

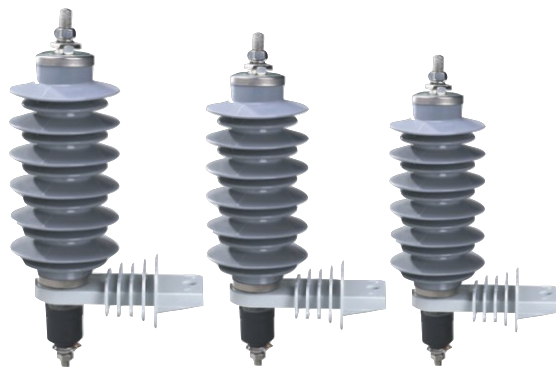
# FICHA TÉCNICA TECHNICAL DATA

## DESCARGADORES DE SOBRETENSIÓN SURGE ARRESTERS

INDUCON ENERGY provee pararrayos hasta 230 kV, 10kA con envoltente Polimérica, para todo tipo de aplicaciones. La tecnología de disco MOV (Gapless Metal Oxide Varistor) permite una rápida respuesta a las sobretensiones, alta capacidad de disipación de potencia, seguridad en la operación y peso ligero. Todos los descargadores cumplen IEC 60099-4 e IEEE c62.11. Clase: Distribución Alta, Subestación Ligera y Subestación Media.

INDUCON ENERGY provides lightning arresters up to 230 kV, 10kA with Polymeric enclosures for all types of applications. The MOV (Gapless Metal Oxide Varistor) this technology permits fast response to overvoltages, high power dissipation capacity, safe operation and light weight. All arresters meet with IEC 60099-4 and IEEE c62.11. Classes: Distribution High, Substation Light and Substation Medium.

### DESCARGADOR DE SOBRETENSIONES ÓXIDO METÁLICO METAL-OXIDE VARISTOR. (MOV) TYPE SURGE ARRESTERS



Arrester Classification						
Arrester Class Designation	Station			Distribution		
	SH	SM	SL	DH	DM	DL
Nominal Discharge Current	20 kA	10 kA	10 kA	10 kA	5 kA	2.5 kA
Switching Impulse Discharge Current	2 kA	1 kA	0.5 kA	-	-	-
Q rs (C.)	≥ 2.4	≥ 1.6	≥ 1.0	≥ 0.4	≥ 0.2	≥ 0.1
Wth (kJ/kV)	≥ 10	≥ 7	≥ 4	-	-	-
Q th (C.)	-	-	-	≥ 1.1	≥ 0.7	≥ 0.45
Other currents may be specified upon agreement between manufacturer and user						
NOTE: The letters "H", "M" and "L" in the designation stand for "high", "medium" and "low" duty, respectively						

### Especificación de datos 3-240kV Data Specification 3-240kV

Inducon Reference	Designation IEC60099-4: 2014 (2004)	Rated Voltage kV	MCOV Continuous operating voltage kV	Nominal Discharge Current kA	30/60 μs switching residual voltage kV 500A	1/20 μs step impulse voltage kV 10 kA	8/20 μs lightning impulse residual voltage kV						Creepage Distance mm	Partial Discharge pC	Rated thermal energy (MCOV) Wth kJ/kV	High Current Impulse 4/10 μs kA	Short Circuit Capability kA
							1.5 kA	3 kA	5 kA	10 kA	20 kA	40 kA					
DPS-DH-3	DH (Class I)	3	2,55	10	≤ 7,3	≤ 10	7,4	7,8	8,2	8,8	9,9	11,3	250	≤ 10	-	100	31,5
DPS-DH-6	DH (Class I)	6	5,1	10	≤ 14,6	≤ 20,1	25,7	26,4	27,7	17,6	33,9	38,6	370	≤ 10	-	100	31,5
DPS-DH-9	DH (Class I)	9	7,65	10	≤ 21,9	≤ 30,1	22,2	23,4	24,6	26,4	29,7	33,9	370	≤ 10	-	100	31,5
DPS-DH-10	DH (Class I)	10	8,4	10	≤ 24,8	≤ 33,6	25,7	26,4	27,7	30,0	33,9	38,6	370	≤ 10	-	100	31,5
DPS-DH-12	DH (Class I)	12	10,2	10	≤ 30	≤ 40,5	30,9	31,8	33,4	36,0	40,7	46,4	370	≤ 10	-	100	31,5
DPS-DH-15	DH (Class I)	15	12,7	10	≤ 37,5	≤ 50,4	38,5	39,7	41,7	45,0	50,9	58,0	500	≤ 10	-	100	31,5
DPS-DH-18	DH (Class I)	18	15,3	10	≤ 45	≤ 60,5	46,2	47,6	50,0	54,0	61,1	69,7	630	≤ 10	-	100	31,5
DPS-DH-23	DH (Class I)	23	18,7	10	≤ 56	≤ 77,3	58,0	61,2	64,3	69,0	77,6	88,6	750	≤ 10	-	100	31,5
DPS-DH-24	DH (Class I)	24	19,5	10	≤ 60	≤ 80,6	61,7	63,5	66,7	72,0	81,4	92,8	750	≤ 10	-	100	31,5
DPS-DH-27	DH (Class I)	27	22	10	≤ 74,8	≤ 90,7	76,1	77,2	79,0	81,0	91,5	104,3	1000	≤ 10	-	100	31,5
DPS-DH-30	DH (Class I)	30	24	10	≤ 75	≤ 100,8	77,1	79,4	83,4	90,0	101,7	116,3	1000	≤ 10	-	100	31,5
DPS-DH-36	DH (Class I)	36	29	10	≤ 90	≤ 121	92,5	95,3	100,0	108,0	122,1	140,5	1125	≤ 10	-	100	31,5

