

AC90 Metal Clad Cable 600V – Copper Conductors



1. Copper conductor
2. XLPE insulation
3. Paper talpe wrap
4. Interlocked aluminum armour



Application:

For open and concealed wiring in dry locations only. For use in cabletroughs and ventilated flexible cableways in dry locations only. Minimum recommended installation temperature minus 40°C (with suitable handling procedures). Maximum conductor temperature 90°C. Approved for use with ceiling fixtures. Armoured cable for commercial, industrial and apartment use

Structure:

1. Conductor: Copper conductor with Copper grounding wire 14AWG to 2AWG or aluminium alloy 8000series ACM with AL groundig wire 6AWG to 750MCM
2. Insulation: cross-linked polyethylene insulation (RW90 XLPE)
3. Assemble wrap: Conductor assembly paper wrapped
4. Armored : bare interlocked aluminum armour.
5. Number of conductor: Two, three or four core round laid

Standard:

National : CSA C22.2 N° 2556; CSA C22.2 N° 51

UL File No.:

E466697

Voltage:

600V

Working temperature:

in dry locations only at temperature not to exceed 90°C.

Performance:

FT4 Flame retardant; Lead free and ROHS compliant. Limited Smoke Zero Halogen



Technical data:

1. Copper Conductor with Aluminum tape armored Size series in 2, 3, 4 core :
Other size as your required

Size AWG /Kcmil	Conductor type	Grounding conductor	Insulation thickness	Approx. OD diameter	Approx. Weight	Reel length
		AWG	mm	mm	Kg/km	m
14/2	Solid	14	0.76	12	170	150/75
14/3	Solid	14	0.76	12.5	200	150/75
12/2	Solid	14	0.76	12.8	203	150/75
12/3	Solid	14	0.76	13.4	245	150/75
10/2	Solid	12	0.76	14	261	150/75
10/3	Solid	12	0.76	14.6	324	150/75

2. AL Conductor with bare interlocked aluminum armoured size series in 3 and 4 core

No of phase	Size	Insulation thickness	Bonding wire Size	App Diameter	Approximate Net Cable Weight
	Awg or kcmil	mm	Awg	mm	kg/km
3	6	1.14	8	19.1	937.7
3	4	1.14	6	21.6	1127.4
3	3	1.14	6	22.8	1225.7
3	2	1.14	6	24.4	1353.1
3	1	1.4	4	27.4	1595
3	1/0	1.4	4	29.3	1770.8
3	2/0	1.4	4	31.5	1982.4
3	3/0	1.4	4	34	2241.3
3	4/0	1.4	4	36.9	2548.6
3	250	1.65	2	40.5	2988.5
3	300	1.65	2	43.2	3321.1
3	350	1.65	2	45.7	3641.2
3	400	1.65	2	48.1	3962.3
3	500	1.65	1	55.7	5148.8
3	600	2.03	1	61.6	6080
3	750	2.03	1	63.4	6864
4	6	1.14	8	21.1	1075.4
4	4	1.14	6	24	1303.9
4	3	1.14	6	25.4	1427.4
4	2	1.14	6	27.3	1584.6
4	1	1.4	4	30.6	1879.1
4	1/0	1.4	4	32.8	2099.5
4	2/0	1.4	4	35.2	2359.7
4	3/0	1.4	4	37.6	2664.7
4	4/0	1.4	4	40.8	3103.9
4	250	1.65	2	48.2	4087
4	300	1.65	2	51.2	4530.9
4	350	1.65	2	54.1	4957.9
4	400	1.65	2	56.7	5386.3
4	500	1.65	1	61.4	6333.4
4	600	2.03	1	68	7366.4
4	750	2.03	1	73.8	8564.7

ACWU90 Metal Clad Cable



Application:

For open and concealed wiring in dry locations only. For use in cabletroughs and ventilated flexible cable ways in dry locations only. Minimum recommended installation temperature minus 40°C (with suitable handling procedures). Maximum conductor temperature 90°C. Approved for use with ceiling fixtures. Armoured cable for commercial, industrial and apartment use

Structure:

1. Conductor: Copper conductor with Copper grounding wire 14AWG to 2AWG or aluminium alloy 8000series ACM with AL grounding wire 6AWG to 750MCM
2. Insulation: cross-linked polyethylene insulation (RW90 XLPE)
3. Assemble wrap: Conductor assembly paper wrapped
4. Armored : bare interlocked aluminum armor.
5. Sheath: PVC Sheath
6. Number of conductor: Two, three or four core round laid

Standard: National : CSA C22.2 N° 2556; CSA C22.2 N° 51

UL File No.: E466697

Voltage: 600V

Working temperature:

in dry locations only at temperature not to exceed 90°C.

Performance:

FT4 Flame retardant; Lead free and ROHS compliant. Limited Smoke Zero Halogen

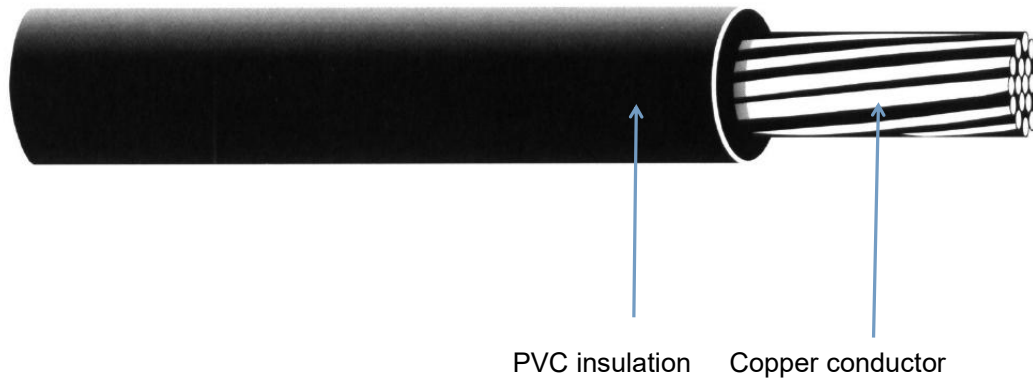


Technical data:

AL Conductor with bare AL aluminum tape interlocked armoured size series in 3 and 4 core

No of phase	Size	Insulation thickness	Bonding wire Size	PVC Jacket	Approximate Total Diameter	Approximate Net Cable Weight
	Awg or kcmil	MM	Awg	mm	MM	kg/km
3	6	1.14	8	1.27	21.6	807.41
3	4	1.14	6	1.27	24.2	980.79
3	3	1.14	6	1.27	25.4	1071.4
3	2	1.14	6	1.27	27	1188.4
3	1	1.4	4	1.27	29.9	1411.6
3	1/0	1.4	4	1.27	31.8	1575.2
3	2/0	1.4	4	1.27	34	1772.8
3	3/0	1.4	4	1.27	36.6	2015.2
3	4/0	1.4	4	1.27	39.5	2304.1
3	250	1.65	2	1.52	43.5	2668.4
3	300	1.65	2	1.52	46.2	2980.2
3	350	1.65	2	1.52	48.8	3281
3	400	1.65	2	1.52	51.1	3584.2
3	500	1.65	1	1.52	58.7	4712.7
3	600	2.03	1	1.9	65.4	5478.4
3	750	2.03	1	1.9	67.2	6245.3
4	6	1.14	8	1.27	23.7	931.88
4	4	1.14	6	1.27	26.6	1141.9
4	3	1.14	6	1.27	28	1256.4
4	2	1.14	6	1.27	29.8	1401.9
4	1	1.4	4	1.27	33.2	1674.9
4	1/0	1.4	4	1.27	35.3	1881.3
4	2/0	1.4	4	1.27	37.7	2126.3
4	3/0	1.4	4	1.27	40.1	2416.1
4	4/0	1.4	4	1.27	43.8	2781.4
4	250	1.65	2	1.52	51.2	3708.4
4	300	1.65	2	1.52	54.3	4128.9
4	350	1.65	2	1.52	57.1	4534.4
4	400	1.65	2	1.52	59.7	4942.6
4	500	1.65	1	1.9	65.2	5733.4
4	600	2.03	1	1.9	71.8	6704
4	750	2.03	1	1.9	77.6	7847.1

Type AWM UL1015



Application:

Internal wiring of electrical and electronic equipment and appliances, internal wiring of panels and meters, point to point wiring

Structure:

1. Conductor: Solid or stranded conductor of soft bare, or tinned, or prefused copper
2. Insulation: PVC, color can be black, red, blue, green, white, purple, orange, etc.

