

Application

N2XRH-J is an armoured energy and control cable for a rated voltage of 0.6/1 kV, based on IEC 60502-1, for fixed installation indoors, outdoors, in cable ducts and in direct burial where mechanical protection and halogen-free behaviour are required. It has stranded class 2 copper conductors, XLPE insulation, a halogen-free inner covering, a single layer of galvanised round steel wires and a halogen-free, flame-retardant black outer sheath. In a fire the cable emits low smoke and no corrosive halogen gases. The J denotes a green/yellow protective core. The cable is available with 3, 4 and 5 cores and with three phase cores plus a reduced green/yellow core; the table lists the sizes from 3G1.5 to 4G400 mm².



CONSTRUCTION

Conductor	Stranded plain copper, class 2 acc. to IEC 60228.
Insulation	Cross-linked polyethylene (XLPE).
Core identification	Acc. to HD 308, with green/yellow core; see the table after the dimensions.
Inner covering	Halogen-free flame-retardant compound (HFFR), as filler or extruded inner sheath depending on construction.
Armour	Single layer of galvanised round steel wires, with a binder tape over the armour depending on construction.
Outer sheath	Halogen-free flame-retardant compound (HFFR), black.

ELECTRICAL & THERMAL PROPERTIES

Rated voltage Uo/U	0.6/1 kV.
Test voltage	3.5 kV AC.
Max. conductor temperature	+90 °C.
Max. short-circuit temperature	+250 °C (max. 5 s).
Operating temperature, fixed	-20 °C to +90 °C.
Min. installation temperature	-5 °C.
Min. bending radius	15 × outer diameter.

STANDARDS & FIRE PERFORMANCE

Standard	Based on IEC 60502-1; conductors acc. to IEC 60228.
Flame propagation	Single cable acc. to IEC 60332-1-2; bunched cables acc. to IEC 60332-3-24, category C.
Smoke density	Acc. to IEC 61034-2.
Halogen-free	Acc. to IEC 60754-1 and IEC 60754-2 (no corrosive gases).
Reaction to fire (CPR)	Eca acc. to EN 50575; Dca and Cca on request. The class binding for a delivery is the one on its Declaration of Performance.

DIMENSIONS & TECHNICAL DATA

G = with green/yellow core. In the 3 + 1 sizes the reduced fourth core is the green/yellow core; resistance given as phase conductor / reduced conductor. Other sizes on request.

Cores × mm ²	Max. conductor R @20°C (Ω/km)	Outer diameter approx. (mm)	Weight approx. (kg/km)
3G1.5	12.1	13.5	370
3G2.5	7.41	14.0	430
3G4	4.61	15.5	510
3G6	3.08	16.5	600
3G10	1.83	20.0	980
3G16	1.15	22.0	1260
3G25	0.727	26.0	1700
3G35	0.524	28.0	2100
3G50	0.387	31.0	2700
3G70	0.268	36.5	3800
3G95	0.193	40.5	4700
3G120	0.153	44.5	5700
3G150	0.124	50.0	7300
3G185	0.0991	55.0	8800
3G240	0.0754	61.5	11000
3G300	0.0601	68.8	14814
3G400	0.047	81.7	18854
4G1.5	12.1	14.0	400
4G2.5	7.41	15.0	470
4G4	4.61	16.0	580
4G6	3.08	18.5	830
4G10	1.83	21.0	1100
4G16	1.15	24.0	1600
4G25	0.727	28.0	2200
4G35	0.524	30.5	2700
4G50	0.387	34.0	3350
4G70	0.268	40.0	4800
4G95	0.193	44.0	6100
4G120	0.153	50.5	7800
4G150	0.124	55.0	9300
4G185	0.0991	60.5	11000
4G240	0.0754	68.0	14000
4G300	0.0601	76.0	17000
4G400	0.047	87.0	23000
5G4	4.61	17.25	680
5G6	3.08	19.15	864
5G10	1.83	24.0	1450
5G16	1.15	26.0	1850
5G25	0.727	31.0	2750
5G35	0.524	34.0	3450
5G50	0.387	39.0	4650
5G70	0.268	44.0	6100
5G95	0.193	49.0	8200

Cores × mm ²	Max. conductor R @20°C (Ω/km)	Outer diameter approx. (mm)	Weight approx. (kg/km)
5G120	0.153	55.0	10000
3 × 16 + 1 × 10	1.15 / 1.83	23.0	1400
3 × 25 + 1 × 16	0.727 / 1.15	27.0	2100
3 × 35 + 1 × 16	0.524 / 1.15	29.0	2400
3 × 50 + 1 × 25	0.387 / 0.727	32.5	3100
3 × 70 + 1 × 35	0.268 / 0.524	38.0	4400
3 × 95 + 1 × 50	0.193 / 0.387	42.0	5600
3 × 120 + 1 × 70	0.153 / 0.268	46.5	6900
3 × 150 + 1 × 70	0.124 / 0.268	51.5	8500
3 × 185 + 1 × 95	0.0991 / 0.193	56.5	10300
3 × 240 + 1 × 120	0.0754 / 0.153	63.5	13000
3 × 300 + 1 × 150	0.0601 / 0.124	70.5	15500
3 × 400 + 1 × 185	0.047 / 0.0991	80.0	19500

Core identification acc. to HD 308

Cores	Core colours
3G	Green/yellow, blue, brown
4G	Green/yellow, brown, black, grey
5G	Green/yellow, blue, brown, black, grey
3 + 1 (reduced)	Brown, black, grey; reduced core green/yellow

Outer diameters and weights are approximate values; they differ between constructions and production runs, so choose gland sizes with margin.
Conductor resistances are the IEC 60228 class 2 maxima. All values are indicative and non-binding.