TC-XHHW-2 Copper, XLPE Insulated, PVC Jacketed

ER, FT4, RoHS, Dir Bur; Singles: VW-1; GR I & II; SR; RW90; RoHS; 600 V

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Features

UL Listed as TC-ER - exposed run tray cable.

Jacket is rated Sunlight Resistance, Direct Burial, and RoHS compliant.

Single conductors are rated XHHW-2, VW-1, Gas and Oil Resistant I or II, Sun Resistant, and RoHS compliant.

Single conductors are also rated RW90 per UL.

Conductor sizes 1/0 AWG and larger narked for CT use per UL.

The complete cable (18 AWG and up) is UL listed as FT4 rated and meets the following 70,000 Btu/h Vertical Tray Flame Tests:

- IEEE 1202
- UL 1685
- ICEA T-30-520

The complete cable construction is RoHS conpliant.

On request, can have overall shield. A metal laminated shield tape with drain will be used for conductor sizes smaller than 6 AWG and copper braid shield will be used for conductor 6 AWG and larger.

Application

These cables are specifically approved for power, control, lighting and signal circuits, in manufacturing, industrial and commercial installations.

For use in accordance with NEC, Article 336, in cable trays, in raceways, or where supported in outdoor locations by a messenger wire.

In cable tray in hazardous (classified) locations Class I, Division 2 per NEC, also as Class I circuits per Article 725, and in Class II, Division 2, as permitted per NEC.

When installed in accordance with NEC 336.10(7), TC-ER marked cable is approved for use as open wiring between a cable tray and the utilization equipment or device.

Standards

UL 1277

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

UL 44

Rubber-Insulated Wires and Cables.

ICEA S-73-532
NEMA WC57

Standard for Control Cables.

ICEA S-95-658

Standard for Non-shielded Power Cables Rated 2000 Volts or Less.

Specifications

Maximum operating voltage:

- 600 volts

Maximum conductor operation temperatures:

- 90 °C wet and dry

Engineering Information

1.) Conductor: Soft annealed uncoated copper compressed Class B or C stranding or unilay-compressed (19 wires) per ASTM B8, or combination unilay per ASTM B787.

Sizes: 14 AWG up to 1000 kcmil.

2.) Insulation: Flame retardant thermoset crosslinked polyethylene (XLPE).

Conductor Identification ICEA:

14 AWG – 10 AWG: Color coded per Method 1 Table E-2, **without White and Green colors.**

On request, Table E-1, which includes White and Green colors.

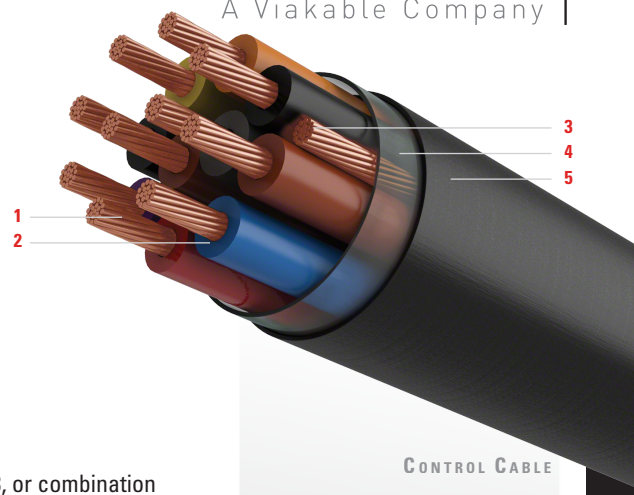
Sizes 8 AWG – 1000 kcmil: Black insulation with Printed numbers, 1, 2, 3, or 4.

On request, Color coded, BL, WH and Red or Green.

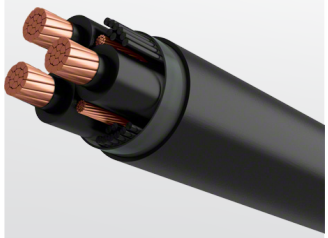
3.) Grounding (Optional): One bare or one or more insulated conductors.

4.) Assembly: Phase and optional grounding conductor(s) cabled with non hygroscopic fillers, as required and binder tape.

5.) Jacket: Black sunlight resistant and flame retardant polyvinyl chloride (PVC) compound.



CONTROL CABLE



POWER CABLE

Tray Cables

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Technical Data

XHHW-2 600 V

Size	Number of Strands	Insulation: XLPE	Nominal Insulated OD
14 AWG	7	30 mil	133 mil

Number of Conductors	Jacket Thickness mil	Approximate Outside Diameter in	Approximate Net Weight lb/kft
2 Flat	45	0.23 x 0.36	60
2	45	0.36	76
3	45	0.38	97
4	45	0.42	119
5	45	0.46	138
6	45	0.50	165
7	45	0.50	184
8	60	0.57	232
9	60	0.61	247
10	60	0.65	262
12	60	0.68	304
14	60	0.72	353
15	60	0.75	382
16	60	0.75	397
19	60	0.79	449
20	60	0.83	488
24	80	0.97	617
25	80	0.99	639
30	80	1.02	721
37	80	1.10	865

Size	Number of Strands	Insulation: XLPE	Nominal Insulated OD
12 AWG	7	30 mil	151 mil

Number of Conductors	Jacket Thickness mil	Approximate Outside Diameter in	Approximate Net Weight lb/kft
2 Flat	45	0.24 x 0.40	86
2	45	0.40	89
3	45	0.42	130
4	45	0.46	160
5	45	0.51	189
6	60	0.58	243
7	60	0.58	270
8	60	0.63	316
9	60	0.67	337
10	60	0.72	359
12	60	0.76	419
14	60	0.80	489
15	80	0.88	564
16	80	0.88	586
19	80	0.93	665
20	80	0.97	719
24	80	1.08	852
25	80	1.10	883
30	80	1.14	1004
37	80	1.23	1212

The above data are approximate and subject to normal manufacturing tolerances. Where required, the compatibility with glands, connectors and accessories should be verified using actual dimensions of the product. Other sizes available upon request.
Ampacities: Refer to beginning of section.

