



HIGH VOLTAGE LIGHTNING ARRESTERS



AZX LINE
4 TO 36 kV
10 kA-CLASS 1

- ZINC OXIDE VARISTORS-BASED ARRESTERS
- SILICON ELASTOMER HOUSING
- IEC ZONE III-CLASS OUTDOOR USE
- HIGH CAPACITY ENERGY ABSORPTION
- OPTIONAL END-OF-LIFE INDICATOR
- IN ACCORDANCE WITH IEC 99-4 STANDARD



ELECTRICAL RATINGS

AZX type ref.	Voltage rating Ur (kV)	Continuous operating voltage Uc (kV)	Residual voltage Ures (kV)						Temporary overvoltage capability for 10 s (kV)
			1/4 μs wave @ 10 kA	8/20 μs wave				30/80 μs wave @ 500 A	
				@ 2.5 kA	@ 5 kA	@ 10 kA	@ 20 kA		
040	4	3	12.8	9.8	10.6	11.7	13.2	8.8	4.0
060	6	4.5	19.9	14.5	15.8	17.4	19.7	13.1	6.0
100	10	8.5	39.2	28.4	30.9	33.9	38.8	25.4	11.3
120	12	9	39.2	28.4	30.9	33.9	38.8	25.4	12.0
140	14	10.2	51.2	38.0	40.8	44.9	50.9	33.5	14.0
150	15	12.7	58.4	42.4	45.9	50.8	57.8	37.7	16.9
180	18	13.5	58.4	42.4	45.9	50.8	57.8	37.7	18.0
190	19	15.3	70.4	49.0	53.1	58.8	66.9	43.7	20.3
210	21	17	77.6	56.8	60.9	67.5	77.0	50.1	22.6
240	24	18	77.6	56.8	60.9	67.5	77.0	50.1	24.0
270	27	21	96.8	71.0	75.9	83.9	95.9	62.5	28.0
300	30	22.5	96.8	71.0	75.9	83.9	95.9	62.5	30.0
340	34	25.5	116	84.1	90.9	100.9	114.9	74.8	34.0
360	36	27	116	84.1	90.9	100.9	114.9	74.8	36.0

After a preconditioning of two 100 kA shocks

MAIN CHARACTERISTICS

AZX lightning arresters are high voltage distribution arresters. The stack of ZnO varistors is initially pressurized thanks to metallic discs which give it the necessary flexibility to operate under stress.

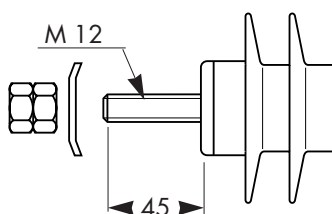
These arresters have characteristics in accordance with the IEC 99-4 standard dated 91/11.

Rated discharge current :	10 kA
Maximum high-current impulse (4/10 μ s wave)	100 kA
Operating frequency :	48 to 62 Hz
Short-circuit fault current withstand ratings :	20 kA / 0.2 s
Extreme operating temperatures :	- 40° c to 60° c
Maximum bending moment - horizontal installation - :	250 N.m
Energy absorption capacity :	3.7 kJ / kV
(High current impulse)	of voltage rating

TERMINAL CONNECTIONS

Each 12 mm dia. stud is threaded 45 mm long. and fitted with two nuts and a reversible cable grip washer.

All the arrester metallic parts in contact with conductors are stainless steel-made.

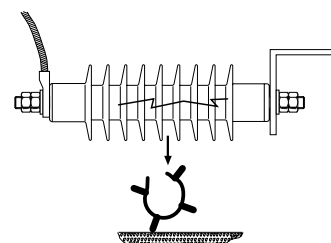


OPTIONAL END-OF-LIFE INDICATOR

The AZX arresters are available with an optional end-of-life indicator.

It is set out between two cooling fins. Its sensibility rating is 150 A. When the arrester shorts the resultant flashover, generated on the ZnO varistors surface, tries to cross the polymer housing in order to switch over outside.

During the arc creeping the black ring will be sectioned then ejected to the ground by means of slots made in the internal structure of the arrester.

