

# ENVIROLEX® Flexible Single Core - 110°C

## CU ENVIRO RHE-1-FLEX 95 GNYE 110

### Contact

Sales and Customer Solutions  
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Nexans Ref.: BZHX07AA001HTNA

Country Ref.: 4250

EAN 13: 9319215452599

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

## DESCRIPTION

### 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



## STANDARDS

International IEC 60754-1

National AS/NZS 5000.1

## 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
With Green/Yellow core	No



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**

All drawings, designs, specifications, plans and particulars of weights, size and dimensions contained in the technical or commercial documentation of Nexans is indicative only and shall not be binding on Nexans or be treated as constituting a representation on the part of Nexans.

Generated 19/06/24 www.nexans.co.nz Page 1 / 4

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### Construction characteristics

With smaller neutral conductor No

### Dimensional characteristics

Conductor cross-section	95 mm²
Maximum diameter of wires	0.31 mm
Nominal overall diameter	18.3 mm
Approximate weight	0.99 kg/m
Neutral conductor section (when smaller)	- mm²
Number of cores	1

### Electrical characteristics

Conductor AC resistance at 50 Hz	0.28 Ohm/km
Inductive reactance at 50Hz - flat touching	0.1 Ohm/km
Inductive reactance at 50Hz - trefoil	0.0849 Ohm/km
Insulation resistance at 20°C	210 MOhm.km
Max. DC resistance of the conductor at 20°C	0.206 Ohm/km
Rated Voltage Uo/U (Um)	0.6/ 1 (1.2) kV

### Mechanical characteristics

Cable flexibility	Flexible for fixed application
Maximum Pulling Tension	4.75 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 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**















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





## 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 [mm²]	 Cu	 Cu	 Cu	 Cu	 Cu	 Cu	 Cu
95	423	352	334	441	331	331	-
 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 [mm²]	 Cu	 Cu	 Cu	 Cu	 Cu	 Cu	 Cu
95	378	352	296	369	284	284	-
 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 U<sub>0</sub>/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

## 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