

NORTECK®

UL 1569 – Type MC
CSA C22.2 No. 131 – TECK90

The North American
power cable that's
as tough as
North Americans!



Description

Since NORTECK® is dual CSA-UL rated, no matter where the job is in North America you can rest assured that the cable will meet or exceed local electrical code.

These cables are intended for use in many industries, including chemical processing plants, refineries and general factory environments.

Even in the most demanding industrial and resource industry applications, NORTECK® cables have proven to have a superior service and maintenance record.

Low acid gas, low flame spread jacket compounds ensure maximum safety for personnel and equipment in the event of fire.



Applications

NORTECK® cables were originally developed for use in mines, are flexible, resistant to mechanical abuse, corrosion resistant, compact and reliable. They are suitable for a wide range of applications, including hazardous locations.

Industries such as pulp and paper, chemical, petroleum and other primary and secondary manufacturing industries have used NORTECK® cables, particularly in areas where cables are subject to the risk of mechanical damage and chemical attack.

Commercial applications for NORTECK® cables include apartment buildings and commercial complexes.

NORTECK® cables can be relocated easily because they are rugged and flexible. They can be used in both dry and wet locations in open wiring, in ventilated, non-ventilated and ladder-type cable troughs, in ventilated flexible cableways, and for direct burial.

NORTECK® cables are suitable and allowed by the CE Code and the NEC for use in the following applications:

- Service entrance installations - above and below ground.
- Power, lighting and control circuits and as a branch circuits and power feeders in industrial, commercial, and residential installations up to 600 volts.
- Fished or embedded in plaster and concrete.
- Direct buried or used as an aerial cable when fixed to a messenger support cable.
- Used in concealed or exposed applications.
- Installed in cable trays and raceways (such as conduit).
- In Class I Division 1 (CE Code only) and 2, Class II Division 1 (CE Code only) and 2, as well Class III Division 1 and 2 hazardous locations.
- Under raised floors of information technology rooms.
- Where exposed to harsh chemicals and vapors.

Product features

- Flame and fire retardant and pass CSA FT1/FT4
- Pass ICEA T-29-520 Fire Test at 210,000 BTU/hr, IEEE 1202, 383 and UL 1685
- -40°C low temperature rating with suitable handling
- Temperature rating of 90°C dry and wet
- 130°C emergency rating and 250°C short circuit rating
- Suitable for Hazardous Locations
- Inner and outer jackets are sunlight resistant and marked SUN RES
- Oil resistant outer jacket
- Lead Free and RoHS compliant
- Available from stock
- Flexible
- Resistant to Mechanical Abuse and Corrosion

**UL Listed as Type MC with XHHW-2 Conductors
CSA Certified as TECK90 with RW90 Conductors**

600 V, Multiconductor, 14 AWG (7w) with 14 AWG (7w) bare bonding conductor

Insulation Thickness: 30 mils / 0.76 mm

Ampacity at 30°C Ambient Temperature: 15 Amps

Part Number	Number of Conductors	Insulation Thickness		Inner Jacket Thickness		Nominal Diameters						Approximate Net Cable Weight		Approximate Copper Content	
						Inner Jacket		Armour		Outer Jacket					
		in	mm	in	mm	in	mm	in	mm	in	mm	lb/kft	kg/km	lb/kft	kg/km
602169	3	0.030	0.76	0.045	1.14	0.38	9.7	0.62	15.8	0.73	18.5	236	351	50	75
602185	4	0.030	0.76	0.045	1.14	0.42	10.7	0.66	16.8	0.77	19.5	263	391	63	94
645101	5	0.030	0.76	0.045	1.14	0.45	11.5	0.69	17.6	0.80	20.2	290	431	76	113
602227	7	0.030	0.76	0.045	1.14	0.50	12.8	0.74	18.9	0.85	21.5	346	515	101	151
602201	9	0.030	0.76	0.060	1.52	0.60	15.3	0.84	21.4	0.95	24.1	428	637	127	189
602243	12	0.030	0.76	0.060	1.52	0.68	17.2	0.92	23.3	1.02	26.0	507	754	165	246
602268	19	0.030	0.76	0.060	1.52	0.79	20.0	1.06	27.0	1.17	29.7	728	1083	254	378
615419	25	0.030	0.76	0.080	2.03	0.95	24.1	1.22	31.1	1.33	33.8	928	1381	331	492
602284	37	0.030	0.76	0.080	2.03	1.09	27.7	1.37	34.7	1.48	37.5	1201	1788	484	720