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Inducon Reference	Designation IEC60099-4: 2014 (2004)	Rated Voltage kV	MCOV Continuous operating voltage kV	Nominal Discharge Current kA	30/60 $\mu$ s switching residual voltage kV 500A	1/20 $\mu$ s step impulse voltage kV 10 kA	8/20 $\mu$ s lightning impulse residual voltage kV						Creepage Distance mm	Partial Discharge pC	Rated thermal energy (MCOV) Wth kJ/kV	High Current Impulse 4/10 $\mu$ s kA	Short Circuit Capability kA
							1,5 kA	3 kA	5 kA	10 kA	20 kA	40 kA					
DPS-SL-12	SL (Class II)	12	10,2	10	$\leq 28,9$	$\leq 38,8$	28,6	33,8	31,6	34,0	38,4	43,5	384	$\leq 10$	$\geq 5$	100	40
DPS-SL-15	SL (Class II)	15	12,7	10	$\leq 35,4$	$\leq 48,5$	35,7	42,3	39,5	42,5	48,0	54,4	507	$\leq 10$	$\geq 5$	100	40
DPS-SL-27	SL (Class II)	27	22	10	$\leq 65$	$\leq 87,2$	64,3	76,1	71,1	76,5	86,4	97,9	877	$\leq 10$	$\geq 5$	100	40
DPS-SL-30	SL (Class II)	30	24	10	$\leq 72,3$	$\leq 96,9$	71,4	84,5	79,1	85,0	96,1	108,8	952	$\leq 10$	$\geq 5$	100	40
DPS-SL-36	SL (Class II)	36	29	10	$\leq 86,7$	$\leq 116,3$	85,7	101,4	94,9	102,0	115,3	130,6	1124	$\leq 10$	$\geq 5$	100	40
DPS-SL-42	SL (Class II)	42	34	10	$\leq 101,2$	$\leq 135,7$	100,0	118,3	110,7	119,0	134,5	152,3	1322	$\leq 10$	$\geq 5$	100	40
DPS-SL-45	SL (Class II)	45	36,5	10	$\leq 108,4$	$\leq 145,4$	107,1	126,8	118,6	127,5	144,1	163,2	1445	$\leq 10$	$\geq 5$	100	40
DPS-SL-48	SL (Class II)	48	38,4	10	$\leq 115,6$	$\leq 155$	114,2	135,2	126,5	136,0	153,7	174,1	1494	$\leq 10$	$\geq 5$	100	40
DPS-SL-51	SL (Class II)	51	40,8	10	$\leq 122,8$	$\leq 164,7$	121,4	143,7	134,4	144,5	163,3	185,0	1615	$\leq 10$	$\geq 5$	100	40
DPS-SL-54	SL (Class II)	54	42	10	$\leq 130$	$\leq 174,5$	128,5	152,1	142,3	153,0	172,9	195,8	1615	$\leq 10$	$\geq 5$	100	40
DPS-SL-60	SL (Class II)	60	48	10	$\leq 145$	$\leq 194$	142,8	169,0	158,1	170,0	192,1	217,6	2210	$\leq 10$	$\geq 5$	100	40
DPS-SM-3	SM (Class III)	3	2,55	10	$\leq 7,5$	$\leq 10$	7,7	8,1	8,5	9,0	10,0	11,0	137	$\leq 10$	$\geq 8$	100	50
DPS-SM-6	SM (Class III)	6	5,1	10	$\leq 15$	$\leq 20$	15,4	16,5	17,0	18,0	20,0	22,0	212	$\leq 10$	$\geq 8$	100	50
DPS-SM-9	SM (Class III)	9	7,65	10	$\leq 23$	$\leq 30$	23,0	24,5	26,0	27,0	30,0	33,0	335	$\leq 10$	$\geq 8$	100	50
DPS-SM-10	SM (Class III)	10	8,4	10	$\leq 23$	$\leq 30$	23,0	24,5	26,0	27,0	30,0	33,0	335	$\leq 10$	$\geq 8$	100	50
