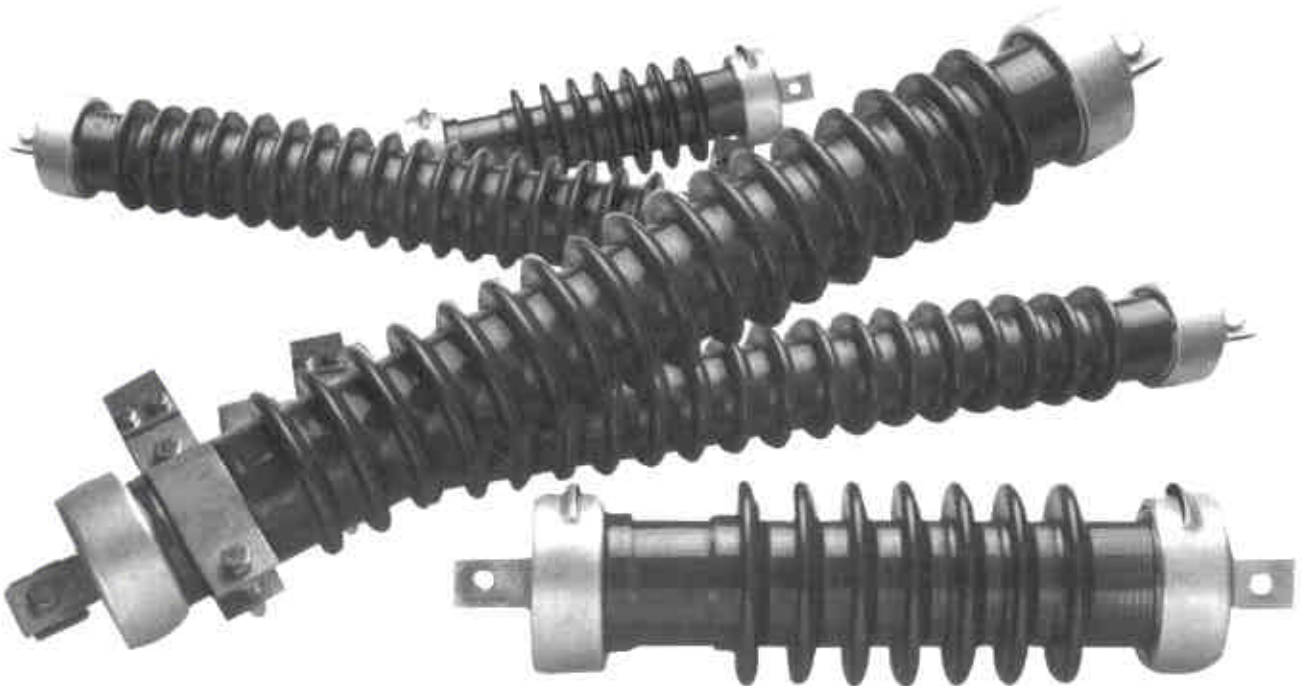


MICROELETTRICA SCIENTIFICA  
M.S. RESISTANCES

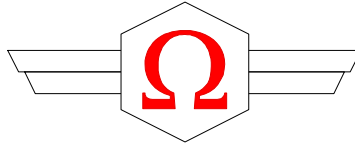
M.S. RESISTANCES S.A.S  
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## SURGE ARRESTOR



