

TRAY CABLE UL TYPE TC / TC-ER – 600V

THHN/THWN-2 Insulation – with Ground - PVC Jacket

APPLICATION

TC,TC-ER cables are used in building wiring, feeder and internal secondary industrial distribution, and specially utilized for abrasive environment, grease, gasoline and other chemical contaminated ambient locations.

CONDUCTORS

- Solid or Stranded bare copper per ASTM-B3, ASTM-B8 and ASTM-B787

INSULATION

- Rated 90°C wet or dry to meet UL 83 for THHN/THWN-2
- Color-coded Polyvinyl Chloride (PVC).
- Heat and moisture-resistant
- Flame retardant compound per UL 83. (QMTT2 PVC compound listed by UL)

NYLON JACKET

- Types THHN, THWN, THWN-2 (THW,THHW,TW type is excluded.)
- A tough, polyamide, Nylon outer covering (QMTT2 PVC compound listed by UL)

GROUND CONDUCTOR

- Insulated conductor or bare conductor.

ASSEMBLY

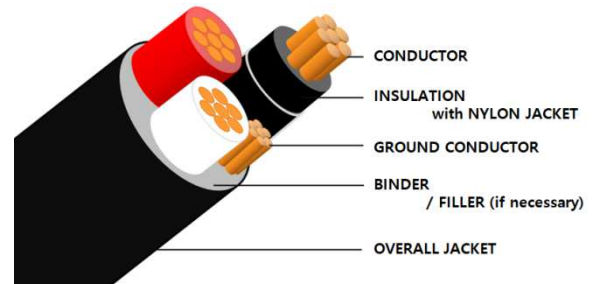
- The insulated conductors are cabled together with a insulated ground or bare conductor.
- With or without fillers as required to form a round compact core.
- Nylon rip-cord for easy stripping (If necessary)

PRODUCT PRINT LEGEND

- TC-ER (no ground wire type)
 - AWG O/C TYPE TC-ER-JP THHN-THWN-2 90C 600V SUN RES OIL RES-I FT4 / IEEE 1202 DIR BURIAL (UL) EXXXXXX 0000FT MM/YY
- TC-ER (with ground wire type)
 - AWG O/C **W/GND** TYPE TC-ER-JP THHN-THWN-2 90C 600V SUN RES OIL RES-I FT4 / IEEE 1202 DIR BURIAL (UL) EXXXXXX 0000FT MM/YY

STANDARDS & REFERENCE

ASTM B8	Standard Specification for Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft
ASTM B3	Standard Specification for Soft or Annealed Copper Wire
UL 1581	Reference Standard for Electrical Wires, Cables, and Flexible Cords
UL 2556	Wire and Cable Test Methods
UL 1685	Vertical-Tray Fire-Propagation and Smoke-Release Test for Electrical and Optical-Fiber Cables
UL 83	Thermoplastic-Insulated Wires and Cables
UL 1277	Electrical Power and Control Tray Cables with Optional Optical-Fiber Members



SHIELD (ONLY FOR SHIELDED TYPE)

- A polyester and metal laminated shield tape with or without a bare copper drain wire in electrical contact with the metal part of the tape. The drain wire may be under or over the tape.
- Braid of metal-coated or uncoated copper or copper-alloy wires.
- A metal-coated or uncoated copper or copper-alloy tape

OUTER SHEATH (OVERALL JACKET)

- A flame retardant, sunlight-resistant black PVC jackets
- The thickness of the Overall Jacket is in accordance with the UL1277 standard.

PRODUCT SERVICE DESCRIPTION

- ER (Exposed Run)
- Sunlight resistance
- Oil resistance
- Cold bend -25°C
- Direct burial
- Joist pulling
- FT4/IEEE 1202



1-888-492-8363
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SIZE OF PRODUCTS

