

NUAL® Brand ACWU90 cable with its interlocked aluminum armor and PVC jacket is designed for direct burial, wet locations or encased in concrete. The outer PVC jacket on ACWU90 makes this durable and rugged cable assembly approved for use in Class 1 Zone 1 and 2, and Classes 2 and 3, Divisions 1 and 2 hazardous locations.

The distinctive features unique to NUAL Brand ACWU90 Cable provide significant savings in installation cost and time. Engineered to replace conduit and wire applications, this all-in-one cable assembly offers fewer installation steps. NUAL Brand ACWU90 cable's interlocked aluminum armor protects the conductors from damage before, during and after installation, and provides overall flexibility not available with a conduit.

NUAL Brand ACWU90 is a factory-produced cable assembly consisting of one to four 90°C rated cross-linked polyethylene insulated conductors and one bare bonding conductor inside a flexible, interlocked aluminum armour. Multi-conductor ACWU90 cables are available in sizes 6 AWG to 750 kcmil. Single conductor ACWU90 cables are available in sizes from 1 AWG to 750 kcmil, but are not approved for use in hazardous locations. On single-conductor cables, the bonding conductor is applied concentrically around the phase conductor.

NUAL Brand ACWU90 cables meet or exceed the requirements of CSA C22.2 No. 38 and C22.2 No. 51 and are approved for use in accordance with the recommendations of the Canadian Electrical Code. With its FT-4 rated, AG14 PVC jacket, NUAL Brand ACWU90 also meets the requirements of CSA C22.2 No. 174 Hazardous Locations and the FT4 Vertical Cable Tray Test.

Product Features:

- Maximum Conductivity – NUAL Brand compact aluminum alloy conductors carry twice the current per kilogram as equivalent copper conductors.
- Reliable Termination – NUAL Brand conductors terminate safely with industry standard dual-rated aluminum lugs.
- Exceptional Insulation – The cross-linked polyethylene (XLPE) insulation on the NUAL Brand conductors is rated for operating temperatures of -40°C to +90 °C and offers a higher maximum short-circuit temperature rating than thermoplastic insulation. It is sunlight and moisture resistant.
- Easy to Install – NUAL Brand conductors are light weight for easier lifting and handling with 25% more flexibility and 40% less springback than copper conductors of equal ampacity.
- Heavy Metals Free* insulation is RoHS compliant and environmentally sustainable while providing excellent long-term performance.

Application:

NUAL Brand ACWU90 armoured cable is designed for use in the following applications:

- Outdoors
- In wet locations (Type RW90 conductors)
- Direct buried
- Encased in concrete
- Temporary power
- As aerial cable on a messenger
- Class 1 Zone 1 and 2, and Classes 2 and 3, Divisions 1 and 2 hazardous locations.

* Denotes compliance to RoHS, Directive 2002/95/EC.



Conductor/Size (AWG/kcmil)	NUAL Brand COMPACT					
	Approximate Diameters			Bonding Conductor Size (AWG/kcmil)	Approximate Weights	
	Under Armour (mm)	Over Armour (mm)	Over Jacket (mm)		Conductor Metal Weight (kg/km)	Total Weight (kg/km)
SINGLE CONDUCTOR						
1	13.1	17.9	20.2	4	175.59	407.15
1/0	14.0	18.8	21.1	2	237.88	484.04
2/0	15.1	19.9	22.1	2	275.54	539.36
3/0	16.2	21.0	23.3	2	323.06	606.95
4/0	17.6	22.4	24.7	1	383.05	689.45
250	19.2	24.0	26.3	1	460.75	800.45
300	20.5	25.3	27.6	1	529.23	891.44
350	21.7	26.5	29.5	1/0	626.40	1051.50
400	22.8	27.6	30.6	1/0	694.90	1126.00
500	25.4	30.2	33.2	2/0	873.23	1347.71
600	27.3	32.1	35.1	3/0	1055.90	1564.30
750	29.7	34.5	37.5	3/0	1261.31	1812.80
1000	35.1	41.6	44.6	4/0	1666.52	2402.84
*1500	41.5	48.0	51.0	250	2402.7	3261.20

Conductor/ Size (AWG/kcmil)	NUAL Brand COMPACT					
	Approximate Diameters			Bonding Conductor Size (AWG/kcmil)	Approximate Weights	
	Under Armour (mm)	Over Armour (mm)	Over Jacket (mm)		Conductor Metal Weight (kg/km)	Total Weight (kg/km)
THREE CONDUCTOR						
6	14.7	19.5	21.7	8	130.43	393.03
4	17.5	22.3	24.6	6	207.44	513.61
2	19.8	24.6	26.8	6	308.60	654.91
1	23.1	27.9	30.9	4	401.03	868.35
1/0	26.2	31.0	34.0	2	521.77	1046.90
2/0	26.8	31.6	34.6	4	604.04	1150.67
3/0	29.3	34.1	37.1	4	746.62	1346.85
4/0	32.7	39.2	42.2	1	984.04	1712.09
250	35.7	42.2	45.2	2	1118.08	1935.96
300	38.5	45.0	48.0	2	1323.52	2205.55
350	41.0	47.5	50.5	2	1528.95	2470.74
400	43.3	49.8	52.8	2	1734.39	2686.52
500	47.5	54.1	57.9	1	2169.00	3306.91
600	51.8	58.3	62.1	3/0	2695.07	3928.63
750	57.0	63.5	67.3	1/0	3226.20	4581.30
1000	65.3	71.8	75.6	4/0	4398.57	5951.20
FOUR CONDUCTOR						
6	1637	21.5	23.8	8	166.36	469.64
4	19.9	24.7	26.9	6	264.60	618.96
2	22.7	27.5	30.5	6	399.48	849.23
1	26.4	30.2	34.2	4	515.65	1050.23
1/0	29.6	34.4	37.4	2	669.40	1280.25
2/0	30.3	35.1	38.1	4	786.34	1428.10
3/0	32.8	39.3	42.3	4	976.43	1738.87
4/0	37.5	44.0	47.0	1	1273.84	2133.59
250	40.0	46.5	49.5	2	1460.47	2419.27
300	43.1	49.6	52.6	2	1734.39	2770.46
350	45.9	52.4	56.2	2	2008.31	3208.55
400	48.5	55.0	58.8	2	2282.23	3493.66
500	53.2	59.7	63.5	1	2853.80	4181.68
600	58.8	65.3	69.1	3/0	3516.83	4972.00
750	63.8	70.3	74.1	1/0	4253.39	5640.08
1000	73.1	79.6	83.4	4/0	5768.15	7590.48

Conversion Factors:

- kcmil x 0.5067 = mm²
- mm x 0.0394 = inches
- kg/km x 0.6720 = lb/M ft.



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