Standard:

UL758 UL1015

UL File No.:

E473694

Voltage:

600V

Working temperature:

105C

Performance:

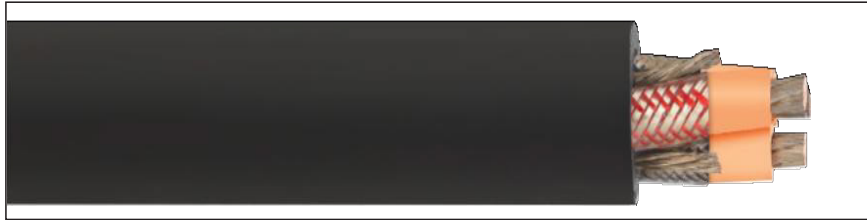
FT2 Flame retardant;



Technical data:

Size AWG /Kcmil	Number of strands (Nos)	Min. Average Insulation		Overall	Approx. cable weight (kgs/km)
		Thickness		Diameter	
		mil	mm	mm	
24	7	30	0.76	2.13	14.81
22	17	30	0.76	2.28	18.01
20	26	30	0.76	2.46	22.67
18	41	30	0.76	2.7	29.98
17	52	30	0.76	2.085	35.13
16	26	30	0.76	3.02	41.27
14	41	30	0.76	3.4	57.98
13	52	30	0.76	3.63	69.90
12	65	30	0.76	3.88	83.76
11	82	30	0.76	4.18	101.61
10	105	30	0.76	4.67	126.49
9	126	30	0.76	4.97	148.12
8	161	45	1.14	6.18	204.79
7	203	45	1.14	6.67	248.83
6	252	60	1.52	7.93	326.95
5	324	60	1.52	8.91	407.57
4	408	60	1.52	9.63	495.51
3	513	60	1.52	10.09	598.91
2	646	60	1.52	10.96	734.09
1	817	80	2.03	12.98	966.52
1/0	1026	80	2.03	14.06	1179.95
2/0	336	80	2.03	15.83	1468.44
3/0	418	80	2.03	17.20	1787.54
4/0	525	80	2.03	18.79	2200.21

Type SHD-GC Mining Cable EPR/CPE 2000 V



Application:

Use on AC off track equipment such as long wall miners loaders, drills, shovels, conveyors, pumps, and mobile equipment requiring grounding conductors and a ground check conductor and metallic shielding overall other industrial, mining applications.
Maximum continuous conductor temperature is 90°C.

Structure:

1. Conductor: 6 AWG thru 500 kcmil coated annealed copper, bunched wires, rope-lay-stranded per ASTM B172.
2. Insulation: Ethylene propylene Rubber (EPR) insulation.
3. Insulation Shield: A flexible coated copper/textile braid shield is applied over non-conducting overlapped tape.
4. Ground-Check Conductor:
Annealed copper, rope-lay-stranded per ASTM B172, insulated with high-strength yellow polypropylene.
5. Grounding Conductors:
Coated copper, rope-lay-stranded per ASTM B172.
Two conductors in contact with the flexible copper braid shield.
6. Separator: Polyamide open braid applied overall.
7. Jacket:
Flame retardant, thermosetting Chlorinated Polyethylene (CPE).

Standard:

ICEA S-75-381 Portable and Power Feeder Cables for use in mines and similar applications.
Meets flame test requirements and is accepted for listing by MSHA.

UL File No.:

E482608

Voltage:

2000V

Working temperature:

in dry locations only at temperature not to exceed 90°C.



Highly ozone, sun, weather and flame resistant ;
Oil and heat resistant.

Technical data:

TYPE SHD-GC - 2000 V

NO. OF COND.	COND. SIZE (AWG/	COND. STRAND	NOMINAL INSULATION THICKNESS	GRD. COND. SIZE (AWG)	GRD-CHECK COND. SIZE (AWG)	NOMINAL JACKET THICKNESS	NOMINAL CABLE O.D.	NET WEIGHT
			mm			mm		
3	6	133	1.8	10	10	3.9	32.8	1682
3	4	259	1.8	8	10	3.9	35.6	2173
3	3	259	1.8	7	10	4.3	38.3	2500
3	2	259	1.8	6	8	4.3	40.4	2961
3	1	259	2	5	8	4.8	44.7	3549
3	1/0	259	2	4	8	4.8	47.2	4115
3	2/0	329	2	3	8	5.2	50.8	4844
3	3/0	413	2	2	8	5.2	54.1	5789
3	4/0	532	2	1	8	5.6	58.7	7024
3	250	608	2.4	1/0	6	5.6	63.8	8125
3	300	741	2.4	1/0	6	6	68.1	9517
3	350	851	2.4	2/0	6	6.4	71.4	10834
3	500	1221	2.4	4/0	6	6.7	81	14614

Type SHD-GC Mining Cable EPR/CPE 5-25 KV



Application:

Use on AC off track equipment such as long wall miners loaders, drills, shovels, conveyors, pumps, and mobile equipment requiring grounding conductors and a ground check conductor and metallic shielding overall other industrial, mining applications.

Maximum continuous conductor temperature is 90°C.

Structure:

1. Conductor: 6 AWG thru 500 kcmil coated annealed copper, bunched wires, rope-lay-stranded per ASTM B172.
2. Extruded thermosetting semi-conducting stress control layer over conductor
3. Insulation: Ethylene propylene Rubber (EPR) insulation.
4. Insulation Shield: A flexible coated copper/textile braid shield is applied over non-conducting overlapped tape.
5. Ground-Check Conductor:
Annealed copper, rope-lay-stranded per ASTM B172, insulated with high-strength yellow polypropylene.
6. Grounding Conductors:
Coated copper, rope-lay-stranded per ASTM B172.
Two conductors in contact with the flexible copper braid shield.
7. Separator: Polyamide open braid applied overall.
8. Jacket:
Flame retardant, thermosetting Chlorinated Polyethylene (CPE).

Standard:

ICEA S-75-381 Portable and Power Feeder Cables for use in mines and similar applications.
Meets flame test requirements and is accepted for listing by MSHA.

UL File No.:

E482608

Voltage:

5KV-25KV

Working temperature:

in dry locations only at temperature not to exceed 90°C.

Performance:

Excellent flexibility ;
Highly ozone, sun, weather and flame resistant ;
Oil and heat resistant.