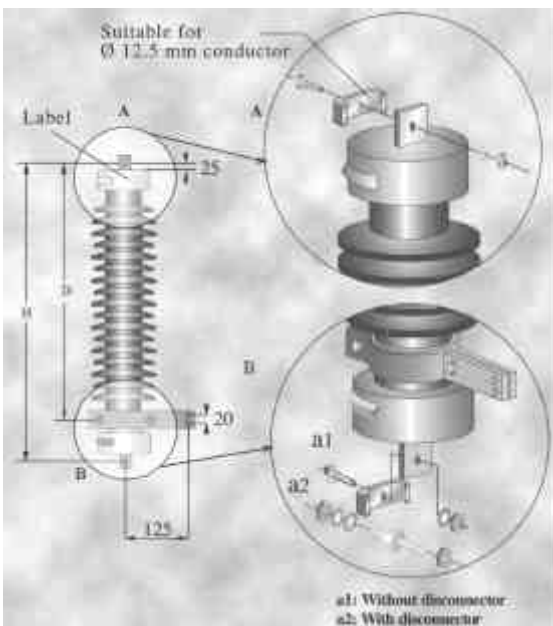
- ✓ *Design in accordance with Metal-Oxide Standard (IEC 99-4) & IEEE C62-11.*
- ✓ *The gapless design incorporates the latest developments in Metal Oxide Technology. This arrester provides both excellent protective characteristics and temporary over voltage capability. Gapless Construction results in a design which simple, reliable and economical.*
- ✓ *The Arrester also integrates a new porcelain housing design and possess higher pressure relief capability to meet the most demanding service conditions.*
- ✓ *The arresters incorporate a heat transfer system utilizing silicon-rubber material wedged between the metal oxide disk and internal porcelain wall. Heat generated in the valve element from steady state, temporary or transient conditions in transferred through the silicon-rubber material to the porcelain housing and then dissipated to the outside environment.*
- ✓ *Each galvanized end fitting is gasketed and cemented to the porcelain housing and provides a complete moisture-tight seal. This simple and rugged construction protects against internal arrester damage during shipment and installation.*



## SERVICE CONDITIONS

- ✓ Ambient Temperature:  $-40^{\circ}\text{C} / +45^{\circ}\text{C}$
- ✓ Max. Solar Radiation:  $<1.1\text{kW}/\text{m}^2$
- ✓ Altitude:  $<1000\text{m}$
- ✓ External Insulation Withstand:  $> \text{IEC \& IEEE requirements}$
- ✓ Frequency:  $48\text{Hz to }62\text{Hz}$
- ✓ Nominal Discharge Current:  $10\text{kA}$
- ✓ Reference current:  $1.5\text{mA}$
- ✓ High Current capability ( $4/10\mu\text{s}$ ):  $100\text{kA}$
- ✓ Line discharge class:  $1$
- ✓ Energy capability (in 1 min):  $2.1\text{kJ}/\text{kV}$  of Rating
- ✓ Pressure Relief capability:  $20\text{kA (B)}$

## MECHANICAL DATA



Type	Creepage (mm)	H (mm)	D (mm)	Net Weight (kG)
SA04-03	440	450	345	4.9
SA04-06	440	450	345	5.1
SA04-09	440	450	345	5.3
SA04-10	440	450	345	5.3
SA04-12	440	450	345	5.5
SA04-15	440	450	345	5.6
SA04-18	900	660	555	8.4
SA04-21	900	660	555	8.7
SA04-24	900	660	555	8.9
SA04-27	900	660	555	9.1
SA04-30	900	820	715	9.5
SA04-36	900	820	715	10

## ELECTRICAL DATA

Type	Rating (kVrms)	Max. C.O.V. (kVrms)	Temp. over voltage capability (kVrms / 1s)	Max. Steep Current protective level at 10kA (kVpeak)	Max. discharge voltage at indicated impulse current using 8/20 $\mu\text{s}$ current Wave (kV <sub>peak</sub> )				Max. switching surge protective level (kV <sub>peak</sub> )	
					100A	5 kA	10 kA	20 kA	125A	500A
SA04-03	3	2.55	3.5	10.4	6.8	8.9	10.0	11.3	6.7	7.1
SA04-06	6	5.10	7.0	20.7	13.5	17.8	19.5	22.6	13.3	14.2
SA04-09	9	7.65	10.6	31.1	20.2	26.8	29.0	34.0	20.0	21.2
SA04-10	10	8.40	11.7	34.6	22.4	29.7	32.0	37.7	22.3	23.6
SA04-12	12	10.20	14.1	41.5	26.9	35.7	38.5	45.3	26.7	28.3
SA04-15	15	12.70	17.6	51.8	33.6	44.6	48.0	56.6	33.4	35.3
SA04-18	18	15.30	21.1	62.2	40.4	53.5	58.0	67.9	40.0	42.4
SA04-21	21	17.00	24.7	72.6	47.1	62.5	67.5	79.3	46.7	49.4
SA04-24	24	19.50	28.2	82.9	53.8	71.4	77.0	90.6	53.4	56.5
SA04-27	27	22.00	31.7	93.3	60.5	80.3	86.5	101.9	60.0	63.5
SA04-30	30	24.40	35.5	103.7	67.2	89.2	96.0	113.2	66.7	70.6
SA04-36	36	29.00	42.3	124.0	81.2	107.0	116.0	136.0	80.7	85.3