Nexans - NAYY-O Aluminium Conductor PVC PVC 0.6/1kV Cable - 1.5mm² to 240mm²



Description

The NAYY-O is a Nexans low-voltage power cable featuring Class 1 solid or Class 2 stranded aluminium conductors, extruded PVC insulation and a black PVC outer sheath, manufactured to VDE 0276-603 and IEC 60502-1 specifications. The "O" designation specifies a configuration without an integral green/yellow protective earth core. Electrically, the cable is rated for an operating voltage of 0.6/1kV (600/1000V) and a test voltage of 4kV, with flame retardancy compliance under BS EN/IEC 60332-1-2. It maintains a fixed installation temperature range of -5°C to +70°C, a maximum short-circuit temperature of +160°C and requires a minimum bending radius of 12 times the overall cable diameter.

This cable is widely specified within the renewable energy sector, particularly across utility-scale solar PV installations, serving as a commercially efficient alternative to copper-conductor NYY cables. By utilising aluminium cores, it offers significant weight reduction and lower material procurement costs for high-volume, low-voltage power distribution infrastructure. It is designed for fixed-wiring networks where the electrical and economic benefits of aluminium match the current-carrying capacity requirements of the circuit design.

For deployment, Nexans NAYY-O cables are approved for fixed installation indoors, outdoors in free air, within brickwork/concrete, and for direct burial or duct installation underground. Its UV-stabilised jacket allows for direct exposure on cable trays and ladder systems, while its water-resistant construction permits installation in damp environments. However, because it is an unarmoured cable lacking steel wire or tape protection, installation is strictly limited to environments where it is protected from external mechanical stress, high impact or crushing forces.

Key Features

Voltage Rating
600/1000 Volts

Temperature Limits
Temperature Range: -5°C to +70°C

Core Colours

1 core: Black

3 core: Black | Brown | Grey

4 core: Blue | Brown | Black | Grey

5 core: Blue | Brown | Black | Grey | Black

7 core and above: Black with White numbers

Standards

- IEC 60502-1
- VDE 0276-603
- BS EN/IEC 60332-1-2
- BS EN/IEC 60228
- HD 603

Construction

- **Conductor**: Aluminium conductor
- **Insulation**: Polyvinyl Chloride (PVC)
- **Outer Sheath**: Polyvinyl Chloride (PVC)
- **Sheath Colour**: Black

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

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.

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

Nexans - NAYY-O Aluminium Conductor PVC PVC 0.6/1kV Cable - 1.5mm² to 240mm² - Dimensions

Reference	Perm. Current buried / direct 20°C [A]	Perm current rating in air 30°C [A]	Max. DC Resist. Cond. 20°C [Ohm/km]	Conductor Size (mm2)	No Of Cores	Overall Diameter(mm)	Weight(Kg/Km)
NAYYO2X1/5	22	22	12.1	1.5	2	10.0	150
NAYYO3X1/5	19	18	12.1	1.5	3	11.0	180
NAYYO4X1/5	19	18	12.1	1.5	4	11.0	200
NAYYO5X1/5	19	18	12.1	1.5	5	12.0	240
NAYYO2X2/5	28	30	7.41	2.5	2	11.0	190
NAYYO3X2/5	24	25	7.41	2.5	3	10.8	220
NAYYO4X2/5	24	25	7.41	2.5	4	12.0	260
NAYYO5X2/5	24	25	7.41	2.5	5	13.0	300
NAYYO12X2/5	11	12	7.41	2.5	12	19.0	580
NAYYO2X4	38	40	4.61	4	2	13.0	260
NAYYO3X4	33	34	4.61	4	3	13.0	300
NAYYO4X4	33	34	4.61	4	4	15.0	360
NAYYO5X4	33	34	4.61	4	5	16.0	440
NAYYO2X6	48	51	3.08	6	2	14.0	310
NAYYO3X6	41	43	3.08	6	3	15.0	380
NAYYO4X6	41	43	3.08	6	4	16.0	480
NAYYO5X6	41	43	3.08	6	5	17.0	550
NAYYO2X10	64	70	1.83	10	2	17.0	480
NAYYO3X10	54	60	1.83	10	3	17.0	600
NAYYO4X10	54	60	1.83	10	4	19.0	690
NAYYO5X10	54	60	1.83	10	5	20.0	840
NAYYO2X16	83	94	1.15	16	2	18.0	650
NAYYO3X16	70	80	1.15	16	3	19.0	800
NAYYO4X16	70	80	1.15	16	4	21.0	960
NAYYO5X16	70	80	1.15	16	5	23.0	1160
NAYYO2X25	110	119	0.727	25	2	21.0	950
NAYYO3X25	92	101	0.727	25	3	23.0	1160
NAYYO4X25	92	101	0.727	25	4	25.0	1420
NAYYO5X25	92	101	0.727	25	5	27.0	1730
NAYYO4X35	110	126	0.524	35	4	27.0	1900
NAYYO5X35	110	126	0.524	35	5	30.0	2250
NAYYO4X50	130	153	0.387	50	4	31.0	2500
NAYYO5X50	130	153	0.387	50	5	35.0	3250
NAYYO4X70	162	196	0.268	70	4	36.0	3500
NAYYO5X70	162	196	0.268	70	5	40.0	4290
NAYYO2X95	230	282	0.193	95	2	34.0	3000
NAYYO3X95	193	238	0.193	95	3	38.0	3760

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NAYYO4X95	193	238	0.193	95	4	41.0	4750
NAYYO5X95	193	238	0.193	95	5	46.0	5840
NAYYO4X120	220	276	0.153	120	4	45.0	5750
NAYYO4X150	246	319	0.124	150	4	49.0	7000
NAYYO4X185	278	364	0.099	185	4	54.0	8750
NAYYO4X240	320	430	0.075	240	4	62.0	11500

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