

Instrument Transformers



ESITAS



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> INSULATORS



Insulators

Insulators are insulating and supporting components of the power transmission lines and busbars (distribution centers, switchgears) where they are fixed.

Insulators are intended to be used for 2 reasons:

- Separating conductors from the earth in regards to electricity
- Supporting the weight of conductors and additional loads

Esitas Insulators are epoxy cast resin insulated with internal metal fittings.

The insulators are particularly suitable to be used as single support or voltage control.

Esitas MV Insulators are designed for indoor-indoor and outdoor-indoor applications (from 3.6kV to 36kV):

- Bushing Insulators
- Post Insulators
- Capacitive Insulators(voltage divider)

Post insulators for indoor installation

General characteristics

Epoxy resin post insulators, for indoor application, with internal metal fitting.

These insulators are particularly suitable to be used as single supports for conductors, for fuses and for other equipment (as switchgears).

Application

For indoor installation with working condition at T° max. 85 °C.

Service voltage

Up to 36 kV (40.5 kV available on request)

Routine Tests

Visual inspection

Testing of conductive connection of fixing inserts for post insulators

Dry power-frequency withstand voltage

Partial discharge extinction voltage test

Standards

IEC 60273 (CEI 36/12) - CENELEC HD 578 S1

IEC 60660



Capacitive voltage divider post insulators

General characteristics

Epoxy resin post insulators with capacitive divider for the reading of the voltage. Manufactured with internal metal fitting, they can be equipped with couplings and low voltage light signal box. These insulators are mainly suitable to be used as insulated supports of equipment, bus bar or fuses.

Application

Max working temperature of 85 °C.

Routine Tests

Visual inspection
Testing of conductive connection of fixing inserts for post insulators
Dry power-frequency withstand voltage
Partial discharge extinction voltage test (connected to the voltage indicator)

Service voltage

Up to 36 kV (40.5 available on request)

Standards

IEC 60660

Bushing Insulators for indoor-indoor / outdoor-indoor

General characteristics

12 - 36 kV epoxy resin bushing insulators. The insulators can be fitted with copper bars designed from 250 up to 1250 A. They are equipped with internal metal fittings for installation on the relevant frame and with brass nuts and washers for fastening of phase connectors.

Application

Indoor/outdoor installation at max working temperature of 85 °C.

Service voltage

Up to 36 kV.

Routine Tests

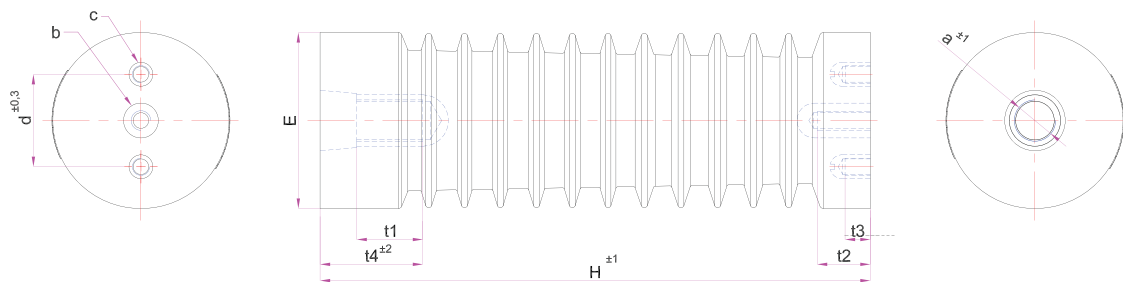
Visual inspection
Dry power-frequency withstand voltage
Measurement of partial discharge quantity

