

OPEN CAGE POLYMERIC SURGE ARRESTERS OCP2 SERIES

FROM 3 - 41 kV OF U_c VOLTAGE
CLASS 2

KEY FEATURES

- Directly molded housing prevents moisture ingress
- Safe failure mode in the short circuit test (pre-fail method)
- Maintenance free
- Superior TOV performance
- High energy handling capability
- Independently tested in accordance with IEC60099-4
- Superior protection margins
- Hydrophobic silicone housing for outdoor use
- Excellent cantilever and tensile performance
- Excellent mechanical, vibration and impact withstand capability

TE Connectivity's (TE) Bowthorpe EMP pioneered the development of polymeric composite housed surge arresters in the early 1980's and has proven service experience across the globe, operating in the worlds toughest environments.

Bowthorpe EMP surge arresters provide active over voltage protection that contributes directly to protecting expensive assets and improved reliability of your system. Bowthorpe EMP OCP2 (class 2) arresters have been designed and tested to meet our customers needs offering reliability and improved operational performance.

The OCP2 development was based on more than 40 years of experience in arrester design and manufacture within TE Energy. The OCP2 series is tested and qualified as per IEC 60099-4 standards and all test reports are independently certified.

The OCP2 is manufactured to the highest quality providing exceptional operating performance. Its features include proven moisture sealing technology, non-tracking insulating silicone materials, single piece and void-less design, safe mode of failure and reliable earth lead disconnecter.

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.

Medium Voltage Surge Arrester - OCP2 Series

High quality design and manufacturing.

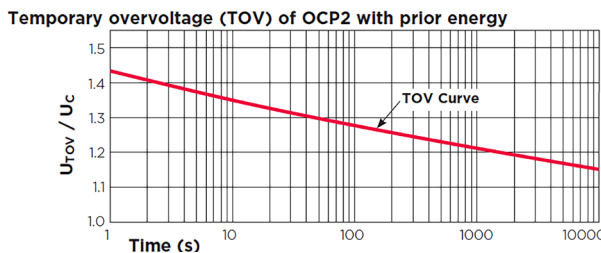
ISO 9001 and 14001 compliant.

TABLE 1: TECHNICAL DATA

OCP2 series	3 - 41 kV Uc
Rated discharge current (8/20µs)	10 kA
Line discharge class 1 according to	IEC 60099-4
Operating duty impulse withstand current (4/10µs)	100 kA
Long duration current impulse (2000µs)	530 A
High current short circuit: (pre-failing method) (Safe non-shattering failure mode)	40 kA
Energy 2 long duration impulses	6.0kJ/kVUc
Ambient temperature range	- 60°C to + 60°C



TEMPORARY OVERVOLTAGE WITHSTAND CURVE



U_{rov} = temporary overvoltage withstand

TABLE 2: PRODUCT SELECTION INFORMATION

Description	U _c kV	U _r kV	Residual Voltage - kV (Using IEC Standard Impulses)			
			Lighting - [8/20 µs]		Steep Lighting - [1/20 µs]	Switching - [30/60 µs]
			at 10 kA	at 20 kA	at 10 kA	at 500 A
OCP2-3S	3	3,75	9.72	10.84	10.1	7.76
OCP2-4S	4	5	12.96	14.46	13.47	10.35
OCP2-5S	5	6,25	16.2	18.07	16.84	12.94
OCP2-6S	6	7,5	19.44	21.68	20.21	15.53
OCP2-8S	8	10	25.92	28.91	26.94	20.7
OCP2-9S	9	11,25	29.16	32.53	30.31	23.29
OCP2-10S	10	12,5	32.4	36.14	33.68	25.88
OCP2-12S	12	15	38.88	43.37	40.42	31.06
OCP2-15S	15	18,75	48.6	54.21	50.52	38.82
OCP2-18S	18	22,5	58.32	65.05	60.62	46.58
OCP2-20S	20	25	64.8	72.28	67.36	51.76
OCP2-21S	21	26,25	68.04	75.89	70.73	54.35
OCP2-22S	22	27,5	71.28	79.51	74.1	56.94
OCP2-24S	24	30	77.76	86.74	80.83	62.11
OCP2-26S	26	32,5	84.2	94	87.6	67.3
OCP2-27S	27	33,75	87.5	97.6	90.9	69.9
OCP2-29S	29	36,35	93.96	104.81	97.67	75.05
OCP2-30M	30	37,5	97.2	108.4	101	77.6
OCP2-33M	33	41,25	106.9	119.3	111.1	85.4
OCP2-36M	36	45	116.6	130.1	121.2	93.2
OCP2-39M	39	48,75	126.4	140.9	131.4	100.9
OCP2-40M	40	50	129.6	144.6	134.7	103.5
OCP2-41M	41	51,25	132.8	148.2	138.1	106.1

