

PORCELAIN TYPE SURGE ARRESTERS

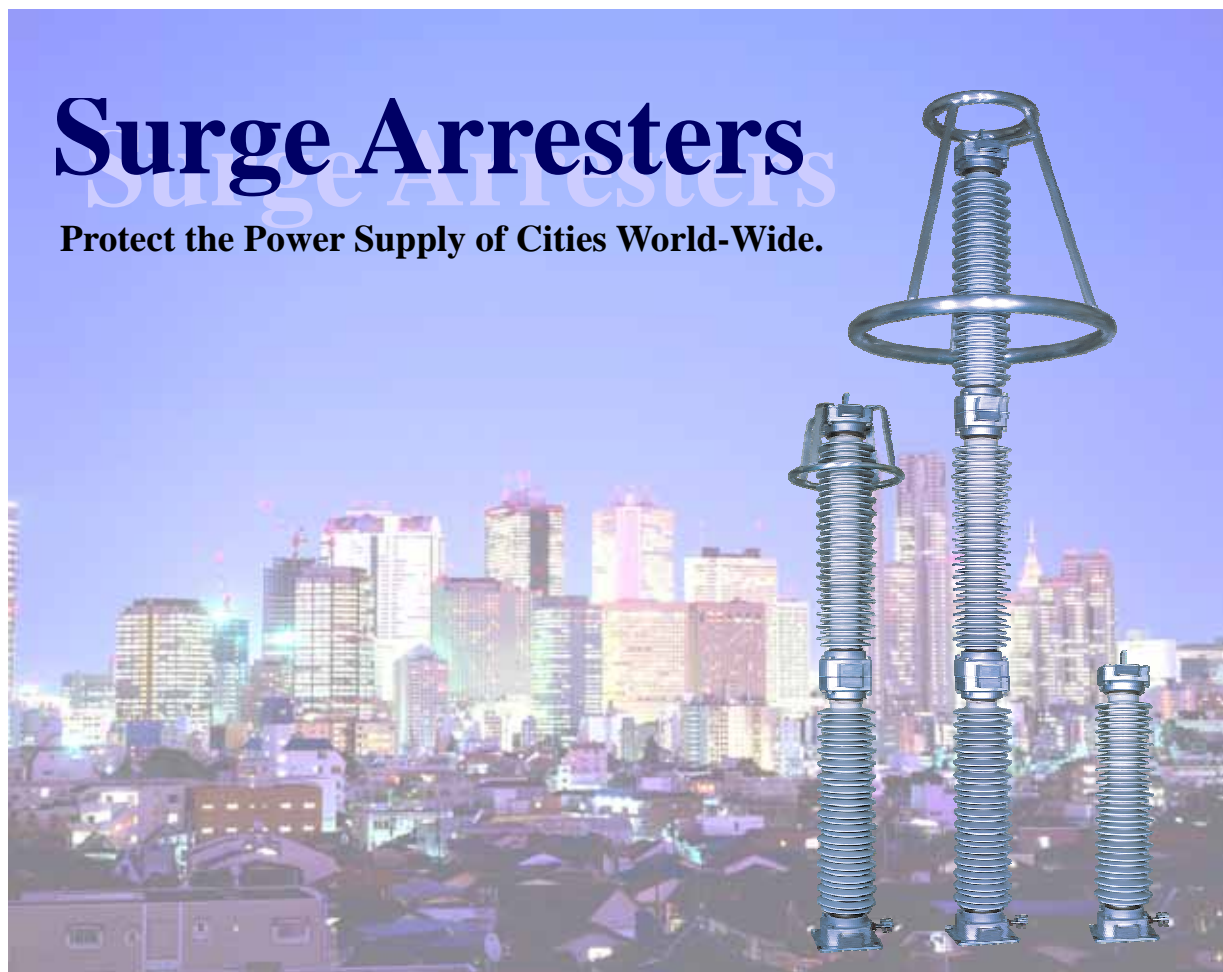
TOSHIBA offered to the world first of its Porcelain Surge Arresters in 1932 and since then has been offering these with continuously improved quality standards and technologies ahead of prevalent times. The wealth of experience gathered over 70 years, enabled TOSHIBA to offer ISO 9001 certified Porcelain Surge Arresters to wide clients spread over the entire globe.

- Features -

- Full Range of Products:

System Voltage = 3~800kV, IEC Line Discharge Class = 2 ~ 5

- World Top Level Protective Characteristics
- Large Energy Absorption Capability
- Extremely High Reliability (Long Life Performance)
- Compliance with International Standards
(IEC60099-4, IEEE Std. C62.11)
- High Seismic Qualification Level as Specified in IEEE693
- Manufactured at Advanced, ISO-9001 Certified Facilities



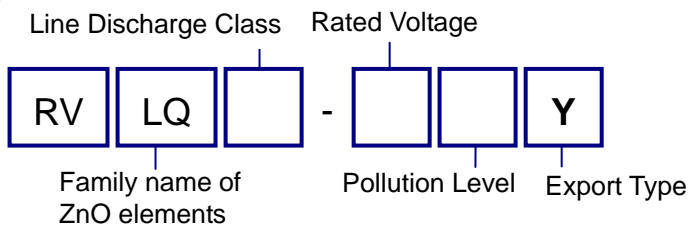
Standard Ratings

IEC Line Discharge Class		Class 2	Class 3	Class 4	Class 5
Type		RVLQD	RVLQC	RVLQB	RVLQE
Maximum System Voltage	(kVrms)	3 - 245	60 - 420	60 - 550	60 - 550 (800)**
Rated Voltage (Ur)	(kVrms)	3 - 198	54 - 360	54 - 492	54 - 492 (588)**
Nominal Discharge Current	(kAcrest)	10	10	20	20
High Current Impulse Capability	(kAcrest)	100			
Short-circuit Capability	(kArms)	50	50	65	65
Discharge Voltage Ratio	(V10kA/Ur)	2.8	2.7	2.3	2.2
Energy Absorption Capability*	(kJ/kV-Ur)	4.5	7.0	11	15

*) Energy absorption capability means the dissipated total energy per two shots of switching surge that the surge arrester can thermally withstand.

**) The rating of surge arrester for 800kV system can be specified upon the customer's requirement.

- Type Form -



Pollution Level

V	Very Heavy	31 mm/kV
H	Heavy	25 mm/kV

A Pollution Level greater than 31mm/kV is available upon the customer's request.

- Example of Field Installation -



In a 420kV system, Pollution Level = 60mm/kV (1994)



In a 550kV system (1997)

Accessories

Surge counters (SDC-N4 = Non ammeter type/ SDC-N4A = Ammeter attached type) can be supplied upon the customer's request.

Type	SDC-N4	SDC-N4A
Counter Indication	6 digit cyclometer at least 5 counts/sec.	
Minimum Operating Current	30 A (8/20μs)	
Maximum High Current Withstand Capability	100 kA (4/10μs)	
Residual Voltage at 100kA(4/10μs)	5kV peak and below	
Switching Impulse Current Withstand	4000A X 2ms	
Ammeter Scale	--	0 - 5 mArms (linear scale)



SDC-N4

SDC-N4A

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