

Description

Three copper conductors cable, each with a semiconducting conductor shield, high dielectric strength VOLTALENE® TRXLPE insulation, semiconducting insulation shield, helically applied non-magnetic uncoated copper tape shield, cabled with fillers and a bare copper bonding conductor per CSA, black inner PVC jacket, aluminum interlocking armour (AIA), and an overall PVC Jacket.

Specifications

Ratings

CSA	CSA C22.2 No. 131	FT4 -40°C Sunlight Resistant
CSA	CSA C68.3	
CSA	CSA C22.2 No. 174	HL
IEEE	IEEE 383 Flame Test	
ICEA	ICEA T-29-520	210,000 Btu Vertical Flame Test
ICEA	ICEA T-30-520	70,000 Btu Vertical Flame Test

For 90°C continuous, 130°C emergency, 250°C short-circuit operation.



Design Parameters

Conductor

- Three soft drawn, bare, Class B compact or compressed stranded copper conductors per ASTM.

Conductor Shield

- Extruded thermosetting semiconducting shield which is free stripping from the conductor and bonded to the insulation.

Insulation

- Natural high dielectric strength tree-retardant crosslinked polyethylene (TRXLPE) VOLTALENE® insulation, exhibiting an optimum balance of mechanical and electrical properties, insuring resistance to treeing.

Insulation Shield

- Extruded thermosetting semiconducting shield with controlled adhesion to the insulation providing the required balance between electrical integrity and ease of stripping.

Metallic Shield

- Helically applied non-magnetic uncoated copper tape over the insulation shield with a maximum 15% gap.

Assembly

- Three conductors are twisted together with fillers and soft drawn, bare copper bonding conductors (as specified), and covered with a binder tape.

Inner Jacket

- Sunlight resistant polyvinyl chloride (PVC) jacket tightly applied over the binder tape.

Armour

- Flexible aluminum interlocking armour (AIA) applied over the inner jacket for mechanical protection.

Outer Jacket

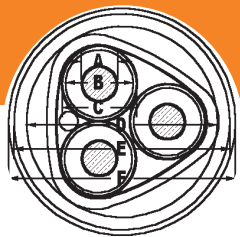
- Low-temperature, sunlight-resistant polyvinyl chloride (PVC) jacket applied over the armour.

Options

- Super smooth conductor shield
- EPROTENAX® (EPR) insulation
- Galvanised steel interlocking armour (GSIA)
- Colored outer jacket
- No outer jacket
- Aluminum phase conductor and bonding conductor
- Three bonding conductors
- Fully filled core
- Strandseal®
- Overlapping copper tape shield
- AG14 Rating

Installations

- In Cable Tray
- Conduit in Air
- Direct Buried
- Underground Duct
- Isolated in Air
- Wet Locations
- Dry Locations
- Industrial



