

TC(XHHW-2) 600 V Single core

Power or control cable, for general use, indoor and outdoor applications.

Description

Application:

Power or control cable, for general use, indoor and outdoor applications. For electrical systems in buildings, industrial, mine and commercial. Maximum operating temperature 90°C, in dry or wet locations.

Construction:

1. Conductor: Soft copper, class B.
2. Insulation: Anti-flame cross linked polyethylene XLPE.
3. Outer sheath: Anti-flame compound polyvinyl chloride PVC.

Main characteristics:

Conductor temperature of 90°C for normal operation, 130°C for emergency overload and 250°C for short circuit conditions. Resistance to moisture, abrasion and sunlight. Resistance to combustible liquids and oils according to IIC 895 OR. Fire retardant according to IEEE 1202/FT-4.

Gauge:

From 14 AWG up to 1000 kcmil.

Marking:

TC(XHHW-2) 600V 90°C - Gauge - INDECO S.A. SUN RES-OIL RES I- 90°C jkt-FT4/IEEE1202 - Year - Sequential Length.

Packing:

Non returnable wooden reels.

Colour:

Insulation: Natural.

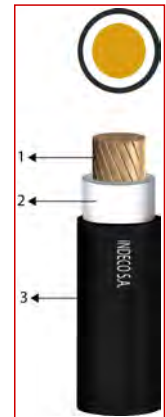
Outer sheath: To customer request.

International standards

ASTM B3: Soft Annealed Copper Wire.

ASTM B8: Concentric-Lay-Stranded copper conductors, hard, medium-hard, or soft.

FT4/IEEE 1202: Vertical Tray Flame Test.



Standards

International IEC 60332-1; IIC 895

National ASTM B 3; ASTM B 8;
 UL 1277; UL 1581; UL 44



Ope. volt.
0.6 kV



U.V resistance
UL 1581 - Sunlight
Resistance



Flame retardant
IEC 60332-1



Fire retardant
FT4 (C22.2 No.
0.3-01/4.11.4)



Oil resistance
IIC 895 OR



Maximum operating
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90 °C

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IEC 60332-1: Test for vertical flame propagation for a single insulated wire or cable.

UIC 895 OR: Technical specification for the supply of insulated electric cables for railway vehicles - Oil Resistant.

UL 44: Thermoset-Insulated Wires and Cables.

UL 1277: Electrical Power and Control Tray Cables with Optional Optical-Fiber Members.

UL 1581 Section 1200 (Sunlight resistance): Reference standard for electrical wires, cables, and flexible cords - Carbon-Arc and Xenon-Arc Tests- Sunlight resistance.

Characteristics

Construction characteristics	
Conductor material	Copper
Insulating material	Flame retardant XLPE
Outer sheath	Flame retardant PVC
Electrical characteristics	
Operating voltage	0.6 kV
Usage characteristics	
U.V resistance	UL 1581 - Sunlight Resistance
Flame retardant	IEC 60332-1
Fire retardant	FT4 (C22.2 No. 0.3-01/4.11.4)
Oil resistance	UIC 895 OR
Maximum operating temperature	90 °C

Dimensional Data AWG

Cross section [mm ²]	Conductor cross-section (AWG)	Total nb wires	Min. insulation thick. [mm]	Min. outer sheath thick. [mm]	Diam. over sheath [mm]	Approx. weight [kg/km]
2.08	14	7	0.76	1.14	5.8	50
3.31	12	7	0.76	1.14	6.2	65
5.26	10	7	0.76	1.14	6.8	87
8.37	8	7	1.14	1.14	8.1	131
13.3	6	7	1.14	1.14	9	185
21.2	4	7	1.14	1.14	10.1	267
26.7	3	7	1.14	1.14	10.8	323
33.6	2	7	1.14	1.14	11.6	394
42.4	1	19	1.4	1.14	13	492



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Cross section [mm ²]	Conductor cross-section (AWG)	Total nb wires	Min. insulation thick. [mm]	Min. outer sheath thick. [mm]	Diam. over sheath [mm]	Approx. weight [kg/km]
53.3	1/0	19	1.4	1.52	14.8	629
67.4	2/0	19	1.4	1.52	15.9	768
85	3/0	19	1.4	1.52	17.1	943
107.2	4/0	19	1.4	1.52	18.4	1160

