

Application

N2XH is a halogen-free power cable for a rated voltage of 0.6/1 kV to DIN VDE 0276-604 (HD 604 S1), with plain copper conductors (solid class 1 / stranded class 2), cross-linked polyethylene (XLPE) core insulation and a halogen-free, low-smoke (LSZH) outer sheath. In the event of fire it is flame-retardant, emits no corrosive halogen gases and produces only a low, non-opaque smoke, so it is used for fixed power distribution in buildings and installations with high safety requirements and heavy occupancy (public buildings, data centres and escape routes where the Bbl requires Dca). The XLPE insulation permits a maximum conductor temperature of 90 °C. It is available as single-core and 2- to 5-core cables from 1.5 to 300 mm².



CONSTRUCTION

Conductor	Plain (bare) copper, solid class 1 or stranded class 2 acc. to IEC 60228 / DIN VDE 0295; circular or sector-shaped in the larger sizes.
Insulation	Cross-linked polyethylene (XLPE), compound type 2XI1.
Bedding	Halogen-free filler / core wrapping over the laid-up cores.
Sheath	Halogen-free, low-smoke polyolefin (LSZH) compound type HM4 acc. to HD 604 S1.
Core identification	Acc. to HD 308 S2 / VDE 0293-308; with green/yellow protective conductor (also available without).

ELECTRICAL & THERMAL PROPERTIES

Rated voltage U₀/U	0.6/1 kV (600/1000 V).
Standard	DIN VDE 0276-604 (HD 604 S1); conductors acc. to IEC 60228.
Flame-retardant	Acc. to IEC 60332-1-2; non flame-propagating acc. to IEC 60332-3-24 (cat. C).
Halogen-free / low-smoke	Halogen-free acc. to IEC 60754-1 / EN 50267-2-1; low smoke density acc. to IEC 61034-2 / EN 61034.
Max. conductor temperature	+90 °C in normal operation.
Max. short-circuit temperature	+250 °C (XLPE, up to 5 s).
Min. bending radius, fixed	12 × overall diameter (multicore); 15 × for single-core.
Reaction to fire (CPR)	Cca-s1,d1,a1 (EN 50575, halogen-free); B2ca-s1a,d1,a1 on request.

DIMENSIONS & TECHNICAL DATA

Cores × mm ²	Cond. R @20°C (Ω/km)	Nominal O.D. (mm)	Weight (kg/km)
1 × 1.5	12.1	5.3	40
2 × 1.5	12.1	9.1	114
3 × 1.5	12.1	9.6	131
4 × 1.5	12.1	10.3	155
5 × 1.5	12.1	11.1	193
1 × 2.5	7.41	6.4	66
2 × 2.5	7.41	10	177
3 × 2.5	7.41	10.1	170
4 × 2.5	7.41	11.2	204
5 × 2.5	7.41	12.1	252
1 × 4	4.61	6.6	78
3 × 4	4.61	11.4	228
4 × 4	4.61	12.4	277
5 × 4	4.61	13.5	344
1 × 6	3.08	7.1	99
2 × 6	3.08	11.9	244
3 × 6	3.08	12.5	300
4 × 6	3.08	13.6	366
5 × 6	3.08	14.8	451
1 × 10	1.83	7.9	141
2 × 10	1.83	13.6	361
3 × 10	1.83	14.3	454
4 × 10	1.83	15.7	574
5 × 10	1.83	17.1	685
1 × 16	1.15	8.8	200
2 × 16	1.15	15.7	529
3 × 16	1.15	16.5	663
4 × 16	1.15	18.4	825
5 × 16	1.15	20	1010
1 × 25	0.727	10.8	305
2 × 25	0.727	19.9	844
3 × 25	0.727	21	1047
4 × 25	0.727	22.9	1297
5 × 25	0.727	25.1	1611
1 × 35	0.524	12	402
3 × 35	0.524	21.9	1250
4 × 35	0.524	23.4	1562
5 × 35	0.524	28.5	2110
1 × 50	0.387	13.3	526
3 × 50	0.387	23.9	1579
4 × 50	0.387	26.8	2065
1 × 70	0.268	15	729
3 × 70	0.268	27.2	2267
4 × 70	0.268	31	2912
1 × 95	0.193	17	1002

Cores × mm ²	Cond. R @20°C (Ω/km)	Nominal O.D. (mm)	Weight (kg/km)
3 × 95	0.193	30.3	2982
4 × 95	0.193	34.7	3935
1 × 120	0.153	18.6	1226
3 × 120	0.153	33.6	3709
4 × 120	0.153	38.6	4884
1 × 150	0.124	20.5	1478
3 × 150	0.124	37.1	4553
4 × 150	0.124	42.6	6005
1 × 185	0.0991	23.1	1878
3 × 185	0.0991	41.5	5670
4 × 185	0.0991	47.4	7489
1 × 240	0.0754	25.4	2433
3 × 240	0.0754	46.9	7370
4 × 240	0.0754	53.8	9772
1 × 300	0.0601	28.1	2966

Outer diameters and weights are the nominal manufacturer values of the leading reference source. Conductor resistance is the IEC 60228 class 1/2 maximum. All values are indicative and non-binding.