3/C TRXLPE Armortek™

5kV

100% | 133%

Product Number	Conductor	Insulation Thickness (mils)	Inner Jacket Thickness (mils)	Conductor Diameter (mm)	Insulation Diameter (mm)	Insulation Shield Diameter (mm)	Inner Jacket Diameter (mm)	Armour Diameter (mm)	Overall Jacket Diameter (mm)	Cable Weight (kg/km)	Minimum Bending Radius (mm)	† Ampacity (Amps)		**Inductive Reactance (Ω/km)
												90°C	90°C	
5kV 100%/133% Copper Three Conductor														
Q4161ZC	6 AWG CU	90	80	4.30	10.05	11.73	30.38	35.97	38.30	1625	268	65	0.15	
Q4261ZC	4 AWG CU	90	80	5.41	11.20	12.88	32.84	38.43	41.22	1963	305	105	0.14	
Q4461ZC	2 AWG CU	90	80	6.81	12.60	14.27	35.86	41.45	44.24	2482	305	140	0.13	
Q4661ZC	1 AWG CU	90	80	7.59	13.39	15.06	37.56	43.15	45.94	2798	305	160	0.13	
Q4861ZC	1/0 AWG CU	90	80	8.59	14.38	16.05	39.70	46.05	48.84	3325	305	185	0.13	
Q4961ZC	2/0 AWG CU	90	110	9.60	15.39	17.07	43.42	49.77	52.56	3981	305	215	0.12	
Q4A61ZC	3/0 AWG CU	90	110	10.82	16.61	18.29	46.20	52.55	55.35	4672	331	250	0.12	
Q4B61ZC	4/0 AWG CU	90	110	12.14	17.93	19.61	49.06	55.41	58.20	5422	356	285	0.11	
Q4C61ZC	250 MCM CU	90	110	13.28	19.28	20.96	51.96	58.31	61.72	6195	381	320	0.11	
Q4D61ZC	350 MCM CU	90	110	15.72	21.72	23.39	57.23	63.58	66.98	7901	407	395	0.11	
Q4E61ZC	500 MCM CU	90	110	18.77	24.77	26.44	63.81	70.16	73.57	10318	610	485	0.10	
Q4F61XC	750 MCM CU	90	140	24.59	30.78	32.92	79.48	85.83	89.74	15213	610	615	0.10	
Q4G61XC	1000 MCM CU	90	140	28.37	34.57	36.70	87.93	94.28	98.19	19443	635	705	0.10	

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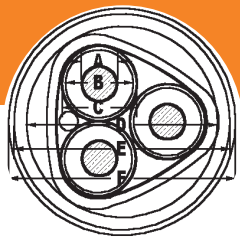
Isolated in Air or Uncovered Cable Tray: Three-conductor cable, spaced one cable diameter (minimum) horizontally, 90°C conductor temperature, 40°C ambient temperature, and shields short-circuited.

**Increase by approximately 15% for steel armoured cables.



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3/C TRXLPE Armortek™

8kV

100% | 133%

Product Number	Conductor	Insulation Thickness (mils)	Inner Jacket Thickness (mils)	Conductor Diameter (mm)	Insulation Diameter (mm)	Insulation Shield Diameter (mm)	Inner Jacket Diameter (mm)	Armour Diameter (mm)	Overall Jacket Diameter (mm)	Cable Weight (kg/km)	Minimum Bending Radius (mm)	† Ampacity (Amps)		** Inductive Reactance (Ω/km)
												90°C	90°C	
8kV 100% Copper Three Conductor														
Q5261ZC	4 AWG CU	115	79	5.41	12.42	14.10	35.42	41.01	43.80	2126	307	120	0.15	
Q5461ZC	2 AWG CU	115	79	6.81	13.82	15.49	38.44	44.79	47.58	2781	333	165	0.14	
Q5661ZC	1 AWG CU	115	79	7.59	14.61	16.28	40.14	46.49	49.29	3110	345	185	0.14	
Q5861ZC	1/0 AWG CU	115	110	8.59	15.60	17.27	43.86	50.21	53.00	3703	371	215	0.13	
Q5961ZC	2/0 AWG CU	115	110	9.60	16.61	18.29	46.20	52.55	55.35	4212	387	245	0.13	
Q5A61ZC	3/0 AWG CU	115	110	10.82	17.83	19.51	48.84	55.19	57.98	4907	406	285	0.12	
Q5B61ZC	4/0 AWG CU	115	110	12.14	19.15	20.83	51.69	58.04	61.44	5751	430	325	0.12	
Q5C61ZC	250 MCM CU	115	110	13.28	20.55	22.23	54.71	61.06	64.46	6471	451	360	0.12	
Q5D61ZC	350 MCM CU	115	110	15.72	22.99	24.66	59.97	66.32	69.73	8204	488	435	0.11	
Q5E61ZC	500 MCM CU	115	110	18.77	26.04	28.17	67.54	73.89	77.30	10768	541	535	0.11	
Q5F61XC	750 MCM CU	115	142	24.59	32.11	34.24	82.44	88.79	92.70	15691	649	670	0.10	
Q5G61XC	1000 MCM CU	115	142	28.37	35.89	38.02	90.88	97.23	101.15	19987	708	770	0.10	
8kV 133% Copper Three Conductor														
Q6461ZC	2 AWG CU	140	79	6.81	15.14	16.81	41.29	47.64	50.44	2971	353	165	0.15	
Q6661ZC	1 AWG CU	140	110	7.59	15.93	17.60	44.72	51.07	53.87	3494	377	185	0.14	
Q6861ZC	1/0 AWG CU	140	110	8.59	16.92	18.59	46.86	53.21	56.00	3921	392	215	0.14	
Q6961ZC	2/0 AWG CU	140	110	9.60	17.93	19.61	49.06	55.41	58.20	4429	407	245	0.13	
Q6A61ZC	3/0 AWG CU	140	110	10.82	19.15	20.83	51.69	58.04	61.44	5213	430	285	0.13	
Q6B61ZC	4/0 AWG CU	140	110	12.14	20.47	22.15	54.54	60.89	64.30	5988	450	325	0.12	
Q6C61ZC	250 MCM CU	140	110	13.28	21.87	23.55	57.56	63.91	67.31	6716	471	360	0.12	
Q6D61ZC	350 MCM CU	140	110	15.72	24.31	25.98	62.83	69.18	72.58	8464	508	435	0.12	
Q6E61ZC	500 MCM CU	140	142	18.77	27.36	29.49	72.18	78.53	82.44	11466	577	535	0.11	
Q6F61XC	750 MCM CU	140	142	24.59	33.43	35.56	85.29	91.64	95.55	16024	669	670	0.11	
Q6G61XC	1000 MCM CU	140	142	28.37	37.21	39.34	93.74	100.09	104.00	20349	728	770	0.10	

