

# DOV MEDIUM VOLTAGE SURGE ARRESTER

## 3 - 36 kV RATED VOLTAGE

### DH CLASSIFICATION

#### KEY FEATURES

- Directly molded housing prevents moisture ingress
- Safe non-shattering short circuit behavior to higher current levels
- Cage Design
- Type Tests are independently verified in accordance with IEC60099-4, Ed 3.0 (2014)
- Alternating sheds for best pollution flash over resistance
- Hydrophobic silicone housing for outdoor use
- Excellent operating performance & long service life

TE Connectivity's (TE) Bowthorpe EMP pioneered the development of polymeric composite housed surge arresters in the early 1980's and since then has a proven service experience across the globe, operating in very tough environments. The Distribution OverVoltage (DOV) surge arrester has been designed and tested to meet our customers tough environmental conditions.

The DOV surge arrester type tests were carried out under the supervision of independent and accredited European test laboratories to meet the requirements of the latest edition of the IEC 60099-4 standard. This product is the latest gapless, zinc oxide surge arrester family from TE's Bowthorpe EMP range. TE's DOV arresters are manufactured using high quality ZnO varistors, which display excellent thermal and current handling characteristics due to the guaranteed homogeneity of the varistor volume.

The DOV crimped structural construction ensures light weight product with optimal mechanical strength. The manufacturing process ensures void free construction and optimum interface sealing. This is achieved by bonding the silicone housing directly to the ZnO discs and aluminium end fittings using a special bonding solution.

Applications include protection of MV networks and equipment from switching and lightning surge related over-voltages in areas with relatively high iso-keraunic levels. Suitable for both outdoor and indoor use to protect transformers and cable terminations.

**Customers can count on consistent, high quality products, driven by TE's proven innovation and backed by our extraordinary customer support.**

## DOV Medium Voltage Surge Arrester

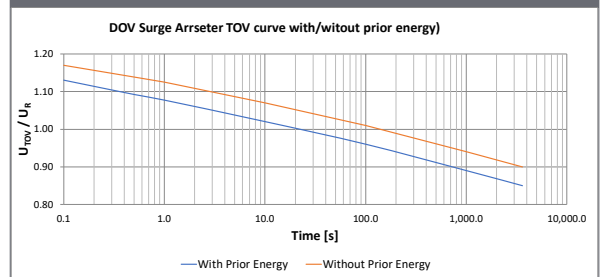


High quality design and manufacturing to International Standards.  
ISO 9001 and 14001 compliant.

**Table 1: Technical data**

Commercial Designation	DOV
DOV Series - Rated Voltage Range (Ur)	3 - 36 kV
Creepage	405 - 1128 mm
Rated Discharge Current (8/20 μs)	10 kA
Energy Classification According to IEC 60099-4 (Ed. 3.0)	DH
Repetitive Charge Transfer Rating (Qrs)	0.4 C
Thermal Charge Transfer Rating (Qth)	1.1 C
High Current Short Circuit: (pre-failing method)	20 kA
SSL	225 Nm
SLL	175 Nm

**TEMPORARY OVERVOLTAGE WITHSTAND CURVE**



$U_{TOV}$  = Temporary Overvoltage Withstand

**TABLE 2: PRODUCT SELECTION INFORMATION**

Description	$U_c$ kV	$U_r$ kV	Residual Voltage - kV			Extended Housing	
			Lightning - [8/20 μs]		Steep Lightning - [1/20 μs] at 10 kA		Switching - [30/60 μs] at 500 A
			at 5 kA	at 10 kA			
DOV-03A	2.4	3	12.6	13.7	15.1	10.4	B, C, D or E
DOV-04A	3.2	4	12.6	13.7	15.1	10.4	B, C, D or E
DOV-05A	4	5	16.8	18.3	20.1	13.9	B, C, D or E
DOV-06A	4.8	6	16.8	18.3	20.1	13.9	B, C, D or E
DOV-08A	6.4	8	25.2	27.4	30.1	20.8	B, C, D or E
DOV-10A	8.4	10	29.4	32.0	35.2	24.3	B, C, D or E
DOV-12A	9.6	12	33.7	36.6	40.3	27.8	B, C, D or E
DOV-15B	12	15	41.4	45.0	49.5	34.2	C, D or E
DOV-18B	14.4	18	49.7	54.0	59.4	41.0	C, D or E
DOV-21B	16.8	21	58.0	63.0	69.3	47.9	C, D or E
DOV-22B	17.6	22	62.1	67.5	74.3	51.3	C, D or E
DOV-24C	19.2	24	66.2	72.0	79.2	54.7	D or E
DOV-27D	21.6	27	74.5	81.0	89.1	61.6	E
DOV-30D	24	30	82.8	90.0	99.0	68.4	E
DOV-33E	26.4	33	91.1	99.0	108.9	75.2	-
DOV-36E	28.8	36	99.4	108.0	118.9	82.1	-
DOV-10A (*)	8.4	10	29.4	32.0	35.2	24.3	B, C, D or E
DOV-12B (*)	10.2	12	37.3	40.5	44.6	30.8	C, D or E
DOV-15B (*)	12.7	15	45.5	49.5	54.5	37.6	C, D or E
DOV-18B (*)	15.3	18	53.8	58.5	64.4	44.5	C, D or E
DOV-21B (*)	17.0	21.3	62.1	67.5	74.3	51.3	C, D or E
DOV-27D (*)	22.0	27	78.7	85.5	94.1	65.0	E
DOV-30E (*)	24.4	30	86.9	94.5	104.0	71.8	-

$U_c$  = Continuous operating voltage,  $U_r$  = Rated voltage, (\*) ANSI  $U_r / U_c$  Ratio

**TABLE 3: PRODUCT HOUSING PARAMETERS**

Maximum Rating ( $U_r$ - kV)	No. of Sheds	Flashover Distance (mm)	Creepage Length (mm)	Arrester (body) Height (mm)
Housing 'A' ≤ 12 kV	6	162	405	160
Housing 'B' ≤ 22 kV	11	234	697	229
Housing 'C' ≤ 24 kV	13	266	817	258
Housing 'D' ≤ 30 kV	15	304	945	298
Housing 'E' ≤ 36 kV	15	318	1128	298

Typical product description: DOV-24C-F0F0N0-S



### ORDERING INFORMATION

For accessories, other surge arrester product information and/or ordering information please refer to brochure EPP-3144-6/18 or e-mail us at [surgearresters@te.com](mailto:surgearresters@te.com).

[te.com/energy](http://te.com/energy)

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