

SWITCHGEAR



Polymer Surge Arresters

Class A For Spark Free Operation
10kA Duty Surge Arresters to 25kV



Insulect Spark Production Class A Surge Arresters provide optimum over-voltage protection and spark-free operation for medium voltage equipment in bushfire prone regions of Australia.

OUTDOOR DISTRIBUTION CLASS SURGE ARRESTERS

Insulect Class A Surge Arresters are comprised of gapless metal oxide varistor blocks (MOV) and are enclosed within a fully bonded fibreglass tube.

High-temperature vulcanized (HTV) silicone polymer housing is then directly moulded to the fibreglass tube, this ensures that all critical components are protected against moisture ingress.

REFCL OPERATION

Insulect Class A Surge Arresters are suited for both indoor and outdoor applications within a range of operating environments including bush fire prone regions of Australia & New Zealand and are capable of withstanding overvoltage during REFCL operation.



Zero Spark Production

Meets AS 1307.2-1996 (R2015) Class A for spark free operation.



Made for Extreme Environments

Designed to exceed the demands of the most extreme environments and service conditions.



Compact & Lightweight

Polymer surge arresters ensure ease of handling, and compact site installations.

Field of application

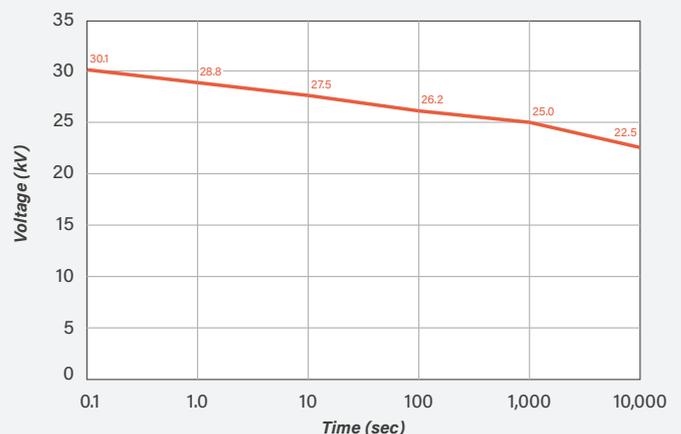
Protection of transformers, switchgear and transmission lines against atmospheric and switching over-voltages. Selection of arresters has to be carried out according to IEC 60099-4/2004 and ANSI/IEEE C62.11/2005.

Normal operating conditions

Ambient temperature: -50°C to $+55^{\circ}\text{C}$
Design altitude: max 1000m
Rated frequency: 15 Hz to 62 Hz
(different operating conditions available on inquiry)

Power frequency voltage versus time characteristic (TOV)

Class-1, 10kA-25kV Surge Arrester



10kA 24kV Class A Polymer Surge Arrester

Technical Parameter	Description	Units	Value
Type of surge arrester			YH10W-24
System rated voltage nominal / highest		kV	22 / 24
Rated frequency		Hz	50
Rated voltage of surge arrester		kV	24
Continuous operating voltage (MCOV)		kV	22
Temporary operating voltage (TOV)		kV/hours	24 / 8
Nominal discharge current		kA	10
D.C. reference voltage at 1mA (not less than)		kV	35
Leakage current at 75% U _{1mA} D.C.		μA	<30
Power frequency reference current (peak)		mA	1
Power frequency reference voltage		kV	≥24
Continuous current	Resistive current (peak)	μA	300
	Full current (effective value)	μA	800
Max. residual voltage at switching impulse (at 125A, peak)		kV	55
Max. residual voltage at lightning impulse (at 10kA, peak)		kV	75
Max. residual voltage at steep current impulse (at 10kA, peak)		kV	88
Residual voltage ratio of lightning impulse	U _{0.5In} /U _{In}		0.96
	U _{2In} /U _{In}		1.18
High current impulse withstand (4/10μs, 2 times)		kA	100
Long duration current impulse withstand (2ms, peak)		A	250
Line discharge class			1
Power frequency voltage versus time (Multiples of U _r)	0.1s		1.15
	1s		1.10
	10s		1.05
	1200s		1.00
Housing insulation level	Rated lightning impulse voltage (peak)	kV	Dry 97
	Rated short-time power frequency withstand voltage (effective value)	kV	Wet 66
Insulator material			Silicone
Minimum creepage distance		mm	750
Pollution resistibility	Equivalent creepage distance	mm/kV	31
Minimum flashover distance		mm	370
Method and criteria of sealing			AS 1307.2 - 1996
Maximum partial discharge		pC	10
Maximum radio interference voltage		μV	500
Mechanical strength	Permitted horizontal pull (max.)	N	1200
	Cantilever	N	350
	Torque	Nm	50
Surge arrester structure	Minimum height	mm	380
	Diameter (sheds / body)	mm	102 / 55
Pressure relief type			NS
Short-circuit current		kA	10
Spark production class			A
Environmental	Temperature	°C	-10 - 50
	Radiation	kW/m ²	1.1
System earthing			Effective / non-effective earthing

Surge Arresters

General Accessories



Bird/Wildlife Cap

UV stabilized PVC construction.



Leads

Available in various cable sizes and terminal lugs according to customer specification.



Steel Mounting Bracket

Available in galvanised steel or Gr.316 stainless steel.



Insulated Mounting Bracket

UV stabilised glass-filled polyester construction.



Earth Lead Disconnect

Visual indicator for use in resonant earthing system. Provides visual and positive disconnection.



Custom Components

For more details on our range including custom components, contact our Switchgear team.

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