

## EN 60332-3-24 NHXH FE180-E90 0.6/1kV Cable - 1.5mm<sup>2</sup> to 300mm<sup>2</sup>



### Description

EN 60332-3-24 NHXH FE180 is a low-voltage, low-smoke zero-halogen fire-safety and circuit-integrity power cable engineered to maintain electrical functionality during a fire to protect human life and essential infrastructure. The cable features a class one solid or class two stranded bare annealed copper core insulated with a cross-linked halogen-free polymer, which is protected by a high-performance, flame-resistant glass-mica tape or a specialised ceramic compound layer extruded directly over the conductors. Multi-core variants are bound symmetrically with a flame-retardant, halogen-free filler layer in a heavy-duty, thermoplastic polyolefin outer sheath.

This cable complies with EN 60332-3-24 standard for category C bunched flame-spread resistance. It features an insulation integrity rating of FE180, guaranteeing that the cable core insulation will remain intact for at least 3 hours of direct fire exposure under testing standard conditions. It is a low-voltage rated cable of 0.6/1 kV.

Installers must maintain standard minimum bending radius of at least twelve times the overall cable diameter for multi-core configurations and fifteen times the overall diameter for single-core layouts during standard routing and active pulling. The cable is designed strictly for indoor or above-ground external usage. Fire resistant to FE 180 and Circuit Integrity to E90.

### Key Features



**Voltage Rating**  
600/1000 Volts



**Minimum Bending Radius**  
Single Core 15 x Overall Diameter  
Multicore 12 x Overall Diameter



**Flame Retardancy**  
BS EN/IEC 60332-3-24 (Cat C)



**Temperature Limits**  
Fixed: -5°C to +90°C

### Core Colours

3 cores: Green Yellow Brown Blue

4 cores: Green Yellow Brown Black Grey

5 cores: Green Yellow Brown Black Grey Blue

7 core and above: Black with White numbers

### Standards

- BS EN/IEC 60332-3-24 (cat C)
- BS EN/IEC 60228
- BS EN/IEC 60331
- DIN VDE 0276-604
- DIN VDE 0266
- DIN VDE 0472-814

### Construction

- **Conductor:** Class 1 or 2 Copper
- **Insulation:** Low Smoke Zero Halogen (LSZH)
- **Bedding:** Low Smoke Zero Halogen (LSZH)
- **Outer Sheath:** Low Smoke Zero Halogen (LSZH)
- **Sheath Colour:** Orange

### 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

#### ecovadis

EN 60332-3-24 NHXH FE180-E90 0.6/1kV Cable - 1.5mm² to 300mm² - Dimensions

| Reference          | Conductor Size (mm2) | No Of Cores | Overall Diameter(mm) | Weight(Kg/Km) |
|--------------------|----------------------|-------------|----------------------|---------------|
| FE180E90NHXH2X1/5  | 1.5                  | 2           | 14.20                | 275           |
| FE180E90NHXH3X1/5  | 1.5                  | 3           | 15.00                | 320           |
| FE180E90NHXH4X1/5  | 1.5                  | 4           | 16.20                | 360           |
| FE180E90NHXH5X1/5  | 1.5                  | 5           | 17.30                | 435           |
| FE180E90NHXH7X1/5  | 1.5                  | 7           | 18.50                | 505           |
| FE180E90NHXH12X1/5 | 1.5                  | 12          | 23.30                | 745           |
| FE180E90NHXH2X2/5  | 2.5                  | 2           | 14.90                | 320           |
| FE180E90NHXH3X2/5  | 2.5                  | 3           | 15.80                | 370           |
| FE180E90NHXH4X2/5  | 2.5                  | 4           | 17.00                | 440           |
| FE180E90NHXH5X2/5  | 2.5                  | 5           | 18.40                | 505           |
| FE180E90NHXH7X2/5  | 2.5                  | 7           | 19.90                | 605           |
| FE180E90NHXH12X2/5 | 2.5                  | 12          | 25.00                | 910           |
| FE180E90NHXH3X4    | 4                    | 3           | 16.70                | 440           |
| FE180E90NHXH4X4    | 4                    | 4           | 18.00                | 515           |
| FE180E90NHXH5X4    | 4                    | 5           | 19.50                | 615           |
| FE180E90NHXH3X6    | 6                    | 3           | 17.90                | 525           |
| FE180E90NHXH4X6    | 6                    | 4           | 19.30                | 630           |
| FE180E90NHXH5X6    | 6                    | 5           | 20.90                | 750           |
| FE180E90NHXH3X10   | 10                   | 3           | 19.60                | 690           |
| FE180E90NHXH4X10   | 10                   | 4           | 21.00                | 840           |
| FE180E90NHXH5X10   | 10                   | 5           | 23.00                | 1000          |
| FE180E90NHXH1X16   | 16                   | 1           | 10.50                | 245           |
| FE180E90NHXH3X16   | 16                   | 3           | 22.40                | 980           |
| FE180E90NHXH4X16   | 16                   | 4           | 24.20                | 1210          |
| FE180E90NHXH5X16   | 16                   | 5           | 26.70                | 1470          |
| FE180E90NHXH1X25   | 25                   | 1           | 12.40                | 350           |
| FE180E90NHXH3X25   | 25                   | 3           | 25.80                | 1405          |
| FE180E90NHXH4X25   | 25                   | 4           | 28.00                | 1715          |
| FE180E90NHXH5X25   | 25                   | 5           | 31.00                | 2100          |
| FE180E90NHXH1X35   | 35                   | 1           | 13.50                | 455           |
| FE180E90NHXH3X35   | 35                   | 3           | 28.50                | 1780          |
| FE180E90NHXH4X35   | 35                   | 4           | 31.00                | 2215          |
| FE180E90NHXH5X35   | 35                   | 5           | 35.70                | 2500          |
| FE180E90NHXH1X50   | 50                   | 1           | 15.00                | 595           |
| FE180E90NHXH4X50   | 50                   | 4           | 35.20                | 2915          |
| FE180E90NHXH1X70   | 70                   | 1           | 16.30                | 825           |
| FE180E90NHXH4X70   | 70                   | 4           | 10.00                | 3980          |
| FE180E90NHXH1X95   | 95                   | 1           | 19.00                | 1100          |



| Reference            | Conductor Size (mm2) | No Of Cores | Overall Diameter(mm) | Weight(Kg/Km) |
|----------------------|----------------------|-------------|----------------------|---------------|
| FE180E90NHHX4X95     | 95                   | 4           | 45.20                | 5320          |
| FE180E90NHHX1X120    | 120                  | 1           | 20.50                | 1355          |
| FE180E90NHHX4X120    | 120                  | 4           | 49.10                | 6485          |
| FE180E90NHHX1X150    | 150                  | 1           | 22.50                | 1660          |
| FE180E90NHHX4X150    | 150                  | 4           | 53.00                | 7735          |
| FE180E90NHHX1X185    | 185                  | 1           | 24.80                | 2045          |
| FE180E90NHHX1X240    | 240                  | 1           | 27.90                | 2635          |
| FE180E90NHHX1X300    | 300                  | 1           | 30.70                | 3280          |
| FE180E90NHHX3X35/16  | 35/16                | 3           | 29.40                | 1970          |
| FE180E90NHHX3X50/25  | 50/25                | 3           | 33.30                | 2630          |
| FE180E90NHHX3X70/35  | 70/35                | 3           | 38.00                | 3570          |
| FE180E90NHHX3X95/50  | 95/50                | 3           | 43.40                | 4760          |
| FE180E90NHHX3X120/70 | 120/70               | 3           | 46.60                | 5860          |

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