Conductor Size (AWG)	No. of Conductors	No. of Strands	Insulation Thickness		Nylon Thickness		Jacket Thickness		Overall Diameter	
			mm	inch	mm	inch	mm	inch	mm	inch
14	2	7	0.38	0.015	0.1	0.004	1.14	0.045	5.3×8.2	0.21×0.32
14	3	7	0.38	0.015	0.1	0.004	1.14	0.045	8.61	0.339
14	4	7	0.38	0.015	0.1	0.004	1.14	0.045	9.35	0.368
14	5	7	0.38	0.015	0.1	0.004	1.14	0.045	10.18	0.401
14	7	7	0.38	0.015	0.1	0.004	1.14	0.045	11.05	0.435
14	8	7	0.38	0.015	0.1	0.004	1.14	0.045	11.80	0.465
14	9	7	0.38	0.015	0.1	0.004	1.14	0.045	12.70	0.500
14	10	7	0.38	0.015	0.1	0.004	1.52	0.060	14.40	0.567
14	12	7	0.38	0.015	0.1	0.004	1.52	0.060	15.00	0.591
14	16	7	0.38	0.015	0.1	0.004	1.52	0.060	16.60	0.654
14	19	7	0.38	0.015	0.1	0.004	1.52	0.060	17.50	0.689
14	25	7	0.38	0.015	0.1	0.004	1.52	0.060	20.30	0.799
14	37	7	0.38	0.015	0.1	0.004	2.03	0.080	24.20	0.953
14	50	7	0.38	0.015	0.1	0.004	2.03	0.08	27.4	1.077

※ Request size other than those in the table are possible.



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			mm	inch	mm	inch	mm	inch	mm	inch
12	2	7	0.38	0.015	0.1	0.004	1.14	0.045	5.8×9.1	0.23×0.35
12	3	7	0.38	0.015	0.1	0.004	1.14	0.045	9.59	0.378
12	4	7	0.38	0.015	0.1	0.004	1.14	0.045	10.46	0.412
12	5	7	0.38	0.015	0.1	0.004	1.14	0.045	11.42	0.450
12	7	7	0.38	0.015	0.1	0.004	1.14	0.045	12.42	0.489
12	9	7	0.38	0.015	0.1	0.004	1.52	0.060	14.90	0.587
12	10	7	0.38	0.015	0.1	0.004	1.52	0.060	15.90	0.626
12	12	7	0.38	0.015	0.1	0.004	1.52	0.060	16.60	0.654
12	15	7	0.38	0.015	0.1	0.004	1.52	0.060	17.90	0.705
12	19	7	0.38	0.015	0.1	0.004	1.52	0.060	19.40	0.764
12	25	7	0.38	0.015	0.1	0.004	2.03	0.080	23.70	0.933
12	37	7	0.38	0.015	0.1	0.004	2.03	0.080	27.00	1.063
10	2	7	0.51	0.020	0.1	0.004	1.14	0.045	6.7×10.8	0.26×0.42
10	3	7	0.51	0.020	0.1	0.004	1.14	0.045	11.54	0.454
10	4	7	0.51	0.020	0.1	0.004	1.14	0.045	12.64	0.498
10	5	7	0.51	0.020	0.1	0.004	1.14	0.045	13.86	0.546
10	7	7	0.51	0.020	0.1	0.004	1.14	0.045	15.13	0.596
10	9	7	0.51	0.020	0.1	0.004	1.52	0.060	18.20	0.717
10	12	7	0.51	0.020	0.1	0.004	1.52	0.060	20.50	0.807
10	15	7	0.51	0.020	0.1	0.004	2.03	0.080	23.00	0.906
10	19	7	0.51	0.020	0.1	0.004	2.03	0.080	25.00	0.984

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Conductor Size (AWG)	No. of Conductors	No. of Strands	Insulation Thickness		Nylon Thickness		Jacket Thickness		Overall Diameter	
			mm	inch	mm	inch	mm	inch	mm	inch
8	3	7	0.76	0.015	0.13	0.005	1.52	0.06	15.05	0.5962
8	4	7	0.76	0.015	0.13	0.005	1.52	0.06	16.40	0.645
6	3	7	0.76	0.015	0.13	0.005	1.52	0.06	17.10	0.673
6	4	7	0.76	0.015	0.13	0.005	1.52	0.06	18.70	0.736
4	4	7	0.76	0.015	0.15	0.006	2.03	0.08	24.03	0.946