Technical data:

TYPE SHD-GC Cable- 5000 V

NO. OF COND.	COND. SIZE (AWG/)	COND. STRAND	NOMINAL INSULATION THICKNESS	GRD. COND. SIZE (AWG)	GRD-CHECK COND. SIZE (AWG)	NOMINAL JACKET THICKNESS	NOMINAL CABLE O.D.	NET WEIGHT
			mm			mm		
3	6	133	2.8	10	8	4.7	39.6	2322
3	4	259	2.8	8	8	4.7	42.7	2820
3	2	259	2.8	6	8	5.2	47.9	3639
3	1	259	2.8	5	8	5.2	49.5	4167
3	1/0	259	2.8	4	8	5.6	52.8	4807
3	2/0	329	2.8	3	8	5.6	55.9	5655
3	3/0	413	2.8	2	8	6	59.9	6660
3	4/0	532	2.8	1	8	6	63.5	7835
3	250	608	3	1/0	6	6.4	68.3	9085
3	300	741	3	1/0	6	6.4	71.4	10231
3	350	851	3	2/0	6	6.7	74.9	11600
3	500	1221	3	4/0	6	7.1	84.1	15499

TYPE SHD-GC Cable - 8000 V

NO. OF COND.	COND. SIZE (AWG/)	COND. STRAND	NOMINAL INSULATION THICKNESS	GRD. COND. SIZE (AWG)	GRD-CHECK COND. SIZE (AWG)	NOMINAL JACKET THICKNESS	NOMINAL CABLE O.D.	NET WEIGHT
			mm			mm		
3	4	259	3.8	8	8	5.2	49.3	3594
3	2	259	3.8	6	8	5.6	53.8	4554
3	1	259	3.8	5	8	5.6	56.1	5104
3	1/0	259	3.8	4	8	5.6	58.9	5700
3	2/0	329	3.8	3	8	6	62.5	6593
3	3/0	413	3.8	2	8	6.4	66.5	7738
3	4/0	532	3.8	1	8	6.4	69.8	8713
3	250	608	3.8	1/0	6	6.4	73.4	9948
3	300	741	3.8	1/0	6	6.7	77.2	11384
3	350	851	3.8	2/0	6	7.1	81.3	12739
3	500	1221	3.8	4/0	6	7.5	90.4	16757



TYPE SHD-GC - 15000 V

NO. OF COND.	COND. SIZE (AWG/)	COND. STRAND	NOMINAL INSULATION THICKNESS	GRD. COND. SIZE (AWG)	GRD-CHECK COND. SIZE (AWG)	NOMINAL JACKET THICKNESS	NOMINAL CABLE O.D.	NET WEIGHT
			mm			mm		kg/ km
3	2	259	5.3	6	8	6	61.2	5529
3	1	259	5.3	5	8	6	64	6042
3	1/0	259	5.3	4	8	6.4	67	6927
3	2/0	329	5.3	3	8	6.4	69.3	7783
3	3/0	413	5.3	2	8	6.7	73.7	8922
3	4/0	532	5.3	1	8	6.7	77.5	10209
3	250	608	5.3	1/0	6	6.7	78.74	11149
3	350	851	5.3	2/0	6	7.1	85.98	13194
3	500	1221	5.3	4/0	6	7.1	92.71	17463

TYPE SHD-GC - 25000 V

NO. OF COND.	COND. SIZE (AWG/)	COND. STRAND	NOMINAL INSULATION THICKNESS	GRD. COND. SIZE (AWG)	GRD-CHECK COND. SIZE (AWG)	NOMINAL JACKET THICKNESS	NOMINAL CABLE O.D.	NET WEIGHT
			mm			mm		kg/ km
3	1	259	6.6	5	8	6.7	74.93	7872
3	1/0	259	6.6	4	8	6.7	77.47	8631
3	2/0	329	6.6	3	8	7.1	81.28	9695
3	3/0	413	6.6	2	8	7.1	84.58	10737
3	4/0	532	6.6	1	8	7.5	88.9	12277
3	250	608	6.6	1/0	6	7.5	89.92	13491
3	350	851	6.6	2/0	6	7.5	96.37	15057

Type W



Application:

For use in all stationary, underground, or surface mining applications. For use with drills and pumps, and as portable power and temporary power supply cables.

Structure:

1. Conductors: Annealed flexible stranded tin copper
2. Separator: Tape separator between conductor and insulation (if necessary)
3. Insulation: Ethylene-propylene rubber (EPR)
 - 1-core black
 - 2-cores black/white
 - 3-cores black/white/green
 - 4-cores black/white/green/red
 - 5-cores black/white/green/red/orange
5. Assembly: Power and grounds cores cabled together to form a round core
6. Filler: rubber filled binder tape over core.
7. Jacket: Black heavy duty CPE thermosetting compound.

Standard:

UL listed
MSHA listed

UL File No.:

E482608

Voltage:

2000V

Performance:

Oil resistant;
UV resistant.



Type W



Application:

For use in all stationary, underground, or surface mining applications. For use with drills and pumps, and as portable power and temporary power supply cables.

Structure:

1. Conductors: Annealed flexible stranded tin copper
2. Separator: Tape separator between conductor and insulation (if necessary)
3. Insulation: Ethylene-propylene rubber (EPR)
 - 1-core black
 - 2-cores black/white
 - 3-cores black/white/green
 - 4-cores black/white/green/red
 - 5-cores black/white/green/red/orange
5. Assembly: Power and grounds cores cabled together to form a round core
6. Filler: rubber filled binder tape over core.
7. Jacket: Black heavy duty CPE thermosetting compound.

Standard:

UL listed
MSHA listed

UL File No.:

E482608

Voltage:

2000V

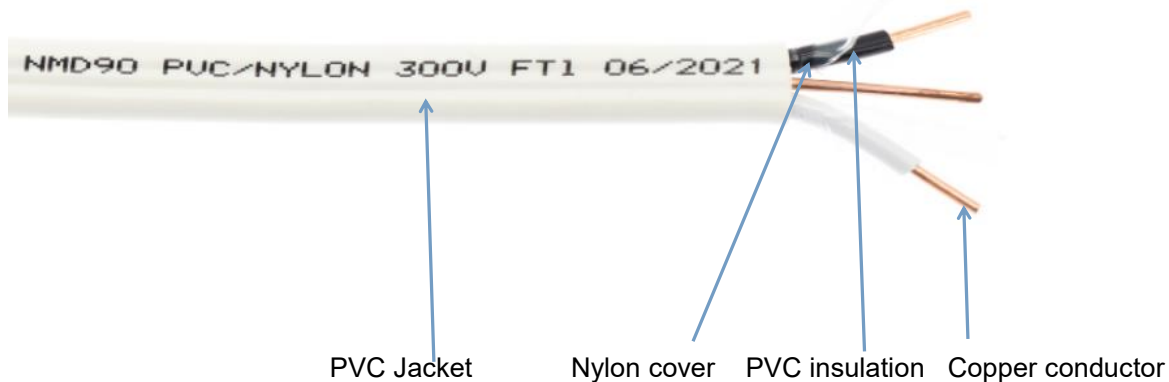
Performance:

Oil resistant;
UV resistant.



4-cores					
4×8	133	1.52	24.6	975	54
4×6	133	1.52	28.3	1350	72
4×4	259	1.52	32.1	1880	93
4×2	259	1.52	36.3	2620	122
4×1	259	2.03	43.4	3455	143
4×1/0	266	2.03	45.2	4050	165
4×2/0	342	2.03	48	4900	192
4×3/0	418	2.03	51.4	5730	221
4×4/0	532	2.03	56.3	7090	255
4×250	627	2.41	66.2	8300	280
4×350	888	2.41	74.2	10910	335
4×500	1221	2.41	85.3	14730	395
5-cores					
5×8	133	1.52	27.2	1155	50
5×6	133	1.52	31.5	1525	68
5×4	259	1.52	35.2	2130	88
5×2	259	1.52	39.8	3050	116
5×1	259	2.03	47.1	3965	136
5×1/0	266	2.03	50.4	5070	150
5×2/0	342	2.03	54.1	5350	172
5×3/0	418	2.03	57.6	7035	200
5×4/0	532	2.03	62.6	8200	230
5×250	627	2.41	69	9425	256
5×500	1221	2.41	88.9	17300	395

NMD90 Nylon Wire



Application:

NMD90 cables may be used for both exposed work in dry locations or concealed work in dry or damp locations. The maximum allowable conductor temperature is 90°C. The minimum recommended installation temperature is -25°C or -40°C for two-conductor cables and -25°C for three-conductor cables (with suitable handling procedures). Material should be properly stored above 0°C for 24 hours prior to installation. The maximum voltage rating for all intended applications is 300 volts. Consult the Canadian Electrical Code¹ for further information related to applications.