U_c = Continuous operating voltage, U_r = Rated voltage

TABLE 3: PRODUCT HOUSING PARAMETERS: STANDARD (EXTENDED)

Housing Size	Sheds	Impulse Voltage [1,2/50 µs] kV	Power Frequency (wet) kV	Flashover Distance (mm)	Creepage Length (mm)	Height (body) (mm)	Weight (kg)
OCP2-3S*	5 (7)	145 (165)	47 (57)	176 (214)	380 (505)	183 (220)	1.8 (2.2)
OCP2-4S*	5 (7)	145 (165)	47 (57)	176 (214)	380 (505)	183 (220)	1.8 (2.2)
OCP2-5S*	5 (7)	145 (165)	47 (57)	176 (214)	380 (505)	183 (220)	1.8 (2.2)
OCP2-6S*	5 (7)	145 (165)	47 (57)	176 (214)	380 (505)	183 (220)	1.8 (2.2)
OCP2-8S*	5 (7)	145 (165)	47 (57)	176 (214)	380 (505)	183 (220)	1.8 (2.2)
OCP2-9S*	5 (7)	145 (165)	47 (57)	176 (214)	380 (505)	183 (220)	1.8 (2.2)
OCP2-10S*	5 (7)	145 (165)	47 (57)	176 (214)	380 (505)	183 (220)	1.8 (2.2)
OCP2-12S*	5 (7)	145 (165)	47 (57)	176 (214)	380 (505)	183 (220)	1.8 (2.2)
OCP2-15S*	7 (9)	165 (180)	57 (70)	214 (254)	505 (632)	220 (260)	2.2 (2.65)
OCP2-18S*	8 (11)	180 (200)	70 (80)	254 (293)	632 (758)	260 (299)	2.65 (3)
OCP2-20S*	8 (11)	180 (200)	70 (80)	254 (293)	632 (758)	260 (299)	2.65 (3)
OCP2-21S*	11 (13)	200 (230)	80 (95)	293 (334)	758 (885)	299 (340)	2.1 (3.4)
OCP2-22S*	11 (13)	200 (230)	80 (95)	293 (334)	758 (885)	299 (340)	2.1 (3.4)
OCP2-24S*	11 (13)	200 (230)	80 (95)	293 (334)	758 (885)	299 (340)	2.1 (3.4)
OCP2-26S*	11 (13)	204 (228)	98 (110)	339 (378)	970 (1125)	343 (383)	3,65 (4,15)
OCP2-27S*	11 (13)	204 (228)	98 (110)	339 (378)	970 (1125)	343 (383)	3,65 (4,15)
OCP2-29S*	11 (13)	204 (228)	98 (110)	339 (378)	970 (1125)	343 (383)	3,65 (4,15)
OCP2-30M*	11 (13)	204 (228)	98 (110)	339 (378)	970 (1125)	343 (383)	3,65 (4,15)
OCP2-33M*	13 (15)	228 (250)	110 (122)	378 (418)	1125 (1279)	383 (423)	4,15 (4,65)
OCP2-36M*	13 (15)	228 (250)	110 (122)	378 (418)	1125 (1279)	383 (423)	4,15 (4,65)
OCP2-39M	15	250	122	418	1279	423	4,65
OCP2-40M	15	250	122	418	1279	423	4,65
OCP2-41M	15	250	122	418	1279	423	4,65

* Brackets denote values for extended product

ORDERING INFORMATION

For accessory range and ordering information please refer to brochure EPP-1098 or e-mail us at surgearresters@te.com.

Example of a complete part description: OCP2-12S-NFF

* NFF accessories: M12 studs with fasteners for standard cable lug connection

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FOR MORE INFORMATION: TE Technical Support Centers

USA: +1 (800) 327-6996
 France: +33 3 80 58 3200
 UK: +44 0870-8707500
 Germany: +49 (0) 89 60 89 903
 Spain: +34 916 630 420
 Canada: +1 (905) 475-6222
 Mexico: +52 (0) 55-1106-0800
 Latin/S. America: +54 (0) 11-4733-2200
 Benelux: +32 16 351 731
 China: +86 (0) 400-820-6015
 Ireland: +353 61 470 800