Heavy-Duty Submergible Pump

Copper Multi-conductor

Prysmian Group

Description

The Heavy-Duty (HD) Submergible Pump cable is a flat parallel electrical multi-conductor assembled with annealed copper conductors THHN/THWN-2 EcoPlus with a polyvinyl chloride (PVC) outer black jacket.

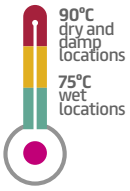
Standard Specifications

The Heavy-Duty Submergible Pump multi-conductors are built based on the following:

- Standards: **ASTM B3, B8, B787 and UL 83.**
- Certificate: **UL E70079.**

Features

- The HD Submergible Pump multi-conductor THHN/THWN-2 is designed to be installed on dry, damped or wet locations at temperatures not exceeding 90°C at 600 V maximum operating voltage.



- The cable is manufactured in triple and triple plus earth cables from gauge 14 AWG (2,08 mm²) up to 1/0 AWG (53,5 mm²).
- To allow ease identification the cores are manufactured with different colors (red, black, white and green). The outer multi-conductor legend indicates the count and gauges of the inner conductors.
- On triplex with ground formations from 8 AWG (8,37 mm²) or larger, the ground conductor will be reduced gauge as per manufacturing specs and NFPA 70.
- The conductor is RoHS *(Restriction of Hazardous Substances)* regulation.

Applications

- The HD Submergible Pump cable is designed to connect submersible deep well pumps where the cable would be underwater.
- The conductor could be used in any other lower duty power circuit in feeders and branch circuits in dry humid or wet areas either in conduit or exposed (same applications as NM-B/NMC and THWN cables).
- The outer jacket is SUN RES capable allowing the conductor to be directly exposed to the sun.

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Technical Information

Dimensions and nominal features

The conductor operating amperage is defined by the installation condition and operating temperatures identified in the NEC. See TABLE 310.15(B)(16) NFPA 70 latest version

Gauge	Area (mm²)		Wires	Insulation Thickness		Width		Height		Weight	DC Max. @ 20°C Resistance
AWG	Driver Cond.	Earth Cond.	#	in	mm	in	mm	in	mm	kg/km	Ω/km
Triplex											
3 X 14	2,08	-	7	0,030	0,762	0,395	10,043	0,173	4,384	99,24	8,62
3 X 12	3,31	-	7	0,030	0,762	0,452	11,480	0,192	4,864	140,89	5,43
3 X 10	5,26	-	7	0,030	0,762	0,557	14,145	0,226	5,750	214,78	3,41
3 X 8	8,37	-	7	0,045	1,143	0,744	18,887	0,309	7,851	366,01	2,14
3 X 6	13,3	-	7	0,045	1,143	0,857	21,762	0,347	8,808	529,84	1,35
3 X 4	21,2	-	19	0,045	1,143	1,054	26,764	0,413	10,477	811,80	0,848
3 X 2	33,6	-	19	0,045	1,143	1,231	31,264	0,472	11,976	1205,14	0,534
3 X 1/0	53,5	-	19	0,060	1,524	1,554	39,471	0,599	15,207	1923,42	0,335

Note: The values given may vary according to the manufacturing tolerances

El amperaje de operación de los conductores está definido por la condición de instalación y temperaturas de operación identificadas en el NEC. Ver TABLA 310.15(B)(16) NFPA 70 última versión

Gauge	Area (mm²)		Wires	Insulation Thickness		Width		Height		Weight	DC Max. @ 20°C Resistance
AWG	Driver Cond.	Earth Cond.	#	in	mm	in	mm	in	mm	kg/km	Ω/km
Triplex + Earth											
4 X 14	2,08	2,08	7	0,030	0,762	0,507	12,870	0,173	4,384	131,09	8,62
4 X 12	3,31	3,31	7	0,030	0,762	0,582	14,787	0,192	4,864	186,72	5,43
4 X 10	5,26	5,26	7	0,030	0,762	0,722	18,343	0,226	5,750	285,54	3,41
3X8+1X10	8,37	5,26	7	0,045	1,143	0,909	23,084	0,309	7,851	455,82	2,14
3X6+1X8	13,3	8,37	7	0,045	1,143	1,074	27,282	0,347	8,808	662,49	1,35
3X4+1X8	21,2	8,37	19	0,045	1,143	1,271	32,285	0,413	10,477	969,97	0,848
3X2+1X6	33,6	13,3	19	0,045	1,143	1,486	37,741	0,472	11,976	1433,74	0,534
3X1/0+1X6	53,5	13,3	19	0,060	1,524	1,809	45,949	0,600	15,207	2213,39	0,335

Note: The values given may vary according to the manufacturing tolerances

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