DPS-SM-12	SM (Class III)	12	10,2	10	$\leq 30$	$\leq 40$	31,0	33,0	35,0	36,0	40,0	44,0	384	$\leq 10$	$\geq 8$	100	50
DPS-SM-15	SM (Class III)	15	12,7	10	$\leq 33$	$\leq 45$	33,0	35,0	37,0	39,0	43,0	47,0	507	$\leq 10$	$\geq 8$	100	50
DPS-SM-18	SM (Class III)	18	15,3	10	$\leq 40$	$\leq 54$	40,0	42,0	45,0	47,0	52,0	57,0	582	$\leq 10$	$\geq 8$	100	50
DPS-SM-21	SM (Class III)	21	16,8	10	$\leq 47$	$\leq 63$	48,0	50,0	52,0	55,0	61,0	67,0	705	$\leq 10$	$\geq 8$	100	50
DPS-SM-24	SM (Class III)	24	19,5	10	$\leq 53$	$\leq 72$	55,0	57,0	60,0	63,0	70,0	77,0	754	$\leq 10$	$\geq 8$	100	50
DPS-SM-27	SM (Class III)	27	22	10	$\leq 60$	$\leq 81$	62,0	65,0	68,0	71,0	79,0	87,0	877	$\leq 10$	$\geq 8$	100	50
DPS-SM-30	SM (Class III)	30	24	10	$\leq 67$	$\leq 90$	70,0	72,0	76,0	80,0	89,0	97,0	952	$\leq 10$	$\geq 8$	100	50
DPS-SM-33	SM (Class III)	33	26,4	10	$\leq 75$	$\leq 100$	78,0	81,0	86,0	90,0	100,0	110,0	1075	$\leq 10$	$\geq 8$	100	50
DPS-SM-36	SM (Class III)	36	29	10	$\leq 80$	$\leq 105$	82,0	85,0	90,0	94,0	105,0	115,0	1124	$\leq 10$	$\geq 8$	100	50
DPS-SM-39	SM (Class III)	39	31,2	10	$\leq 87$	$\leq 118$	88,0	92,0	97,0	102,0	114,0	125,0	1247	$\leq 10$	$\geq 8$	100	50
DPS-SM-42	SM (Class III)	42	33,6	10	$\leq 94$	$\leq 120$	94,0	98,0	103,0	110,0	120,0	132,0	1322	$\leq 10$	$\geq 8$	100	50
DPS-SM-45	SM (Class III)	45	36,5	10	$\leq 100$	$\leq 136$	102,0	107,0	113,0	118,0	132,0	145,0	1445	$\leq 10$	$\geq 8$	100	50
DPS-SM-48	SM (Class III)	48	38,4	10	$\leq 107$	$\leq 145$	110,0	115,0	120,0	126,0	140,0	155,0	1494	$\leq 10$	$\geq 8$	100	50
DPS-SM-51	SM (Class III)	51	40,8	10	$\leq 114$	$\leq 154$	118,0	123,0	128,0	134,0	150,0	165,0	1550	$\leq 10$	$\geq 8$	100	50
DPS-SM-60	SM (Class III)	60	48	10	$\leq 133$	$\leq 175$	135,0	145,0	150,0	156,0	175,0	193,0	2210	$\leq 10$	$\geq 8$	100	50
DPS-SM-66	SM (Class III)	66	52,8	10	$\leq 147$	$\leq 193$	150,0	160,0	165,0	172,0	192,0	212,0	2210	$\leq 10$	$\geq 8$	100	50
DPS-SM-72	SM (Class III)	72	58	10	$\leq 159$	$\leq 210$	165,0	172,0	180,0	187,0	210,0	230,0	2460	$\leq 10$	$\geq 8$	100	50
DPS-SM-78	SM (Class III)	78	62,4	10	$\leq 173$	$\leq 227$	180,0	188,0	195,0	203,0	228,0	250,0	2460	$\leq 10$	$\geq 8$	100	50
DPS-SM-84	SM (Class III)	84	67,2	10	$\leq 188$	$\leq 254$	195,0	205,0	210,0	221,0	248,0	272,0	2460	$\leq 10$	$\geq 8$	100	50
