Ultrex®

PVC/Nylon and XLPE Insulated Tray Cables

Nexans

Ultrex® Tray Cables

UL Type TC, 600 Volt Power and Control Cables

Introduction

Nexans is one of the largest wire and cable manufacturers in the world, and in North America. In North America we manufacture in locations across the United States and Canada. We design and produce a wide range of cables used in power, industrial, construction and communication applications.

With more than nine decades of experience as a leader in the industrial and power cable markets, Nexans is contracted by heavy industry and utilities world wide to provide turnkey solutions for the bulk transmission of power – from generating station through the distribution system to commercial and residential areas.

This catalogue has been prepared for the convenience of those using electrical conductors in industrial applications.

It presents the important data pertaining to the various types of wires and cables in readily obtainable form. We believe that the information included in the many tabulations will be of particular value to the architect, engineer, electrician, and layperson alike.

Although we have listed herein the types of wires and cables suitable for most conditions, we are equipped to manufacture other types to suit special needs. We would be pleased to recommend the most suitable construction for any special condition that you may encounter.

The determination of the correct cable size and type, and the selection of methods of installation suitable for the type and location of particular circuits, should be made in accordance with local regulations. Any questions in this respect should be directed primarily to the local Electrical Inspection Authority.

PVC/Nylon Type TC 600 Volt Power and Control Cable Temperature rating of 90˚C dry / 75˚C wet

Applications

Nexans 600V Ultrex® VN Tray Cables are listed as type TC under UL 1277 Electrical Power and Control Cables. These cables may be installed in wet or dry locations; in cable trays, raceways and open air; and are suitable for exposure to weather, direct burial and for Class I, Div. 2 (also Zone 2) and Class II, Div. 2 hazardous locations per NEC.

Construction

Conductor: bare, annealed copper conforming to ASTM B-3 and B-8, from #18 AWG to 500 kcmil. Compressed copper for #14 AWG through 500 kcmil.

Insulation: flame-retardant PVC/Nylon type THHN/THWN per UL 83 for sizes #14 AWG to 500 kcmil and type TFN per UL 62 for #18 AWG and #16 AWG.

Assembly:
Non-shielded: cables with 3 or more conductors are cabled in concentric layers with interstices filled with suitable fillers, as required. Two-conductor cables are supplied in a flat/parallel configuration. Bare grounds, when provided, are sized as required by UL 1277 (refer to the applicable product table(s) for the standard sizes provided). A binder tape of synthetic material assembles the core in a tight circular configuration.
Shielded: cabled in concentric layers with interstices filled with suitable fillers as required. A helically wrapped aluminum tape, with synthetic backing, gives 100% shielding. A tinned copper drain wire is placed in contact with the aluminum side of the tape, to lower the resistance and to assist in the termination of the shield.

Jacket: UL listed sunlight and moisture resistant, sequentially length marked, black, flame retardant polyvinyl chloride (PVC) material meeting the requirements of UL 1277. A Nylon ripcord is included for ease of jacket removal.

Conductor Identification

#18 AWG to #10 AWG: color coded per Method #1-E2 per ICEA S-73-532

#8 AWG to 500 kcmil: black with number coding per Method 4 of ICEA S-73-532

Composite
Power: Method 4 per ICEA S-73-5
Control: Method #1-E2 per ICEA S-73-S32

Specifications

- Meets UL 1277: Power and Control Tray Cables with Optional Fiber Members.
- Meets UL 83: Thermoplastic-Insulated Wires and Cables for #14 AWG and larger.
- Meets UL 62: Flexible Cord and Fixture Wire for #18 AWG and #16 AWG.

Product Features

- UL approved cables Type TC, 600V.
- UL approved insulated conductors.
- Cables pass UL 1685 and IEEE 383 vertical tray fire tests at 70,000 BTU/hr.
- Cables are UL listed to IEEE 1202 70,000 BTU/hr flame test.
- For use in power, lighting, control and signal circuits.
- Can be used within industrial establishments where serviced by qualified personnel and not subject to physical damage.
- Can operate at continuous temperatures of 90°C dry or 75°C wet (TFN dry locations only), cold bend of –25°C per UL 1277 Section 15.
- Can be used In Class I Division 2 and Class II Division 2 Hazardous Locations and Intrinsically Safe applications as permitted by NEC Art. 392, 501, 502, 503, and 505.*
- As indicated in UL 1277: The overall jackets of these cables are a "gas/vapour tight continuous sheath" as discussed in NEC Sections 501.5(D) and 501.5(E).*
- For use in cable trays, raceways, conduits, or for aerial applications where installed with a messenger.
- UL listed for Open Wiring for sizes 2/0 and larger. (4–1/0 upon request.)
- For Direct Burial applications.
- As permitted in NEC Section 336.10 and Art. 725 for Class 1 circuits.
- As permitted for non-power-limited fire alarm circuits as defined in NEC Sections 336.10 and 760.27.

Options

The following constructions can be provided on special orders:
- Dow Construction
- DuPont Construction
- Composite Cable Construction
- Insulated or bare ground wires
- Different conductor identification methods

* Use in hazardous locations:
Please note that no investigation of these cables has been performed regarding the transmission of gases or vapours through the core. When these cables are used in hazardous locations they should be sealed properly as required by the NEC.

Unshielded Tray Cable
UL Type TC, 600V, 90°C dry rated

Multiconductor 18 AWG Type TFN
Insulation Thickness: 15 mils / .38mm PVC, 4 mils / .10mm Nylon

Part Number	# of Conductors	Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Ampacity
		mils	mm	inches	mm	lb/kft	kg/km	amps
697151	2 Flat	45	1.14	.180 x .270	4.57 x 6.86	35	52	6.0
697359	3	45	1.14	.288	7.31	45	67	6.0
697169	4	45	1.14	.311	7.91	54	80	4.8
627448	5	45	1.14	.337	8.56	66	98	4.8
627273	6	45	1.14	.364	9.25	76	113	4.8
627281	7	45	1.14	.364	9.25	82	122	4.2
676726	8	45	1.14	.392	9.95	92	137	4.2
627901	9	45	1.14	.421	10.69	108	160	4.2
669127	10	45	1.14	.448	11.37	117	175	3.0
———	11	45	1.14	.454	11.53	122	182	3.0
697367	12	45	1.14	.468	11.87	131	195	3.0
———	13	45	1.14	.476	12.08	139	207	3.0
———	14	45	1.14	.491	12.47	148	220	3.0
697177	15	45	1.14	.504	12.79	160	238	3.0
697375	19	60	1.52	.574	14.58	210	312	3.0
———	20	60	1.52	.590	14.99	217	323	3.0
697383	25	60	1.52	.658	16.71	272	405	2.7
———	30	60	1.52	.701	17.80	308	458	2.7
626994	37	60	1.52	.754	19.15	380	564	2.4
———	40	60	1.52	.782	19.86	397	591	2.4
———	45	60	1.52	.867	22.02	442	658	2.1
———	50	80	2.03	.898	22.80	516	768	2.1

Bend Radius: 5 x overall diameter installed / 8 x overall diameter during installation pull-in.
Notes:
Dimensions and weights shown are nominal values. They are subject to standard industry tolerances.
Cables with different conductor counts and bare or insulated grounds are also available.
Ampacities are in accordance with NEC Table 336.80, and Table 402.5 "Allowable Ampacity for Fixture Wires" at an ambient temperature of 30°C (with no load diversity). Ampacity for cables having more than three conductors have derated as stated in NEC 392.11, using the derating factors of NEC 310.15(B)(2)(a).
For ampacities at different conductor or ambient temperatures, refer to the "correction factor" section of NEC Table 310.16.
Refer to NEC Table 240.5 for overcurrent protection requirements.

