

Application

NYY (also (N)YY) is a PVC-insulated power and underground cable for a rated voltage of 0.6/1 kV to DIN VDE 0276-603 (HD 603 S1), with plain copper conductors (solid class 1 / stranded class 2, circular or sector-shaped), PVC core insulation, an inner PVC covering (bedding) and a black PVC outer sheath. It is used for fixed power distribution in buildings, cable ducts and outdoors, and may be laid directly in the ground. The -J version carries a green/yellow protective conductor; the -O version has the same construction and dimensions without it. It is available as single-core and 2- to 5-core cables from 1.5 to 630 mm².



CONSTRUCTION

Conductor	Plain (bare) copper, solid class 1 or stranded class 2 acc. to IEC 60228 / DIN VDE 0295; circular (RE/RM) or sector-shaped (SM) in the larger multicore sizes.
Insulation	Polyvinyl chloride (PVC), compound type DIV4 acc. to HD 603 S1.
Bedding	Inner PVC covering (bedding) over the laid-up cores.
Sheath	Polyvinyl chloride (PVC), compound type DMV5 acc. to HD 603 S1; black.
Core identification	Acc. to HD 308 S2 / VDE 0293-308; -J with green/yellow protective conductor, -O without.

ELECTRICAL & THERMAL PROPERTIES

Rated voltage U₀/U	0.6/1 kV (600/1000 V).
Test voltage	4 kV AC.
Standard	DIN VDE 0276-603 (HD 603 S1); IEC 60502-1; conductors acc. to IEC 60228.
Flame-retardant	Acc. to IEC 60332-1-2 / DIN EN 60332-1-2.
Max. conductor temperature	+70 °C in normal operation.
Max. short-circuit temperature	+160 °C ($\leq 300 \text{ mm}^2$), +140 °C ($> 300 \text{ mm}^2$), up to 5 s.
Min. bending radius, fixed	12 × overall diameter (multicore); 15 × for single-core.
Reaction to fire (CPR)	Eca (EN 50575).

DIMENSIONS & TECHNICAL DATA

Cores × mm ²	Cond. R @20°C (Ω/km)	Nominal O.D. (mm)	Weight (kg/km)
2 × 1.5	12.1	11	175
3 × 1.5	12.1	11.5	195
4 × 1.5	12.1	12	230
5 × 1.5	12.1	13	270
2 × 2.5	7.41	12	215
3 × 2.5	7.41	12.5	250
4 × 2.5	7.41	13.5	300
5 × 2.5	7.41	14.5	360
1 × 4	4.61	8.1	115
2 × 4	4.61	14	295
3 × 4	4.61	14	340
4 × 4	4.61	16	410
5 × 4	4.61	16.5	490
1 × 6	3.08	8.6	135
2 × 6	3.08	15	370
3 × 6	3.08	15	430
4 × 6	3.08	16.5	520
5 × 6	3.08	19.5	600
1 × 10	1.83	10	179
2 × 10	1.83	16.5	495
3 × 10	1.83	17	590
4 × 10	1.83	18.5	730
5 × 10	1.83	20	890
1 × 16	1.15	11	245
2 × 16	1.15	18.5	670
3 × 16	1.15	19	820
4 × 16	1.15	20.3	1045
5 × 16	1.15	22.5	1255
1 × 25	0.727	13.7	360
2 × 25	0.727	20.5	960
3 × 25	0.727	24	1320
4 × 25	0.727	24.5	1640
5 × 25	0.727	28	1960
1 × 35	0.524	14.5	470
2 × 35	0.524	24.1	1248
3 × 35	0.524	25	1450
4 × 35	0.524	23.5	1760
5 × 35	0.524	34	2400
1 × 50	0.387	16	620
3 × 50	0.387	28.4	1850
4 × 50	0.387	27	2350
5 × 50	0.387	35.3	3500
1 × 70	0.268	17.5	810
3 × 70	0.268	30	2450
4 × 70	0.268	34	3100

Cores × mm ²	Cond. R @20°C (Ω/km)	Nominal O.D. (mm)	Weight (kg/km)
5 × 70	0.268	39	4470
1 × 95	0.193	19	1110
3 × 95	0.193	34.5	3300
4 × 95	0.193	35.5	4250
5 × 95	0.193	47	6149
1 × 120	0.153	20.5	1360
3 × 120	0.153	37	4100
4 × 120	0.153	39	5300
5 × 120	0.153	51.5	7483
1 × 150	0.124	22.5	1670
3 × 150	0.124	36.5	4900
4 × 150	0.124	42.5	6400
5 × 150	0.124	57.8	8948
1 × 185	0.0991	25	2050
3 × 185	0.0991	41.5	6500
4 × 185	0.0991	48.5	8500
1 × 240	0.0754	28	2630
3 × 240	0.0754	51	8300
4 × 240	0.0754	53.5	11000
1 × 300	0.0601	30	3200
1 × 400	0.047	34	4150
1 × 500	0.0366	38	5200
1 × 630	0.0283	43	6650

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