



Nexans
 Ref.: BZHX04AA001HTNA
 Country Ref.: 5176
 EAN 13: 9319215452551

CONTACT

Sales and Customer Solutions
 Phone: 0800 639 267
 sales.nz@nexans.com

Plain Annealed Copper conductor (Flexible), X-HF-110 (XLPE) insulation, Low Fire Hazard HFS-110-TP sheath. 0.6/1 kV. Made to AS/NZS 5000.1

STANDARDS

Product AS/NZS 5000.1
Test IEC 60754-1

APPLICATIONS

ENVIROLEX® flexible single core cable is part of the Nexans Fire Safety Offer. As a Low Fire Hazard (LFH) range, ENVIROLEX® is PVC-free, made with flame retardant compound and reduces toxic smoke emissions in the event of fire, allowing time for safe evacuation.

ENVIROLEX® single core cable has multiple applications including switchboard wiring, pumps, power supplies, transformer LV switches, battery connections.

BENEFITS

- Flame Retardant, Non Hazardous, No Heavy Metals
- Low Smoke, Low Calorific Value
- Gross heat of combustion ISO:1716
- Halogen free, PVC Best Practice (As per Green Building Council requirements)
- Flexible: easy to handle and install
- 110°C continuous operating temperature.
- Flexible conductor (to be used in fixed application).
- Submersible to 500m

CHARACTERISTICS

Construction characteristics

| | |
|-----------------------|-------------------|
| Conductor material | Copper |
| Type of conductor | Stranded flexible |
| Insulation | X-HF-110 |
| Sheath colour | Green / Yellow |
| Outer sheath | HFS-110-TP |
| Conductor flexibility | Class 5 |
| Conductor shape | Circular |



Conductor flexibility
Class 5



Rated Voltage Uo/U
 (Um)
 0.6/ 1 (1.2) kV



Cable flexibility
Flexible for fixed application



Mechanical resistance to impacts
Very good



Max.conductor temp.in service
110 °C



Smoke density
Low



U.V resistance
Yes



Maximum operating temperature
110 °C

Construction characteristics

| | |
|--------------------------------|----|
| With Green/Yellow core | No |
| With smaller neutral conductor | No |

Dimensional characteristics

| | |
|--|--------------------|
| Conductor cross-section | 35 mm ² |
| Maximum diameter of wires | 0.21 mm |
| Nominal overall diameter | 12.6 mm |
| Approximate weight | 0.4 kg/m |
| Neutral conductor section (when smaller) | - mm ² |
| Number of cores | 1 |

Electrical characteristics

| | |
|---|-----------------|
| Conductor AC resistance at 50 Hz | 0.75 Ohm/km |
| Inductive reactance at 50Hz - flat touching | 0.108 Ohm/km |
| Inductive reactance at 50Hz - trefoil | 0.093 Ohm/km |
| Insulation resistance at 20°C | 270 MOhm.km |
| Max. DC resistance of the conductor at 20°C | 0.554 Ohm/km |
| Rated Voltage U ₀ /U (U _m) | 0.6/ 1 (1.2) kV |

Mechanical characteristics

| | |
|----------------------------------|--------------------------------|
| Cable flexibility | Flexible for fixed application |
| Maximum Pulling Tension | 1.75 kN |
| Mechanical resistance to impacts | Very good |

Usage characteristics

| | |
|--|--------------------------------|
| Fire safety | - |
| Max. conductor temperature in service | 110 °C |
| Smoke density | Low |
| U.V resistance | Yes |
| Minimum Bending Radius during installation | 9 (xD) |
| Bending factor when installed | D>25mm: 6 (xD); D<25mm: 4 (xD) |
| Maximum operating temperature | 110 °C |
| Minimum operating temperature | -25 °C |



Conductor flexibility
Class 5



Rated Voltage U₀/U (U_m)
 0.6/ 1 (1.2) kV



Cable flexibility
Flexible for fixed application



Mechanical resistance to impacts
Very good



Max.conductor temp.in service
 110 °C



Smoke density
Low



U.V resistance
Yes



Maximum operating temperature
 110 °C

CURRENT CARRYING CAPACITIES SINGLE PHASE (IN AMPS) - SINGLE CORE CU ENVIROLEX 110°C

Copper conductor - Circular Flexible stranded conductor Insulation X-HF-110 - Max. Conductor Temperature 110C

| Conductor cross-section [mm ²] |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|
| | Cu | Cu | Cu | Cu | Cu | Cu | Cu |
| 35 | 225 | 184 | 179 | 252 | 187 | 187 | 94 |

| | | |
|--|--|---|
|  Unenclosed spaced from surface |  Unenclosed touching |  Enclosed conduit in air |
|  Buried direct |  Buried in multi-way duct |  Buried in single-way duct |
|  Cable surrounded by thermal insulation, unenclosed | | |

CURRENT CARRYING CAPACITIES THREE PHASE (IN AMPS) - SINGLE CORE CU ENVIROLEX 110°C

Copper conductor - Circular Flexible stranded conductor Insulation X-HF-110 Max. Conductor Temperature 110C

| Conductor cross-section [mm ²] |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|
| | Cu | Cu | Cu | Cu | Cu | Cu | Cu |
| 35 | 197 | 184 | 158 | 213 | 160 | 160 | 94 |

| | | |
|--|--|---|
|  Unenclosed spaced from surface |  Unenclosed touching |  Enclosed conduit in air |
|  Buried direct |  Buried in multi-way duct |  Buried in single-way duct |
|  Cable surrounded by thermal insulation, unenclosed | | |



Conductor flexibility
Class 5



Rated Voltage U₀/U_m
0.6/ 1 (1.2) kV



Cable flexibility
Flexible for fixed application



Mechanical resistance to impacts
Very good



Max. conductor temp. in service
110 °C



Smoke density
Low



U.V resistance
Yes



Maximum operating temperature
110 °C

NOTE

1. Content from AS/NZS 3008.1.2:2010 has been reproduced with the permission from Standards New Zealand under Copyright Licence 00926. Please see the standard for full details.
2. The current ratings in the above tables are only for flexible cables installed in a fixed installation
3. The values in the above table are based on typical New Zealand conditions of:-
Ambient Air Temperature 30°C
Soil Temperature 15°C
Soil Thermal resistivity 1.2 K.m/W
Depth of Burial 0.5 m

SELLING AND DELIVERY INFORMATION

Nexans Fire Safety Offer ENVIROLEX® Low Fire Hazard Cables PVC-free Red List Free and Declare Labelled Green Star Flexible conductor