DPS-SM-90	SM (Class III)	90	72,5	10	$\leq 201$	$\leq 264$	205,0	215,0	225,0	235,0	262,0	288,0	3960	$\leq 10$	$\geq 8$	100	50
DPS-SM-96	SM (Class III)	96	75	10	$\leq 213$	$\leq 280$	220,0	230,0	240,0	250,0	280,0	306,0	3960	$\leq 10$	$\geq 8$	100	50
DPS-SM-102	SM (Class III)	102	79,6	10	$\leq 226$	$\leq 297$	235,0	245,0	255,0	266,0	296,0	325,0	3960	$\leq 10$	$\geq 8$	100	50
DPS-SM-108	SM (Class III)	108	84	10	$\leq 239$	$\leq 315$	250,0	260,0	270,0	281,0	315,0	348,0	3960	$\leq 10$	$\geq 8$	100	50
DPS-SM-110	SM (Class III)	110	85,6	10	$\leq 243$	$\leq 321$	254,6	264,8	275,0	286,2	320,8	354,4	3960	$\leq 10$	$\geq 8$	100	50
DPS-SM-114	SM (Class III)	114	91,2	10	$\leq 252$	$\leq 332$	260,0	275,0	285,0	296,0	330,0	360,0	4210	$\leq 10$	$\geq 8$	100	50
DPS-SM-120	SM (Class III)	120	96	10	$\leq 266$	$\leq 350$	275,0	290,0	300,0	312,0	350,0	380,0	4210	$\leq 10$	$\geq 8$	100	50
DPS-SM-132	SM (Class III)	132	15,6	10	$\leq 293$	$\leq 386$	300,0	320,0	330,0	344,0	385,0	420,0	4210	$\leq 10$	$\geq 8$	100	50
DPS-SM-138	SM (Class III)	138	110,4	10	$\leq 306$	$\leq 403$	315,0	330,0	345,0	359,0	400,0	440,0	4210	$\leq 10$	$\geq 8$	100	50
DPS-SM-144	SM (Class III)	144	115,2	10	$\leq 318$	$\leq 420$	330,0	345,0	360,0	374,0	420,0	460,0	4920	$\leq 10$	$\geq 8$	100	50
DPS-SM-156	SM (Class III)	156	124,8	10	$\leq 346$	$\leq 455$	355,0	375,0	390,0	406,0	455,0	500,0	4920	$\leq 10$	$\geq 8$	100	50
DPS-SM-168	SM (Class III)	168	134,4	10	$\leq 376$	$\leq 496$	385,0	405,0	425,0	442,0	495,0	540,0	4920	$\leq 10$	$\geq 8$	100	50
DPS-SM-180	SM (Class III)	180	144	10	$\leq 400$	$\leq 527$	410,0	430,0	450,0	470,0	525,0	570,0	7920	$\leq 10$	$\geq 8$	100	50
DPS-SM-192	SM (Class III)	192	150	10	$\leq 426$	$\leq 560$	440,0	460,0	480,0	500,0	560,0	610,0	7920	$\leq 10$	$\geq 8$	100	50
DPS-SM-204	SM (Class III)	204	159	10	$\leq 452$	$\leq 594$	470,0	490,0	510,0	532,0	595,0	650,0	7920	$\leq 10$	$\geq 8$	100	50
DPS-SM-216	SM (Class III)	216	168,5	10	$\leq 478$	$\leq 630$	495,0	520,0	540,0	562,0	630,0	690,0	7920	$\leq 10$	$\geq 8$	100	50
DPS-SM-228	SM (Class III)	228	182,4	10	$\leq 504$	$\leq 664$	520,0	545,0	570,0	592,0	660,0	730,0	8420	$\leq 10$	$\geq 8$	100	50
DPS-SM-240	SM (Class III)	240	192	10	$\leq 531$	$\leq 700$	550,0	575,0	600,0	624,0	700,0	770,0	8420	$\leq 10$	$\geq 8$	100	50