NYCY Power Cable - PVC - 1.5mm² to 16mm²



Description

NYCY is a European standard low-voltage power and control cable designed for use indoors, in cable ducts, outdoors, and underground. It is mainly used in industrial plants, local power networks, and electricity supply networks where increased mechanical and electrical protection is required. It is also suitable for street lighting systems, traffic lights, and domestic house entry box connections, particularly where the concentric copper wire layer acts as an electromagnetic shield or protective earth path.

The cable construction features a Class 1 solid copper conductor for smaller cross-sections or a Class 2 stranded copper conductor for larger sizes. It is manufactured with Polyvinyl Chloride (PVC) insulation, an extruded PVC bedding or filler compound over the laid-up cores, and a concentric conductor made of plain copper wires bound with a counter-helix copper tape. The cable is completed with a robust, flame-retardant black PVC outer sheath. It has a voltage rating of 600/1000 Volts and meets international standards including DIN VDE 0276-603, CENELEC HD 603 S1, IEC 60502-1, and flame retardancy to BS EN 60332-1-2.

NYCY is suitable for direct underground burial without additional protective ducting when installed using standard depth practices, provided it is laid with appropriate sand bedding and backfill. The concentric copper wire screen must be properly terminated and bonded in accordance with local wiring regulations to function correctly as a neutral or protective earth conductor.

Key Features

Voltage Rating
600/1000 Volts

Flame Retardancy
BS EN 60332-1-2

Core Colours

2 core - Brown, Blue

3 core - Brown, Black, Grey

4 core - Brown, Black, Grey, Blue

5 core - Brown, Black, Grey, Blue, Green Yellow

Standards

- IEC 60228, IEC 60502-1, IEC 60332-1-2

Construction

- **Conductor**: Class 1 Solid copper conductor, Concentric Conductor: Copper Wire
- **Insulation**: Polyvinyl Chloride (PVC)
- **Sheath**: Polyvinyl Chloride (PVC)

Training & Testing Lab

AN ISO/IEC 17025 ACCREDITED FACILITY

Cleveland Cable Test & Training Lab
Our state-of-the-art cable testing facility ensures that every cable meets the highest standards of quality and compliance through continuous, rigorous testing.

ISO/IEC 17025 Accredited Testing Laboratory
31196

CPR
Cleveland Cable Company is committed to compliance with the Construction Products Regulation (CPR). Where applicable, all cables manufactured after 1st July 2017 have been assessed in accordance with CPR requirements, with full supporting documentation available.

Our Sustainability Commitment

We are committed to the journey to Net Zero as a business partner, an employer and a community member.

By thinking and acting sustainably, we deliver excellent customer service while reducing carbon emissions in collaboration with our customers and suppliers.

CLEVELAND CABLE COMPANY

ecovadis
Cleveland Cable Company has been independently assessed by EcoVadis, a globally recognised provider of business sustainability ratings. Our score places us among the top 35% of companies evaluated worldwide, reflecting our strong commitment to environmental, social, and ethical performance

ecovadis

NYCY Power Cable - PVC - 1.5mm² to 16mm² - Dimensions

Reference	Conductor Size (mm2)	No Of Cores	Overall Diameter(mm)	Weight(Kg/Km)	Nylon Cleat Size	Gland Size
NYCY2X1/5	1.5	2	13	200	0.5	20/16
NYCY3X1/5	1.5	3	13.2	220	0.5	20/16
NYCY4X1/5	1.5	4	14.2	250	0.5	20/16
NYCY5X1/5	1.5	5	15	330	0.6	20S
NYCY7X1/5	1.5	7	15	320	0.6	20S
NYCY8X1/5	1.5	8	17	400	0.7	20
NYCY10X1/5	1.5	10	18.4	410	0.8	20
NYCY12X1/5	1.5	12	19.4	470	0.8	20
NYCY19X1/5	1.5	19	22.5	660	0.9	25
NYCY27X1/5	1.5	27	26.5	1020	1	25
NYCY37X1/5	1.5	37	30	1280	1.1	32
NYCY48X1/5	1.5	48	32	1600	1.2	32
NYCY2X2/5	2.5	2	13.6	260	0.5	20S
NYCY3X2/5	2.5	3	14.2	280	0.6	20S
NYCY4X2/5	2.5	4	15.3	340	0.6	20S
NYCY5X2/5	2.5	5	16	400	0.6	20S
NYCY7X2/5	2.5	7	17.5	450	0.8	20
NYCY10X2/5	2.5	10	20.5	600	0.8	25
NYCY12X2/5	2.5	12	20.5	660	0.9	25
NYCY19X2/5	2.5	19	23.5	950	1	25
NYCY27X2/5	2.5	27	29.5	1610	1.2	32
NYCY37X2/5	2.5	37	33	1660	1.4	40
NYCY48X2/5	2.5	48	35	200	1.6	40
NYCY2X4	4	2	15.8	378	0.6	20S
NYCY3X4	4	3	16.3	390	0.6	20S
NYCY4X4	4	4	17.3	460	0.6	20
NYCY5X4	4	5	19	550	0.7	20
NYCY7X4	4	7	20	600	0.8	20
NYCY2X6	6	2	17	435	0.6	20S
NYCY3X6	6	3	17.3	500	0.7	20
NYCY4X6	6	4	18.5	580	0.7	20
NYCY5X6	6	5	21	700	0.8	20
NYCY7X6	6	7	22.5	790	0.9	25
NYCY2X10	10	2	18.5	520	0.7	20
NYCY3X10	10	3	20	680	0.8	20
NYCY4X10	10	4	21	765	0.8	25
NYCY5X10	10	5	23	1000	0.9	25
NYCY2X16	16	2	20.5	720	0.8	25