Shielded Tray Cable
UL Type TC, 600V, 90°C dry rated

Multiconductor 18 AWG Type TFN
Insulation Thickness: 15 mils / .38mm PVC, 4 mils / .10mm Nylon

Part Number	# of Conductors	Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Ampacity
		mils	mm	inches	mm	lb/kft	kg/km	amps
697409	2	45	1.14	.280	7.11	41	61	6.0
697417	3	45	1.14	.294	7.47	49	73	6.0
627059	4	45	1.14	.317	8.06	61	90	4.8
674705	5	45	1.14	.343	8.71	73	108	4.8
627067	6	45	1.14	.370	9.40	82	122	4.8
674689	7	45	1.14	.370	9.40	92	136	4.2
627521	8	45	1.14	.404	10.26	105	156	4.2
———	9	45	1.14	.433	10.99	112	167	4.2
674697	10	45	1.14	.460	11.68	127	188	3.0
———	11	45	1.14	.466	11.84	130	193	3.0
697458	12	45	1.14	.480	12.18	136	202	3.0
———	13	45	1.14	.488	12.39	144	214	3.0
———	14	45	1.14	.503	12.77	153	228	3.0
———	15	45	1.14	.516	13.09	165	245	3.0
———	19	60	1.52	.586	14.88	215	320	3.0
———	20	60	1.52	.602	15.30	272	326	3.0
675751	25	60	1.52	.670	17.01	280	416	2.7
———	30	60	1.52	.713	18.11	318	473	2.7
627075	37	60	1.52	.766	19.46	390	580	2.4
———	40	60	1.52	.794	20.17	407	606	2.4
———	45	80	2.03	.879	22.32	452	673	2.1
———	50	80	2.03	.910	23.10	526	783	2.1

Bend Radius: 5 x overall diameter installed / 8 x overall diameter during installation pull-in.
Notes:
Dimensions and weights shown are nominal values. They are subject to standard industry tolerances.
Cables with different conductor counts and bare or insulated grounds are also available.
Ampacities are in accordance with NEC Table 336.80, and Table 402.5 "Allowable Ampacity for Fixture Wires" at an ambient temperature of 30°C (with no load diversity). Ampacity for cables having more than three conductors have derated as stated in NEC 392.11, using the derating factors of NEC 310.15(B)(2)(a).
For ampacities at different conductor or ambient temperatures, refer to the "correction factor" section of NEC Table 310.16.
Refer to NEC Table 240.5 for overcurrent protection requirements.

Unshielded Tray Cable
UL Type TC, 600V, 90°C dry rated

Multiconductor 16 AWG Type TFN
Insulation Thickness: 15 mils / .38mm PVC, 4 mils / .10mm Nylon

Part Number	*# of Conductors*	*Jacket Thickness*		*Nominal Diameter over Jacket*		*Approximate Net Cable Weight*		*Ampacity*
		mils	*mm*	*inches*	*mm*	*lb/kft*	*kg/km*	*amps*
697045	2 Flat	45	1.14	.190 x .290	4.83 x 7.37	45	67	8.0
697052	3	45	1.14	.306	7.77	59	86	8.0
631010	4	45	1.14	.330	8.38	71	106	6.4
697342	5	45	1.14	.360	9.14	86	128	6.4
697060	6	45	1.14	.390	9.91	100	149	6.4
697078	7	45	1.14	.390	9.91	110	164	5.6
697086	8	45	1.14	.425	10.80	128	190	5.6
697094	9	45	1.14	.452	11.48	141	210	5.6
697102	10	45	1.14	.480	12.19	157	234	4.0
———	11	45	1.14	.486	12.34	165	246	4.0
697110	12	45	1.14	.505	12.83	179	266	4.0
———	13	45	1.14	.510	12.95	205	305	4.0
680041	14	60	1.52	.556	14.12	219	326	4.0
671784	15	60	1.52	.570	14.48	232	345	4.0
697128	16	60	1.52	.594	15.09	240	357	4.0
697136	19	60	1.52	.610	15.49	283	421	4.0
627463	20	60	1.52	.640	16.26	300	446	4.0
697144	25	60	1.52	.715	18.16	367	546	3.6
697896	30	60	1.52	.765	19.43	430	640	3.6
697664	37	80	2.03	.864	21.99	548	815	3.2
———	40	80	2.03	.893	22.68	584	869	3.2
———	45	80	2.03	.943	23.95	649	966	2.8
627471	50	80	2.03	.980	24.88	723	1078	2.8

Bend Radius: 5 x overall diameter installed / 8 x overall diameter during installation pull-in.
Notes:
Dimensions and weights shown are nominal values. They are subject to standard industry tolerances.
Cables with different conductor counts and bare or insulated grounds are also available.
Ampacities are in accordance with NEC Table 336.80, and Table 402.5 "Allowable Ampacity for Fixture Wires" at an ambient temperature of 30°C (with no load diversity). Ampacity for cables having more than three conductors have derated as stated in NEC 392.11, using the derating factors of NEC 310.15(B)(2)(a).
For ampacities at different conductor or ambient temperatures, refer to the "correction factor" section of NEC Table 310.16.
Refer to NEC Table 240.5 for overcurrent protection requirements.

Shielded Tray Cable
UL Type TC, 600V, 90°C dry rated

Multiconductor 16 AWG Type TFN
Insulation Thickness: 15 mils / .38mm PVC, 4 mils / .10mm Nylon

Part Number	# of Conductors	Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Ampacity
		mils	mm	inches	mm	lb/kft	kg/km	amps
697466	2	45	1.14	.298	7.57	51	76	8.0
627091	3	45	1.14	.314	7.98	67	100	8.0
627083	4	45	1.14	.339	8.61	80	119	6.4
631127	5	45	1.14	.368	9.35	96	143	6.4
687491	6	45	1.14	.398	10.11	111	165	6.4
631135	7	45	1.14	.398	10.11	120	179	5.6
631143	8	45	1.14	.435	11.05	136	202	5.6
———	9	45	1.14	.467	11.86	149	222	5.6
631150	10	45	1.14	.497	12.62	165	240	4.0
———	11	45	1.14	.504	12.80	173	257	4.0
697441	12	60	1.52	.549	13.94	187	278	4.0
———	13	60	1.52	.558	14.17	213	317	4.0
———	14	60	1.52	.575	14.61	229	341	4.0
———	15	60	1.52	.589	14.96	242	360	4.0
627109	19	60	1.52	.634	16.10	295	439	4.0
———	20	60	1.52	.652	16.56	310	461	4.0
658500	25	60	1.52	.727	18.47	377	561	3.6
———	30	60	1.52	.775	19.69	440	655	3.6
688481	37	80	2.03	.885	22.20	568	845	3.2
———	40	80	2.03	.905	22.99	604	899	3.2
———	45	80	2.03	.955	24.26	669	995	2.8
———	50	80	2.03	.989	25.12	743	1106	2.8

Bend Radius: 5 x overall diameter installed / 8 x overall diameter during installation pull-in.

