



Images not to scale. Follow table for dimensions

APPLICATION

POLY CAB Copper Type TC/TC-ER THHN/THWN-2 tray cable is recommended to use in commercial as well as industrial applications as power, control, signal, communication, and lighting cable. It is suitable to install in cable tray and also in open air, raceway, channel, conduit and duct. Further, it may be installed in direct burial or sunlight exposed area and also in wet or dry location or in area exposed to chemical or oil.

CHARACTERISTICS

Voltage rating
600 V

Operation Temperature
-25°C to 90°C

CONSTRUCTION

- Stranded Class B annealed plain copper conductor as per ASTM B3 & ASTM B8
- Accompanied with class B annealed bare grounding conductor as per ASTM B3 & ASTM B8
- Insulated with a flame-retardant PVC/Nylon, Type THHN/THWN-2 as per UL 83
- Cores laid up to form a round shape.
- Sunlight resistant PVC jacket, rated 90°C wet and dry, as per UL 1277, over the complete assembly. Color : Black
- Ripcord provided for jacket with thickness of 60mils or less.

Core Identification

Cores are identified as per ICEA S 58-679, Method 1, Table E-2 i.e. Black, Red, Blue, Orange; or Method 4 i.e. Black insulation with printed numbers, beginning with the number 1

Bending Radius

12 x Overall Diameter

OUTSTANDING FEATURES

- Heat resistant
- Sunlight resistant
- Flame retardant
- Oil resistant
- Chemical resistant

STANDARD FOLLOWS

ASTM B8, ASTM B3
UL 83
UL 1277
CSA C22.2 No. 230

COMPLIANCE

Conductor resistance test	ASTM B8
Insulation resistance	UL 83
Cold bend test (4 AWG and above)	UL 1277
Vertical tray flame test	UL 1685
FT4 Test (For 1/0 AWG and above)	UL 1685, IEEE 1202
Oil resistant test (PR I)	UL 1277
RoHS & REACH	

OUR ACCREDITATIONS



APPROVAL



POLY CAB CU TYPE TC/TC-ER THHN/THWN-2 TRAY CABLE **POLY CAB**
Industrial Cable, 600 V AC

IDEAS. CONNECTED.

Table 1: Dimensional Characteristics

No. of core	Conductor size	Insulation thickness	Ground wire size	No. of ground conductor	Nominal overall diameter	Approximate weight
	AWG or kcmil	mils	AWG	No.	mils	Lbs/1000 ft
3	14	15	14	1	339	100
3	12	15	12	1	374	136
3	12	15	16	3	380	141
3	10	20	10	1	447	204
3	10	20	14	3	454	212
3	8	30	10	1	584	297
3	8	30	14	3	592	294
4	8	30	10	1	639	375
4	8	30	14	3	652	363
3	6	30	8	1	664	476
3	6	30	12	3	674	475
4	6	30	8	1	729	542
4	6	30	12	3	744	527
3	4	40	8	1	853	748
4	4	40	8	1	936	847
3	3	40	6	1	914	817
3	2	40	6	1	982	970
4	2	40	6	1	1080	1242
3	1	50	6	1	1113	1205

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No. of core	Conductor size	Insulation thickness	Ground wire size	No. of ground conductor	Nominal overall diameter	Approximate weight
	AWG or kemil	mils	AWG	No.	mils	Lbs/1000 ft
4	1	50	6	1	1228	1548
3	1/0	50	6	1	1199	1443
4	1/0	50	6	1	1324	1860
3	2/0	50	6	1	1297	1739
4	2/0	50	6	1	1433	2253
3	3/0	50	4	1	1406	2158
4	3/0	50	4	1	1555	2794
3	4/0	50	4	1	1529	2631
4	4/0	50	4	1	1753	3532
3	250	60	4	1	1736	3171
4	250	60	4	1	1918	4112
3	350	60	3	1	1960	4265
4	350	60	3	1	2169	5554
3	500	60	2	1	2240	5860
4	500	60	2	1	2482	7658
3	600	70	2	1	2457	6988
3	750	70	1	1	2741	8768
4	750	70	1	1	3036	11467

*Above values are approximate and subject to standard manufacturing tolerance.

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Table 2: Electrical characteristics

Conductor Size AWG	*Allowable ampacity (Amp.)			Maximum DC resistance at 20°C Ω/km
	60°C	75°C	90°C	
14	20	20	25	8.62
12	25	25	30	5.43
10	30	35	40	3.41
8	40	50	55	2.144
6	55	65	75	1.348
4	70	85	95	0.848
3	85	100	115	0.673
2	95	115	130	0.534
1	110	130	145	0.423
1/0	125	150	170	0.335
2/0	145	175	195	0.266
3/0	165	200	225	0.211
4/0	195	230	260	0.167
250	215	255	290	0.142
350	260	310	350	0.101
500	320	380	430	0.079
600	350	420	475	0.059
750	400	475	535	0.0472

*Allowable ampacities shown are for general use as specified by the NEC 2011 Edition Section 310.16. 60°C – Relevant for TW and UF copper wires

75°C – Relevant for RHW, THHW, THW, THWN, XHHW, USE, and ZW copper wires

90°C – Relevant for TBS, SA, SIS, FEP, FEPB, MI, RHH, RHW-2, THHN, THHW, THW-2, THWN-2, USE-2, XHH, XHHW, XHHW-2, and ZW-2 copper wires

Notes:

Section 310.15(B) shall be referenced for ampacity correction factors where the ambient temperature is other than 30°C (86°F).

Section 310.15(C)(1) shall be referenced for more than three current-carrying conductors.

Section 310.16 shall be referenced for conditions of use.