

Polymeric surge arresters

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Rated voltage
9-36 kVrms

ADVANTAGES:

The "INZP" arrester offers all the advantages of a metal oxide distribution arrester in light-weight, low profile polymeric housing designed for either indoor or outdoor overhead applications. The polymeric housing eliminates the problem of chipped or cracked porcelain that can occur with rough handling or shipping.

The failure mode of the "INZP" arrester is less severe than that of porcelain housed units. When violent failure mode of porcelain housed arresters occurs, it does so when the internal arc from excessive fault current causes thermal fracture of porcelain housing and the hot gases created by the arc explodes the porcelain fragments in all directions. The "INZP" with its polymer housing will split open during failure conditions to relieve the internal pressure.

DURABILITY

The "INZP" is tested in accordance with the latest industry standard ANSI/IEEE C62.11-1993 for metal oxide arresters, and also with IEC 60099-4 for class line discharge 1. The "INZP" consistently withstands the following minimum design tests:

- Low Current-Long Duration: 18 current surges of 250 A magnitude and 2000 μs duration.
- Duty cycle: 20 discharges with a current surge of 10 kA magnitude and 8/20 μs wave shape, followed by 2 discharges with a current surge of 100 kA magnitude.

Following each of these test, the "INZP" arrester remains thermally stable and the discharge voltage increase at rated current is less than 10%.

5000 HOURS CLIMATIC AGEING TEST

The "INZP" arrester have overcome the 5000 hours of accelerated ageing test of the polymer, carried out according to the annex C of IEC 61109 standard.



ETISURGE						
type	code No.	arrester with disconnector and support	rated voltage	U _c	weight	packaging
			[kV rms]	[kV]	[kg]	[pcs]
INZP0910S	004211030	ne	9	7,65	1,8	1
INZP1010S	004211040	ne	10	8,4	1,9	
INZP1210S	004211050	ne	12	10,2	2,0	
INZP1810S	004211080	ne	18	15,3	2,8	
INZP2110S	004211090	ne	21	17	3,2	
INZP2410S	004211100	ne	24	19,5	3,3	
INZP3310S	004211130	ne	33	27	4,5	
INZP3610S	004211140	ne	36	29	4,6	
INZP0910	004213030	da	9	7,65	2,2	
INZP1010	004213040	da	10	8,4	2,3	
INZP1210	004213050	da	12	10,2	2,4	
INZP1810	004213080	da	18	15,3	3,2	
INZP2110	004213090	da	21	17	3,6	
INZP2410	004213100	da	24	19,5	3,7	
INZP3310	004213130	da	33	27	4,9	
INZP3610	004213140	da	36	29	5,0	

NOTE: Other voltages are available on special request

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MODELS - TYPES

It is possible to order overvoltage arresters in two variants: INZP__ - overvoltage arresters with ground lead disconnecter and insulating bracket (support) and without that features – INZP__S.
Rated discharged current is 10kA for all types.



INZP__



INZP__S

LINE TERMINAL

The line connections accept terminals with suitable diameter of 12.5 mm in the slice. They also allow the connection of aluminium or copper conductors of 70 mm² of maximum cross section. If a rod is used to make the connection, its diameter must be less than 8 mm.

INSULATING BRACKET

The "INZP" arrester is assembled complete with a high strength, molded glass reinforced polyester insulating bracket. The insulating bracket provides insulation between the arrester and ground after the ground lead disconnecter has operated, in the unlikely event of arrester failure.

GROUND LEAD DISCONNECTOR

Helps prevent line lockout by disconnecting a failed arrester from the system and serves as an indicating device that shows the failed arrester needs replacement. Ground terminal clamp will accept the same cross section of conductors as on line terminals.



RATINGS FOR VARIOUS VOLTAGES

Prior to installation of arrester, check the arrester's voltage rating (U_r) and continuous operating voltage (U_c) to verify these are proper for the system. The continuous operating voltage (U_c) of arrester shall not be less than maximum line-to-ground voltage system.

In the case of short circuit between a phase and earth, in a system with ungrounded or impedance neutral circuits, the maximum voltage across the arresters placed on the two phases without fault may reach, during the operating time of the protective breaker, the maximum L-L value.

In order to correctly choose arrester, it is necessary to take into account the duration of an eventual overvoltage. By inspection of the TOV characteristics of the metal oxide arresters, a model should be chosen which supports the prospective overvoltage for its whole duration.