Notes:

Dimensions and weights shown are nominal values. They are subject to standard industry tolerances.

Cables with different conductor counts and bare or insulated grounds are also available.

Ampacities are in accordance with NEC Table 336.80, and Table 402.5 "Allowable Ampacity for Fixture Wires" at an ambient temperature of 30°C (with no load diversity). Ampacity for cables having more than three conductors have derated as stated in NEC 392.11, using the derating factors of NEC 310.15(B)(2)(a).

For ampacities at different conductor or ambient temperatures, refer to the "correction factor" section of NEC Table 310.16.

Refer to NEC Table 240.5 for overcurrent protection requirements.

Unshielded Tray Cable
UL Type TC, 600V, 90°C dry / 75°C wet rated

Multiconductor 14 AWG Type THHN/THWN
Insulation Thickness: 15 mils / .38mm PVC, 4 mils / .10mm Nylon

Part Number	# of Conductors	Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Ampacity [1,3,4]
		mils	mm	inches	mm	lb/kft	kg/km	amps
696815	2 Flat	45	1.14	.205 x .315	5.21 x 8.00	58	86	25.0
696823	3	45	1.14	.336	8.52	90	134	25.0
696831	4	45	1.14	.365	9.27	96	143	20.0/25.0[2]
696849	5	45	1.14	.397	10.09	117	174	20.0
667055	6	45	1.14	.431	10.95	137	204	20.0
696807	7	45	1.14	.431	10.95	152	226	17.5
676700	8	45	1.14	.466	11.84	175	260	17.5
696856	9	45	1.14	.502	12.76	195	290	17.5
696864	10	60	1.52	.566	14.38	232	345	12.5
———	11	60	1.52	.574	14.58	250	372	12.5
696872	12	60	1.52	.591	15.01	266	396	12.5
———	13	60	1.52	.601	15.27	287	427	12.5
———	14	60	1.52	.620	15.76	307	457	12.5
———	15	60	1.52	.636	16.16	326	485	12.5
631002	16	60	1.52	.653	16.59	343	510	12.5
696880	19	60	1.52	.687	17.45	396	589	12.5
696898	20	60	1.52	.707	17.97	417	620	12.5
696906	25	60	1.52	.792	20.12	518	771	11.3
627299	30	80	2.03	.886	22.51	638	949	11.3
696914	37	80	2.03	.953	24.21	774	1152	10.0
627307	40	80	2.03	.988	25.10	833	1240	10.0
———	45	80	2.03	1.045	26.54	928	1381	8.8
697326	50	80	2.03	1.083	27.51	1018	1514	8.8

Bend Radius: 5 x overall diameter installed / 8 x overall diameter during installation pull-in.

Notes:

Dimensions and weights shown are nominal values. They are subject to standard industry tolerances.

Cables with different conductor counts and bare or insulated grounds are also available.

[1] Ampacities are in accordance with NEC Table 310.16 for conductors in a raceway or direct buried at 30°C ambient temperature and 90°C rated conductors. Ampacities for cables having more than three conductors have been derated per NEC Table 310.16 and Table 310.15(B)(2)(a).

[2] Where the 4th conductor is the neutral of a balanced 3 phase system.

[3] For load diversity of 50%, refer to NEC Table B.310.11.

[4] For correction factors to different ambient temperatures and ampacities for different conductor temperature ratings see NEC Table 310.16.

NEC 240.4(D) requires that overcurrent protection not exceed 15 amperes for 14 AWG copper conductors. Exceptions to this may be covered in NEC 240.4(E) through (G).

Shielded Tray Cable
UL Type TC, 600V, 90°C dry / 75°C wet rated

Multiconductor 14 AWG Type THHN/THWN
Insulation Thickness: 15 mils / .38mm PVC, 4 mils / .10mm Nylon

Part Number	# of Conductors	Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Ampacity [1,3,4]
		mils	mm	inches	mm	lb/kft	kg/km	amps
697698	2	45	1.14	.324	8.23	69	103	25.0
627117	3	45	1.14	.342	8.67	101	150	25.0
627794	4	45	1.14	.371	9.42	107	159	20.0/25.0[2]
631085	5	45	1.14	.403	10.24	128	190	20.0
———	6	45	1.14	.437	11.10	148	220	20.0
627125	7	45	1.14	.437	11.10	163	243	17.5
———	8	45	1.14	.478	12.14	186	277	17.5
631093	9	60	1.52	.514	13.06	206	307	17.5
679522	10	60	1.52	.578	14.68	243	362	12.5
———	11	60	1.52	.586	14.88	261	388	12.5
631101	12	60	1.52	.603	15.31	277	412	12.5
679514	13	60	1.52	.613	15.57	298	443	12.5
———	14	60	1.52	.632	16.06	318	473	12.5
———	15	60	1.52	.648	16.46	337	501	12.5
———	16	60	1.52	.665	16.89	358	533	12.5
631119	19	60	1.52	.699	17.75	413	615	12.5
———	20	60	1.52	.719	18.27	432	643	12.5
669564	25	60	1.52	.804	20.42	529	787	11.3
———	30	80	2.03	.898	22.82	653	972	11.3
697433	37	80	2.03	.965	24.51	789	1174	10.0
———	40	80	2.03	1.000	25.40	848	1262	10.0
———	45	80	2.03	1.057	26.84	943	1403	8.8
———	50	80	2.03	1.095	27.81	1033	1537	8.8

Bend Radius: 5 x overall diameter installed / 8 x overall diameter during installation pull-in.

Notes:

Dimensions and weights shown are nominal values. They are subject to standard industry tolerances.

Cables with different conductor counts and bare or insulated grounds are also available.

[1] Ampacities are in accordance with NEC Table 310.16 for conductors in a raceway or direct buried at 30°C ambient temperature and 90°C rated conductors. Ampacities for cables having more than three conductors have been derated per NEC Table 310.16 and Table 310.15(B)(2)(a).

[2] Where the 4th conductor is the neutral of a balanced 3 phase system.

[3] For load diversity of 50%, refer to NEC Table B.310.11.

[4] For correction factors to different ambient temperatures and ampacities for different conductor temperature ratings see NEC Table 310.16.

NEC 240.4(D) requires that overcurrent protection not exceed 15 amperes for 14 AWG copper conductors. Exceptions to this may be covered in NEC 240.4(E) through (G).

