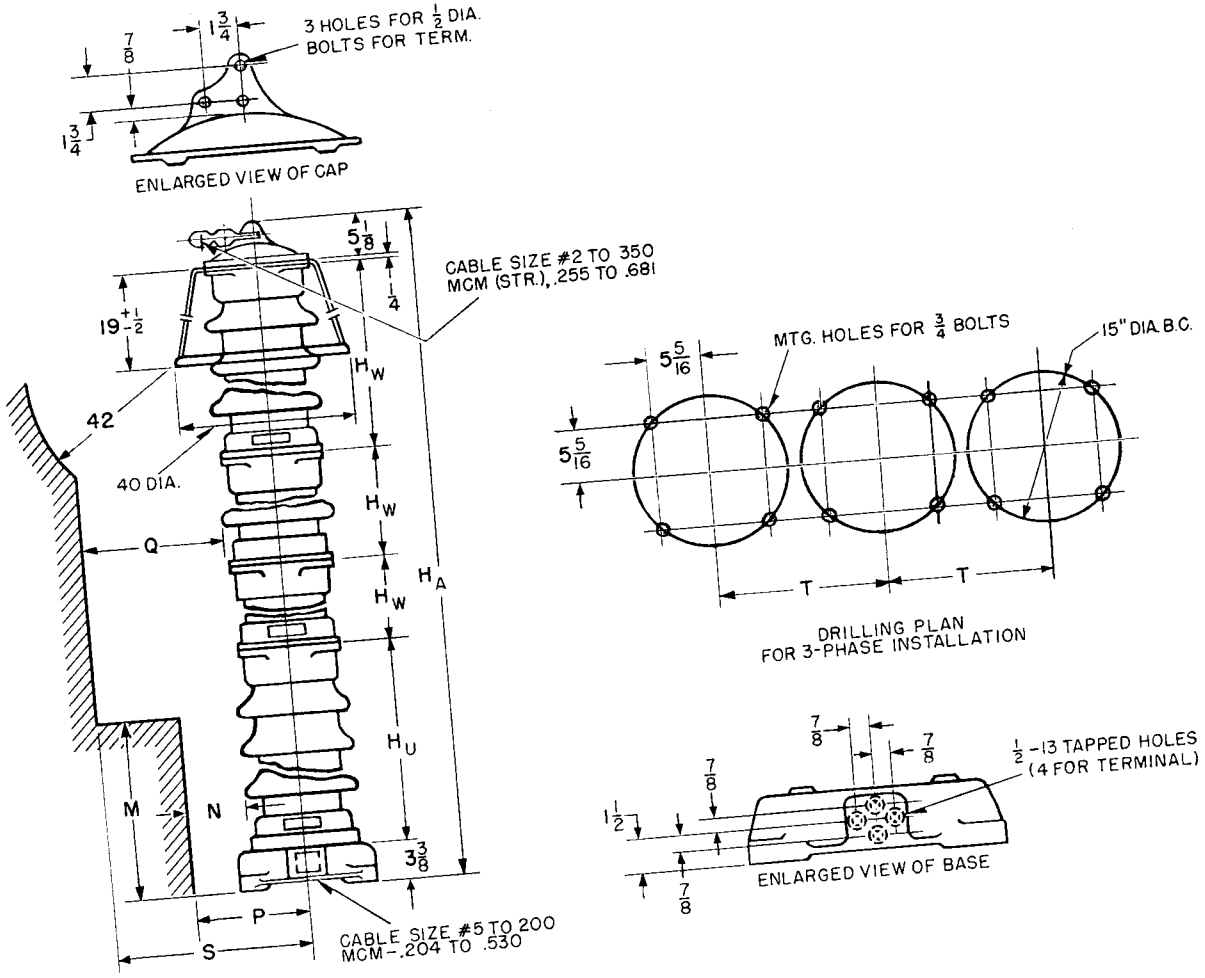
◉ If a near-by grounded object does not exeed "K" in height, then the minimum clearance dimensions L & R may be used as shown in the figure.

□ If a near-by grounded object exceeds "K" in height then minimum clearance dimensions Q & S must be used.

∅ Minimum distance center line to center line between arrester phase legs.

FIG. 2. Outline Dimensions for 37 to 60 kv Type SV High Altitude Lightning Arresters

HIGH ALTITUDE ARRESTERS



NOTE: Arresters to be mounted on pedestal sufficiently high to elevate bottom of arrester above flood level and drifted snow. All ground terminals to be permanently connected to ground.

