# CABLE DATA for NFA2X

## General Information

Cable standard(s)

- HD626 S1 part 4F.

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: Fca (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: -10 °C
- Maximum continuous conductor operating temperature: +80 °C
- Maximum conductor temperature during short-circuit (≤ 5 seconds): +130 °C
- Permissible ambient temperature range during operation: –40 °C to +40 °C

Minimum internal bending radius (*D = external diameter of the cable*):

- 18 × D

Application of the Cable:

- Aerial bundled cable with insulated neutral messenger, suitable for electricity distribution in urban, suburban, and rural environments, as well as for overhead connections to buildings and installations.
- Used for supplying power to permanent and temporary installations, including remote areas and construction sites.
- The cable is rated for low ambient temperatures, making it suitable for installation in polar or extreme cold climate conditions.
- Designed for use in three-phase AC networks with effectively grounded neutral, and may also be used in two- or four-core configurations, depending on application.
- The cable is flame-retardant, UV-resistant, and highly suitable for outdoor installations.
- Compared to underground systems, it offers lower installation cost and easier maintenance, though its thermal capacity is lower due to above-ground heat dissipation limits.

## Cable Construction and Electrical Properties

Conductor(s)

- Phase conductors: Circular stranded aluminum, Class 2 according to IEC 60228 Clause 5.
- Neutral conductor: Circular stranded type AAAC (All Aluminium Alloy Conductor), aluminum alloy AlMgSi or AlMg1, Class 2 according to IEC 60228 Clause 5.
- Public lighting conductor (if present): Circular compacted stranded aluminum, Class 2 according to IEC 60228 Clause 5.
- Conductors are normal stranded; compact stranding is optional for improved dimensional stability and reduced outer diameter.

Insulation

- Black, UV-resistant, cross-linked, flame retardant XLPE compound TIX2 in accordance with EN 50363.

Sheath

- No outer sheath.

Core Identification / Marking

- Phase conductors: Identified by 1, 2, or 3 longitudinal protrusions in a semicircular shape, corresponding to phases L1, L2, and L3, or alternatively by embossed/engraved numeric markings (1, 2, 3) grouped in sequences of 5 identical numbers.
- Neutral conductor: Identified by a longitudinal protrusion in the shape of a triangle, minimum height 1 mm.
- Public lighting conductor (if applicable): May be marked according to project specification or national standard.
- Additional marking specifications:
  - Numbers marked longitudinally, oriented downward.
  - Maximum distance between code groupings: 50 mm.
  - Maximum distance between beginning and end of full marking cycle: 200 mm.
  - Minimum character height: 5 mm; line thickness: 2 mm (1 mm for digit „1“).
  - Cable marking format:
    <NFA2X> <number of cores>x<cross-section> mm² <voltage rating> <manufacturer> <standards> <year> <meter marking>

Rated Voltage

- Uo/U = 0,6/1 kV

Test Voltage

- 4 kV (AC)

## Dimensional Specifications

| № | Construction [n×mm²] | Metal index [kg/km] | Weight (approx.) [kg/km] | Resistance at 20 °C [Ω/km] | Ampacity in air at 30 °C [A] |
|---|---|---|---|---|---|
| 1 | 2×16 | 92,8 | 131 | 1,910 | 83 |
| 2 | 2×25 | 145 | 192 | 1,200 | 107 |
| 3 | 2×35 | 203 | 261 | 0,868 | 132 |
| 4 | 2×50 | 290 | 346 | 0,641 | 165 |
| 5 | 2×70 | 406 | 530 | 0,443 | 213 |
| 6 | 2×95 | 551 | 691 | 0,320 | 258 |
| 7 | 4×16 | 185,6 | 261 | 1,910 | 83 |
| 8 | 4×25 | 290 | 384 | 1,200 | 107 |
| 9 | 4×35 | 406 | 523 | 0,868 | 132 |
| 10 | 4×50 | 580 | 692 | 0,641 | 165 |
| 11 | 4×70 | 812 | 935 | 0,443 | 205 |
| 12 | 4×95 | 1102 | 1296 | 0,320 | 258 |
| 13 | 4×25+16 | 336,4 | 449 | 1,200/1,910 | 107+83 |
| 14 | 4×25+2×16 | 382,8 | 514 | 1,200/1,910 | 107+83 |
| 15 | 4×35+16 | 452,4 | 589 | 0,868/1,910 | 132+83 |
| 16 | 4×35+2×16 | 498,8 | 654 | 0,868/1,910 | 132+83 |
| 17 | 4×35+25 | 478,5 | 595 | 0,868/1,200 | 132+107 |
| 18 | 4×50+25 | 652,5 | 788 | 0,641/1,200 | 165+107 |
| 19 | 4×50+35 | 681,5 | 823 | 0,641/0,868 | 165+132 |
| 20 | 4×50+2×16 | 672,8 | 860 | 0,614/1,910 | 165+83 |
| 21 | 4×50+2×25 | 725 | 884 | 0,641/1,200 | 165107 |
| 22 | 4×50+2×35 | 783 | 954 | 0,641/0,868 | 165+132 |
| 23 | 4×70+16 | 858,4 | 1000 | 0,443/1,910 | 205+83 |
| 24 | 4×70+2×16 | 904,8 | 1066 | 0,443/1,910 | 205+83 |
| 25 | 4×70+25 | 884,5 | 1031 | 0,443/1,200 | 205+107 |
| 26 | 4×70+2×25 | 957 | 1066 | 0,443/1,200 | 205+107 |
| 27 | 4×70+35 | 913,5 | 1127 | 0,443/0,868 | 205+132 |
| 28 | 4×70+2×35 | 1015 | 1197 | 0,443/0,868 | 205+132 |
| 29 | 4×95+25 | 1174,5 | 1392 | 0,320/1,200 | 258+107 |
| 30 | 4×95+35 | 1203,5 | 1427 | 0,320/0,868 | 258+132 |
| 31 | 4×95+2×16 | 1194,8 | 1455 | 0,320/1,910 | 258+83 |

- For higher ambient temperatures, apply derating factors.