Reference	Conductor Size (mm2)	No Of Cores	Overall Diameter(mm)	Weight(Kg/Km)	Nylon Cleat Size	Gland Size
NYCY3X16	16	3	23	1010	0.9	25
NYCY4X16	16	4	23	1060	0.9	25

TABLE 4E4A – Multicore armoured 90 °C thermosetting insulated cables (COPPER CONDUCTORS)

Air ambient temperature: 30 °C Ground ambient temperature: 20 °C Conductor operating temperature: 90 °C CURRENT-CARRYING CAPACITY (amperes):

Conductor cross-sectional area	Reference Method C (clipped direct) 1 two-core cable, single-phase AC or DC	Reference Method C (clipped direct) 1 three- or 1 four-core cable, three-phase AC	Reference Method E (in free air or on a perforated cable tray etc, horizontal or vertical) 1 two-core cable, single-phase AC or DC	Reference Method E (in free air or on a perforated cable tray etc, horizontal or vertical) 1 three- or 1 four-core cable, three-phase AC	Reference Method D1 (ducting in ground, in or around buildings) 1 two-core cable, single-phase AC or DC	Reference Method D1 (ducting in ground, in or around buildings) 1 three- or 1 four-core cable, three-phase AC	Reference Method D2 (direct in ground, in or around buildings) 1 two-core cable, single-phase AC or DC	Reference Method D2 (direct in ground, in or around buildings) 1 three- or four-core cable, three-phase AC
1	2	3	4	5	6	7	8	9
(mm^2)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)
1.5	27	23	29	25	25	21	27	23
2.5	36	31	39	33	33	28	35	30
4	49	42	52	44	43	36	46	39
6	62	53	66	56	53	44	58	49
10	85	73	90	78	71	58	77	65
16	110	94	115	99	91	75	100	84
25	146	124	152	131	116	96	129	107
35	180	154	188	162	139	115	155	129
50	219	187	228	197	164	135	183	153
70	279	238	291	251	203	167	225	188
95	338	289	354	304	239	197	270	226
120	392	335	410	353	271	223	306	257
150	451	386	472	406	306	251	343	287
185	515	441	539	463	343	281	387	324
240	607	520	636	546	395	324	448	375
300	698	599	732	628	446	365	502	419
400	787	673	847	728				

TABLE 4E4B - VOLTAGE DROP (per ampere per metre)

Conductor operating temperature: 90 °C

Conductor cross-sectional area	Two-core cable, DC	Two-core cable, single-phase AC	Two-core cable, single-phase AC	Two-core cable, single-phase AC	Three- or four-core cable, three-phase AC	Three- or four-core cable, three-phase AC	Three- or four-core cable, three-phase AC
1	2	3			4		
(mm^2)	(mV/A/m)	(mV/A/m)			(mV/A/m)		
1.5	31	31			27		
2.5	19	19			16		
4	12	12			10		
6	7.9	7.9			6.8		
10	4.7	4.7			4.0		
16	2.9	2.9			2.5		
		r	x	z	r	x	z
25	1.85	1.85	0.160	1.90	1.60	0.140	1.65
35	1.35	1.35	0.155	1.35	1.15	0.135	1.15
50	0.98	0.99	0.155	1.00	0.86	0.135	0.87
70	0.67	0.67	0.150	0.69	0.59	0.130	0.60
95	0.49	0.50	0.150	0.52	0.43	0.130	0.45
120	0.39	0.40	0.145	0.42	0.34	0.130	0.37
150	0.31	0.32	0.145	0.35	0.28	0.125	0.30
185	0.25	0.26	0.145	0.29	0.22	0.125	0.26
240	0.195	0.20	0.140	0.24	0.175	0.125	0.21
300	0.155	0.16	0.140	0.21	0.140	0.120	0.185
400	0.120	0.13	0.140	0.190	0.115	0.120	0.165

THE INFORMATION CONTAINED WITHIN THIS DATASHEET IS FOR GUIDANCE ONLY AND IS SUBJECT TO CHANGE WITHOUT NOTICE OR LIABILITY. WE BELIEVE THE INFORMATION IS CORRECT AT THE TIME OF PUBLICATION. PLEASE NOTE WHEN SELECTING CABLE ACCESSORIES THAT ACTUAL CABLE DIMENSIONS MAY VARY DUE TO MANUFACTURING TOLERANCES.