Structure:

1. Conductor: Copper conductor with Copper grounding wire 14AWG to 2AWG or aluminium alloy 8000series ACM with AL groundig wire Grey 6AWG to 2AWG.
2. Insulation: Polyvinyl chloride (PVC)
3. Protective covering: nylon
4. Jacket: PVC, Heat and moisture-resistant, flame retardant FT1.
5. Number of conductor: 2 parell laid or 3 and 4 round laid

Standard:

CSA C22.2 No. 48 (non-metallic sheathed cable)

UL File No.:

E487898

Voltage:

300V

Working temperature:

in dry locations only at temperature not to exceed 90°C.



Performance:

FT-1 Flame retardant; Heat and moisture-resistant

Jacket Color:

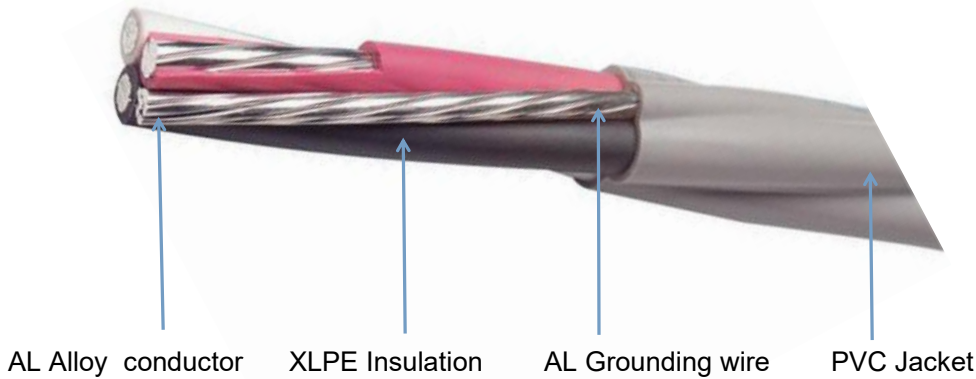
- WHITE - General Residential Wiring
- RED - 2 Black and Red conductors
- ORANGE - No. 10 AWG General Residential Wiring
- YELLOW - No. 12 AWG General Residential Wiring
- BLUE - No. 14 AWG - 2 black and white conductors

Technical data:

Conductor					Grounding Wire		Jacket Thickness	OD	Weight	Max. DC resistance at 20C (Ω/km)
Size AWG	NO.	No. of strands	Insulation Thickness	Nylon Thickness	Size (AWG)	No. of Strands				
			mm	mm			mm	mm	kg/km	
14	2	1	0.76	0.13	14	1	0.76	4.9 x 9.9	108.9	8.62
12	2	1	0.76	0.13	14	1	0.76	5.3 x 11.2	148.8	5.43
10	2	1	0.76	0.13	12	1	0.76	5.9 x 12.8	209.9	3.41
8	2	7	0.89	0.16	10	1	1.14	8.1 x 16.4	324.1	2.14
6	2	7	1.14	0.2	8	7	1.14	9.6 x 20.2	487.2	1.36
14	3	1	0.76	0.13	14	1	0.76	8.8	136.5	8.62
12	3	1	0.76	0.13	14	1	0.76	9.8	177.9	5.43
10	3	1	0.76	0.13	12	1	0.76	11	249.7	3.41
8	3	7	0.89	0.16	10	1	1.14	14.8	418.7	2.14
6	3	7	1.14	0.2	8	7	1.14	18.1	634.4	1.36
4	3	7	1.14	0.2	8	7	1.52	21.4	917.3	0.848
3	3	7	1.14	0.2	6	7	2.03	24.1	1188	0.673
2	3	7	1.14	0.2	6	7	2.03	25.8	1400.9	0.534
14	3	1	0.76	0.13	14	1	0.76	8.8	169.2	8.62
12	3	1	0.76	0.13	14	1	0.76	9.8	222.7	5.43
10	3	1	0.76	0.13	12	1	0.76	11	316.2	3.41
8	3	7	0.89	0.16	10	1	1.14	14.8	524.4	2.14
6	3	7	1.14	0.2	8	7	1.14	18.1	800	1.36
4	3	7	1.14	0.2	8	7	1.52	21.4	1163.3	0.848
3	3	7	1.14	0.2	6	7	2.03	24.1	1497.8	0.673
2	3	7	1.14	0.2	6	7	2.03	25.8	1776.2	0.534



NMD90 XLPE AL Wire



Application:

NMD90 cables may be used for both exposed work in dry locations or concealed work in dry or damp locations. The maximum allowable conductor temperature is 90°C. The minimum recommended installation temperature is -25°C or -40°C for two-conductor cables and -25°C for three-conductor cables (with suitable handling procedures). Material should be properly stored above 0°C for 24 hours prior to installation. The maximum voltage rating for all intended applications is 300 volts. Consult the Canadian Electrical Code¹ for further information related to applications.

Structure:

1. Conductor: aluminium alloy 8000series ACM with AL groundig wire Grey 6AWG to 2AWG.
2. Insulation: crosslinked polyethylene (XLPE)
3. Jacket: PVC, Heat and moisture-resistant, flame retardant FT1.
6. Number of conductor: 3 and 4 round laid

Standard:

CSA C22.2 No. 48 (non-metallic sheathed cable)

UL File No.:

E487898

Voltage:

300V

Working temperature:

in dry locations only at temperature not to exceed 90°C.

Performance:

FT-1 Flame retardant; Heat and moisture-resistant



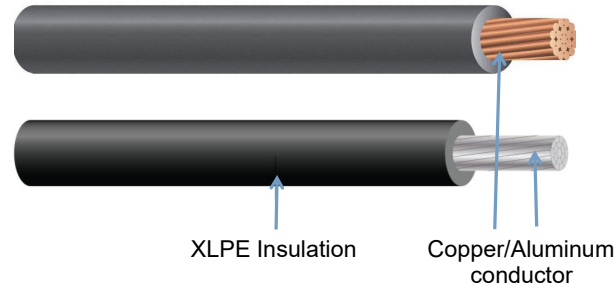
Jacket Color: Grey

Technical data:

Size AWG	NO.	Conductor			Grounding Wire		Jacket Thickness	Cable Dimensions	Weight	Max. DC resistance at 20C (Ω/km)
		No. of strands	Insulation Thickness	Nylon Thickness	Size (AWG)	No. of Strands				
			mm	mm						
8	3	7	0.89	0.16	10	1	1.14	14.8	231.8	3.52
6	3	7	1.14	0.2	8	7	1.14	18.1	337.6	2.21
4	3	7	1.14	0.2	8	7	1.52	21.4	475.6	1.39
3	3	7	1.14	0.2	6	7	2.03	24.1	614.7	1.1
2	3	7	1.14	0.2	6	7	2.03	25.8	701.2	0.875
8	4	7	0.89	0.16	10	1	1.14	14.8	285.9	3.52
6	4	7	1.14	0.2	8	7	1.14	18.1	421.4	2.21
4	4	7	1.14	0.2	8	7	1.52	21.4	591.4	1.39
3	4	7	1.14	0.2	6	7	2.03	24.1	760.7	1.1
2	4	7	1.14	0.2	6	7	2.03	25.8	870.6	0.875



Type RPVU90



Application:

RPVU90 cables may be installed indoors or outdoors, in raceways and conduits, both above and below ground, and may be direct buried. Direct buried installations must comply with CE Code Rules 12-012 and 4-004. They are 90°C, 2 kV rated, and suitable for use in a photovoltaic system.

Type RPVU90 cables are for use on the DC and AC side of a photovoltaic system, suitable for installation in both wet and dry locations, and may be exposed to sunlight.

RPVU90 cables are RoHS Compliant.