VOLTAGE RATING KV RMS	ARRESTER STYLE NUMBER*	DIMENSIONS IN INCHES								
		M△	N	P	Q□	S	Hu	Hw	Ha	T∅
97	1533 223	27	15	20⅜	24	29⅜	20	36	136¾	98

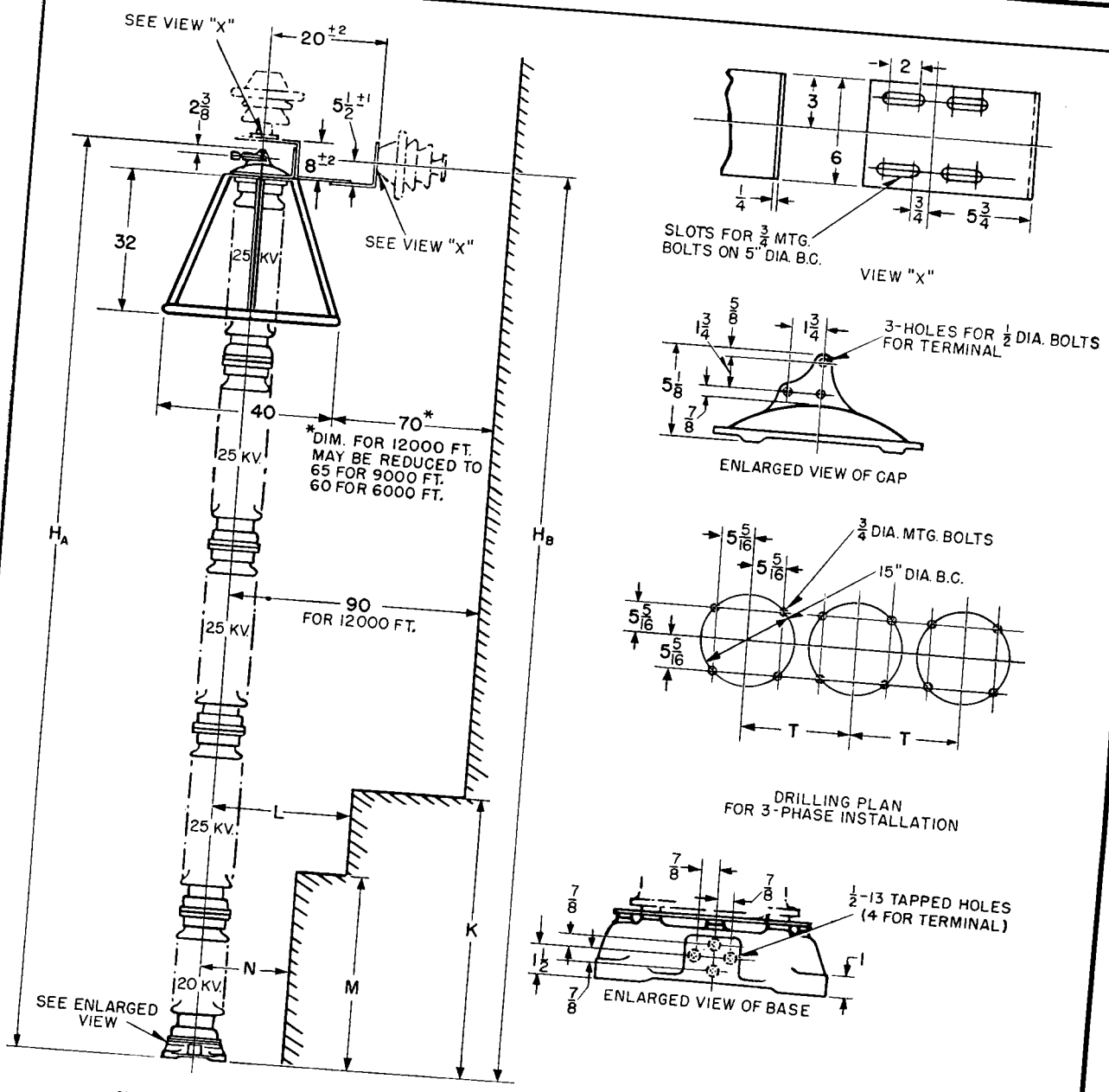
* Style number covers one complete single pole arrester. For three phase installation three poles are required.

△ If a near-by grounded object does not exceed "M" in height, then the minimum clearance dimensions N and P may be used as shown in the figure.

□ If a near-by grounded object exceeds "M" in height then the minimum clearance dimensions Q and S must be used.

∅ Minimum distance center line to center line between phase legs.

