ENVIROLEX® Flexible Single Core - 110°C

CU ENVIRO RHE-1-FLEX 50 BK 110

Sales and Customer Solutions sales.nz@nexans.com

Nexans Ref.: BZHX05AA001CXNA

Country Ref.: 2647

Plain Annealed Copper conductor (Flexible), X-110 (XLPE) insulation, Halogen Free

Flame Retardant HFS-110-TP sheath. 0.6/1 kV. Made to AS/NZS 5000.1

DESCRIPTION

Applications

Envirolex Single Core cable has multiple applications including switchboard wiring, pumps, power supplies, transformer LV switches, battery connections.

- Flame Retardant, Non Hazardous, No Heavy Metals, No Corrosive Emissions
- · Low Smoke, Low Calorific Value
- Halogen free, PVC Best Practice (As per Green Building Council requirements)
- Easy to handle and install; No Mica Tape
- 110°C continuous operating temperature.
- Flexible Conductor (to be used in fixed application).
- Submersible to 500m



STANDARDS

National AS/NZS 5000.1

CHARACTERISTICS

Construction characteristics Conductor material Copper Type of conductor Stranded flexible X-HF-110 Insulation Sheath colour Black Outer sheath HFS-110-TP Halogen free With Green/Yellow core No With smaller neutral conductor No **Dimensional characteristics** Conductor cross-section 50 mm² Maximum diameter of wires 0.31 mm Nominal overall diameter 14.2 mm 0.54 kg/m Approximate weight



Halogen free



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



Cable flexibility Flexible



Mechanica resistance to impacts Very good



Flame retardant



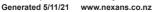
Max.conductor temp.in service



Smoke density



U.V resistance



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	Dimensional characteristics	
	Neutral conductor section (when smaller)	- mm²
	Number of cores	1
E	Electrical characteristics	
	Conductor AC resistance at 50 Hz	0.523 Ohm/km
	Inductive reactance at 50Hz - flat touching	0.105 Ohm/km
	Inductive reactance at 50Hz - trefoil	0.0901 Ohm/km
	Insulation resistance at 20°C	250 MOhm.km
	Max. DC resistance of the conductor at 20°C	0.386 Ohm/km
	Rated Voltage Uo/U (Um)	0.6/ 1 (1.2) kV
N	Mechanical characteristics	
	Cable flexibility	Flexible
	Maximum Pulling Tension	3.5 kN
	Mechanical resistance to impacts	Very good
ι	Jsage characteristics	
	Flame retardant	Yes
	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



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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.

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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	00	8		\$15	\$		
[mm²]	Cu	Cu	Cu	Cu	Cu	Cu	Cu
50	281	233	221	299	228	228	-
unenclosed spaced from sur	face	} Unenclose	ed touching		© Enclose	ed conduit in a	ir
Buried direct	\$	Buried in i	multi-way duct	7	Buried i	n 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

Cond	uctor cross-section	3)	\$₩	0	\$\$\$	50 7,		
	[mm²]	Cu		Cu	Cu	Cu	Cu	Cu	Cu
	50	249		232	203	251	199	199	-
- ⊗ υ	nenclosed spaced from surf	ace	18 6	Unenclo	sed touching		© Encl	osed conduit in a	air
В	uried direct		50 7.	Buried in	n multi-way duct		Buri	ed in single-way	duct
C in	able surrounded by thermal sulation, unenclosed								



Halogen free



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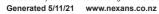
Max.conductor temp.in service



Smoke density



U.V resistance



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Contact

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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
- 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