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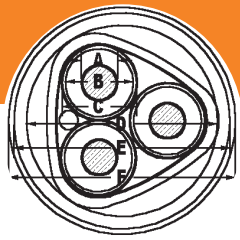
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3/C TRXLPE Armortek™

15kV
100% | 133%

Product Number	Conductor	Insulation Thickness (mils)	Inner Jacket Thickness (mils)	Conductor Diameter (mm)	Insulation Diameter (mm)	Insulation Shield Diameter (mm)	Inner Jacket Diameter (mm)	Armour Diameter (mm)	Overall Jacket Diameter (mm)	Cable Weight (kg/km)	Minimum Bending Radius (mm)	† Ampacity (Amps)		**Inductive Reactance (Ω/km)
												90°C	90°C	
15kV 100% Copper Three Conductor														
Q7461ZC	2 AWG CU	175	110	6.81	16.92	18.59	46.86	53.21	56.00	3437	392	165	0.15	
Q7661ZC	1 AWG CU	175	110	7.59	17.70	19.38	48.56	54.91	57.71	3782	404	185	0.15	
Q7861ZC	1/0 AWG CU	175	110	8.59	18.69	20.37	50.70	57.05	60.46	4298	423	215	0.14	
Q7961ZC	2/0 AWG CU	175	110	9.60	19.71	21.39	52.90	59.25	62.65	4817	439	245	0.14	
Q7A61ZC	3/0 AWG CU	175	110	10.82	20.93	22.61	55.53	61.88	65.28	5533	457	285	0.13	
Q7B61ZC	4/0 AWG CU	175	110	12.14	22.25	23.93	58.38	64.73	68.14	6319	477	325	0.13	
Q7C61ZC	250 MCM CU	175	110	13.28	23.65	25.32	61.40	67.75	71.15	7059	498	360	0.13	
Q7D61ZC	350 MCM CU	175	110	15.72	26.09	28.22	67.65	74.00	77.41	8934	542	435	0.12	
Q7E61ZC	500 MCM CU	175	142	18.77	29.13	31.27	76.02	82.37	86.28	11878	604	535	0.11	
Q7F61XC	750 MCM CU	175	142	24.59	35.20	37.34	89.13	95.48	99.39	16486	696	670	0.11	
Q7G61XC	1000 MCM CU	175	142	28.37	38.99	41.63	98.67	105.02	108.94	21016	763	770	0.10	
15kV 133% Copper Three Conductor														
Q8461ZC	2 AWG CU	220	110	6.81	19.25	20.93	51.91	58.26	61.66	3912	432	165	0.15	
Q8661ZC	1 AWG CU	220	110	7.59	20.04	21.72	53.61	59.96	63.36	4268	444	185	0.15	
Q8861ZC	1/0 AWG CU	220	110	8.59	21.03	22.71	55.75	62.10	65.50	4717	459	215	0.14	
Q8961ZC	2/0 AWG CU	220	110	9.60	22.05	23.72	57.94	64.29	67.70	5247	474	245	0.14	
Q8A61ZC	3/0 AWG CU	220	110	10.82	23.27	24.94	60.58	66.93	70.33	5976	492	285	0.13	
Q8B61ZC	4/0 AWG CU	220	110	12.14	24.59	26.26	63.43	69.78	73.18	6776	512	325	0.13	
Q8C61ZC	250 MCM CU	220	110	13.28	25.98	27.66	66.45	72.80	76.20	7531	533	360	0.13	
Q8D61ZC	350 MCM CU	220	142	15.72	28.42	30.56	74.48	80.83	84.74	9867	593	435	0.12	
Q8E61ZC	500 MCM CU	220	142	18.77	31.47	33.60	81.06	87.41	91.33	12441	639	535	0.11	