Structure:

Aluminum:

- sizes from #6 AWG to 1000 kcmil, stranded
- compact stranded AA-8000 series aluminum conductor material (ACM) per ASTM B801 Class B or ASTM B836

Copper:

- sizes from #14 AWG to 1000 kcmil, solid or stranded
- bare, stranded annealed per ASTM B8 Class B compressed

Standard:

- CSA C22.2 No. 38 - Thermoset-Insulated Wires and Cables
- CSA C22.2 No. 271-11
- ASTM B3, B8, B787

UL File No.:

E365883

Voltage:

1000V/2000V

Working temperature:

90°C MAX, -40°C MIN



Performance:

- Deformation-resistant at high temperatures
- Excellent moisture resistance, exceeds UL 44
- Stable electrical properties over a broad temperature range
- Increased flexibility
- Resistant to crush and compression cuts
- UV/sunlight-resistant

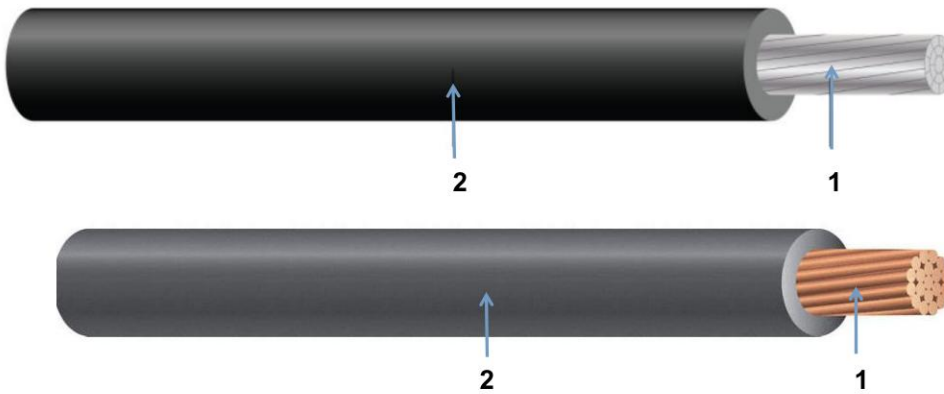
Technical data:

1000V/2000V

Size (AWG/ Kcmil)	Conductor		Insulation Thickness mm	Approx O.D. mm	Weight/Km		Max. DC resistance at 20 C) Ω/km(CU)	Max. DC resistance at 20 C) Ω/km(AL)
	Nos of strands(CU)	Nos of strands(AL)			kgs(CU)	kgs(AL)		
14	7	/	1.52	4.9	35	/	8.62	14.1
12	7	/	1.52	5.3	48	46	5.43	8.88
10	7	/	1.52	5.9	69	56	3.409	5.589
8	7	7	2.03	7.7	112	80	2.144	3.515
6	7	7	2.03	8.7	160	102	1.348	2.211
4	7	7	2.03	9.9	244	135	0.8481	1.390
2	7	7	2.03	11.4	362	183	0.5335	0.8745
1/0	19	18	2.41	14.2	576	286	0.3354	0.5498
2/0	19	18	2.41	15.4	716	337	0.2660	0.4361
3/0	19	19	2.41	16.5	876	400	0.2110	0.3459
4/0	19	19	2.41	18.0	1073	477	0.1673	0.2743
250	37	36	2.79	20.1	1321	579	0.1416	0.2322
350	37	36	2.79	22.7	1753	750	0.1011	0.1659
400	37	36	2.79	23.7	2039	836	0.08851	0.1450
500	37	36	2.79	26.0	2520	1028	0.07080	0.1161
750	61	58	3.18	31.3	3745	1463	0.04721	0.07738



RW90 wire



1. Conductor: annealed bare copper wires, or compact aluminum 8000 series wires, class B.
2. Insulation: Heat and moisture resistant, low temperature Cross-Linked Polyethylene (XLPE) Type RW90, -40°C to +90°C

Colour Coding: Black; other colours available upon request.

Application:

For open wiring and raceways (except cable troughs and ventilated flexible cableway) in dry or wet locations.

For exposed wiring where exposed to weather with sunlight resistant insulation.

Approved for use with ceiling fixtures.

Standard: CSA Standard C22.2 No.38

Working temperature: -40°C to +90°C

Voltage: 600V

CUL file No: E466693

Marking on the surface of cable:

CU conductor: HUATONG CABLES C(UL) E466693 TYPE RW90 XLPE 90C DRY OR WET *AWG(**mm²) -40C SR 600V ****M

AL conductor: HUATONG CABLES C(UL) E466693 TYPE RW90 XLPE 90C DRY OR WET *AWG(**mm²) AA-8000 AL -40C SR 600V ****M

Packing Length: 300m, 600m or other length. Plastic drums or plywood drums.

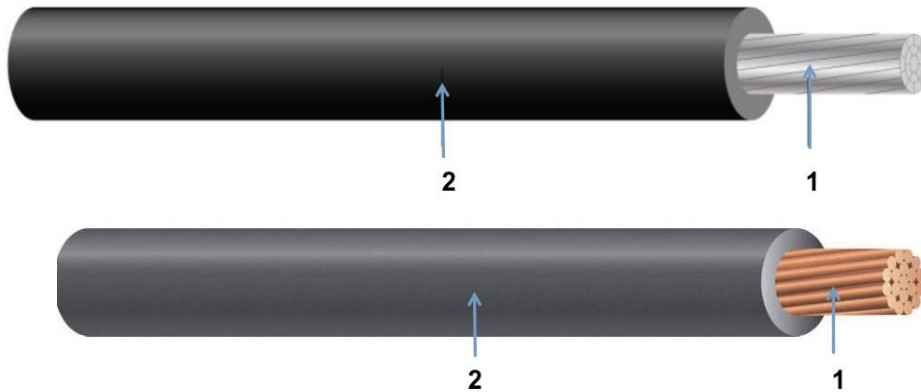


Technical data:

Conductor			Insulation thickness (mm)	Approx. OD (mm)	
AWG/kcmil	Nos of strands(CU)	Nos of strands(ACM)		CU	AL
1X14	1 or 7	/	0.76	3.2	3.2
1X12	1 or 7	7	0.76	3.7	3.7
1X10	1 or 7	7	0.76	4.2	4.2
1X8	7	7	1.14	6	5.8
1X6	7	7	1.14	7	6.7
1X4	7	7	1.14	8.2	7.8
1X2	7	7	1.14	9.7	9.2
1X1/0	19	18	1.4	12.2	11.4
1X2/0	19	18	1.4	13.3	12.4
1X3/0	19	19	1.4	14.6	13.6
1X4/0	19	19	1.4	16	15
1X250	37	36	1.65	17.7	16.7
1X350	37	36	1.65	20.3	19.1
1X400	37	36	1.65	21.2	20.2
1X500	37	36	1.65	23	22.1
1X750	61	58	2.03	28.7	27.3



RWU90 wire



1. Conductor: annealed bare copper wires, or compact aluminum 8000 series wires, class B.
2. Insulation: Heat and moisture resistant, low temperature Cross-Linked Polyethylene (XLPE)
Color: Black, other colours available upon request.

Application:

RWU90 wire is typically used for direct earth burial (with protection as required by inspected authority).

Also used in applications for wiring exposed to weather with sunlight resistant insulation, as well as service entrances above or below ground.

Standard:

CSA Standard C22.2 No.38

Working temperature:

-40°C to +90°C

Voltage:

1000V

CUL file No:

E466693

Marking on the surface of cable:

CU conductor: HUATONG CABLES C(UL) E466693 TYPE RWU90 XLPE 90C DRY OR
WET *AWG(**mm²) -40C SR 1000V ****M

AL conductor: HUATONG CABLES C(UL) E466693 TYPE RWU90 XLPE 90C DRY OR
WET *AWG(**mm²)

AA-8000 AL 40C SR 1000V ****M

Packing Length:

300m, 600m or other length. Plastic drums or plywood drums.