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SIZE OF PRODUCTS

Conductor Size (AWG)	No. of Conductors	No. of Strands	Ground Wire Size (AWG)	Insulation Thickness		Nylon Thickness		Jacket Thickness		Overall Diameter	
				mm	inch	mm	inch	mm	inch	mm	inch
14	3	7	14	0.38	0.015	0.1	0.004	1.14	0.045	9.3	0.366
12	3	7	12	0.38	0.015	0.10	0.004	1.14	0.045	10.46	0.412
10	3	7	10	0.51	0.020	0.10	0.004	1.14	0.045	12.64	0.498
8	3	7	10	0.76	0.030	0.13	0.005	1.52	0.060	16.21	0.638
8	4	7	10	0.76	0.030	0.13	0.005	1.52	0.060	17.77	0.700
6	3	7	8	0.76	0.030	0.13	0.005	1.52	0.060	18.49	0.728
6	4	7	8	0.76	0.030	0.13	0.005	1.52	0.060	20.31	0.800
4	3	7	8	1.02	0.040	0.15	0.006	2.03	0.080	23.34	0.919
4	4	7	8	1.02	0.040	0.15	0.006	2.03	0.080	25.63	1.009
3	3	7	8	1.02	0.040	0.15	0.006	2.03	0.080	25.03	0.985
3	4	7	8	1.02	0.040	0.15	0.006	2.03	0.080	27.52	1.083
2	3	19	6	1.02	0.040	0.15	0.006	2.03	0.080	26.99	1.063
2	4	19	6	1.02	0.040	0.15	0.006	2.03	0.080	29.72	1.170
1	3	19	6	1.27	0.050	0.18	0.007	2.03	0.080	30.50	1.201
1	4	19	6	1.27	0.050	0.18	0.007	2.03	0.080	33.56	1.321

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				mm	inch	mm	inch	mm	inch	mm	inch
1/0	2	19	6	1.27	0.050	0.18	0.007	2.03	0.080	29.05	1.142
1/0	3	19	6	1.27	0.050	0.18	0.007	2.03	0.080	32.69	1.287
1/0	4	19	6	1.27	0.050	0.18	0.007	2.03	0.080	36.08	1.420
2/0	2	19	6	1.27	0.050	0.18	0.007	2.03	0.080	32.0	1.260
2/0	3	19	6	1.27	0.050	0.18	0.007	2.03	0.080	34.98	1.377
2/0	4	19	6	1.27	0.050	0.18	0.007	2.03	0.080	38.65	1.522
3/0	2	19	4	1.27	0.050	0.18	0.007	2.03	0.080	33.5	1.319
3/0	3	19	4	1.27	0.050	0.18	0.007	2.03	0.080	38.34	1.509
3/0	4	19	4	1.27	0.050	0.18	0.007	2.03	0.080	42.41	1.670
4/0	2	19	4	1.27	0.050	0.18	0.007	2.03	0.080	37.5	1.476
4/0	3	19	4	1.27	0.050	0.18	0.007	2.03	0.080	41.26	1.624
4/0	4	19	4	1.27	0.050	0.18	0.007	2.03	0.080	45.68	1.798
250	2	37	4	1.52	0.060	0.2	0.008	2.03	0.080	41.0	1.614
250	3	37	4	1.52	0.060	0.20	0.008	2.79	0.110	46.55	1.833
250	4	37	4	1.52	0.060	0.20	0.008	2.79	0.110	51.42	2.024
300	2	37	3	1.52	0.060	0.2	0.008	2.79	0.110	45.0	1.772
300	3	37	3	1.52	0.060	0.2	0.008	2.79	0.110	49.0	1.929
300	4	37	3	1.52	0.060	0.2	0.008	2.79	0.110	53.0	2.087
350	2	37	3	1.52	0.060	0.2	0.008	2.79	0.110	47.0	1.850
350	3	37	3	1.52	0.060	0.20	0.008	2.79	0.110	52.60	2.071
350	4	37	3	1.52	0.060	0.20	0.008	2.79	0.110	58.18	2.291
400	2	37	3	1.52	0.060	0.2	0.008	2.79	0.110	49.5	1.949
400	3	37	3	1.52	0.060	0.2	0.008	2.79	0.110	53.0	2.087
400	4	37	3	1.52	0.060	0.2	0.008	2.79	0.110	58.5	2.303
500	2	37	2	1.52	0.060	0.2	0.008	2.79	0.110	54.0	2.126
500	3	37	2	1.52	0.060	0.20	0.008	2.79	0.110	60.09	2.366
500	4	37	2	1.52	0.060	0.20	0.008	2.79	0.110	66.57	2.621
600	2	61	2	1.78	0.070	0.23	0.009	2.79	0.110	60.0	2.362
600	3	61	2	1.78	0.070	0.23	0.009	2.79	0.110	65.20	2.567
600	4	61	2	1.78	0.070	0.23	0.009	2.79	0.110	72.32	2.847

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