Unshielded Tray Cable
UL Type TC, 600V, 90°C dry / 75°C wet rated

Multiconductor 12 AWG Type THHN/THWN
Insulation Thickness: 15 mils / .38mm PVC, 4 mils / .10mm Nylon

Part Number	# of Conductors	Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Ampacity [1,3,4]
		mils	mm	inches	mm	lb/kft	kg/km	amps
696955	2 Flat	45	1.14	.225 x .359	5.72 x 9.12	77	115	30.0
696963	3	45	1.14	.376	9.56	105	156	30.0
696971	4	45	1.14	.411	10.43	135	201	24.0/30.0[2]
697292	5	45	1.14	.448	11.39	166	247	24.0
676684	6	45	1.14	.488	12.40	196	292	24.0
697300	7	45	1.14	.488	12.40	215	320	21.0
667048	8	45	1.14	.559	14.20	253	377	21.0
696989	9	60	1.52	.601	15.27	304	452	21.0
696997	10	60	1.52	.641	16.28	333	496	15.0
———	11	60	1.52	.650	16.51	357	531	15.0
697003	12	60	1.52	.670	17.02	376	560	15.0
———	13	60	1.52	.682	17.31	414	616	15.0
———	14	60	1.52	.704	17.88	443	659	15.0
688291	15	60	1.52	.723	18.35	470	700	15.0
697011	16	60	1.52	.742	18.86	490	729	15.0
697318	19	60	1.52	.782	19.86	573	853	15.0
697029	20	60	1.52	.806	20.47	615	915	15.0
697037	25	80	2.03	.945	24.00	778	1158	13.5
688770	30	80	2.03	1.008	25.61	915	1362	13.5
627455	37	80	2.03	1.086	27.58	1107	1647	12.0
———	40	80	2.03	1.127	28.62	1216	1810	12.0
———	45	80	2.03	1.193	30.30	1358	2021	10.5
———	50	80	2.03	1.238	31.44	1497	2228	10.5

Bend Radius: 5 x overall diameter installed / 8 x overall diameter during installation pull-in.

Notes:

Dimensions and weights shown are nominal values. They are subject to standard industry tolerances.

Cables with different conductor counts and bare or insulated grounds are also available.

[1] Ampacities are in accordance with NEC Table 310.16 for conductors in a raceway or direct buried at 30°C ambient temperature and 90°C rated conductors. Ampacities for cables having more than three conductors have been derated per NEC Table 310.16 and Table 310.15(B)(2)(a).

[2] Where the 4th conductor is the neutral of a balanced 3 phase system.

[3] For load diversity of 50%, refer to NEC Table B.310.11.

[4] For correction factors to different ambient temperatures and ampacities for different conductor temperature ratings see NEC Table 310.16.

NEC 240.4(D) requires that overcurrent protection not exceed 20 amperes for 12 AWG copper conductors. Exceptions to this may be covered in NEC 240.4(E) through (G).

Shielded Tray Cable
UL Type TC, 600V, 90°C dry / 75°C wet rated

Multiconductor 12 AWG Type THHN/THWN
Insulation Thickness: 15 mils / .38mm PVC, 4 mils / .10mm Nylon

Part Number	# of Conductors	Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Ampacity [1,3,4]
		mils	mm	inches	mm	lb/kft	kg/km	amps
631044	2	45	1.14	.368	9.35	89	132	30.0
627539	3	45	1.14	.388	9.87	117	174	30.0
631051	4	45	1.14	.423	10.74	147	219	24.0/30.0[2]
690032	5	45	1.14	.460	11.69	178	265	24.0
———	6	45	1.14	.500	12.70	208	310	24.0
631069	7	45	1.14	.500	12.70	227	338	21.0
———	8	60	1.52	.572	14.53	265	394	21.0
688929	9	60	1.52	.614	15.60	316	470	21.0
———	10	60	1.52	.654	16.61	345	513	15.0
———	11	60	1.52	.663	16.84	369	549	15.0
631077	12	60	1.52	.683	17.34	388	577	15.0
———	13	60	1.52	.695	17.64	426	634	15.0
696641	14	60	1.52	.717	18.21	455	677	15.0
———	15	60	1.52	.736	18.68	482	717	15.0
———	16	60	1.52	.755	19.19	502	747	15.0
697425	19	60	1.52	.795	20.19	585	870	15.0
———	20	60	1.52	.819	20.80	627	933	15.0
———	25	80	2.03	.958	24.33	790	1176	13.5
———	30	80	2.03	1.021	25.94	927	1379	13.5
689588	37	80	2.03	1.099	27.91	1119	1665	12.0
———	40	80	2.03	1.140	28.95	1228	1827	12.0
———	45	80	2.03	1.206	30.63	1370	2039	10.5
———	50	80	2.03	1.251	31.77	1509	2245	10.5

Bend Radius: 5 x overall diameter installed / 8 x overall diameter during installation pull-in.

Notes:

Dimensions and weights shown are nominal values. They are subject to standard industry tolerances.

Cables with different conductor counts and bare or insulated grounds are also available.

[1] Ampacities are in accordance with NEC Table 310.16 for conductors in a raceway or direct buried at 30°C ambient temperature and 90°C rated conductors. Ampacities for cables having more than three conductors have been derated per NEC Table 310.16 and Table 310.15(B)(2)(a).

[2] Where the 4th conductor is the neutral of a balanced 3 phase system.

[3] For load diversity of 50%, refer to NEC Table B.310.11.

[4] For correction factors to different ambient temperatures and ampacities for different conductor temperature ratings see NEC Table 310.16.

NEC 240.4(D) requires that overcurrent protection not exceed 20 amperes for 12 AWG copper conductors. Exceptions to this may be covered in NEC 240.4(E) through (G).

Unshielded Tray Cable
UL Type TC, 600V, 90°C dry / 75°C wet rated

Multiconductor 10 AWG Type THHN/THWN
Insulation Thickness: 20 mils / .51mm PVC, 4 mils / .10mm Nylon

Part Number	# of Conductors	Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Ampacity [1,3,4]
		mils	mm	inches	mm	lb/kft	kg/km	amps
696922	2 Flat	45	1.14	.422	10.72	112	166	40
696930	3	45	1.14	.448	11.37	159	237	40
697284	4	45	1.14	.490	12.45	200	298	32/40[2]
688309	5	45	1.14	.568	14.41	263	391	32
678052	6	45	1.14	.617	15.67	324	482	32
696948	7	45	1.14	.617	15.67	346	515	28
———	8	45	1.14	.668	16.97	397	591	28
627646	9	45	1.14	.721	18.31	448	672	28
683680	10	60	1.52	.770	19.57	488	726	20
———	11	60	1.52	.782	19.86	530	789	20
627257	12	60	1.52	.807	20.49	572	852	20
———	13	80	2.03	.862	21.88	646	961	20
———	14	80	2.03	.890	22.60	735	1094	20
———	15	80	2.03	.913	23.18	780	1161	20
630966	16	80	2.03	.938	23.81	795	1183	20
627265	19	80	2.03	.987	25.07	914	1360	20
———	20	80	2.03	1.017	25.82	954	1420	20
———	25	80	2.03	1.140	28.97	1178	1753	18
———	30	80	2.03	1.220	30.98	1394	2075	18
———	37	80	2.03	1.317	33.45	1693	2520	16
———	40	80	2.03	1.368	34.75	1824	2714	16
———	45	80	2.03	1.451	36.85	2040	3036	14
———	50	80	2.03	1.507	38.27	2253	3353	14

Bend Radius: 5 x overall diameter installed / 8 x overall diameter during installation pull-in.

Notes:

Dimensions and weights shown are nominal values. They are subject to standard industry tolerances.

Cables with different conductor counts and bare or insulated grounds are also available.

[1] Ampacities are in accordance with NEC Table 310.16 for conductors in a raceway or direct buried at 30°C ambient temperature and 90°C rated conductors. Ampacities for cables having more than three conductors have been derated per NEC Table 310.16 and Table 310.15(B)(2)(a).

[2] Where the 4th conductor is the neutral of a balanced 3 phase system.

[3] For load diversity of 50%, refer to NEC Table B.310.11.