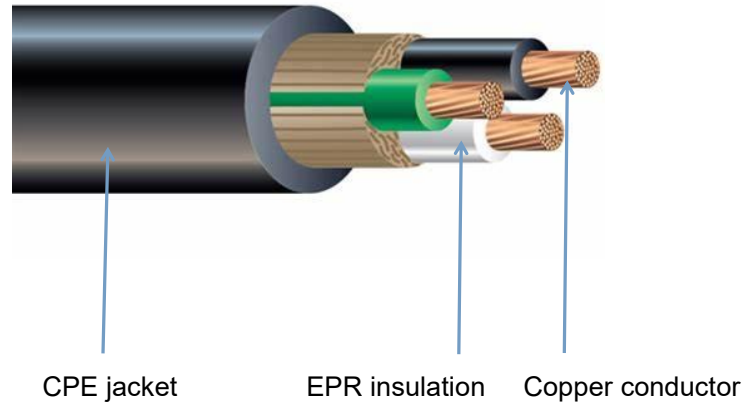


Technical data: 1000V

Conductor			Insulation thickness	Approx. OD
AWG/kcmil	Nos of strands(CU)	Nos of strands(AL)	(mm)	(mm)
1X14	7	/	1.52	4.9
1X12	7	/	1.52	5.3
1X10	7	/	1.52	5.9
1X8	7	7	2.03	7.7
1X6	7	7	2.03	8.7
1X4	7	7	2.03	9.9
1X2	7	7	2.03	11.4
1X1/0	19	18	2.41	14.2
1X2/0	19	18	2.41	15.4
1X3/0	19	19	2.41	16.5
1X4/0	19	19	2.41	18
1X250	37	36	2.79	20.1
1X350	37	36	2.79	22.7
1X400	37	36	2.79	23.7
1X500	37	36	2.79	26
1X750	61	58	3.18	31.3



Type SJOOW



Application:

Type SJOOW Flexible Cords are permitted for use as specified by Article 400 and related articles of the National Electrical Code. Some typical applications for Type SJOOW Cords include wiring for portable tools, portable appliances, equipment, small motors and associated machinery.

Structure:

1. Conductor: Fully annealed, stranded bare copper, per ASTM B-174, sizes 18 - 10AWG
2. Insulation: EPR insulated
3. Jacket: CPE sheathed

Standard:

UL62

UL File No.:

E477374

Voltage:

600V

Working temperature:

-25°C to + 90°C

Performance:

Water resistant and an oil resistant jacket

Lightweight and Very good flexibility

UL Flexible Cord Subject 62

FT1 and FT2 Flame Test

Sunlight Resistant

cUL Listed

Option:

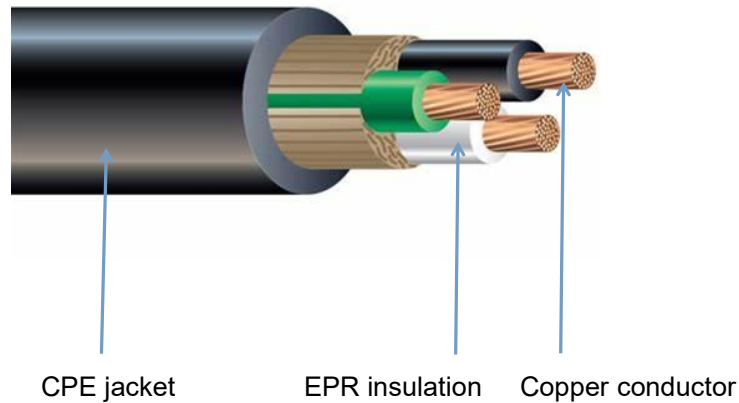
Temperature Rating -40°C- 105°C



Technical data:

Core of conductor	Size AWG /Kcmil	Nominal Insulation		Nominal Sheath		Overall	Weight	Max. DC resistance at 20C (Ω/km)
		Thickness		Thickness		Diameter		
		mil	mm	mil	mm	mm	kg/km	
2	18	30	0.76	30	0.76	7.2	72	22.40
3	18	30	0.76	30	0.76	7.6	87	22.40
4	18	30	0.76	30	0.76	8.4	107	22.40
5	18	30	0.76	30	0.76	9.2	129	22.40
2	16	30	0.76	30	0.76	7.8	90	14.10
3	16	30	0.76	30	0.76	8.3	111	14.10
4	16	30	0.76	30	0.76	9.1	137	14.10
5	16	30	0.76	30	0.76	10.1	166	14.10
2	14	30	0.76	30	0.76	8.6	115	8.88
3	14	30	0.76	30	0.76	9.2	144	8.88
4	14	30	0.76	30	0.76	10.1	180	8.88
5	14	30	0.76	30	0.76	11.1	219	8.88
2	12	30	0.76	45	1.14	10.3	172	5.58
3	12	30	0.76	45	1.14	11.0	214	5.58
4	12	30	0.76	45	1.14	12.0	266	5.58
5	12	30	0.76	45	1.14	13.2	322	5.58
2	10	45	1.14	60	1.52	14.0	304	3.51
3	10	45	1.14	60	1.52	14.9	376	3.51
4	10	45	1.14	60	1.52	16.3	467	3.51
5	10	45	1.14	60	1.52	17.9	565	3.51

Type SOOW



Application:

Type SOOW Flexible Cords are permitted for use by Article 400 and related articles of the National Electrical Code. SOOW cords are designed for extra hard usage on industrial equipment, heavy tools, battery chargers, portable lights and power extensions. They are sunlight, water, oil and weather resistant and suitable for outdoor applications.

Structure:

1. Conductor: Fully annealed, stranded bare copper, per ASTM B-174, sizes 18 - 2AWG
2. Insulation: EPR insulated
3. Jacket: CPE sheathed

Standard:

UL62

UL File No.:

E477374

Voltage:

600V

Working temperature:

-25°C to + 90°C

Option:

Temperature Rating -40°C- 105°C

Performance:

Water resistant and an oil resistant jacket

Lightweight and Very good flexibility

UL Flexible Cord Subject 62

FT1 and FT2 Flame Test

Sunlight Resistant

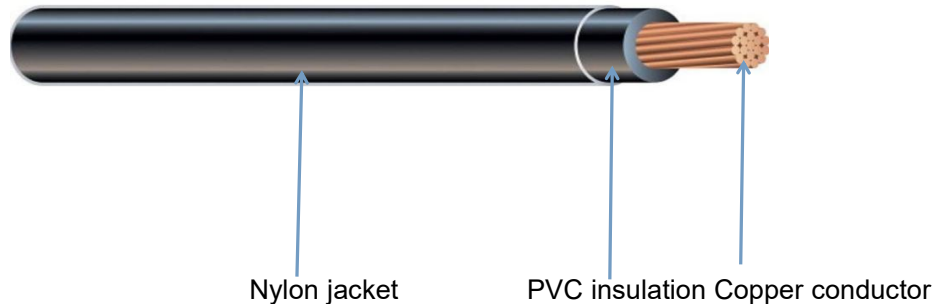
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Technical data:

Core of conductor	Size AWG /Kcmil	Nominal Insulation		Nominal Sheath		Overall	Weight	Max. DC resistance at 20C (Ω /km)
		Thickness		Thickness		Diameter		
		mil	mm	mil	mm	mm	kg/km	
2	18	30	0.76	60	1.52	8.7	101	22.40
3	18	30	0.762	60	1.52	9.1	118	22.40
4	18	30	0.76	60	1.52	9.8	141	22.40
2	16	30	0.762	60	1.52	9.4	123	14.10
3	16	30	0.76	60	1.52	9.8	145	14.10
4	16	30	0.762	60	1.52	10.7	176	14.10
2	14	45	1.14	80	2.03	12.8	223	8.88
3	14	45	1.143	80	2.03	13.5	263	8.88
4	14	45	1.14	80	2.03	14.6	318	8.88
2	12	45	1.143	95	2.41	14.6	299	5.58
3	12	45	1.14	95	2.41	15.3	354	5.58
4	12	45	1.143	95	2.41	16.6	429	5.58
2	10	45	1.14	95	2.41	15.9	374	3.51
3	10	45	1.143	95	2.41	16.7	451	3.51
4	10	45	1.14	95	2.41	18.2	553	3.51
3	8	60	1.524	110	2.79	22.1	770	2.18
4	8	60	1.52	125	3.18	24.9	993	2.18
5	8	60	1.524	125	3.18	27.1	1180	2.18
3	6	60	1.52	125	3.18	25.3	1056	1.38
4	6	60	1.524	140	3.56	28.4	1358	1.38
5	6	60	1.52	140	3.56	30.9	1618	1.38
3	4	60	1.524	140	3.56	28.7	1413	0.865
4	4	60	1.52	155	3.94	32.0	1810	0.865
5	4	60	1.524	155	3.94	34.9	2164	0.865
3	2	60	1.52	155	3.94	33.6	2053	0.549
4	2	60	1.524	170	4.32	37.4	2631	0.549
5	2	60	1.52	170	4.32	40.8	3159	0.549

Type T90 Nylon/THWN75



Application:

General purpose building wire for installation as exposed or concealed wiring and in raceways (except cable trays) in dry or damp locations. Minimum recommended installation temperature minus 10°C (with suitable handling procedures). Maximum conductor temperature 90°C dry, 75°C in wet locations, and 60°C when exposed to oil.

