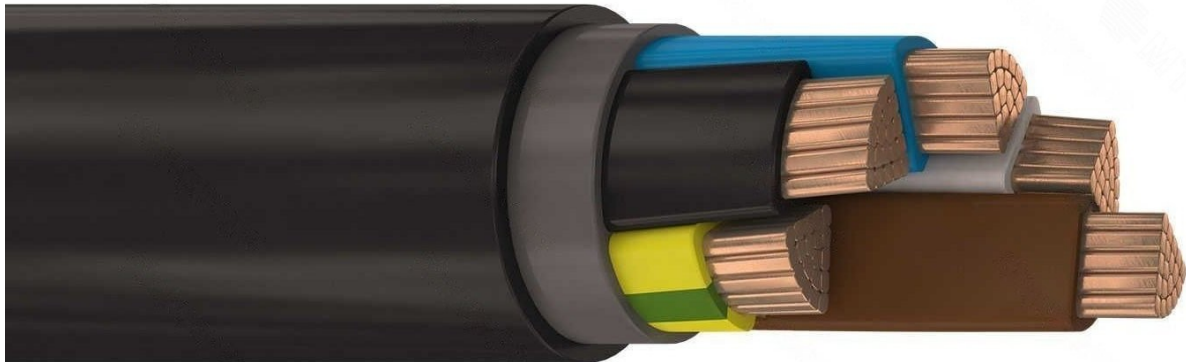


CABLE DATA for NYY

General Information



Cable standard(s)

- HD603 S1.

Construction Product Regulation (CPR) Classification

- Regulation: Compliant with the EU Regulation (EU) No. 305/2011 on construction products.
- Intended Use: Suitable for general applications in construction works with fire safety requirements.
- Harmonized Standard: EN 50575:2014.
- Reaction to Fire Classification: Eca (according to EN 13501-6).
- Release of Dangerous Substances: N.P.D. (No Performance Determined).

Flame Retardant Properties

- The cable complies with the self-extinguishing requirements specified in EN 60332-1-2 (single vertical wire flame test).

Temperature Ratings

- Minimum installation and handling temperature: -5°C
- Maximum continuous conductor operating temperature: +70°C
- Maximum conductor temperature during short-circuit (≤ 5 seconds): +160°C
- Permissible ambient temperature range during operation: -30°C to +50°C

Minimum Bending Radius (D = external diameter of the cable)

- $15 \times D$ for single core cable.
- $12 \times D$ for multi-core cable.

Application of the cable:

- NYY cables are suitable for fixed installation in power distribution and control systems. Designed for use in indoor and outdoor environments, they are ideal for direct burial in the ground, installation in concrete (not subjected to vibration or mechanical stress), and use in cable ducts. Their robust outer sheath provides excellent resistance to mechanical stress, moisture, UV radiation, and various chemicals, making them suitable for industrial, commercial, and residential applications.
- Typical installation areas include:
 - ◆ Power distribution in industrial and residential infrastructure
 - ◆ Underground and duct installations
 - ◆ Distribution boards and fixed installations

Cable Construction and Electrical Properties

Conductor(s)

- Copper conductors in accordance with IEC 60228, available as Class 1 solid round (RE) or Class 2 stranded, in round (RM) or sector shaped (SM) form.

Insulation

- PVC insulation compound DIV4, according to HD 603 S1.
- Wire cores concentrically stranded, with or without a yellow-green protective conductor.
- Insulation color coding according to HD 308 S2.

Filler

- EPDM extruded elastomer or plastomer compound, or wrapped thermoplastic tape.

Sheath

- PVC outer sheath, compound type DMV5, according to HD 603 S1.
- Sheath color: Black.

Rated Voltage

- $U_0/U = 0,6/1$ kV

Test Voltage

- 4 kV AC

Ampacity chart

Cross section [mm ²]	Ampacity in air at 30°C in [A]			Ampacity in ground at 20°C in [A]		
						
1,5	27	21	19,5	41	30	27
2,5	35	28	25	55	39	36
4	47	37	34	71	50	47
6	59	47	43	90	62	59
10	81	64	59	124	83	79
16	107	84	79	160	107	102
25	144	114	106	208	138	133
35	176	139	129	250	164	159
50	214	169	157	296	195	188
70	270	213	199	365	238	232
95	334	264	246	438	286	280
120	389	307	285	501	325	318
150	446	352	326	563	365	359
185	516	406	374	639	413	406
240	618	483	445	746	479	473
300	717	557	511	848	541	535

- Standard ranges based on HD 603 S1:1994/A3:2007 part 3 Section G Table 15.
- For higher ambient temperatures, apply derating factors.