[4] For correction factors to different ambient temperatures and ampacities for different conductor temperature ratings see NEC Table 310.16.

NEC 240.4(D) requires that overcurrent protection not exceed 30 amperes for 10 AWG copper conductors. Exceptions to this may be covered in NEC 240.4(E) through (G).

Shielded Tray Cable
UL Type TC, 600V, 90°C dry / 75°C wet rated

Multiconductor 10 AWG Type THHN/THWN
Insulation Thickness: 20 mils / .51mm PVC, 4 mils / .10mm Nylon

Part Number	# of Conductors	Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Ampacity [1,3,4]
		mils	mm	inches	mm	lb/kft	kg/km	amps
631028	2	45	1.14	.428	10.87	127	189	40
687467	3	45	1.14	.454	11.52	169	251	40
631036	4	45	1.14	.496	12.61	215	320	32/40[2]
690057	5	45	1.14	.574	14.57	278	414	32
———	6	45	1.14	.623	15.82	322	479	32
———	7	45	1.14	.623	15.82	363	540	28
———	8	45	1.14	.683	17.35	409	609	28
———	9	45	1.14	.736	18.69	456	679	28
———	10	60	1.52	.785	19.95	503	748	20
———	11	60	1.52	.797	20.24	545	811	20
689679	12	80	2.03	.862	21.89	587	873	20
———	13	80	2.03	.877	22.27	661	984	20
———	14	80	2.03	.905	22.98	750	1116	20
———	15	80	2.03	.928	23.56	795	1173	20
———	16	80	2.03	.953	24.19	848	1262	20
———	19	80	2.03	1.022	25.45	925	1376	20
———	20	80	2.03	1.032	26.21	970	1443	20
———	25	80	2.03	1.155	29.35	1190	1771	18
———	30	80	2.03	1.235	31.36	1410	2098	18
———	37	80	2.03	1.332	33.83	1710	2544	16
———	40	80	2.03	1.383	35.13	1840	2738	16
———	45	80	2.03	1.466	37.23	2055	3056	14
———	50	80	2.03	1.522	38.65	2270	3378	14

Bend Radius: 5 x overall diameter installed / 8 x overall diameter during installation pull-in.

Notes:

Dimensions and weights shown are nominal values. They are subject to standard industry tolerances.

Cables with different conductor counts and bare or insulated grounds are also available.

[1] Ampacities are in accordance with NEC Table 310.16 for conductors in a raceway or direct buried at 30°C ambient temperature and 90°C rated conductors.

[2] Where the 4th conductor is the neutral of a balanced 3 phase system.

[3] For load diversity of 50%, refer to NEC Table B.310.11.

[4] For correction factors to different ambient temperatures and ampacities for different conductor temperature ratings see NEC Table 310.16.

NEC 240.4(D) requires that overcurrent protection not exceed 30 amperes for 10 AWG copper conductors. Exceptions to this may be covered in NEC 240.4(E) through (G).

Unshielded Tray Cable
UL Type TC, 600V, 90°C dry / 75°C wet rated

3 Conductors with Bare Ground Type THHN/THWN

Part Number	Conductor Size	Ground Size	Insulation Thickness PVC/Nylon		Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Ampacity [1,3,4]
	AWG/kcmil	AWG	mils	mm	mils	mm	inches	mm	lb/kft	kg/km	amps
664995	14	14	15/4	.38/.10	45	1.14	.350	8.89	90	134	25
685578	12	12	15/4	.38/.10	45	1.14	.385	9.78	126	187	30
665000	10	10	20/4	.51/.10	45	1.14	.475	12.07	192	290	40
697219	8	10	30/5	.76/.13	60	1.52	.604	15.34	295	439	55
697615	6	8	30/5	.76/.13	60	1.52	.680	17.27	426	634	75
697201	4	8	40/6	1.02/.15	80	2.06	.872	22.15	662	985	95
697193	2	6	40/6	1.02/.15	80	2.03	1.002	25.45	965	1436	130
685560	1	6	50/7	1.27/.18	80	2.03	1.132	28.75	1187	1766	150
697185	1/0	6	50/7	1.27/.18	80	2.03	1.218	30.94	1423	2118	170
665018	2/0	6	50/7	1.27/.18	80	2.03	1.315	33.40	1718	2557	195
216341	3/0	4	50/7	1.27/.18	80	2.03	1.423	36.14	2131	3171	225
665026	4/0	4	50/7	1.27/.18	80	2.03	1.543	39.19	2592	3857	260
665034	250	4	60/8	1.52/.20	110	2.79	1.754	44.55	3123	4648	290
665042	350	3	60/8	1.52/.20	110	2.79	1.970	50.04	4204	6256	350
665059	500	2	60/8	1.52/.20	110	2.79	2.252	57.20	5792	8620	430

Bend Radius: 5 x overall diameter installed (up to 2.0") / 6 x overall diameter installed (over 2.0")
8 x overall diameter during installation pull-in.

Notes:

Dimensions and weights shown are nominal values. They are subject to standard industry tolerances.
Cables with different conductor counts and bare or insulated grounds are also available.

[1] Ampacities are in accordance with NEC Table 310.16 for conductors in a raceway or direct buried at 30°C ambient temperature and 90°C rated conductors. Ampacities for cables having more than three conductors have been derated per NEC Table 310.16 and Table 310.15(B)(2)(a).

[2] For correction factors to different ambient temperatures and ampacities for different conductor temperature ratings see NEC Table 310-16.

[3] NEC 240.4(D) requires that overcurrent protection not exceed 20 amperes for 12 AWG copper conductors and 30 amperes for 10 AWG copper conductors. Exceptions to this may be covered in NEC 240.4(E) through (G).

Unshielded Tray Cable
UL Type TC, 600V, 90°C dry / 75°C wet rated

4 Conductors with Bare Ground Type THHN/THWN

Part Number	Conductor Size	Ground Size	Insulation Thickness PVC/Nylon		Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Ampacity [1,3,4]	
	AWG/ kcmil	AWG	mils	mm	mils	mm	inches	mm	lb/kft	kg/km	amps	amps[2]
697607	8	10	30/5	.76/.13	60	1.52	.661	16.79	368	548	44	55
697599	6	8	30/5	.76/.13	60	1.52	.746	18.95	535	796	60	75
697581	4	8	40/6	1.02/.15	80	2.06	.957	24.31	838	1247	76	95
697573	2	6	40/6	1.02/.15	80	2.03	1.102	27.99	1229	1829	104	130
676692	1	6	50/7	1.27/.18	80	2.03	1.247	31.67	1519	2261	120	150
669135	1/0	6	50/7	1.27/.18	80	2.03	1.344	34.14	1832	2726	136	170
669143	2/0	6	50/7	1.27/.18	80	2.03	1.452	36.88	2223	3308	156	195
———	3/0	4	50/7	1.27/.18	80	2.03	1.575	40.01	2756	4101	180	225
669275	4/0	4	50/7	1.27/.18	110	2.79	1.768	44.91	3457	5145	208	260
———	250	4	60/8	1.52/.20	110	2.79	1.937	49.20	4046	6021	232	290
669283	350	3	60/8	1.52/.20	110	2.79	2.180	55.37	5469	8139	280	350
669291	500	2	60/8	1.52/.20	110	2.79	2.494	63.35	7556	11245	344	430

Bend Radius: 5 x overall diameter installed (up to 2.0") / 6 x overall diameter installed (over 2.0")
8 x overall diameter during installation pull-in.

