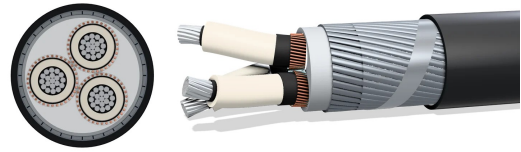


Application

NA2XSEYFGbY is a three-core, individually screened, cross-linked-polyethylene (XLPE) insulated medium-voltage power cable with aluminium conductors and galvanised flat-steel-wire armour, for industrial and utility distribution networks. Each aluminium conductor carries an extruded semi-conductive conductor screen, XLPE insulation, an extruded semi-conductive insulation screen and an individual copper wire screen; the three screened cores are laid up with fillers, covered by an extruded PVC inner sheath, armoured with galvanised flat steel wires bound by a galvanised steel-tape counter helix, and protected by a PVC outer sheath. The armour provides mechanical protection for direct burial and for installation in ground, ducts, cable trenches and industrial plant where additional protection or high pulling stresses are expected. It is available for the 6/10, 8.7/15, 12/20 and 18/30 kV voltage classes to IEC 60502-2, with a construction following DIN VDE 0276-620 (dimensions per class in the tables below).



CONSTRUCTION

Conductor	Stranded compacted circular (RM) aluminium, class 2 acc. to IEC 60228.
Conductor screen	Extruded semi-conductive compound.
Insulation	Cross-linked polyethylene (XLPE), nominal thickness per voltage class (3.4 mm at 6/10 kV, 4.5 mm at 8.7/15 kV, 5.5 mm at 12/20 kV, 8.0 mm at 18/30 kV).
Insulation screen	Extruded semi-conductive compound with a semi-conductive tape.
Core screen	Copper wire screen with a copper equalising/counter tape, applied over each core.
Lay-up	Three screened cores laid up with fillers and a binder tape.
Inner sheath	Extruded polyvinyl chloride (PVC) bedding.
Armour	Galvanised flat steel wires (F) with a galvanised steel-tape counter helix (Gb).
Outer sheath	Polyvinyl chloride (PVC), black or red (other colours on request).

ELECTRICAL & THERMAL PROPERTIES

Voltage classes U₀/U (U_m)	6/10 (12) kV, test 21 kV; 8.7/15 (17.5) kV, test 30.5 kV; 12/20 (24) kV, test 42 kV; 18/30 (36) kV, test 63 kV (AC, 5 min).
Standard	IEC 60502-2. Construction following DIN VDE 0276-620; HD 620 S3:2023 part 10-C covers three-core cables only at 6/10 kV and without armour. Conductors acc. to IEC 60228.
Conductor	Aluminium, class 2 (RM/SM) acc. to IEC 60228.
Core screen	Individual copper wire screen per core.
Armour	Galvanised flat steel wire with steel-tape counter helix (Gb).
Flame-retardant	Acc. to IEC 60332-1-2 (single vertical cable).
Max. conductor temperature	+90 °C (normal operation).
Max. short-circuit temperature	+250 °C (max. 5 s).
Min. bending radius, fixed	15 × overall diameter.
Reaction to fire (CPR)	Fca acc. to EN 50575 (AVCP system 4). The Declaration of Performance for the version supplied is available from Q Cables on request. Halogen-free flame-retardant MV versions up to B2ca-s1a,d1,a1 are available on request.

DIMENSIONS, WEIGHTS & RATINGS PER VOLTAGE CLASS

6/10 kV (Um 12 kV, test 21 kV, XLPE 3.4 mm)

Cores × c.s.a. (mm ²)	Cond. R @20°C (Ω/km)	Nominal O.D. (mm)	Weight (kg/km)
3 × 35	0.868	57.4	3847
3 × 50	0.641	60.4	4250
3 × 70	0.443	64.2	4815
3 × 95	0.32	68.7	5510
3 × 120	0.253	72	6077
3 × 150	0.206	74.9	6875
3 × 185	0.164	79.2	7696
3 × 240	0.125	84.8	8849
3 × 300	0.1	91.1	10463

8.7/15 kV (Um 17.5 kV, test 30.5 kV, XLPE 4.5 mm)

Cores × c.s.a. (mm ²)	Cond. R @20°C (Ω/km)	Nominal O.D. (mm)	Weight (kg/km)
3 × 35	0.868	62.8	4450
3 × 50	0.641	65.6	4855
3 × 70	0.443	69	5465
3 × 95	0.32	73.8	6175
3 × 120	0.253	77.1	6805
3 × 150	0.206	80.5	7670
3 × 185	0.164	84.4	8505
3 × 240	0.125	90.1	9730
3 × 300	0.1	96.3	11395

12/20 kV (Um 24 kV, test 42 kV, XLPE 5.5 mm)

Cores × c.s.a. (mm ²)	Cond. R @20°C (Ω/km)	Nominal O.D. (mm)	Weight (kg/km)
3 × 35	0.868	67.3	4997
3 × 50	0.641	70.3	5456
3 × 70	0.443	74.3	6136
3 × 95	0.32	78.4	6839
3 × 120	0.253	81.8	7493
3 × 150	0.206	85.5	8454
3 × 185	0.164	89.1	9256
3 × 240	0.125	94.9	10540
3 × 300	0.1	101	12217

18/30 kV (Um 36 kV, test 63 kV, XLPE 8.0 mm)

Cores × c.s.a. (mm ²)	Cond. R @20°C (Ω/km)	Nominal O.D. (mm)	Weight (kg/km)
3 × 35	0.868	73	7150
3 × 50	0.641	75	7570
3 × 70	0.443	79	8450
3 × 95	0.32	84	9235
3 × 120	0.253	88	10170
3 × 150	0.206	92	11165
3 × 185	0.164	96	12215
3 × 240	0.125	102	13545
3 × 300	0.1	108	15230

Outer diameters and weights are nominal manufacturer values for the three-core, individually screened, flat-steel-wire-armoured aluminium construction; conductor resistances are the IEC 60228 class-2 aluminium values. All values are indicative and non-binding.