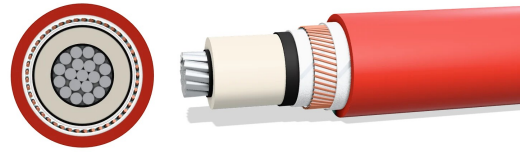


Application

NA2XS(F)Y is a single-core medium-voltage distribution cable with a stranded aluminium conductor, cross-linked polyethylene (XLPE) insulation, a copper wire screen with copper counter helix and a polyvinyl chloride (PVC) outer sheath, designed to DIN VDE 0276-620 (HD 620 S3:2023) and IEC 60502-2; the Standard row gives the norm per voltage class. The (F) design is longitudinally watertight: swellable water-blocking tapes over and under the copper wire screen seal the screen against longitudinal moisture ingress, so the cable suits ducts and damp routes as well as dry indoor use. It is the PVC-sheathed, longitudinally watertight sibling of the PE-sheathed NA2XS(F)2Y and the watertight version of NA2XSY, widely used in Dutch and German distribution networks for public grid feeders and connections between transformers, switchgear and distribution boards. The extruded inner and outer semi-conductive screens give a smooth electrical field; the copper wire screen carries earth-fault and capacitive currents. It is available for the 6/10, 8.7/15, 12/20 and 18/30 kV voltage classes (dimensions per class in the tables below).



CONSTRUCTION

Conductor	Stranded round aluminium, class 2 (RM) acc. to IEC 60228 / DIN VDE 0295.
Conductor screen	Extruded semi-conductive compound (inner conductive layer).
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 (outer conductive layer), bonded to the insulation (triple extrusion).
Metallic screen	Copper wire screen (CWS) with copper counter helix; nominal screen cross-section per size (e.g. 16 / 25 / 35 mm ²).
Longitudinal water barrier	(F): swellable semi-conductive and non-conductive water-blocking tapes over and under the copper wire screen, sealing the screen longitudinally against moisture ingress (longitudinally watertight).
Outer sheath	Polyvinyl chloride (PVC) acc. to HD 620 S3:2023, red.

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	HD 620 S3:2023 part 10-C / DIN VDE 0276-620 for 6/10, 12/20 and 18/30 kV; IEC 60502-2 for 8.7/15 kV. Conductors acc. to IEC 60228.
Conductor	Aluminium, class 2 (RM) acc. to IEC 60228.
Metallic screen	Copper wire screen (CWS) with copper counter helix.
Longitudinally watertight	(F): swellable water-blocking tapes over/under the screen.
Max. conductor temperature	+90 °C (normal operation).
Max. short-circuit temperature	+250 °C (max. 5 s).
Min. bending radius, single-core	15 × outer 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)

Nominal c.s.a. (mm ²)	Cond. R @20°C (Ω/km)	Nominal O.D. (mm)	Weight (kg/km)
50	0.641	25	780
70	0.443	27	870
95	0.32	28	990
120	0.253	30	1100
150	0.206	31	1250
185	0.164	33	1400
240	0.125	35	1600
300	0.1	37	1950
400	0.0778	41	2350
500	0.0605	44	2700
630	0.0469	47	2996

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

Nominal c.s.a. (mm ²)	Cond. R @20°C (Ω/km)	Nominal O.D. (mm)	Weight (kg/km)
50	0.641	26.3	880
70	0.443	28.3	990
95	0.32	30.3	1100
120	0.253	31.9	1230
150	0.206	33.3	1355
185	0.164	35.3	1530
240	0.125	38.3	1730
300	0.1	40.3	2080
400	0.0778	43.3	2480
500	0.0605	47.3	2855
630	0.0469	52.3	3155

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

Nominal c.s.a. (mm ²)	Cond. R @20°C (Ω/km)	Nominal O.D. (mm)	Weight (kg/km)
50	0.641	29	970
70	0.443	31	1100
95	0.32	32	1200
120	0.253	34	1350
150	0.206	35	1450
185	0.164	37	1650
240	0.125	40	1850
300	0.1	42	2200
400	0.0778	45	2600
500	0.0605	48	3000
630	0.0469	52	3299

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

Nominal c.s.a. (mm ²)	Cond. R @20°C (Ω/km)	Nominal O.D. (mm)	Weight (kg/km)
50	0.641	34	1250
70	0.443	36	1350
95	0.32	37	1500
120	0.253	39	1600
150	0.206	40	1750
185	0.164	42	1950
240	0.125	44	2200
300	0.1	47	2550
400	0.0778	50	3000
500	0.0605	53	3450
630	0.0469	57.3	3607

Outer diameters and weights are nominal manufacturer values for the single-core PVC-sheathed aluminium construction (the longitudinally watertight (F) tapes add negligibly to the diameter); conductor resistances are IEC 60228 class-2 aluminium nominals. All values are indicative and non-binding.