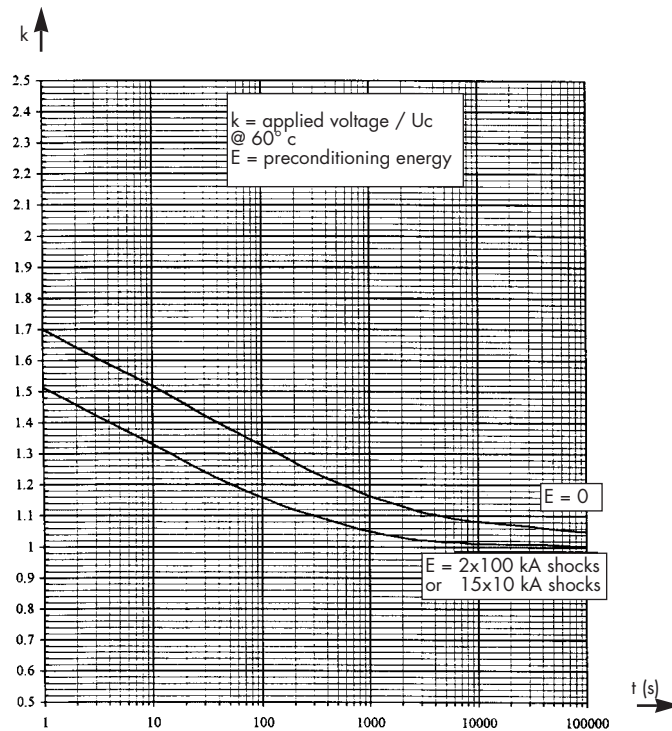


REFERENCE NUMBERS

Voltage rating Ur (kV)	Without end-of-life indicator type		With end-of-life indicator type		Weight (kg)	Packaging
	AZX type reference	Reference #	AZX type reference	Reference #		
4	AZX 040	A 207345	AZX 041	N 207334	2	x 3
6	AZX 060	B 207346	AZX 061	P 207335	2	x 3
10	AZX 100	C 207347	AZX 101	Q 207336	2.5	x 3
12	AZX 120	D 207348	AZX 121	R 207337	2.5	x 3
14	AZX 140	V 209065	AZX 141	R 209062	3	x 3
15	AZX 150	E 207349	AZX 151	S 207338	3	x 3
18	AZX 180	F 207350	AZX 181	T 207339	3	x 3
19	AZX 190	W 209066	AZX 191	S 209063	3.5	x 3
21	AZX 210	G 207351	AZX 211	V 207340	3.5	x 3
24	AZX 240	H 207352	AZX 241	W 207341	3.5	x 3
27	AZX 270	J 207353	AZX 271	X 207342	4	x 3
30	AZX 300	K 207354	AZX 301	Y 207343	4	x 3
34	AZX 340	X 209067	AZX 341	T 209064	4.5	x 3
36	AZX 360	L 207355	AZX 361	Z 207344	4.5	x 3
For further informations see page 4	Mounting bracket	Reference #	Mounting bracket	Reference #	Weight (kg)	Packaging
	EZX 1	F 206798	EZX 1	F 206798	0.2	x 9
	EZX 2	G 206799	EZX 2	G 206799	0.250	x 9
	EZX 3	H 206800	EZX 3	H 206800	0.3	x 9

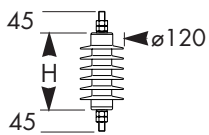
PROTECTIVE CHARACTERISTICS

TEMPORARY OVERVOLTAGES WITHSTAND CHARACTERISTICS



PHYSICAL CHARACTERISTICS

The polymer housing of the AZXs enables them to be used in high-density industrial IEC zones (zone III - class)



