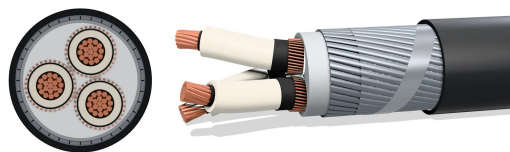


Application

N2XSEYFGbY is a three-core, individually screened, cross-linked-polyethylene (XLPE) insulated medium-voltage power cable with copper conductors and galvanised flat-steel-wire armour, for industrial and utility distribution networks. Each copper 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 is required. 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 circular (RM) or shaped (SM) plain copper, 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 (red or 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	Plain copper, 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	0.524	54.5	4860
3 × 50	0.387	58	5650
3 × 70	0.268	62.5	6670
3 × 95	0.193	66	7795
3 × 120	0.153	69.5	8765
3 × 150	0.124	73	10330
3 × 185	0.0991	76.5	11775
3 × 240	0.0754	81.5	13855
3 × 300	0.0601	88	16295

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	0.524	60.5	5570
3 × 50	0.387	63.5	6365
3 × 70	0.268	67.5	7395
3 × 95	0.193	71.5	8555
3 × 120	0.153	75	9600
3 × 150	0.124	78.5	11195
3 × 185	0.0991	82	12680
3 × 240	0.0754	87	14815
3 × 300	0.0601	93.5	17320

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	0.524	65.5	6215
3 × 50	0.387	68.5	7070
3 × 70	0.268	73	8145
3 × 95	0.193	76.5	9310
3 × 120	0.153	80	10385
3 × 150	0.124	83.5	12050
3 × 185	0.0991	87	13525
3 × 240	0.0754	92	15700
3 × 300	0.0601	98.5	18220

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	0.524	73	7800
3 × 50	0.387	75	8500
3 × 70	0.268	79	9750
3 × 95	0.193	84	11000
3 × 120	0.153	88	12400
3 × 150	0.124	92	13950
3 × 185	0.0991	96	15650
3 × 240	0.0754	102	18000
3 × 300	0.0601	108	20800

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