Structure:

1. Conductor: soft plain copper
2. Insulation: PVC, color can be black, red, blue, green, white, purple, orange, etc
3. Jacket: Nylon

Standard:

CSA C22.2 No. 75-03
ICEA S-95-658/NEMA WC 70
UL 83 - Thermoplastic-Insulated Wires and Cables
UL 1063 (MTW) - Machine-Tool Wires and Cables (stranded cables only)
UL 758 (AWM)

cUL File No.:

E468871

Voltage:

600V

Working temperature:

in dry locations only at temperature not to exceed 90°C.



Technical data:

Size AWG /Kcmil	Number of strands (Nos)	Min. Average Insulation		Min. Jacket		Overall	Approx. Wt. lbs/1000ft
		Thickness		Thickness		Diameter	
		mil	mm	mil	mm	mm	
14	1	15	0.38	4	0.1	2.6	15
12	1	15	0.38	4	0.1	3.1	23
10	1	20	0.51	4	0.1	4.0	37
14	19	15	0.38	4	0.1	2.8	17
12	19	15	0.38	4	0.1	3.3	25
10	19	20	0.51	4	0.1	4.2	39
8	19	30	0.76	5	0.13	5.5	64
6	19	30	0.76	5	0.13	6.5	96
4	19	40	1.02	6	0.15	8.2	154
3	19	40	1.02	6	0.15	8.9	190
2	19	40	1.02	6	0.15	9.8	235
1	19	50	1.27	7	0.18	11.3	301
1/0	19	50	1.27	7	0.18	12.4	372
2/0	19	50	1.27	7	0.18	13.5	461
3/0	19	50	1.27	7	0.18	14.8	572
4/0	19	50	1.27	7	0.18	16.3	710
250	37	60	1.52	8	0.2	18.0	851
300	37	60	1.52	8	0.2	19.4	1008
350	37	60	1.52	8	0.2	20.7	1165
400	37	60	1.52	8	0.2	21.9	1327
450	37	60	1.52	8	0.2	23.1	1482
500	37	60	1.52	8	0.2	24.1	1637
550	37	70	1.78	9	0.23	25.7	1822
600	61	70	1.78	9	0.23	26.7	1977
650	61	70	1.78	9	0.23	27.6	2133
700	61	70	1.78	9	0.23	28.5	2294
750	61	70	1.78	9	0.23	29.4	2449
800	61	70	1.78	9	0.23	30.2	2603
900	61	70	1.78	9	0.23	31.8	2919
1000	61	70	1.78	9	0.23	33.3	3233

TECK90 600V cable



1. Conductor: annealed bare copper wires, or compact aluminum 8000 series wires, class B.
2. Insulation: Cross-linked Polyethylene (XLPE) Type RW90
Color: Black, white for 2 conductors;
Black, red, blue for 3 conductors;
Black, red, blue, white for 4 conductors.
3. Bonding conductor: annealed bare copper wires, or compact aluminum 8000 series wires, class B.
4. Inner Jacket: Flame-retardant and moisture resistant Polyvinyl Chloride (PVC)
5. Armour: Aluminum Interlock Armour (AIA);
6. Outer-jacket: Low-temperature, moisture and sunlight resistant Polyvinyl Chloride (PVC), black

Application:

Suitable for use in exposed or concealed wiring in dry or wet locations, in ventilated or ladder type cable trays in dry or wet conditions, on walls or beams, or directly buried. Suitable for use in hazardous locations: Class I - Groups A, B, C and D, Class II - Groups E, F and G, Class III - All Groups

Standard: CSA C22.2 No. 131, Type TECK90 cable;
CSA C22.2 No. 38, Thermoset insulated wires and cables (Type RW90)
FT4 - Flame Test (70,000 BTU/Hr - Vertical Tray Flame Test)

Working temperature: -40°C to +90°C

Voltage: 600V

CUL file No: E466697

Packing Length: 300m, 600m or other length. Plastic drums or plywood drums.



Technical data: 600V

Phase Conductor		Bonding Conductor	Phase conductor single wire numbers	Nominal thickness of XLPE insulation	Approx. diameter after assembly	Nominal thickness of inner sheath	Approx. Diameter armoured	Nominal thickness of outer sheath	Approx. O.D. of cable
Cores	AWG or Kcmil	AWG or Kcmil	Nos.	mm	mm	mm	mm	mm	mm
2	14	14	7	0.76	6.7	1.14	14.1	1	16
2	12	14	7	0.76	7.7	1.14	15.1	1	17
2	10	12	7	0.76	8.9	1.14	16.3	1	18
2	8	10	7	1.14	11.4	1.52	19.5	1	22
2	6	8	7	1.14	13.1	1.52	21.3	1	23
2	4	8	7	1.14	15.4	1.52	23.5	1	26
2	3	6	7	1.14	16.6	1.52	24.7	1	27
2	2	6	7	1.14	18.2	2.03	27.3	1	29
2	1	6	19	1.4	20.8	2.03	29.9	1	32
2	1/0	6	19	1.4	22.7	2.03	31.8	1	34
2	2/0	6	19	1.4	24.7	2.03	33.9	1	36
2	3/0	4	19	1.4	27.1	2.03	36.2	1	38
2	4/0	4	19	1.4	29.7	2.03	38.9	1.2	41
2	250	4	37	1.65	33	2.03	42.2	1.2	45
2	300	4	37	1.65	35.6	2.03	44.7	1.2	47
2	350	3	37	1.65	37.9	2.79	48.6	1.2	51
2	400	3	37	1.65	40.1	2.79	50.8	1.2	53
2	450	3	37	1.65	42.2	2.79	52.8	1.2	55
2	500	3	37	1.65	44	2.79	54.7	1.2	57
2	550	3	37	2.03	47.5	2.79	58.2	1.5	61
2	600	2	61	2.03	49.4	2.79	60.1	1.5	63
2	650	2	61	2.03	51	2.79	61.7	1.5	65
2	700	2	61	2.03	52.7	2.79	63.4	1.5	66
2	750	2	61	2.03	54.2	2.79	64.9	1.5	68

Phase Conductor		Bonding Conductor	Phase conductor single wire numbers	Nominal thickness of XLPE insulation	Approx. diameter after assembly	Nominal thickness of inner sheath	Approx. Diameter armoured	Nominal thickness of outer sheath	Approx. O.D. of cable
Core	AWG or Kcmil	AWG or Kcmil	Nos.	mm	mm	mm	mm	mm	mm
3	14	14	7	0.76	7.3	1.14	14.7	1.0	17
3	12	14	7	0.76	8.3	1.14	15.7	1.0	18
3	10	12	7	0.76	9.7	1.14	17.0	1.0	19
3	8	10	7	1.14	12.3	1.52	20.4	1.0	22
3	6	8	7	1.14	14.2	1.52	22.3	1.0	24
3	4	8	7	1.14	16.6	1.52	24.8	1.0	27
3	3	6	7	1.14	17.9	2.03	27.1	1.0	29
3	2	6	7	1.14	19.6	2.03	28.8	1.0	31
3	1	6	19	1.40	22.4	2.03	31.6	1.0	34
3	1/0	6	19	1.40	24.5	2.03	33.6	1.0	36
3	2/0	6	19	1.40	26.7	2.03	35.8	1.0	38
3	3/0	4	19	1.40	29.2	2.03	38.4	1.2	41