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Technical Data *continued*

XHHW-2 600 V

Size	Number of Strands	Insulation: XLPE	Nominal Insulated OD
10 AWG	7	30 mil	175 mil

Number of Conductors	Jacket Thickness mil	Approximate Outside Diameter in	Approximate Net Weight lb/kft
2 Flat	45	0.27 x 0.45	117
2	45	0.45	135
3	45	0.48	180
4	45	0.52	225
5	60	0.60	284
6	60	0.65	339
7	60	0.65	380
8	60	0.71	444
9	60	0.76	477
10	60	0.82	510
12	80	0.90	633
14	80	0.94	737
15	80	0.99	796
16	80	0.99	830
19	80	1.05	948
20	80	1.10	1024
24	80	1.22	1216
25	80	1.25	1262
30	80	1.29	1445
37	80	1.40	1752

The above data are approximate and subject to normal manufacturing tolerances. Where required, the compatibility with glands, connectors and accessories should be verified using actual dimensions of the product. Other sizes available upon request.
Ampacities: Refer to beginning of section.

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Technical Data *continued*

XHHW-2 600 V

Size AWG or kcmil	Number of Strands	Nominal Insulation Thickness	Optional Grounding* Conductor	Jacket Thickness	Approximate Outside Diameter	Approximate Net Weight	
						W/O Ground	Ground
		mil	AWG	mil	in	lb/kft	lb/kft
Two Conductors							
8	7	45	10	60	0.60	226	252
6	7	45	8	60	0.67	312	354
4	7	45	8	60	0.77	443	485
2	7	45	6	80	0.92	680	747
1	19	55	6	80	1.04	853	920
1/0	19	55	6	80	1.12	1032	1099
2/0	19	55	6	80	1.21	1253	1320
3/0	19	55	4	80	1.31	1529	1635
4/0	19	55	4	80	1.42	1872	1979
250	37	65	4	80	1.56	2213	2320
300	37	65	3	80	1.66	2600	2734
350	37	65	3	110	1.82	3096	3231
400	37	65	3	110	1.91	3485	3619
500	37	65	2	110	2.08	4257	4426
600	61	80	2	110	2.30	5115	5284
750	61	80	1	110	2.50	6262	6474
Three Conductors							
8	7	45	10	60	0.64	298	325
6	7	45	8	60	0.72	420	462
4	7	45	8	60	0.81	606	648
2	7	45	6	80	0.98	932	999
1	19	55	6	80	1.11	1173	1240
1/0	19	55	6	80	1.20	1428	1495
2/0	19	55	6	80	1.29	1745	1812
3/0	19	55	4	80	1.40	2140	2247
4/0	19	55	4	80	1.52	2634	2740
250	37	65	4	80	1.66	3118	3224
300	37	65	3	110	1.84	3785	3920
350	37	65	3	110	1.94	4350	4485
400	37	65	3	110	2.04	4909	5044
500	37	65	2	110	2.22	6021	6191
600	61	80	2	110	2.45	7245	7414
750	61	80	1	110	2.67	8901	9113

The above data are approximate and subject to normal manufacturing tolerances. Where required, the compatibility with glands, connectors and accessories should be verified using actual dimensions of the product. Other sizes available upon request.

Ampacities: Refer to beginning of section.

* At the option of manufacturer, Ground Conductor can be divided in three, one in each interstice.

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Technical Data *continued*

XHHW-2 600 V

Size AWG or kcmil	Number of Strands	Nominal Insulation Thickness	Optional Grounding* Conductor	Jacket Thickness	Approximate Outside Diameter	Approximate Net Weight	
						W/O Ground	Ground
		mil	AWG	mil	in	lb/kft	lb/kft
Four Conductors							
8	7	45	10	60	0.70	370	398
6	7	45	8	60	0.79	526	572
4	7	45	8	80	0.94	803	846
2	7	45	6	80	1.08	1179	1250
1	19	55	6	80	1.22	1486	1553
1/0	19	55	6	80	1.32	1815	1882
2/0	19	55	6	80	1.43	2225	2292
3/0	19	55	4	80	1.55	2737	2843
4/0	19	55	4	110	1.74	3481	3587
250	37	65	4	110	1.90	4112	4219
300	37	65	3	110	2.03	4843	4978
350	37	65	3	110	2.15	5576	5710
400	37	65	3	110	2.26	6300	6435
500	37	65	2	110	2.46	7744	7913
600	61	80	2	110	2.72	9320	9489
750	61	80	1	140	3.03	11653	11865

The above data are approximate and subject to normal manufacturing tolerances. Where required, the compatibility with glands, connectors and accessories should be verified using actual dimensions of the product. Other sizes available upon request.

Ampacities: Refer to beginning of section.

* At the option of manufacturer, Ground Conductor can be divided in three, one in each interstice.

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