

Nexans - NAYY-O Aluminium Conductor PVC PVC 0.6/1kV Cable - 16mm² to 800mm²



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

QA Lab

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. Where applicable, cables are independently tested and certified by BASEC to ensure full compliance.



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

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Nexans - NAYY-O Aluminium Conductor PVC PVC 0.6/1kV Cable - 16mm² to 800mm² - Dimensions

Reference	Conductor Size (mm ²)	No Of Cores	Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter(mm)	Weight(Kg/Km)
NAYYO4X6	6	4	1.0	1.7	17.0	380
NAYYO4X10	10	4	1.0	1.8	19.2	475
NAYYO5X10	10	5	1.0	1.8	20.5	583
NAYYO1X16	16	1	1.1	1.8	10.6	149
NAYYO4X16	16	4	1.1	1.8	23.0	750
NAYYO5X16	16	5	1.1	1.8	24.8	936
NAYYO1X25	25	1	1.2	1.8	12.2	199
NAYYO4X25	25	4	1.2	1.8	26.0	961
NAYYO5X25	25	5	1.2	1.8	27.2	1195
NAYYO1X35	35	1	1.4	2.0	14.0	260
NAYYO5X35	35	5	1.5	2.0	30.5	1385
NAYYO1X50	50	1	1.5	2.0	15.7	300
NAYYO4X50	50	4	1.3	2.1	31.0	1125
NAYYO5X50	50	5	1.5	2.1	36.5	1728
NAYYO1X70	70	1	1.6	2.1	17.4	385
NAYYO4X70	70	4	1.6	2.1	34.0	1555
NAYYO5X70	70	5	1.6	2.1	44.5	2255
NAYYO1X95	95	1	1.6	2.2	19.5	495
NAYYO4X95	95	4	1.6	2.2	40.0	2040
NAYYO5X95	95	5	1.6	2.2	47.5	3069
NAYYO1X120	120	1	1.7	2.4	20.5	580
NAYYO4X120	120	4	1.7	2.4	43.5	2410
NAYYO5X120	120	5	1.7	2.4	53.5	3860
NAYYO1X150	150	1	2.0	2.4	22.7	699
NAYYO4X150	150	4	1.8	2.6	46.5	3035
NAYYO5X150	150	5	1.8	2.6	56.8	4405
NAYYO1X185	185	1	2.2	2.6	26.0	855
NAYYO3X185	185	3	2.0	2.8	50.5	2680
NAYYO1X485	185	4	2.0	2.8	51.5	3660
NAYYO5X185	185	5	2.0	2.8	60	5500
NAYYO1X240	240	1	2.3	2.8	28.5	1110
NAYYO3X240	240	3	2.2	3.0	56.0	3630
NAYYO4X240	240	4	2.2	3.0	59.0	4800
NAYYO5X240	240	5	2.2	3.0	72.0	7000
NAYYO1X300	300	1	2.4	3.0	31.0	1620
NAYYO31X300	300	3	2.4	3.1	60	4500
NAYYO4X300	300	4	2.4	3.1	65.5	5690

Reference	Conductor Size (mm2)	No Of Cores	Insulation Thickness (mm)	Sheath Thickness (mm)	Overall Diameter(mm)	Weight(Kg/Km)
NAYYO1X400	400	1	2.6	3.2	35.0	1850
NAYYO1X500	500	1	2.7	3.3	38.0	2050
NAYYO1X630	630	1	2.8	3.5	44.0	2495

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