3	4/0	4	19	1.40	32.1	2.03	41.3	1.2	44
3	250	4	37	1.65	35.7	2.03	44.8	1.2	47
3	300	4	37	1.65	38.4	2.79	49.1	1.2	51
3	350	3	37	1.65	40.9	2.79	51.6	1.2	54
3	400	3	37	1.65	43.3	2.79	54.0	1.2	56
3	450	3	37	1.65	45.5	2.79	56.2	1.2	59
3	500	3	37	1.65	47.5	2.79	58.2	1.5	61
3	550	3	37	2.03	51.3	2.79	62.0	1.5	65
3	600	2	61	2.03	53.4	2.79	64.1	1.5	67
3	650	2	61	2.03	55.1	2.79	65.8	1.5	69
3	700	2	61	2.03	56.9	2.79	67.6	1.5	71
3	750	2	61	2.03	58.6	2.79	69.3	1.5	72

Phase Conductor		Bonding Conductor	Phase conductor single wire numbers	Nominal thickness of XLPE insulation	Approx. diameter after assembly	Nominal thickness of inner sheath	Approx. diameter armoured	Nominal thickness of outer sheath	Approx. O.D. of cable
Core	AWG or Kcmil	AWG or Kcmil	Nos.	mm	mm	mm	mm	mm	mm
4	14	14	7	0.76	8.2	1.14	15.5	1.0	18
4	12	14	7	0.76	9.3	1.14	16.7	1.0	19
4	10	12	7	0.76	10.8	1.52	19.0	1.0	21
4	8	10	7	1.14	13.7	1.52	21.9	1.0	24
4	6	8	7	1.14	15.9	1.52	24.0	1.0	26
4	4	8	7	1.14	18.6	2.03	27.8	1.0	30
4	3	6	7	1.14	20.1	2.03	29.2	1.0	31
4	2	6	7	1.14	22.0	2.03	31.2	1.0	33
4	1	6	19	1.40	25.1	2.03	34.3	1.0	36
4	1/0	6	19	1.40	27.4	2.03	36.6	1.0	39
4	2/0	6	19	1.40	29.9	2.03	39.0	1.2	41
4	3/0	4	19	1.40	32.8	2.03	41.9	1.2	44
4	4/0	4	19	1.40	36.0	2.03	45.1	1.2	48
4	250	4	37	1.65	40.0	2.79	50.6	1.2	53
4	300	4	37	1.65	43.0	2.79	53.7	1.2	56
4	350	3	37	1.65	45.9	2.79	56.5	1.2	59
4	400	3	37	1.65	48.5	2.79	59.2	1.5	62
4	450	3	37	1.65	51.0	2.79	61.7	1.5	65
4	500	3	37	1.65	53.2	2.79	63.9	1.5	67
4	550	3	37	2.03	57.5	2.79	68.2	1.5	71
4	600	2	61	2.03	59.8	2.79	70.5	1.5	73
4	650	2	61	2.03	61.8	2.79	72.4	1.5	75
4	700	2	61	2.03	63.7	3.55	75.9	1.5	79
4	750	2	61	2.03	65.6	3.55	77.8	1.7	81

TECK90 1000V cable



1. Conductor: annealed bare copper wires, or compact aluminum 8000 series wires, class B.
2. Insulation: Cross-linked Polyethylene (XLPE) Type RW90
Color: Black, white for 2 conductors;
Black, red, blue for 3 conductors;
Black, red, blue, white for 4 conductors.
3. Bonding conductor: annealed bare copper wires, or compact aluminum 8000 series wires, class B.
4. Inner Jacket: Flame-retardant and moisture resistant Polyvinyl Chloride (PVC)
5. Armour: Aluminum Interlock Armour (AIA);
6. Outer-jacket: Low-temperature, moisture and sunlight resistant Polyvinyl Chloride (PVC), black

Application:

Suitable for use in exposed or concealed wiring in dry or wet locations, in ventilated or ladder type cable trays in dry or wet conditions, on walls or beams, or directly buried. Suitable for use in hazardous locations: Class I - Groups A, B, C and D, Class II - Groups E, F and G, Class III - All Groups

Standard: CSA C22.2 No. 131, Type TECK90 cable;
CSA C22.2 No. 38, Thermoset insulated wires and cables (Type RW90)
FT4 - Flame Test (70,000 BTU/Hr - Vertical Tray Flame Test)

Working temperature: -40°C to +90°C

Voltage: 1000V

CUL file No: E466697

Packing Length: 300m, 600m or other length. Plastic drums or plywood drums.



Technical data: 1000V

# of Cond.	Conductor		Insulation Thickness	Inner	Approximate Diameters			Approx .	Approx . Copper Content
	Size			Jacket				Net Cable	
	Power AWG or kcmil	Bonding		Thickness	Inner Jacket	Armor	Outer Jacket	Weight	
		AWG	inches	inches	inches	inches	inches	lb/kft	lb/kft
1	350	1	0.09	0.06	1.07	1.34	1.45	1910	1386
1	500	1/0	0.09	0.06	1.2	1.48	1.59	2515	1925
1	750	2/0	0.09	0.06	1.41	1.68	1.81	3648	2815
2	12	14	0.045	0.045	0.46	0.7	0.79	272	54
2	8	10	0.045	0.06	0.59	0.82	0.93	407	136
2	6	8	0.06	0.06	0.72	0.95	1.06	545	217
3	12	14	0.045	0.045	0.5	0.74	0.82	297	75
3	10	12	0.045	0.06	0.58	0.81	0.89	381	118
3	8	10	0.045	0.06	0.63	0.86	0.94	491	189
3	6	8	0.06	0.06	0.77	1.04	1.13	644	300
3	4	8	0.06	0.08	0.9	1.18	1.27	924	447
3	3	6	0.06	0.08	0.96	1.24	1.33	1026	582
3	2	6	0.06	0.08	1.03	1.3	1.39	1274	710
3	1	6	0.08	0.08	1.18	1.46	1.55	1539	876
3	1/0	6	0.08	0.08	1.26	1.53	1.65	1852	1081
3	2/0	6	0.08	0.08	1.35	1.62	1.73	2165	1342
3	3/0	4	0.08	0.08	1.45	1.73	1.84	2571	1719
3	4/0	4	0.08	0.08	1.57	1.82	1.93	3196	2132
3	250	4	0.09	0.110	1.77	2.12	2.25	3830	2497
3	350	3	0.09	0.110	1.98	2.33	2.46	4990	3475
3	500	3	0.09	0.110	2.24	2.6	2.76	6674	4891
4	8	10	0.045	0.06	0.69	0.92	1.03	583	241
4	6	8	0.06	0.08	0.9	1.17	1.28	838	382
4	4	8	0.06	0.08	1	1.27	1.35	1122	579
4	3	6	0.06	0.08	1.09	1.36	1.44	1359	749
4	2	6	0.06	0.08	1.15	1.42	1.5	1580	920
4	2/0	6	0.08	0.08	1.49	1.76	1.87	2711	1761
4	3/0	4	0.08	0.08	1.61	1.85	1.96	3395	2248
4	4/0	4	0.08	0.110	1.79	2.03	2.14	4197	2799
4	250	4	0.09	0.110	1.95	2.3	2.42	4828	3285
4	350	3	0.09	0.110	2.19	2.54	2.65	6399	4578
4	500	3	0.09	0.110	2.48	2.83	3.02	8555	6466