

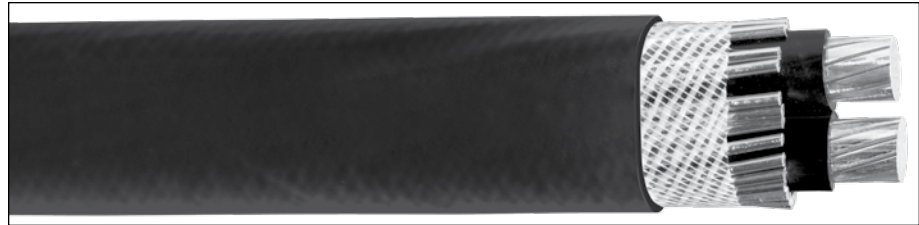
# PowrServ® XL Underground Secondary Cable Type USEB-90

600 V, Aluminum Conductor, XLPE Insulation, Overall PVC Jacket

**Product Construction:**

**Complete Cable:**

USEB-90 Underground Service Entrance Cable consists of two compact aluminum conductors individually insulated with RW90 XLPE insulation, laid in parallel, with a helical plain copper wire serving and an overall PVC jacket covering. The copper wire serving is the neutral. The product is CSA Certified and meets the USEB-90 cable requirements of CSA C22.2 No. 52.



**Conductors:**

The aluminum stranded conductors are Class B compact 1350 aluminum.

**Insulation:**

The insulation is a sunlight-resistant, black Linear Low Density Polyethylene (LLDPE) meeting the requirements of CSA C22.2 No. 38 for Type RW90 insulation.

**Neutral Conductor:**

An annealed, plain copper wire serving is applied over top of the two power conductors. The neutral conductor may be equal to the equivalent copper AWG size of the power conductor, or it may be reduced.

**Binder/Separator Tape:**

A separator tape is applied overtop the helically applied neutral conductor wires.

**Jacket:**

Black PVC jacket is extruded over top of the cable assembly. The jacket is a weather-resistant, sunlight-resistant, 60°C/-40°C FT1-rated material.

**Phase Identification:**

Both of the XLPE insulated power conductors are black. One conductor will have a white coloured print legend on the surface of the insulation. The print legend includes the required CSA markings and General Cable manufacturing plant code, year marking, and "1-ONE-1" printed phase identifier. The other conductor will only have the "2-TWO-2" marking. All cables provided with sequential print marking.

TWO CONDUCTOR TYPE USEB-90 – XLPE/PVC – FULL NEUTRAL – 600 VOLTS								
PHASE CONDUCTORS				FULL NEUTRAL CONDUCTOR		OVERALL		
SIZE (AWG OR kcmil)	NO. OF WIRES (1)	INS. THKN. (mm)	JACKET THKN. (mm)	NO. OF WIRES x SIZE (AWG)	EQUIVALENT AWG SIZE	EFFECTIVE DIAMETER THKN. X WIDTH (mm)	APPROX. WEIGHT (kg/km)	AMPACITY (2)
4	7	1.14	2.03	11 x #16	6	15 x 22	456	75
2	7	1.14	2.03	17 x #16	4	16 x 25	632	100
1	19	1.40	2.03	21 x #16	3	17 x 28	770	115
1/0	19	1.40	2.03	26 x #16	2	18 x 30	916	135
2/0	19	1.40	2.03	33 x #16	1	19 x 32	1105	150
3/0	19	1.40	2.03	26 x #14	1/0	21 x 35	1340	175
4/0	19	1.40	2.03	33 x #14	2/0	22 x 37	1633	205
250	37	1.65	2.03	26 x #12	3/0	25 x 41	1969	230
300	37	1.65	2.79	21 x #10	300	30 x 47	2520	260
350	37	1.65	2.79	25 x #10	250	30 x 49	2985	280
500	37	1.65	2.79	34 x #10	350	33 x 55	3843	350

(1) Actual number of wires may differ for compact round stranded aluminum conductors using single input wire (SIW) or compact round concentric-lay-stranded aluminum conductors.

(2) The ampacity ratings are based on Table 4 of the 2015 Canadian Electric Code (C22.1) (90°C conductor temperature, 30°C ambient). Ampacity ratings may be used for single circuit applications of cables directly buried, in buried duct, in duct bank, or in conduit.

Dimensions and weights not designated minimum or maximum are nominal values and subject to manufacturing tolerances. In this context, weight means mass.

# PowrServ® XL Underground Secondary Cable Type USEB-90

600 V, Aluminum Conductor, XLPE Insulation, Overall PVC Jacket

## TWO CONDUCTOR TYPE USEB-90 – XLPE/PVC – REDUCED NEUTRAL – 600 VOLTS

PHASE CONDUCTORS				REDUCED NEUTRAL CONDUCTOR		OVERALL		
SIZE (AWG OR kcmil)	NO. OF WIRES (1)	INS. THKN. (mm)	JACKET THKN. (mm)	NO. OF WIRES x SIZE (AWG)	EQUIVALENT AWG SIZE	EFFECTIVE DIAMETER THKN. x WIDTH (mm)	APPROX. WEIGHT (kg/km)	AMPACITY (2)
4	7	1.14	2.03	7 x #16	8	15 x 22	405	75
2	7	1.14	2.03	11 x #16	6	16 x 25	557	100
1	19	1.40	2.03	13 x #16	5	17 x 28	670	115
1/0	19	1.40	2.03	17 x #16	4	18 x 30	804	135
2/0	19	1.40	2.03	21 x #16	3	19 x 32	956	150
3/0	19	1.40	2.03	26 x #16	2	20 x 34	1143	175
4/0	19	1.40	2.03	21 x #14	1	24 x 39	1366	205
250	37	1.65	2.03	26 x #14	1/0	24 x 40	1651	230
300	37	1.65	2.79	21 x #12	4/0	29 x 46	2090	260
350	37	1.65	2.79	26 x #12	3/0	29 x 48	2436	280
500	37	1.65	2.79	25 x #10	250	33 x 55	3392	350

(1) Actual number of wires may differ for compact round stranded aluminum conductors using single input wire (SIW) or compact round concentric-lay-stranded aluminum conductors.

(2) The ampacity ratings are based on Table 4 of the 2015 Canadian Electric Code (C22.1) (90°C conductor temperature, 30°C ambient). Ampacity ratings may be used for single circuit applications of cables directly buried, in buried duct, in duct bank, or in conduit.

Dimensions and weights not designated minimum or maximum are nominal values and subject to manufacturing tolerances. In this context, weight means mass.

### Features and Benefits:

The USEB-90 cables are suitable for direct burial or installed in ducts. The cable is rated 600 V phase to phase, with a maximum conductor operating temperature of 90°C in wet or dry locations.

### Applications:

CSA USEB-90 cable is intended for use in underground systems operating at 600 V or less. The cables are intended for underground installation, either directly buried or in duct systems, in accordance with the CEC (CSA C22.1) and CSA C22.3 No. 7 Underground Systems. Portions of the cable may be exposed to sunlight on termination poles and during storage.

### Options:

- Class B stranded H16 compact ACM (series 8000) type aluminum alloy conductors
- Class B stranded compact copper conductors
- CSA C68.7 for distribution utilities

For more information, contact your General Cable sales representative or e-mail [infoca@generalcable.com](mailto:infoca@generalcable.com).