AZX 040/060
AZX 100/120



AZX 140/150/180



AZX 190/210/240



AZX 270/300/340/360

AZX type reference	Length H (mm)	Nominal creepage (mm)	Housing dielectric withstand		Insulation distance between arresters (mm)	
			Lightning shock withstand rating (kV)	50 Hz-1mn withstand rating (kV)		
AZX 040/041	188	490	58	28	100	300
AZX 060/061	188	490	58	28	100	300
AZX 100/101	188	490	58	28	130	300
AZX 120/121	188	490	58	28	130	300
AZX 140/141	242	640	58	28	130	300
AZX 150/151	242	640	67	32	180	300
AZX 180/181	242	640	67	32	180	300
AZX 190/191	316	820	110	52	180	300
AZX 210/211	316	820	110	52	220	300
AZX 240/241	316	820	110	52	220	300
AZX 270/271	357	1025	133	63	330	380
AZX 300/301	357	1025	133	63	330	380
AZX 340/341	357	1025	133	63	330	380
AZX 360/361	357	1025	133	63	330	380

MOUNTING GUIDE

AZX arresters are always fixed by one of the 12 mm dia. threaded terminals. They can be installed either vertically or horizontally but, as well, in any intermediate position.

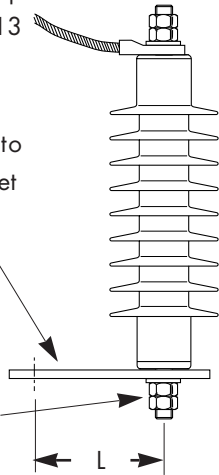
VERTICAL-TYPE INSTALLATION

Connection to line with aluminium or copper cables from 25 mm² up to 148 mm² (with or without 13 mm. dia. socket)

Mounting bracket adapted to insulated NEMA crossarm bracket

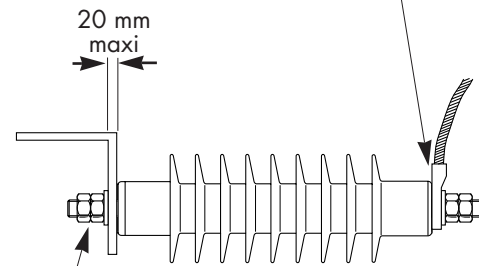
Mounting bracket	L (mm)
EZX 1	100
EZX 2	150
EZX 3	210

A ground conductor can be inserted between the two bottom nuts



HORIZONTAL-TYPE INSTALLATION

Connection to line with aluminium or copper cables from 25 mm² up to 148 mm² (with or without 13 mm. dia. socket)



A ground conductor can be inserted between the two bottom nuts

APPLICATION GUIDE

Maximum phase-to-phase operating voltage (kV)	Grounded neutral network		Impedant neutral network		Insulated network with ground faults protection		Insulated network with sustained ground faults	
	Advised model	Temporary overvoltage duration (s)	Advised model	Temporary overvoltage duration (s)	Advised model	Temporary overvoltage duration (s)	Advised model	Temporary overvoltage duration (s)
2.6	AZX 040	∞	AZX 040	∞	AZX 040	∞	AZX 040	∞
4.6	AZX 040	35	AZX 040	12	AZX 060	∞	AZX 060	∞
5.3	AZX 060	∞	AZX 060	∞	AZX 060	120	AZX 100	∞
7.6	AZX 060	7	AZX 100	∞	AZX 100	∞	AZX 100	∞
9.2	AZX 100	∞	AZX 100	∞	AZX 100	450	AZX 140	∞
10	AZX 100	∞	AZX 100	∞	AZX 100	75	AZX 140	∞
11	AZX 100	1000	AZX 100	200	AZX 100	18	AZX 150	∞
13.2	AZX 100	25	AZX 120	20	AZX 140	18	AZX 180	∞
14.5	AZX 120	15	AZX 140	35	AZX 150	160	AZX 190	∞
15	AZX 140	55	AZX 140	20	AZX 150	70	AZX 190	∞
16.5	AZX 140	15	AZX 150	200	AZX 150	15	AZX 210	∞
20	AZX 150	20	AZX 180	17	AZX 190	15	AZX 270	∞
22	AZX 180	15	AZX 190	30	AZX 210	15	AZX 300	∞
24.2	AZX 190	20	AZX 210	30	AZX 240	8	AZX 340	∞
30	AZX 270	120	AZX 270	30	AZX 300	10	—	—
33	AZX 270	20	AZX 300	20	AZX 340	17	—	—
36.2	AZX 300	15	AZX 340	30	AZX 360	8	—	—

The advised models have been subjected to a preconditioning of two 100 kA shocks

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