Q8F61XC	750 MCM CU	220	142	24.59	37.54	39.67	94.18	100.53	104.44	17115	731	670	0.11	

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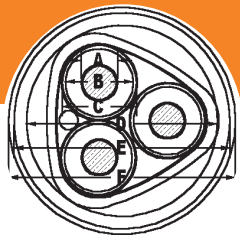
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**Increase by approximately 15% for steel armoured cables.



3/C TRXLPE Armortek™

25kV
100% | 133%

Product Number	Conductor	Insulation Thickness (mils)	Inner Jacket Thickness (mils)	Conductor Diameter (mm)	Insulation Diameter (mm)	Insulation Shield Diameter (mm)	Inner Jacket Diameter (mm)	Armour Diameter (mm)	Overall Jacket Diameter (mm)	Cable Weight (kg/km)	Minimum Bending Radius (mm)	† Ampacity (Amps)		**Inductive Reactance (Ω/km)	
				(A)	(B)	(C)	(D)	(E)	(F)			90°C	90°C		
25kV 100% Copper Three Conductor															
Q9661ZC	1 AWG CU	260	110	7.59	22.12	23.80	58.11	64.46	67.86	4653	475	185	0.15		
Q9861ZC	1/0 AWG CU	260	110	8.59	23.11	24.79	60.25	66.60	70.00	5112	490	215	0.14		
Q9961ZC	2/0 AWG CU	260	110	9.60	24.13	25.81	62.44	68.79	72.20	5652	505	245	0.14		
Q9A61ZC	3/0 AWG CU	260	110	10.82	25.35	27.03	65.08	71.43	74.83	6392	524	285	0.13		
Q9B61ZC	4/0 AWG CU	260	110	12.14	26.67	28.80	68.92	75.27	78.67	7314	551	325	0.13		
Q9C61ZC	250 MCM CU	260	142	13.28	28.07	30.20	73.71	80.06	83.97	8510	588	360	0.13		
Q9D61ZC	350 MCM CU	260	142	15.72	30.51	32.64	78.98	85.33	89.24	10362	625	435	0.12		
Q9E61ZC	500 MCM CU	260	142	18.77	33.55	35.69	85.56	91.91	95.82	12963	671	535	0.11		
Q9F61XC	750 MCM CU	260	142	24.59	39.62	42.27	99.77	106.12	110.03	17862	770	670	0.11		
25kV 133% Copper Three Conductor															
QA661ZC	1 AWG CU	320	110	7.59	25.27	26.95	64.97	71.32	74.73	5243	523	185	0.15		
QA861ZC	1/0 AWG CU	320	110	8.59	26.26	28.40	68.04	74.39	77.79	5855	545	215	0.14		
QA961ZC	2/0 AWG CU	320	142	9.60	27.28	29.41	72.01	78.36	82.27	6827	576	245	0.14		
QAA61ZC	3/0 AWG CU	320	142	10.82	28.50	30.63	74.64	80.99	84.91	7602	594	285	0.13		
QAB61ZC	4/0 AWG CU	320	142	12.14	29.82	31.95	77.50	83.85	87.76	8452	614	325	0.13		
QAC61ZC	250 MCM CU	320	142	13.28	31.22	33.35	80.51	86.86	90.78	9260	635	360	0.13		
QAD61ZC	350 MCM CU	320	142	15.72	33.66	35.79	85.78	92.13	96.04	11147	672	435	0.12		
QAE61ZC	500 MCM CU	320	142	18.77	36.70	38.84	92.37	98.72	102.63	13794	718	535	0.11		

