

# PowrServ® PE Underground Secondary Cable Type USEI-75

600 V, Aluminum Conductor, LLDPE Insulation, PVC Jacket, CSA Listed

**Product Construction:**

**Complete Cable:**

USEI-75 Underground Service Entrance Cable consists of two, three, or four compact aluminum conductors individually insulated with 75°C black PE insulation, jacketed with coloured PVC and twisted together. The neutral conductor will be white. The product meets the USEI-75 cable requirements of CSA C22.2 No. 52.

**Conductors:**

The aluminum stranded conductors are Class B compact 1350-H16 (3/4 hard) aluminum.

**Insulation:**

The insulation is a black, Linear Low-Density Polyethylene (LLDPE) meeting the requirements of CSA C22.2 No. 52 for 75°C wet and dry rated polyethylene.

**Jacket:**

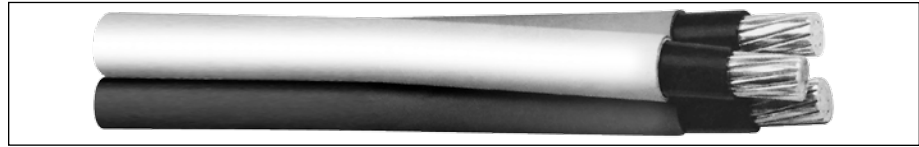
Over top of the insulation, a continuous layer of PVC is extruded. The jacket is a weather- and sunlight-resistant, non-sulphide-staining, cut-through-resistant, 75°C/-40°C FT1-rated material.

**Neutral Conductor:**

One of the insulated conductors is identified as a neutral conductor by the use of a white coloured PVC jacket. The neutral conductor may be the same size as the power conductor, or it may be reduced.

**Phase Identification:**

Phase identification is provided by means of jacket colour coding. Three conductor cable consists of a red and a black coloured power conductor and a white coloured neutral. Four conductor cable consists of a red, black, and blue coloured phase conductor and a white coloured neutral. All cables provided with sequential print marking.



THREE CONDUCTOR TYPE USEI-75 – LLDPE/PVC – 600 VOLTS										
PHASE CONDUCTORS				FULL NEUTRAL CONDUCTOR				OVERALL		
SIZE (AWG OR kcmil)	NO. OF WIRES (1)	INS. THKN. (mm)	JACKET THKN. (mm)	SIZE (AWG OR kcmil)	NO. OF WIRES (1)	INS. THKN. (mm)	JACKET THKN. (mm)	EFFECTIVE DIAMETER (mm)	APPROX. WEIGHT (kg/km)	AMPACITY (2)
4	7	1.14	0.76	4	7	1.14	0.76	20	323	65
2	7	1.14	0.76	2	7	1.14	0.76	23	457	90
1	19	1.40	1.14	1	19	1.40	1.14	27	627	100
1/0	19	1.40	1.14	1/0	19	1.40	1.14	29	745	120
2/0	19	1.40	1.14	2/0	19	1.40	1.14	32	890	135
3/0	19	1.40	1.14	3/0	19	1.40	1.14	34	1067	155
4/0	19	1.40	1.14	4/0	19	1.40	1.14	37	1288	180
250	37	1.65	1.65	250	37	1.65	1.65	43	1625	205
350	37	1.65	1.65	350	37	1.65	1.65	48	2132	250
500	37	1.65	1.65	500	37	1.65	1.65	55	2867	310

(1) For compact stranded constructions, the number of wires may be reduced as follows:  
 19-Wire Constructions – 18 Wires Minimum  
 37-Wire Constructions – 35 Wires Minimum

(2) The ampacity ratings are based on Table 4 of the Canadian Electric Code (C22.1) (75°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.

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FOUR CONDUCTOR TYPE USEI-75 – LLDPE/PVC – 600 VOLTS										
PHASE CONDUCTORS				FULL NEUTRAL CONDUCTOR				OVERALL		
SIZE (AWG OR kcmil)	NO. OF WIRES (1)	INS. THKN. (mm)	JACKET THKN. (mm)	SIZE (AWG OR kcmil)	NO. OF WIRES (1)	INS. THKN. (mm)	JACKET THKN. (mm)	EFFECTIVE DIAMETER (mm)	APPROX. WEIGHT (kg/km)	AMPACITY (2)
4	7	1.14	0.76	4	7	1.14	0.76	22	431	65
2	7	1.14	0.76	2	7	1.14	0.76	26	610	90
1	19	1.40	1.14	1	19	1.40	1.14	31	835	100
1/0	19	1.40	1.14	1/0	19	1.40	1.14	33	993	120
2/0	19	1.40	1.14	2/0	19	1.40	1.14	35	1186	135
3/0	19	1.40	1.14	3/0	19	1.40	1.14	38	1422	155
4/0	19	1.40	1.14	4/0	19	1.40	1.14	42	1717	180
250	37	1.65	1.65	250	37	1.65	1.65	48	2167	205
350	37	1.65	1.65	350	37	1.65	1.65	54	2843	250
500	37	1.65	1.65	500	37	1.65	1.65	61	3823	310

(1) For compact stranded constructions, the number of wires may be reduced as follows:

19-Wire Constructions – 18 Wires Minimum

37-Wire Constructions – 35 Wires Minimum

(2) The ampacity ratings are based on Table 4 of the Canadian Electric Code (C22.1) (75°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 USEI-75 cables are suitable for direct burial or installed in ducts and are resistant to cut-through and sunlight. The cable is rated 600 V phase to phase, with a maximum conductor operating temperature of 75°C in wet or dry locations.

## Applications:

CSA USEI-75 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 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).