Notes:
Dimensions and weights shown are nominal values. They are subject to standard industry tolerances.
Cables with different conductor counts and bare or insulated grounds are also available.
[1] Ampacities are in accordance with NEC Table 310.16 for conductors in a raceway or direct buried at 30°0C ambient temperature and 90°C rated conductors. Ampacities for cables having more than three conductors have been derated per NEC Table 310.16 and Table 310.15(B)(2)(a).
[2] Where the 4th conductor is the neutral of a balanced 3 phase system.
[3] For load diversity of 50%, refer to NEC Table B.310.11.
[4] For correction factors to different ambient temperatures and ampacities for different conductor temperature ratings see NEC Table 310.16.

Unshielded Tray Cable
UL Type TC, 600V, 90°C dry / 75°C wet rated

Composite Conductors with Bare Ground Type THHN/THWN
Composite – 4 Control Conductors with 3 Power Conductors and 1 Bare Ground

Part Number	*Control Size*	*Insulation Thickness PVC/Nylon*		*Power Size*	*Insulation Thickness PVC/Nylon*		*Ground Size*	*Jacket Thickness*		*Nominal Diameter over Jacket*		*Approximate Net Cable Weight*		*Control Ampacity*	*Power Ampacity*
	AWG	*mils*	*mm*	*AWG*	*mils*	*mm*	*AWG*	*mils*	*mm*	*inches*	*mm*	*lb/kft*	*kg/km*	*amps*	*amps*
684126	12	15/4	.38/.10	10	20/4	.51/.10	10	60	1.52	.585	14.86	320	476	21	28
627042	12	15/4	.38/.10	8	30/5	.76/.13	8	60	1.52	.675	17.15	405	603	21	55
627810	12	15/4	.38/.10	6	30/5	.76/.13	8	60	1.52	.720	18.29	530	789	21	75
697680	12	15/4	.38/.10	4	40/6	1.02/.15	6	80	2.03	.890	22.61	760	1131	21	95
682773	12	15/4	.38/.10	2	40/6	1.02/.15	6	80	2.03	1.015	25.78	1050	1526	21	130

Bend Radius: 5 x overall diameter installed
8 x overall diameter during installation pull-in.

Notes:
Dimensions and weights shown are nominal values. They are subject to standard industry tolerances.
Cables with different conductor counts and bare or insulated grounds are also available.
Ampacities are in accordance with NEC Table 310.16 for conductors in a raceway or direct buried at 30°0C ambient temperature and 90°C rated conductors. Ampacities for cables having more than three conductors have been derated per NEC Table 310.16 and Table 310.15(B)(2)(a).
The overcurrent protection shall not exceed 15 amperes for 14 AWG, 20 amperes for 12 AWG, and 30 amperes for 10 AWG copper conductors after any correction factors for ambient temperature and numbers of conductors have been applied per NEC Article 240.4(D).
For correction factors to different ambient temperatures and ampacities for different conductor temperature ratings see NEC Table 310.16.

XLP/PVC Type TC 600 Volt Power and Control Cable Temperature rating of 90°C dry or wet

Applications

Nexans 600V Ultrex® XL Tray Cables are listed as type TC under UL 1277 Electrical Power and Control Cables. These cables may be installed in wet or dry locations; in cable trays, raceways and open air; and are suitable for exposure to weather, direct burial and for Class I, Div. 2 (also Zone 2) and Class II, Div. 2 hazardous locations per NEC.

Construction

Conductor: bare, annealed copper conforming to ASTM B-3 and Class B stranded in accordance with ASTM B-8, from #14 AWG to 1000 kcmil.

Insulation: flame-retardant cross-linked polyethylene meeting the requirements for XHHW-2 per UL 44 and the requirements of ICEA S-66-524 for XLPE insulation as standard. Sizes #14 AWG to #8 AWG are VW-1, and sizes #6 AWG and larger are non-VW-1.

Assembly: conductors are cabled in concentric layers with interstices filled with suitable fillers, as required. Bare grounds, when provided, are sized as required by UL 1277 (refer to the applicable product tables for the standard sizes provided). A binder tape of synthetic material assembles the core in a tight circular configuration.

Jacket: UL listed sunlight and moisture resistant, sequentially length marked, black polyvinyl chloride (PVC) material meeting the requirements of UL 1277.

Conductor Identification

#14 AWG to #10 AWG:
2–37 conductors: color coded per Method #1-E2 per ICEA S-73-532
38 and more conductors: black with number coding per Method 4 of ICEA S-73-532

#8 AWG to 500 kcmil: black with number coding per Method 4 of ICEA S-73-532

Specifications

- Meets UL 1277: Power and Control Tray Cables with Optional Fiber Members.
- Meets UL 44: Thermoset-Electrical Insulated Wires and Cables.
- Meets ICEA S-95-658, NEMA Publication No. WC-70: Nonshielded Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy.

Product features

- UL approved cables Type TC, 600V.
- UL approved insulated conductors.
- Cables pass UL 1685 and IEEE 383 vertical tray fire tests at 70,000 BTU/hr.
- All cables pass IEEE 1202 70,000 BTU/hr flame test.
- All cables pass ICEA T-29-520 210,000 BTU/hr flame test.
- For use in power, lighting, control and signal circuits.
- Can be used within industrial establishments where serviced by qualified personnel and not subject to physical damage.
- Can operate at continuous temperatures of 90°C dry or wet, cold bend of –25°C per UL 1277 Section 15.
- Can be used In Class I Division 2 and Class II Division 2 Hazardous Locations and Intrinsically Safe applications as permitted by NEC Art. 392, 501, 502, 503, and 505.*
- As indicated in UL 1277: The overall jackets of these cables are a "gas/vapour tight continuous sheath" as discussed in NEC Sections 501.5(D) and 501.5(E).*
- For use in cable trays, raceways, conduits, or for aerial applications where installed with a messenger.
- For Direct Burial applications.
- As permitted in NEC Section 336.10 and Art. 725 for Class 1 circuits.
- As permitted for non-power-limited fire alarm circuits as defined in NEC Sections 336.10 and 760.27.

Options

The following constructions can be provided on special orders:

- Aluminum alloy conductors in sizes #12 AWG to 1000 kcmil
- Insulated or bare ground wires
- Different conductor identification methods
- Shields of aluminum/mylar tape (with or without a tinned copper drain wire)
- Oil Resistant I or Oil Resistant II jackets
- CPE jacket
- Composite constructions of different sized conductors.

* Use in hazardous locations:
Please note that no investigation of these cables has been performed regarding the transmission of gases or vapours through the core. When these cables are used in hazardous locations they should be sealed properly as required by the NEC.

