

TSJ-N / TSJ-N Super easy

Copper Multiconductor



GENERAL INFORMATION

The TSJ-N is an electrical flexible multi-conductor formed by individual PVC insulated nylon jacketed soft copper flexible conductors helically assembled. The conductors are protected with a black weather resistant thermoplastic PVC outer jacket.

FEATURES

- The conductor's colors per configuration are: **Duplex:** black and white. **Triplex:** black, white and green. **Quadruplex:** black, white, red and green.
- The maximum operating temperature is 60°C in dry, humid and wet environments.
- **TSJ-N Super easy:** In triplex and quadruplex configurations, the TSJ-N includes a ripcord, which allows for faster, easier, and safer removal of the outer jacket, especially over long runs or when full jacket removal is required.

CERTIFICATIONS AND DESIGN STANDARDS

Standards of design: ASTM B3, ASTM B174, ASTM B172, UL 62 and NTC 5521

Certifications: CIDET 03648

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
Outdoor installation	No
Underground installation	No

PHYSICAL & CHEMICAL PROPERTIES

Flame retardant	Yes
Oil resistant	No
Moisture resistance	Moderate

SPECIFIC APPLICATIONS

- The TSJ-N conductors is widely used to connect appliances, hand tools, luminaries and low power mobile units. They are also used as portable electrical extension cords at home, commercial and construction sites.
- The TSJ-N flexible conductors have some limitations and not permitted applications as per Electrical Code NEC NFPA 70. Section 400.8 indicates:
 1. As a substitute of the fixed wiring of circuits like power outlets or switches.
 2. Where concealed by walls, floors, or ceilings or located above suspended or dropped ceilings.
 3. Where it run through doorways, windows, or similar openings.
 4. Where it run through holes in walls, structural ceilings, suspended ceilings, dropped ceilings, or floors.
 5. Where attached to building surfaces.
 6. Where installed in raceways, except as otherwise permitted in the Code.
 7. Under any condition the conductor should support any mechanical load during installation or normal connected equipment use.

LEGEND ON THE CABLE

For duplex formation, the marking to be printed is:

PRYSMIAN (R) PHELPS DODGE (R) TSJ-N # X (GAUGE) AWG ((GAUGE) mm²) 600V 60 °C. USO AMB SECO/HUMEDO.

For triplex and quadruplex formation, the marking to be printed is:

PRYSMIAN (R) PHELPS DODGE (R) TSJ-N SUPER EASY # X (GAUGE) AWG ((GAUGE) mm²) 600V 60°C. USO AMB SECO/HUMEDO.
CIDET CERTIFICADO NO. 03648

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]
18	2	0.82	5.86	44.6	22.4
16	2	1.31	6.49	59.19	14.1
14	2	2.08	7.24	8,033	8.88
12	2	3.31	8.25	112.52	5.58
10	2	5.26	9.91	203.68	3.51
8	2	8.37	13.31	308.68	2.23
6	2	13.3	15.95	428.65	1.4
18	3	0.82	6.19	54.61	22.4
16	3	1.31	6.87	73.88	14.1
14	3	2.08	7.69	102.14	8.88
12	3	3.31	8.69	144.67	5.58
10	3	5.26	11.64	262.08	3.51
8	3	8.37	15.06	395.23	2.23
6	3	13.3	16.94	555.24	1.4
16	4	1.31	7.51	91.47	14.1
14	4	2.08	8.59	127.67	8.88
12	4	3.31	9.55	196.64	5.58
10	4	5.26	12.76	325.69	3.51
8	4	8.37	16.5	493.86	2.23
6	4	13.3	19.63	699.79	1.4

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