

ENVIROLEX® Flexible Single Core Earth - 110°C

Contact
Sales and Customer Solutions
sales.nz@nexans.com

Plain Annealed Copper conductor (Flexible), X-110 (XLPE) insulation, Halogen Free Flame Retardant HFS-110-TP green/yellow sheath. 0.6/1 kV. Made to AS/NZS 5000.1

DESCRIPTION

Applications

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

Benefits

- 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



Halogen free
-



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



Cable flexibility
Flexible



Mechanical
resistance to
impacts
Very good



Flame retardant
Yes



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.

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CHARACTERISTICS

Construction characteristics

Conductor material	Copper
Type of conductor	Stranded flexible
Insulation	X-HF-110
Sheath colour	Green / Yellow
Outer sheath	HFS-110-TP
Halogen free	-

Electrical characteristics

Rated Voltage U _o /U (U _m)	0.6/ 1 (1.2) kV
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Mechanical characteristics



Cable flexibility	Flexible
Mechanical resistance to impacts	Very good

Usage characteristics

Flame retardant	Yes
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

PRODUCT LIST

Nexans Ref.	Country Ref.	Name	Conductor cross-section [mm ²]	Nominal overall diameter [mm]	Approximate weight [kg/m]
	3804	CU ENVIRO RHE-1-FLEX 120 GNYE 110	120	20.7	1.25
	4250	CU ENVIRO RHE-1-FLEX 95 GNYE 110	95	18.3	0.99
	1227	CU ENVIRO RHE-1-FLEX 70 GNYE 110	70	16.2	0.74
	4667	CU ENVIRO RHE-1-FLEX 50 GNYE 110	50	14.2	0.54
	5176	CU ENVIRO RHE-1-FLEX 35 GNYE 110	35	12.6	0.4
	8121	CU ENVIRO RHE-1-FLEX 25 GNYE 110	25	11.3	0.3
	5117	CU ENVIRO RHE-1-FLEX 16 GNYE 110	16	9.8	0.2

 = Make to order,  = In stock,

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









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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 [mm ²]							
	Cu	Cu	Cu	Cu	Cu	Cu	Cu
10	105	86	82	93	91	91	43
16	138	112	109	163	119	119	57
25	182	149	142	210	152	152	77
35	225	184	179	252	187	187	94
50	281	233	221	299	228	228	-
70	352	292	281	367	282	282	-
95	423	352	334	441	331	331	-
120	499	417	389	501	381	381	-
150	574	482	456	563	439	439	-
185	654	552	515	637	492	492	-
240	783	664	624	740	581	581	-
300	900	766	-	836	669	669	-
400	1076	920	-	952	778	778	-
500	1245	1069	-	1079	906	906	-
630	1454	1250	-	1217	1036	1036	-


 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


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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
10	91	86	75	82	81	81	43
16	120	112	97	138	103	103	57
25	159	149	129	178	133	133	77
35	197	184	158	213	160	160	94
50	249	232	203	251	199	199	-
70	312	292	250	308	243	243	-
95	378	352	296	369	284	284	-
120	447	417	354	420	335	335	-
150	516	482	404	472	378	378	-
185	592	552	469	533	428	428	-
240	712	663	576	618	510	510	-
300	820	764	655	696	575	575	-
400	982	915	810	791	687	687	-
500	1138	1059	924	894	773	773	-
630	1327	1235	1063	1004	878	878	-


 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

NOTE

- 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.
- 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