Electrical Data AWG

Cross section [mm ²]	Conductor cross-section (AWG)	Perm rating in duct/buried 30°C [A]	Perm current rating in air 30°C [A]
2.08	14	25	35
3.31	12	30	40
5.26	10	40	55
8.37	8	55	80
13.3	6	75	105
21.2	4	95	140
26.7	3	110	165
33.6	2	130	190
42.4	1	150	220
53.3	1/0	170	260
67.4	2/0	195	300
85	3/0	225	350
107.2	4/0	260	405

Dimensional Data kcmil

Conductor cross-section [kcmil]	Total nb wires	Min. insulation thick. [mm]	Min. outer sheath thick. [mm]	Diam. over sheath [mm]	Approx. weight [kg/km]
250	37	1.65	1.52	20.1	1369
300	37	1.65	2.03	22.4	1663
350	37	1.65	2.03	23.6	1912
400	37	1.65	2.03	24.7	2156
500	37	1.65	2.03	26.7	2645
600	61	2.03	2.03	29.3	3168
750	61	2.03	2.03	31.7	3893
1000	61	2.03	2.03	35.3	5099



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Electrical Data kcmil

Conductor cross-section [kcmil]	Perm rating in duct/buried 30°C [A]	Perm current rating in air 30°C [A]
250	290	455
300	320	505
350	350	570
400	380	615
500	430	700
600	475	780
750	535	885
1000	615	1055

Product List

☎=Make to order, 📦=In stock

Nexans ref.	Name	Conductor cross-section (AWG)	Conductor cross-section (kcmil)	Min. insulation thick. (mm)	Min. outer sheath thick. (mm)	Diam. over sheath (mm)
☎ P00004179-1	TC(XHHW-2) 600 V 14 AWG	14		0.76	1.14	5.8
☎ P00004178-2	TC(XHHW-2) 600 V 12 AWG	12		0.76	1.14	6.2
☎ P00004177-2	TC(XHHW-2) 600 V 10 AWG	10		0.76	1.14	6.8
☎ P00015554-0	TC(XHHW-2) 600 V 8 AWG	8		1.14	1.14	8.1
☎ P00004176-0	TC(XHHW-2) 600 V 6 AWG	6		1.14	1.14	9
☎ P00004175-0	TC(XHHW-2) 600 V 4 AWG	4		1.14	1.14	10.1
☎ P00020527-0	TC(XHHW-2) 600 V 3 AWG	3		1.14	1.14	10.8
☎ P00004173-0	TC(XHHW-2) 600 V 2 AWG	2		1.14	1.14	11.6
☎ P00015260-0	TC(XHHW-2) 600 V 1 AWG	1		1.4	1.14	13
☎ P00004146-0	TC(XHHW-2) 600 V 1/0 AWG	1/0		1.4	1.52	14.8
☎ P00002454-1	TC(XHHW-2) 600 V 2/0 AWG	2/0		1.4	1.52	15.9
☎ P00019854-0	TC(XHHW-2) 600 V 3/0 AWG	3/0		1.4	1.52	17.1
☎ P00002204-0	TC(XHHW-2) 600 V 4/0 AWG	4/0		1.4	1.52	18.4

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Nexans ref.	Name	Conductor cross-section (AWG)	Conductor cross-section (kcmil)	Min. insulation thick. (mm)	Min. outer sheath thick. (mm)	Diam. over sheath (mm)
☎ P00003091-0	TC(XHHW-2) 600 V 250 kcmil		250	1.65	1.52	20.1
☎ P00012924	TC(XHHW-2) 600 V 300 kcmil		300	1.65	2.03	22.4
☎ P00002203-0	TC(XHHW-2) 600 V 350 kcmil		350	1.65	2.03	23.6
☎ P00015112-0	TC(XHHW-2) 600 V 400 kcmil		400	1.65	2.03	24.7
☎ P00002205-0	TC(XHHW-2) 600 V 500 kcmil		500	1.65	2.03	26.7
☎ P00015113	TC(XHHW-2) 600 V 600 kcmil		600	2.03	2.03	29.3
☎ P00002206-0	TC(XHHW-2) 600 V 750 kcmil		750	2.03	2.03	31.7
☎ P00020426-0	TC(XHHW-2) 600 V 1000 kcmil		1000	2.03	2.03	35.3

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Calculation of Current Condition L.V. AWG/kcmil - Single-core 90 °C

BASED ON NEC TABLES 310.16 (IN RACEWAY) AND 310.17 (IN FREE AIR)

Maximum conductor temperature: 90°C.

For ambient temperatures other than 30°C, see tables 310.16 and 310.17, correction factors (NEC).



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