Unshielded Tray Cable
UL Type TC, 600V, 90°C dry or wet rated

Multiconductor 14 AWG Type XHHW-2
Insulation Thickness: 30 mils / .76mm

Part Number	# of Conductors	Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Ampacity [1,3]
		mils	mm	inches	mm	lb/kft	kg/km	amps
603092	2	45	1.14	.385	9.78	73	109	25.0
603043	3	45	1.14	.405	10.29	95	141	25.0
603118	4	45	1.14	.445	11.30	119	177	20.0/25.0[2]
602995	5	45	1.14	.485	12.32	144	214	20.0
670137	6	45	1.14	.525	13.34	169	252	20.0
602862	7	45	1.14	.525	13.34	187	278	17.5
649525	8	60	1.52	.600	15.24	214	318	17.5
602920	9	60	1.52	.645	16.38	238	354	17.5
643510	10	60	1.52	.685	17.40	262	390	12.5
———	11	60	1.52	.695	17.65	282	420	12.5
602888	12	60	1.52	.715	18.16	303	451	12.5
———	13	60	1.52	.730	18.54	323	481	12.5
———	14	60	1.52	.755	19.18	345	513	12.5
620385	15	60	1.52	.770	19.56	366	545	12.5
603126	19	60	1.52	.855	21.72	451	671	12.5
643528	20	60	1.52	.865	21.97	471	701	12.5
603134	25	80	2.03	1.010	25.65	615	915	11.3
643585	30	80	2.03	1.075	27.31	720	1071	11.3
———	35	80	2.03	1.140	28.96	823	1225	10.0
602953	37	80	2.03	1.180	29.97	866	1289	10.0
643593	40	80	2.03	1.200	30.48	927	1380	10.0
———	45	80	2.03	1.270	32.26	1031	1534	8.8
643601	50	80	2.03	1.320	33.53	1132	1685	8.8

Bend Radius: 5 x overall diameter installed / 8 x overall diameter during installation pull-in.

Notes:

Dimensions and weights shown are nominal values. They are subject to standard industry tolerances.

Cables with different conductor counts and bare or insulated grounds are also available.

[1] Ampacities are in accordance with Table 310.16 of NEC for conductors in raceway or direct buried at 30°C ambient temperature and 90°C conductor temperature.

The overcurrent protection shall not exceed 15 amperes for #14 AWG copper after any correction factors for ambient temperature and number of conductors have been applied (NEC Table 240.4(D)).

For correction factors for different ambient temperatures and ampacities at different conductor temperatures see Table 310.16 of NEC.

Ampacities for cables having more that three conductors have been derated per Article 310.15(B)(2)(a) of NEC.

[2] Where 4th conductor is neutral of a balanced 3 phase system.

[3] With load diversity of 50% (see Table B.310.11 of NEC).

Unshielded Tray Cable
UL Type TC, 600V, 90°C dry or wet rated

Multiconductor 12 AWG Type XHHW-2
Insulation Thickness: 30 mils / .76mm

Part Number	# of Conductors	Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Ampacity [1,3]
		mils	mm	inches	mm	lb/kft	kg/km	amps
620377	2	45	1.14	.420	10.67	94	140	30.0
602847	3	45	1.14	.445	11.30	126	188	30.0
603050	4	45	1.14	.485	12.32	160	238	24.0/30.0[2]
603001	5	45	1.14	.535	13.59	194	289	24.0
———	6	60	1.52	.610	15.49	246	366	24.0
602870	7	60	1.52	.610	15.49	273	406	21.0
636662	8	60	1.52	.660	16.76	290	432	21.0
603027	9	60	1.52	.710	18.03	323	481	21.0
619023	10	60	1.52	.755	19.18	356	530	15.0
———	11	60	1.52	.770	19.56	385	573	15.0
602896	12	60	1.52	.795	20.19	416	619	15.0
———	13	60	1.52	.810	20.57	445	662	15.0
———	14	60	1.52	.835	21.21	476	708	15.0
620393	15	60	1.52	.860	21.84	506	753	15.0
602938	19	80	2.03	.955	24.26	655	975	15.0
———	20	80	2.03	.995	25.27	691	1028	15.0
603142	25	80	2.03	1.115	28.32	847	1260	13.5
———	30	80	2.03	1.190	30.23	995	1481	13.5
———	35	80	2.03	1.265	32.13	1142	1700	12.0
602961	37	80	2.03	1.265	32.13	1275	1897	12.0
———	40	80	2.03	1.335	33.91	1289	1918	12.0
———	45	80	2.03	1.410	35.81	1438	2140	10.5
———	50	80	2.03	1.465	37.21	1582	2354	10.5

Bend Radius: 5 x overall diameter installed / 8 x overall diameter during installation pull-in.

Notes:

Dimensions and weights shown are nominal values. They are subject to standard industry tolerances.

Cables with different conductor counts and bare or insulated grounds are also available.

[1] Ampacities are in accordance with Table 310.16 of NEC for conductors in raceway or direct buried at 30°C ambient temperature and 90°C conductor temperature.

The overcurrent protection shall not exceed 20 amperes for #12 AWG copper after any correction factors for ambient temperature and number of conductors have been applied (NEC Table 240.4(D)).

For correction factors for different ambient temperatures and ampacities at different conductor temperatures see Table 310.16 of NEC.

Ampacities for cables having more that three conductors have been derated per Article 310.15(B)(2)(a) of NEC.

[2] Where 4th conductor is neutral of a balanced 3 phase system.

[3] With load diversity of 50% (see Table B.310.11 of NEC).

Unshielded Tray Cable
UL Type TC, 600V, 90°C dry or wet rated

Multiconductor 10 AWG Type XHHW-2
Insulation Thickness: 30 mils / .76mm

Part Number	# of Conductors	Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Ampacity [1,3]
		mils	mm	inches	mm	lb/kft	kg/km	amps
603159	2	45	1.14	.470	11.94	128	190	40
603167	3	45	1.14	.495	12.57	174	259	40
603076	4	45	1.14	.545	13.84	223	332	32/40[2]
603175	5	60	1.52	.630	16.00	290	432	32
———	6	60	1.52	.685	17.40	341	507	32
603183	7	60	1.52	.685	17.40	382	568	28
———	8	60	1.52	.740	18.80	408	607	28
603191	9	60	1.52	.800	20.32	457	680	28
———	10	60	1.52	.855	21.72	505	752	20
———	11	80	2.03	.910	23.11	581	865	20
602979	12	80	2.03	.935	23.75	626	932	20
———	13	80	2.03	.950	24.13	670	997	20
———	14	80	2.03	.980	24.89	715	1064	20
———	15	80	2.03	1.010	25.65	760	1131	20
———	20	80	2.03	1.125	28.58	983	1463	20
———	25	80	2.03	1.260	32.00	1209	1799	18
———	30	80	2.03	1.345	34.16	1427	2124	18
———	35	80	2.03	1.430	36.32	1644	2447	16
———	40	80	2.03	1.510	38.35	1861	2770	16
———	45	80	2.03	1.605	40.77	2082	3098	14
———	50	80	2.03	1.665	42.29	2296	3417	14

Bend Radius: 5 x overall diameter installed / 8 x overall diameter during installation pull-in.

Notes:

Dimensions and weights shown are nominal values. They are subject to standard industry tolerances.

Cables with different conductor counts and bare or insulated grounds are also available.

[1] Ampacities are in accordance with Table 310.16 of NEC for conductors in raceway or direct buried at 30°C ambient temperature and 90°C conductor temperature.

The overcurrent protection shall not exceed 30 amperes for #10 AWG copper after any correction factors for ambient temperature and number of conductors have been applied (NEC Table 240.4(D)).

For correction factors for different ambient temperatures and ampacities at different conductor temperatures see Table 310.16 of NEC.

Ampacities for cables having more that three conductors have been derated per Article 310.15(B)(2)(a) of NEC.