600 V, Multiconductor, 12 AWG (7w) with 14 AWG (7w) bare bonding conductor

Insulation Thickness: 30 mils / 0.76 mm

Ampacity at 30°C Ambient Temperature: 20 Amps

Part Number	Number of Conductors	Insulation Thickness		Inner Jacket Thickness		Nominal Diameters						Approximate Net Cable Weight		Approximate Copper Content	
						Inner Jacket		Armour		Outer Jacket					
		in	mm	in	mm	in	mm	in	mm	in	mm	lb/kft	kg/km	lb/kft	kg/km
602300	2	0.030	0.76	0.045	1.14	0.40	10.1	0.64	16.2	0.74	18.8	245	364	60	90
602326	3	0.030	0.76	0.045	1.14	0.43	10.8	0.67	16.9	0.77	19.6	280	416	81	120
602342	4	0.030	0.76	0.045	1.14	0.47	12.0	0.71	18.1	0.81	20.7	321	478	101	150
602367	5	0.030	0.76	0.045	1.14	0.50	12.8	0.74	18.9	0.85	21.5	361	537	121	180
602383	7	0.030	0.76	0.060	1.52	0.59	15.1	0.83	21.2	0.94	23.9	457	680	161	240
602425	12	0.030	0.76	0.060	1.52	0.76	19.2	1.03	26.2	1.14	28.9	703	1046	261	389

600 V, Multiconductor, 10 AWG (7w) with 12 AWG (7w) bare bonding conductor

Insulation Thickness: 30 mils / 0.76 mm

Ampacity at 30°C Ambient Temperature: 30 Amps

Part Number	Number of Conductors	Insulation Thickness		Inner Jacket Thickness		Nominal Diameters						Approximate Net Cable Weight		Approximate Copper Content	
						Inner Jacket		Armour		Outer Jacket					
		in	mm	in	mm	in	mm	in	mm	in	mm	lb/kft	kg/km	lb/kft	kg/km
602441	3	0.030	0.76	0.045	1.14	0.48	12.3	0.72	18.4	0.83	21.0	349	520	128	190
602474	4	0.030	0.76	0.060	1.52	0.57	14.4	0.81	20.5	0.91	23.2	435	647	160	238
602490	7	0.030	0.76	0.060	1.52	0.67	17.1	0.91	23.2	1.02	25.9	549	817	224	334

- 1) Where stated, "nominal" and "approximate" values are provided for information purposes only and are subject to standard manufacturing tolerances.
- 2) Conductor ampacities are in accordance with CE Code Table 2 and NEC Table 310.15(B)(16) for conductors in a raceway or direct buried at 30°C ambient temperature and 90°C rated conductors.
- 3) The overcurrent protection shall not exceed 15 amperes for 14 AWG, 20 amperes for 12 AWG, and 30 amperes for 10 AWG after any correction factors for ambient temperature and number of conductors have been applied (CE Code Rule 14-104(2), NEC Article 240.4(D)), or as provided for by other Rules of the CE Code or Articles of the NEC (exceptions to this may be covered in NEC Article 240.4(E) through (G)).
- 4) CE Code Table 5C or NEC Table 310.15(B)(3)(a) may apply if cable is used for power applications or more than 3 conductors are continuously loaded.
- 5) For correction factors for different ambient temperatures and ampacities at different conductor temperature ratings see CE Code Table 5A or NEC Table 310.15(B)(16).

Construction

Conductor:

Bare, annealed copper Class B stranded in accordance with ASTM B8.

Insulation:

600 V rated cross linked polyethylene (XLPE) meets CSA C22.2 No. 38 as type RW90 and UL 44 as Type XHHW-2.

Assembly:

Conductors cabled in concentric layers with grounding wire, interstices filled with suitable non-hygroscopic fillers, as required. A binder of synthetic material assembles the core in an essentially round configuration.

Inner Jacket:

Black polyvinyl chloride (PVC) jacket per CSA C22.2 No. 131 and UL 1569, flame retardant, low-acid-gas-emitting. Inner jacket is sunlight resistant and marked SUN RES.

Aarmor:

Interlocking aluminum tape armor applied directly over the inner jacket.

Outer Jacket:

Overall black polyvinyl chloride (PVC) jacket per CSA C22.2 No. 131 and UL 1569; low acid gas emission; limited flame spread and excellent corrosion resistance. Outer jacket is sunlight resistant and marked SUN RES.

Identification of Conductors:

2 Conductors – Black, Red
3 Conductors – Black, Red, Blue
4 or More Conductors – Black with Number Coding

Bending Radius:

Fixed position: 7 x cable overall diameter
During pulling: 12 x cable overall diameter

Sample Print String:

(mon/year) NEXANS NORTECK 12 AWG/7 -12GRD CU
(UL) E47409 F MC-XHHW-2 600V FOR CT USE DIR
BUR SUN RES - CSA LL19376 F TECK90 XLPE 600V
MINUS 40C HL FT4 - MADE IN CANADA



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