

28kV	600A Elbow Surge Arrester	K655ESA
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Ratings:

For Metal Oxide Varistor (MOV) Surge Arresters	
High Current, Short Duration	All MOV Arresters withstand two discharges of 40kA crest
Low Current, Long Duration	All MOV Arresters withstand 20 surges of 75A/2000 microseconds duration
Duty Cycle Test	All MOV Arresters withstand 22 operations of 5kA crest at 8 x 20 microseconds duration while energized at rated voltage for the initial 20 operations and at maximum continuous operating voltage (MCOV) for the final two operations

Protective Characteristics							
Class	MCOV (kV RMS)	Duty Cycle Rating (kV RMS)	Maximum Discharge Voltage (kV Crest) 8 x 20 microsecond current wave				
			1.5kA	3kA	5kA	10kA	20kA
28kV	8.4	10	28.21	29.66	30.57	32.76	36.4
28kV	10.2	12	32.24	33.9	34.94	37.44	41.6
28kV	12.7	15	40.3	42.38	43.68	46.8	52
28kV	15.3	18	48.36	50.85	52.41	56.16	62.4
28kV	17.0	21	56.42	59.32	61.14	65.52	72.8

K655ESA Elbow Surge Arrester

Applications:

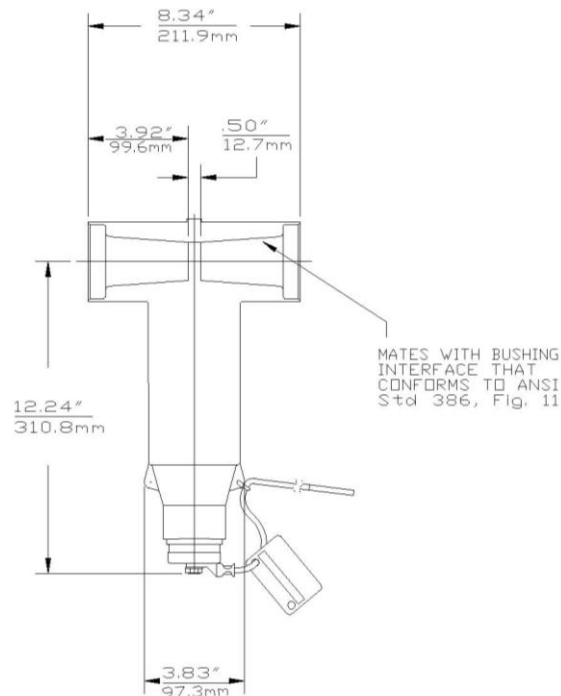
The K655ESA Elastimold® Metal Oxide Varistor (MOV) surge arrester is a fully shielded, fully submersible arrester with standard ANSI/IEEE 386 connection with other energized 600 Amp loadbreak components. The K655ESA provides high voltage lightning and switching surge protection of transformers, cable, equipment, and other components typically located on underground power distribution systems. Proper placement, voltage selection, and coordination with riser pole arresters minimize damaging surge voltages by improving protective margins. Typical applications include the following:

- Installing an arrester at the end of a radial system or at both ends of an open point on a loop system.
- Additional arresters can be added at strategic locations upstream from the end point for maximum protection.

Features:

- Provides convenient energized connection with other 600A loadbreak or deadbreak components.
- Fully shielded and fully submersible for a variety of applications.
- Enables installation in your existing cabinetry, saving you money.
- Surge arresters fit your application and are easy to install.
- Eliminates the need for additional accessories, saving even more money.
- Withstands 10,000 amps for 10 cycles without fusing. Controls end plug when ejected, preventing uncontrolled trajectory. Maintains the housing shield ground connection after failure.

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Arrester Application Table

	System Line-to-Line Voltage kVrms		MCOV kV RMS	
	Nominal	Maximum	Solidly Grounded Neutral Circuits	3-Wire Ungrounded Circuits
28 kV Class	6.90	7.26	5.10	8.40
	8.32	8.80	5.10	8.40
	12.47	13.20	8.40	15.30
	13.20	13.97	8.40	15.30
	13.80	14.50	8.40	15.30
	13.80	14.50	10.20	15.30
	20.78	22.00	12.70	-
	20.78	22.00	15.30	-
	23.00	24.34	15.30	-
	24.94	26.40	15.30	-
	24.94	26.40	17.00	-
	28.00	29.80	17.00	-

CATALOG NUMBER SELECTION

Notes:

1. Elastimold® Arresters use high-strength, silver epoxy-bonded MOV blocks and shunted spring connections for the best circuit connection.
2. A 36" 4 AWG ground lead is provided with each unit.
3. BSA installed by turning internal hex bolt (accessed through the 600A bushing interface) with a 5/16" hex wrench and bent-wire torque wrench supplied with each unit.
4. For 15kV and 28kV class deadbreak system Elbow Arresters, use catalog number 156ESA with appropriate duty cycle rating.

Example:

The ordering number for an Elbow Surge Arrester in the 28kV class with a Maximum line to line voltage of 20.78kV and with solidly grounded neutrals is K655ESA-15.

Selection Chart

Description	Voltage Class	CAT. NO.	MCOV kV RMS
BSA Bushing Surge Arrester See Notes 1-4	28kV	K655BSA-10	8.40
	28kV	K655BSA-12	10.20
	28kV	K655BSA-15	12.70
	28kV	K655BSA-18	15.30
	28kV	K655BSA-21	17.00
ESA Elbow Surge Arrester See Notes 1, 2, 5	28kV	K655ESA-10	8.40
	28kV	K655ESA-12	10.20
	28kV	K655ESA-15	12.70
	28kV	K655ESA-18	15.30
	28kV	K655ESA-21	17.00
PSA Parking Stand Arrester See Notes 1-3	28kV	K655PSA-10	8.40
	28kV	K655PSA-12	10.20
	28kV	K655PSA-15	12.70
	28kV	K655PSA-18	15.30
	28kV	K655PSA-21	17.00