Dimensional Specifications

Nº	Construction [n×mm²]	Metal index [kg/km]	Weight(approx.) [kg/km]	Diameter (range) [mm]	Resistance at 20°C [Ω/km]
1	1×4 RE	38,4	110	7–8	4,61
2	1×6 RE	57,6	130	8–9	3,08
3	1×10 RE	96,0	180	9–11	1,83
4	1×16 RE	153,6	240	10–12	1,15
5	1×25 RM	240,0	350	12–15	0,727
6	1×35 RM	336,0	460	13–16	0,524
7	1×50 RM	480,0	600	14–17	0,387
8	1×70 RM	672,0	800	16–19	0,268
9	1×95 RM	912,0	1100	18–21	0,193
10	1×120 RM	1152,0	1350	19–22	0,153
11	1×150 RM	1440,0	1650	21–25	0,124
12	1×185 RM	1776,0	2000	23–27	0,0991
13	1×240 RM	2304,0	2600	26–30	0,0754
14	1×300 RM	2880,0	3200	28–32	0,0601
15	2×1,5 RE	28,8	190	11–13	12,1
16	2×2,5 RE	48,0	230	12–14	7,41
17	2×4 RE	76,8	310	13–15	4,61
18	2×6 RE	115,2	380	14–16	3,08
19	2×10 RE	192,0	510	16–18	1,83
20	2×16 RE	307,2	705	18–20	1,15
21	2×25 RM	480,0	1010	22–24	0,727
22	2×35 RM	672,0	1285	24–26	0,524
23	3×1,5 RE	43,2	190	11–14	12,1
24	3×2,5 RE	72,0	240	12–15	7,41
25	3×4 RE	115,2	330	14–17	4,61
26	3×6 RE	172,8	420	15–18	3,08
27	3×10 RE	288,0	580	17–20	1,83
28	3×16 RM	460,8	810	18–21	1,15
29	3×25 RM	720,0	1300	24–27	0,727
30	3×35 SM	1008,0	1400	22–25	0,524
31	3×50 SM	1440,0	1800	25–29	0,387
32	3×70 SM	2016,0	2400	29–34	0,268
33	3×95 SM	2736,0	3300	33–37	0,193
34	3×120 SM	3456,0	4000	35–40	0,153
35	3×150 SM	4320,0	4900	39–44	0,124
36	3×185 SM	5328,0	6500	45–50	0,0991
37	3×240 SM	6912,0	8300	50–55	0,0754
38	3×25+16 RM/RE	873,6	1500	25–31	0,727/1,15
39	3×35+16 SM/RE	1161,6	1700	26–32	0,524/1,15
40	3×50+25 SM/RM	1680,0	2300	28–35	0,387/0,727
41	3×70+35 SM/SM	2352,0	2800	31–38	0,268/0,524
42	3×95+50 SM/SM	3216,0	3800	36–43	0,193/0,387
43	3×120+70 SM/SM	4128,0	4700	37–45	0,153/0,268
44	3×150+70 SM/SM	4992,0	5600	42–50	0,124/0,268
45	3×185+95 SM/SM	6240,0	7400	44–52	0,0991/0,193
46	3×240 +120 SM/SM	8064,0	9600	46–54	0,0754/0,193

Nº	Construction [n×mm²]	Metal index [kg/km]	Weight(approx.) [kg/km]	Diameter (range) [mm]	Resistance at 20°C [Ω/km]
47	4×1,5 RE	57,60	220	12-16	12,1
48	4×2,5 RE	96	290	13-17	7,41
49	4×4 RE	153,60	400	15-19	4,61
50	4×6 RE	230,40	510	16-20	3,08
51	4×10 RE	384	720	18-22	1,83
52	4×16 RM	614,40	1050	21-25	1,15
53	4×25 RM	960	1600	25-32	0,727
54	4×35 SM	1344	1750	27-34	0,524
55	4×50 SM	1920	2300	29-36	0,387
56	4×70 SM	2688	3100	33-40	0,268
57	4×95 SM	3648	4200	38-45	0,193
58	4×120 SM	4608	5200	41-49	0,153
59	4×150 SM	5760	6400	46-54	0,124
60	4×185 SM	7104	8050	51-59	0,0991
61	4×240 SM	9216	11000	57-65	0,0754
62	5×1,5 RE	72	270	13-16	12,1
63	5×2,5 RE	120	350	14-17	7,41
64	5×4 RE	192	480	15-18	4,61
65	5×6 RE	288	610	18-21	3,08
66	5×10 RE	480	880	19-22	1,83
67	5×16 RM	768	1250	22-25	1,15
68	5×25 RM	1200	1950	27-33	0,727
69	5×35 RM	1680	2400	33-40	0,524
70	5×50 RM	2400	3500	39-45	0,387
71	5×70 RM	3360	4450	41-47	0,268