Standards

IEC 60137



INDOOR POST INSULATORS UP TO 36kV



Material Type: Epoxy Resin
According to IEC 60273 (1990), IEC 60660 (1999) ✓

TYPES	Um (kV)	Power-frequency withstand voltage, dry (kV)	Falling load bending (N)	Weight app. (kg)	Dimensions (mm)										Min. Creepage Distance (mm)	Number of ribs
					a	b	c	d	E	H	t1	t2	t3	t4		
J04-75 (10N500)	12	38	4000	0.60	M16	M12	M6	36	∅61	130	25	18	10	37	170	5
J010-75 (10N1000)	12	38	10000	0.97	M20	M16	M10	46	∅80	130	27	24	12	42	160	5
J04-95 (15N500)	17.5	50	4000	0.95	M16	M12	M6	36	∅70	175	25	18	10	40	250	6
J010-95 (15N1000)	17.5	50	10000	1.45	M20	M16	M10	46	∅82	175	27	24	12	42	250	6
J04-125 (20N500)	24	50	4000	1.30	M16	M12	M6	36	∅75	210	25	18	10	40	350	8
J010-125 (20N1000)	24	50	10000	1.90	M20	M16	M10	46	∅85	210	27	24	12	42	330	8
J04-170 (30N500)	36	70	4000	2.00	M16	M12	M6	36	∅80	300	25	26	12	48	540	11
J010-170 (30N1000)	36	70	10000	3.00	M24	M16	M10	46	∅96	300	38	28	12	56	460	11

INDOOR CAPACITIVE POST INSULATORS UP TO 36kV



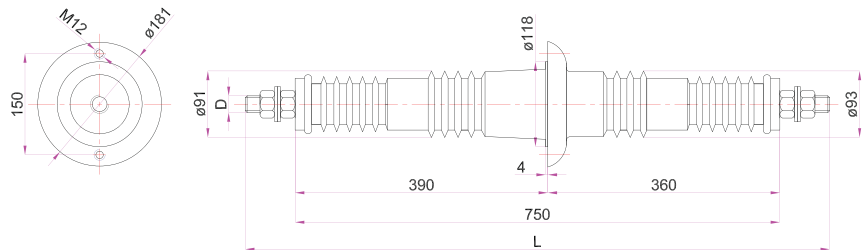
Material Type: Epoxy Resin

TYPES	Um (kV)	Power-frequency withstand voltage, dry (kV)	Falling load bending (N)	Weight app. (kg)	Dimensions (mm)										Min. Creepage Distance (mm)	Number of ribs	
					a	b	c	d	e	E	H	t1	t2	t3			t4
10N1000K	12	38	10000	0.97	M20	M16	M10	46	30	∅80	130	27	24	12	42	160	5
15N1000K	17.5	50	10000	1.45	M20	M16	M10	46	30	∅82	175	27	24	12	42	250	6
20N500K	24	50	4000	1.30	M16	M12	M6	36	30	∅75	210	25	18	10	40	350	8
20N1000K	24	50	10000	1.90	M20	M16	M10	46	30	∅85	210	27	24	12	42	330	8
30N500K	36	70	4000	2.00	M16	M12	M6	36	34	∅80	300	25	26	12	48	540	11
30N1000K	36	70	10000	3.00	M24	M16	M10	46	34	∅95	300	38	28	12	56	460	11



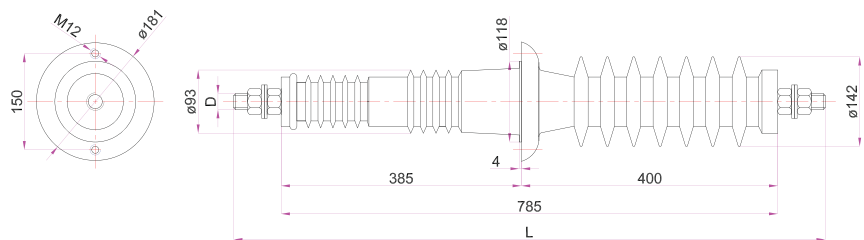
INSULATORS

M.V. INDOOR -INDOOR BOLT BUSHING UP TO 1250A



TYPES	Um (kV)	Falling load bending (N)	In (A)	D	L	Weight (kg)
EDD-36	36	3750	400	M16	840	8.6
			630	M20	860	9.8
			800	M24	880	11.7
			1250	M30	900	14.9

M.V. OUTDOOR -INDOOR BOLT BUSHING UP TO 1250A



TYPES	Um (kV)	Falling load bending (N)	In (A)	D	L	Weight (kg)
EDH-36	36	3750	400	M16	875	10.8
			630	M20	895	12.0
			800	M24	915	14.2
			1250	M30	935	19.4