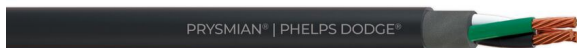


TGP/TC-ER

Copper Multiconductor



GENERAL INFORMATION

The TGP/TC-ER is an electrical multi-conductor formed by soft copper EcoPlus THHN/THWN-2 helically assembled conductors. The assembly is then covered with a non-hygroscopic filler that protects the conductors from impact and water penetration. The group is then protected with a black color polyvinyl chloride (PVC) thermoplastic jacket capable to withstand heavy handling and direct sunlight exposure, also the outer jacket is weather resistant capable.

FEATURES

- TGP/TC-ER conductors are manufactured in multiple gauges and formations: duplex, triplex and quadruple, from 14 AWG (208 mm²) up to 4 AWG (21.2 mm²).
- Their individual cores or conductors are THHN/THWN-2 type, with the basic colors: black, white, green and red.
- Its outer jacket is weather and sunlight resistant and tray cable certified. It allows the product to be used fully exposed on outdoors and the full range can be used in cable trays directly.
- The collapsible filling of non-hygroscopic material facilitates the outer cover removal and the core release during installation. It provides a round assembly finish.
- The filling contains recycled PVC from our production process, so the environmental impact of this cable is reduced.

CERTIFICATIONS AND DESIGN STANDARDS

Standards of design: ASTM B3, ASTM B8, ASTM B787, UL 83, UL 1277 and RETIE 20.2

Certifications: UL E70079 and CIDET 06061

CABLE DESIGN

Conductor material	Copper
Core insulation material	Polyvinyl chloride (PVC)

ELECTRICAL & THERMAL PARAMETERS

Nominal voltage U [V]	600
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INSTALLATION DETAILS

Application	Building Installations;Residential Installations;Industrial Installations;Direct Burried, Sewer;Indoor/Outdoor;Underwater
Outdoor installation	Yes
Underground installation	Yes
Suitable as installation cable	Yes

PHYSICAL & CHEMICAL PROPERTIES

Flame retardant	Yes
Oil resistant	Yes
Moisture resistance	Yes

SPECIFIC APPLICATIONS

- The core's Nylon jacket provides gas, oil and other chemical agent's resistance, making the TGP an ideal option for motor connections and circuits in areas where oils and gasoline are present.
- TGP/TC-ER is certified for deep well pumps connections. It complies with TC-ER (Tray cable) type conductors use, according to Sec. 336.10 of the NFPA 70 latest version. It can be used in suspended ceilings, non-suspended or exposed, in downspouts to luminaries and between junction boxes on truss structures with fastenings every 140 or 30 cm (long or short sections).
- TGP/TC-ER can be used where THHN/THWN-2 conductors are approved by the NFPA 70.

LEGEND ON THE CABLE

For all gauges, the legend to be printed is:

PRYSMIAN (R) PHELPS DODGE (R) TGP # X (GAUGE) AWG ((GAUGE) mm²), SUBMERSIBLE PUMP CABLE THHN OR THWN 600V (UL) E70079 / CIDET No. 06061 TC-ER DIRECT BURIAL

PRODUCT CHARACTERISTICS

AWG size	Number of cores	Nominal cross section conductor [mm ²]	Diameter conductor [mm]	Cable weight [kg/km]	Conductor resistance at 20° C [Ohm/km]
14	2	2.08	8.51	101.89	8.62
12	2	3.31	9.47	136.9	5.43
10	2	5.26	11.24	201.47	3.41
8	2	8.37	14.66	335.81	2.14
14	3	2.08	8.95	126.41	8.62
12	3	3.31	9.98	173.36	5.43
10	3	5.26	11.89	258.29	3.41
8	3	8.37	15.52	428.41	2.14
6	3	13.3	17.58	607.22	1.35
4	3	21.2	22.14	966.38	0.85
14	4	2.08	9.68	153	8.62
12	4	3.31	10.84	212.01	5.43
10	4	5.26	12.98	318.42	3.41
8	4	8.37	16.95	527.74	2.14
6	4	13.3	19.26	753.97	1.35
4	4	21.2	24.24	1,204.62	0.85

AVOIDED CO2 EQUIVALENT EMISSIONS

Gauge	Conductors	kg CO ₂ eq avoided in the atmosphere
AWG/kcmil	# of conductors	For 1 km of cable
14	2	4,67
12	2	6,12
10	2	9,22
8	2	15,21
14	3	4.07
12	3	5.29
10	3	7.88
8	3	12.87
6	3	17.19
4	3	26.22
14	4	4.16
12	4	5.37
10	4	7.96
8	4	12.90
6	4	17.22
4	4	26.07