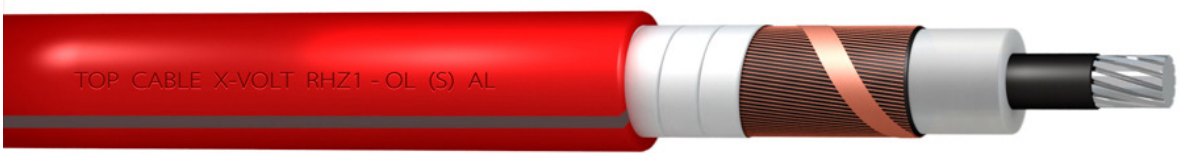
X-VOLT® AL (-OL/-2OL) RHZ1 (S)

100% Green Energy Cable Production

Medium Voltage aluminium cable, XLPE insulation.

ACCORDING TO: IEC 60502-2 / UNE-HD 620-10E (type 10E-4)



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APPLICATION

X-VOLT® RHZ1 (S) is a Medium Voltage aluminium cable halogen-free and no flame propagation for fixed installations. Suitable for transport and distribution of electric power in medium voltage networks.

CONSTRUCTION

Conductor
Aluminium conductor class 2 according to EN 60228 and IEC 60228.
Optionally, with longitudinal sealing (cable type -2OL).

Internal semiconductor
Screen over the conductor, made of thermosetting semiconductor material.

Insulation
Cross-linked polyethylene type XLPE according to IEC 60502-2 and type DIX3 according to HD 620-1, natural colour.
Cross linked in catenary line with nitrogen atmosphere through a triple layer extrusion process.

External semiconductor
Screen over the insulation, made of thermosetting and strippable semiconductor material.

Metallic screen
Copper wires and copper tape screen, with a minimum cross-section of 16mm^2.

Longitudinal sealing
Hygroscopic tape completely covering the screen (cable type –OL and -2OL).

Outer sheath
Polyolefin outer sheath type ST7 according to IEC 60502-2 and type DMZ2 according to HD 620-1.
Red colour with two grey stripes.
Other colours under request.

CHARACTERISTICS

Electrical performance
Medium Voltage: 6/10 kV, 8,7/15 kV, 12/20 kV and 18/30 kV.

Thermal performance
Maximum service temperature: 90°C.
Maximum short-circuit temperature: 250°C (max 5 s)
Minimum service temperature: -15°C.

Fire performance
Flame non-propagation according to EN 60332-1 /IEC 60332-1.
Fire non-propagation according to EN 50399.
Reaction to fire CPR: E_{ca} according to EN 50575.
Halogen free: according to EN 60754-1 / IEC 60754-1.
Low smoke emission according to EN 61034 / IEC 61034.
Light transmittance > 60%.
Low corrosive gases emission according to EN 60754-2 / IEC 60754-2.

Mechanical performance
Minimum bending radius: 15x cable diameter.
Abrasion resistant.
Tear resistant.

Environmental performance
UV Resistant according to UNE 211605.

Installation conditions
Open Air.
Buried.
In conduit.

STANDARDS / COMPLIANCE

According to
IEC 60502-2 / UNE-HD 620-10E (type 10E-4)

Standards and approvals
AENOR

CPR (Construction Products Regulation)
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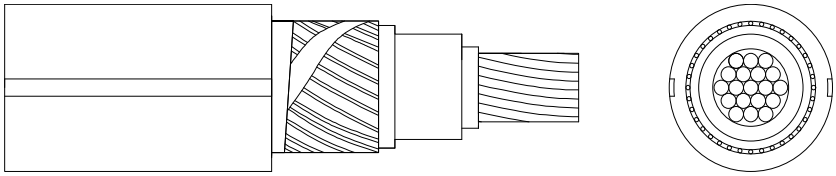
X-VOLT® AL (-OL/-2OL) RHZ1 (S)

DIMENSIONS & ADMISSIBLE INTENSITIES



X-VOLT® RHZ1 (S) 6/10 kV

Cross-section (mm^2)	Screen (mm^2)	Conductor Diameter (mm)	Insulation Diameter (mm)	External Diameter (mm)	Weight (Kg/Km)	R20°C (Ω/km)	X (Ω/km)	C (µF/km)	Open air (A) [1]	Buried (A) [2]
1 x 120	H16	12,7	20,5	27,4	950	0,253	0,108	0,323	324	252

X-VOLT® RHZ1 (S) 8,7/15 kV

Cross-section (mm^2)	Screen (mm^2)	Conductor Diameter (mm)	Insulation Diameter (mm)	External Diameter (mm)	Weight (Kg/Km)	R20°C (Ω/km)	X (Ω/km)	C (µF/km)	Open air (A) [1]	Buried (A) [2]
1 x 120	H16	12,7	22,7	30,0	1.070	0,253	0,113	0,258	324	252
1 x 240	H16	18,0	28,0	35,7	1.575	0,125	0,102	0,336	502	367

X-VOLT® RHZ1 (S) 12/20 kV

Cross-section (mm^2)	Screen (mm^2)	Conductor Diameter (mm)	Insulation Diameter (mm)	External Diameter (mm)	Weight (Kg/Km)	R20°C (Ω/km)	X (Ω/km)	C (µF/km)	Open air (A) [1]	Buried (A) [2]
1 x 95	H16	11,2	23,2	30,5	1.050	0,320	0,122	0,202	280	221
1 x 120	H16	12,7	24,7	32,4	1.190	0,253	0,118	0,221	324	252
1 x 150	H16	13,9	25,9	33,6	1.300	0,206	0,115	0,235	368	281
1 x 185	H16	15,5	27,5	35,2	1.450	0,164	0,111	0,255	424	317
1 x 240	H16	18,0	30,0	38,2	1.695	0,125	0,106	0,285	502	367
1 x 300	H16	20,0	32,0	39,7	1.890	0,100	0,102	0,309	577	414
1 x 400	H16	22,8	35,0	42,8	2.250	0,0778	0,099	0,345	673	470
1 x 630	H16	29,8	42,0	49,9	3.110	0,0469	0,091	0,429	895	615

X-VOLT® RHZ1 (S) 18/30 kV

Cross-section (mm^2)	Screen (mm^2)	Conductor Diameter (mm)	Insulation Diameter (mm)	External Diameter (mm)	Weight (Kg/Km)	R20°C (Ω/km)	X (Ω/km)	C (µF/km)	Open air (A) [1]	Buried (A) [2]
1 x 95	H16	11,2	28,2	35,9	1.325	0,320	0,132	0,155	280	221
1 x 120	H16	12,7	29,7	37,9	1.465	0,253	0,128	0,168	324	252
1 x 150	H16	13,9	30,9	39,1	1.585	0,206	0,124	0,178	368	281
1 x 185	H16	15,5	32,5	40,7	1.745	0,164	0,120	0,192	424	317
1 x 240	H16	18,0	35,0	19,0	1.995	0,125	0,114	0,213	502	367
1 x 400	H16	22,8	40,0	47,8	2.590	0,0778	0,105	0,254	673	470
1 x 630	H16	29,8	47,0	54,9	3.500	0,0469	0,097	0,313	895	615

[1] Three single-core cables in open air at 30°C ambient temperature according to IEC 60502-2.
[2] Three single-core cables direct buried at 0,8 m depth with soil thermal resistivity of 1,5 K·m/W and 20°C of ground temperature.
Reactance (X) is calculated at 50 Hz and for three single-core cables (in triangle or trefoil formation).
Capacitance values (C) are calculated in base to dimensional items of the cables that are in this specification.
In all cases it is supposed a three-phase circuit.