[2] Where 4th conductor is neutral of a balanced 3 phase system.

[3] With load diversity of 50% (see Table B.310.11 of NEC).

Unshielded Tray Cable
UL Type TC, 600V, 90°C dry or wet rated

3 Conductors with Bare Ground Type XHHW-2

Part Number	Conductor Size	Ground Size	Insulation Thickness		Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Ampacity
	AWG/kcmil	AWG	mils	mm	mils	mm	inches	mm	lb/kft	kg/km	amps
611517	12	12	30	0.76	45	1.14	.450	11.43	141	210	30
295196	10	10	30	0.76	45	1.14	.495	12.57	198	295	45
306829	8	10	45	1.14	60	1.52	.670	17.02	324	482	55
306845	6	8	45	1.14	60	1.52	.760	19.30	460	685	75
306860	4	8	45	1.14	80	2.03	.870	22.10	640	952	95
———	3	6	45	1.14	80	2.03	.965	24.51	824	1226	110
306886	2	6	45	1.14	80	2.03	1.025	26.04	980	1458	130
———	1	6	55	1.40	80	2.03	1.150	29.21	1200	1786	150
306894	1/0	6	55	1.40	80	2.03	1.240	31.50	1439	2142	170
306910	2/0	6	55	1.40	80	2.03	1.335	33.91	1739	2588	195
619239	3/0	4	55	1.40	80	2.03	1.445	36.70	2156	3209	225
306928	4/0	4	55	2.40	80	2.03	1.570	39.88	2622	3902	260
619114	250	4	65	1.65	110	2.79	1.736	44.09	3080	4584	290
———	300	3	65	1.65	110	2.79	1.895	48.13	3737	5561	320
619338	350	3	65	1.65	110	2.79	2.000	50.80	4267	6350	350
———	400	3	65	1.65	110	2.79	2.105	53.47	4817	7169	380
619148	500	2	65	1.65	110	2.79	2.285	58.04	5864	8727	430

Bend Radius: 5 x overall diameter installed (up to 2.0") / 6 x overall diameter installed (over 2.0")
8 x overall diameter during installation pull-in.

Notes:
Dimensions and weights shown are nominal values. They are subject to standard industry tolerances.
Cables with different conductor counts and bare or insulated grounds are also available.
Ampacities are in accordance with Table 310.16 of NEC for conductors in raceway or direct buried at 30°C ambient temperature and 90°C conductor temperature.
For correction factors for different ambient temperatures and ampacities at different conductor temperatures see Table 310.16 of NEC.

Unshielded Tray Cable
UL Type TC, 600V, 90°C dry or wet rated

4 Conductors with Bare Ground Type XHHW-2

Part Number	Conductor Size	Ground Size	Insulation Thickness		Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Ampacity [1]
	AWG/kcmil	AWG	mils	mm	mils	mm	inches	mm	lb/kft	kg/km	amps
619403	10	10	30	0.76	45	1.14	.579	14.71	269	400	40
306837	8	10	45	1.14	60	1.52	.750	19.05	405	603	55
306852	6	8	45	1.14	60	1.52	.860	21.84	579	862	75
659334	4	8	45	1.14	80	2.03	.990	25.15	849	1263	95
———	3	6	45	1.14	80	2.03	1.085	27.56	1042	1551	110
603209	2	6	45	1.14	80	2.03	1.150	29.21	1247	1856	130
641969	1	6	55	1.40	80	2.03	1.270	32.26	1531	2278	150
306902	1/0	6	55	1.40	80	2.03	1.365	34.67	1846	2747	170
619171	2/0	6	55	1.40	80	2.03	1.475	37.47	2241	3335	195
———	3/0	4	55	1.40	80	2.03	1.600	40.64	2779	4136	225
306936	4/0	4	55	2.40	110	2.79	1.800	45.72	3506	5218	260
———	250	4	65	1.65	110	2.79	1.960	49.78	4092	6090	290
———	300	3	65	1.65	110	2.79	2.095	53.21	4832	7191	320
619221	350	3	65	1.65	110	2.79	2.215	56.26	5532	8233	350
———	400	3	65	1.65	110	2.79	2.325	59.06	6254	9307	380
640276	500	2	65	1.65	110	2.79	2.525	64.14	7625	11347	430

Bend Radius: 5 x overall diameter installed (up to 2.0") / 6 x overall diameter installed (over 2.0")
8 x overall diameter during installation pull-in.

Notes:
Dimensions and weights shown are nominal values. They are subject to standard industry tolerances.
Cables with different conductor counts and bare or insulated grounds are also available.
Ampacities are in accordance with Table 310.16 of NEC for conductors in raceway or direct buried at 30°C ambient temperature and 90°C conductor temperature.
For correction factors for different ambient temperatures and ampacities at different conductor temperatures see Table 310.16 of NEC.
[1] Ampacities for cables where the fourth conductor is the neutral in a balanced three phase, four wire system.

Conductor or Phase Identification

Per ICEA S-73-532-E3.4 Method 4 Number Code

Conductor	*Printing Details*	*Conductor*	*Printing Details*
1st	"1-ONE-1"	4th	"4-FOUR-4"
2nd	"2-TWO-2"	5th	"5-FIVE-5"
3rd	"3-THREE-3"	6th	"6-SIX-6"

Per ICEA S-73-532-E3.1 Method 1 and Table E2 (formerly K2)

Colored Insulation with/without Colored Stripe

Conductor	*Insulation*	*Stripe*	*Conductor*	*Insulation*	*Stripe*
1st	BLACK	—	19th	ORANGE	Blue
2nd	RED	—	20th	YELLOW	Blue
3rd	BLUE	—	21st	BROWN	Blue
4th	ORANGE	—	22nd	BLACK	Orange
5th	YELLOW	—	23rd	RED	Orange
6th	BROWN	—	24th	BLUE	Orange
7th	RED	Black	25th	YELLOW	Orange
8th	BLUE	Black	26th	BROWN	Orange
9th	ORANGE	Black	27th	BLACK	Yellow
10th	YELLOW	Black	28th	RED	Yellow
11th	BROWN	Black	29th	BLUE	Yellow
12th	BLACK	Red	30th	ORANGE	Yellow
13th	BLUE	Red	31st	BROWN	Yellow
14th	ORANGE	Red	32nd	BLACK	Brown
15th	YELLOW	Red	33rd	RED	Brown
16th	BROWN	Red	34th	BLUE	Brown
17th	BLACK	Blue	35th	ORANGE	Brown
18th	RED	Blue	36th	YELLOW	Brown

Note: The color code repeats at #1 "BLACK" as the 37th conductor (for cables with more than 36 conductors)

WARNING

FLAMMABLE
Non-metallic covering of electrical cables will burn and under certain conditions may transmit fire when ignited.

TOXIC
Burning non-metallic coverings may emit acid gases, which are highly toxic, and may generate dense smoke.

CORROSIVE
Emission of acid gases may corrode metal in the vicinity, such as sensitive instruments and reinforcing rod in concrete.

NOTICE

Nexans has endeavoured to ensure the accuracy of the data in this publication, however we cannot be liable for the consequences of errors or omissions. All data is subject to change without notice. The installer and/or user assumes all liability for the consequences of the installation and/or use of any of our products in contravention of any applicable law, regulation or code.