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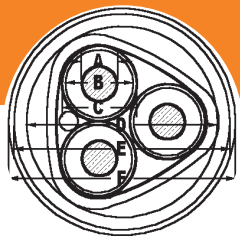
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3/C TRXLPE Armortek™

28kV

100% | 133%

Product Number	Conductor	Insulation Thickness (mils)	Inner Jacket Thickness (mils)	Conductor Diameter (mm)		Insulation Diameter (mm)		Inner Jacket Diameter (mm)		Armour Diameter (mm)		Overall Jacket Diameter (mm)		Cable Weight (kg/km)		Minimum Bending Radius (mm)		† Ampacity (Amps)		**Inductive Reactance (Ω/km)	
				(A)	(B)	(C)	(D)	(E)	(F)					90°C	90°C						
28kV 100% Copper Three Conductor																					
QØ661ZC	1 AWG CU	280	110	7.59	23.19	24.87	60.41	66.76	70.17	4858	491	185	0.15								
QØ861ZC	1/0 AWG CU	280	110	8.59	24.18	25.86	62.55	68.90	72.31	5322	506	215	0.14								
QØ961ZC	2/0 AWG CU	280	110	9.60	25.20	26.87	64.75	71.10	74.50	5866	522	245	0.14								
QØA61ZC	3/0 AWG CU	280	110	10.82	26.42	28.55	68.37	74.72	78.12	6722	547	285	0.13								
QØB61ZC	4/0 AWG CU	280	142	12.14	27.74	29.87	73.00	79.35	83.26	7965	583	325	0.13								
QZC61ZC	250 MCM CU	280	142	13.28	29.13	31.27	76.02	82.37	86.28	8759	604	360	0.13								
QØD61ZC	350 MCM CU	280	142	15.72	31.57	33.71	81.28	87.63	91.54	10623	641	435	0.12								
QØE61ZC	500 MCM CU	280	142	18.77	34.62	36.75	87.87	94.22	98.13	13241	687	535	0.11								
28kV 133% Copper Three Conductor																					
QB661ZC	1 AWG CU	345	110	7.59	26.64	28.78	68.86	75.21	78.62	5667	550	185	0.15								
QB861ZC	1/0 AWG CU	345	142	8.59	27.64	29.77	72.78	79.13	83.04	6568	581	215	0.14								
QB961ZC	2/0 AWG CU	345	142	9.60	28.65	30.78	74.97	81.32	85.24	7143	597	245	0.14								
QBA61ZC	3/0 AWG CU	345	142	10.82	29.87	32.00	77.61	83.96	87.87	7926	615	285	0.13								
QBB61ZC	4/0 AWG CU	345	142	12.14	31.19	33.32	80.46	86.81	90.72	8784	635	325	0.13								
QBC61ZC	250 MCM CU	345	142	13.28	32.59	34.72	83.48	89.83	93.74	9601	656	360	0.13								
QBD61ZC	350 MCM CU	345	142	15.72	35.03	37.16	88.74	95.09	99.01	11504	693	435	0.12								
QBE61ZC	500 MCM CU	345	142	18.77	38.07	40.21	95.33	101.68	105.59	14170	739	535	0.11								