FIG. 4. Outline Dimensions for 97 kv Type SV High Altitude Lightning Arrester

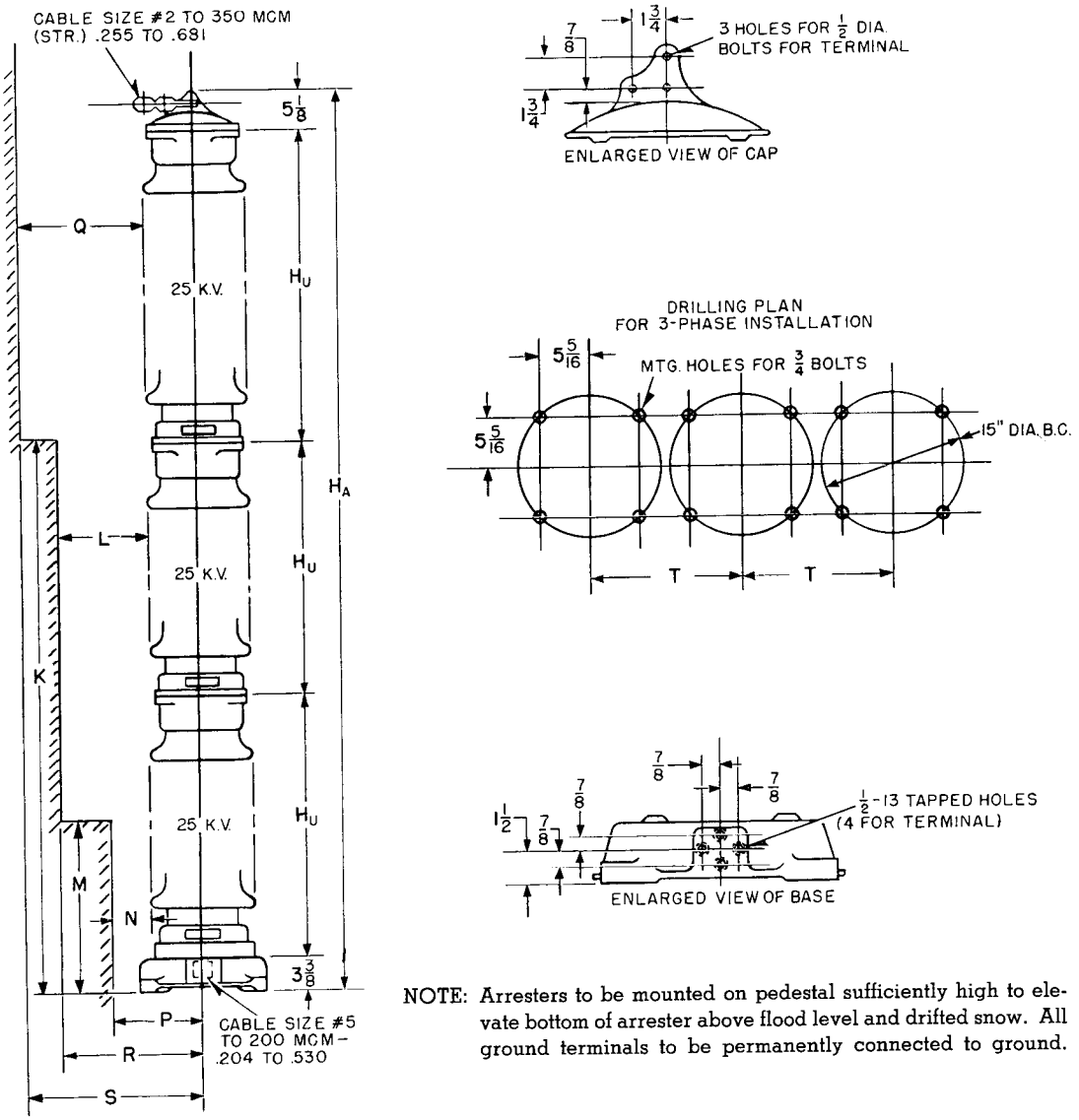


NOTE: Arresters should be mounted on pedestal. See note in Fig. 1. Line and ground terminal conductor sizes same as in Fig. 1. Style number covers one pole. For three-phase installation, three poles are required. Style number does not include bracing insulators.

VOLTAGE RATING KV RMS	ARRESTER STYLE NUMBER*	DIMENSIONS IN INCHES						
		M△	N	K◉	L	H_A	H_B	T∅
121	1616 804	41	32	62	45	183 5/8	183 1/8	111

△ If a near-by grounded object does not exceed "M" in height then the minimum clearance dimension N may be used.
◉ If a near-by grounded object does not exceed "K" in height, then the minimum clearance dimension L may be used. If a near-by grounded object exceeds "K" in height, then the minimum clearance dimension above must be used.
∅ Minimum distance center line to center line between arrester phase legs.

FIG. 5. Outline Dimensions for 121 kv Type SV High Altitude Lightning Arrester



NOTE: Arresters to be mounted on pedestal sufficiently high to elevate bottom of arrester above flood level and drifted snow. All ground terminals to be permanently connected to ground.

VOLTAGE RATING KV RMS	ARRESTER STYLE NUMBER*	DIMENSIONS IN INCHES										
		M△	N	P	K◉	L	R	Q□	S	Hu	Ha	T∅
73	1533 222	19	7	12 3/8	64	35	40 3/8	64	69 3/8	36	116 1/2	94

* Style number covers one complete single pole arrester. For three phase installation three poles are required.

△ If a near-by grounded object does not exceed "M" in height, then the minimum clearance dimensions N & P may be used as shown in the figure.

◉ If a near-by grounded object does not exceed "K" in height, then the minimum clearance dimensions L & R may be used as shown in the figure.

□ If a near-by grounded object exceeds "K" in height, then the minimum clearance dimensions Q & S must be used.

∅ Minimum distance center line to center line between arrester phase legs.

FIG. 3. Outline Dimensions for 73 kv Type SV High Altitude Lightning Arrester

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