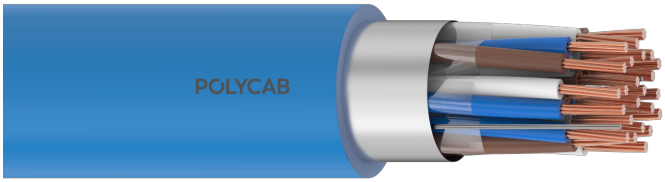
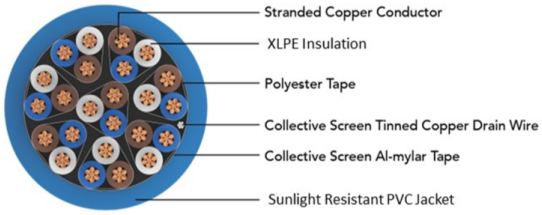
POLYCAB HYDRO TYPE TC-ER/ ITC-ER CIC-TC OR MARINE CABLE

Instrumentation/ Signal/ Marine-Shipboard Cable Type P-OS





Images not to scale. Follow table for dimensions

APPLICATION

Polycab Hydro cables are designed to use in corrosive environments like Off-Shore & On-Shore oil rigs, Petrochemicals etc on class 1 Remote control Signalling Circuits up to 600 V. These cables can be used in wet and dry area either indoor or Outdoor location in cable trays or in raceways supported by a messenger wire. These cables can be installed as TC/ITC in class I, Division 2; Class II, Division 2; class III, Division 1 and Zone 2 hazardous location according to NEC 501.10, 502.10, 503.10 and 505.15. and also can be used in direct burial. TC – ER can be used without conduit according to NEC 336.10(7).

CHARACTERISTICS

Voltage Rating
600 V

Operation Temperature
-35°C to 90°C (dry & wet)

CONSTRUCTION

- Stranded Class B annealed plain copper conductor as per ASTM B3 & ASTM B8
- Insulated with crosslinked Polyethylene meets the requirements of UL 1277, UL 2250, UL 1309 Type X90 and IEEE 1580 Type X.
- Pairs/Triads are assembled with a left hand lay
- Overall shielding of Polyester/Aluminium tape overlapped to provide 100% coverage. A tinned copper stranded drain wire shall be applied under the shield.
- Sunlight resistant PVC jacket rated 90°C wet and dry, as per UL 1277, UL 2250, UL 1309 and IEEE 1580 Type T over the complete assembly. Colour : Black. Ripcord provided for jacket

Core Identification
For Pair : White and black with numbered polyester tape.
For Triad : Black, Red and White with numbered polyester tape.

Bending Radius
12 x Overall Diameter

OUTSTANDING FEATURES

- Sunlight resistant
- Moisture resistant
- Chemical resistant
- High temperature resistant

STANDARD FOLLOWS

ASTM B8, ASTM B3
UL 2250
UL 1277
UL 1309
IEEE 1580

COMPLIANCE

Conductor resistance test	ASTM B8
Insulation resistance	UL 1309
Vertical tray flame test	IEEE 1202, IEEE 383
Cold bend test at -35°C	
Cable tray use and direct burial	
RoHS & REACH	

OUR ACCREDITATIONS

APPROVAL

LISTED

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Dimensional Characteristics:

No. of Pairs/Triad	No. of Elements	Conductor size	Insulation thickness	Nominal overall diameter	Approximate weight per 1000 ft
		AWG	mils	inch	lbs
1	2	16	30	0.34	83
2	2	16	30	0.49	169
4	2	16	30	0.64	258
8	2	16	30	0.91	416
12	2	16	30	1.07	494
16	2	16	30	1.18	666
20	2	16	30	1.32	793
24	2	16	30	1.46	902
36	2	16	30	1.68	1210
1	3	16	30	0.35	94
2	3	16	30	0.60	242
4	3	16	30	0.74	338
8	3	16	30	0.97	529
12	3	16	30	1.14	716
16	3	16	30	1.26	901
20	3	16	30	1.41	1080
24	3	16	30	1.57	1209
1	2	14	30	0.37	107
2	2	14	30	0.57	230
4	2	14	30	0.66	321
8	2	14	30	0.92	555
12	2	14	30	1.08	703
16	2	14	30	1.19	880
20	2	14	30	1.33	1028
24	2	14	30	1.48	1198
36	2	14	30	1.75	1698
1	3	14	30	0.39	112
2	3	14	30	0.65	300

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No. of Pairs/Triad	No. of Elements	Conductor size	Insulation thickness	Nominal overall diameter	Approximate weight per 1000 ft
		AWG	mils	inch	lbs
4	3	14	30	0.75	428
8	3	14	30	1.06	684
12	3	14	30	1.24	909
16	3	14	30	1.38	1187
20	3	14	30	1.54	1403
24	3	14	30	1.72	1680

*Above values are approximate and subject to standard manufacturing tolerance

Electrical Characteristics:

Electrical Properties	UOM	16 AWG	14 AWG
Conductor resistance (Nom.) at 20°C	?/1000ft	4.1	2.58
Insulation test voltage (Spark test)	KVac	7.5	
Dielectric test voltage	Vac	1500	
Insulation resistance constant (min)	M?-1000ft	550 at 15.5°C	350 at 15.5°C