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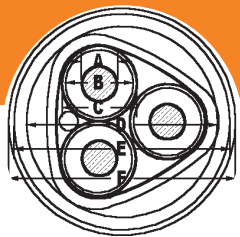
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35kV

100% | 133%

Product Number	Conductor	Insulation Thickness (mils)	Inner Jacket Thickness (mils)	Conductor Diameter (mm)		Insulation Diameter (mm)		Inner Jacket Diameter (mm)		Armour Diameter (mm)		Overall Jacket Diameter (mm)		Cable Weight (kg/km)	Minimum Bending Radius (mm)		† Ampacity (Amps)	** Inductive Reactance (Ω/km)	
				(A)	(B)	(C)	(D)	(E)	(F)			90°C	90°C						
35kV 100% Copper Three Conductor																			
QB861ZC	1/0 AWG CU	345	142	8.59	27.64	29.77	72.78	79.13	83.04	6568	581	215	0.14						
QB961ZC	2/0 AWG CU	345	142	9.60	28.65	30.78	74.97	81.32	85.24	7143	597	245	0.14						
QBA61ZC	3/0 AWG CU	345	142	10.82	29.87	32.00	77.61	83.96	87.87	7926	615	285	0.13						
QBB61ZC	4/0 AWG CU	345	142	12.14	31.19	33.32	80.46	86.81	90.72	8784	635	325	0.13						
QBC61ZC	250 MCM CU	345	142	13.28	32.59	34.72	83.48	89.83	93.74	9601	656	360	0.13						
QBD61ZC	350 MCM CU	345	142	15.72	35.03	37.16	88.74	95.09	99.01	11504	693	435	0.12						
QBE61ZC	500 MCM CU	345	142	18.77	38.07	40.21	95.33	101.68	105.59	14170	739	535	0.11						
35kV 133% Copper Three Conductor																			
QC861ZC	1/0 AWG CU	420	142	8.59	31.60	33.73	81.34	87.69	91.60	7510	641	215	0.14						
QC961ZC	2/0 AWG CU	420	142	9.60	32.61	34.75	83.53	89.88	93.79	8105	657	245	0.14						
QCA61ZC	3/0 AWG CU	420	142	10.82	33.83	35.97	86.17	92.52	96.43	8910	675	285	0.13						
QCB61ZC	4/0 AWG CU	420	142	12.14	35.15	37.29	89.02	95.37	99.28	9793	695	325	0.13						
QCC61ZC	250 MCM CU	420	142	13.28	36.55	38.68	92.04	98.39	102.30	10634	716	360	0.13						
QCD61ZC	350 MCM CU	420	142	15.72	38.99	41.63	98.40	104.75	108.66	12745	761	435	0.12						

Information Subject to Change without Notice.

PRODUCT NOTES:

†Ampacities are based on the following:

▲ Items are Prysmian authorized stock.
The above dimensions are approximate and subject to normal manufacturing tolerances.
All metric (SI) dimensions are derived from a soft conversion.

Isolated in Air or Uncovered Cable Tray: Three-conductor cable, spaced one cable diameter (minimum) horizontally, 90°C conductor temperature, 40°C ambient temperature, and shields short-circuited.

**Increase by approximately 15% for steel armoured cables.



1-800-845-8507 (US)
1-800-263-4405 (West-CAN)
1-800-361-1418 (East-CAN)

www.prysmianusa.com
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