

# Aluminum Service Entrance (SE) Cable



Type SE, Style SER and SEU Service Entrance Cable. 600 Volt. Alumaflex® Brand Aluminum Alloy (AA-8176) Conductors. Individual Conductors Rated XHHW or THHN/THWN Jacket and Inner Conductors are Sunlight Resistant.



## APPLICATIONS

Southwire Type SE, service entrance cable is used to convey power from the service drop to the meter base and from the meter base to the distribution panelboard; however, it may be used in all applications where Type SE cable is permitted. SE may be used in wet or dry above ground locations at temperatures not to exceed 90°C. The voltage rating is 600 volts.

## STANDARDS & REFERENCES

Southwire Type SE cable complies with the following:

- ASTM- B-800 and B-801
- UL Standard 44 for XHHW-2
- UL Standard 83 for THHN/THWN-2
- Federal Specification A-A-59544
- National Electrical Code, NFPA 70, 2011 Edition
- RoHS

## CONSTRUCTION

Southwire Type SE cable is constructed with Alumaflex® AA-8000 series aluminum alloy, compacted stranded conductors. The conductors are covered with a sunlight resistant Type XHHW-2 or Type THHN/THWN-2-insulation. A reinforcement tape is wrapped around the conductors for added strength and conformity. A gray sunlight-resistant polyvinyl chloride (PVC) outer jacket covers the entire assembly. Style SEU cable has two phase conductors surrounded by a concentric neutral while the SER style has two, three or four phase conductors and a bare neutral.

Southwire Style SER Cable's phase conductors are identified by a colored stripe on the insulation.

3 conductor – Black and Black with Red Stripe

4 conductor – Black, Black with White Stripe and Black with Red Stripe

5 conductor – Black, Black with White Stripe, Black with Red Stripe and Black with Blue Stripe



Conductor Size/Const. AWG or kcmil	Stranding		Nominal O.D. (Mils)	Allowable Ampacities				Approximate Net Weight Per 1000' (Lbs)	Standard Package
	Phase Conductor & Neutral	Equipment Ground Conductor		60°C	75°C	90°C	Dwelling		
SER Aluminum Two-Conductor With Bare Ground (Formerly referred to as "EZ-SE")									
6-6-6	7	-	650	40	50	60	-	150	B
4-4-4	7	-	745	55	65	75	-	203	B
4-4-6	7	-	745	55	65	75	-	203	B
2-2-2	7	-	864	75	90	100	100	290	B
SER Aluminum Three Conductor With Bare Ground (Formerly referred to as "Four Conductor")									
8-8-8-8	1	1	612	30	40	45	-	136	B
6-6-6-6	7	7	717	40	50	60	-	196	B
4-4-4-6	7	7	823	55	65	75	-	252	B
2-2-2-4	7	7	956	75	90	100	100	359	B
1-1-1-3	8	7	1079	85	100	115	110	449	C
1/0-1/0-1/0-2	10	1	1168	100	120	135	125	540	C
2/0-2/0-2/0-1	12	1	1264	115	135	150	150	652	C
3/0-3/0-3/0-1/0	16	1	1371	130	155	175	175	786	C
4/0-4/0-4/0-2/0	19	1	1496	150	180	205	200	960	C
250-250-250-3/0	22	1	1839	170	205	230	225	1458	C
SER Aluminum Four Conductor With Bare Ground (Formerly referred to as "Five Conductor")									
2-2-2-2-4	6	7	1059	75	90	100	100	452	B
2/0-2/0-2/0-2/0-1	12	1	1404	115	135	150	150	827	C
4/0-4/0-4/0-2/0	19	1	1672	150	180	205	200	1228	C
250-250-250-250-3/0	22	1	1847	170	205	230	225		C

Conductor Size/Const. AWG or kcmil	Stranding		Nominal O.D. (Mils)	Allowable Ampacities				Approximate Net Weight Per 1000' (Lbs)	Standard Package
	Phase Conductor & Neutral	Equipment Ground Conductor		60°C	75°C	90°C	Dwelling		
SEU Aluminum Two Conductor With Bare Concentric Ground (Formerly referred to as "Three Conductor")									
6-6-6	7	8	430x687	40	50	60	-	145	B,C,E
4-4-4	7	12	499x800	55	65	75	-	198	B
4-4-6	7	15	474x775	55	65	75	-	181	B
2-2-2	7	14	569x925	75	90	100	100	283	B,C,G
2-2-4	7	18	554x910	75	90	100	100	259	B,C,G
2/0-2/0-2/0	18	18	736x1221	115	135	150	150	514	C
2/0-2/0-1	18	14	720x1205	115	135	150	150	468	C
4/0-4/0-4/0	18	18	878x1462	150	180	205	205	765	C
4/0-4/0-2/0	18	18	835x1419	150	180	205	205	691	C

Table values reflect XHHW-2 conductors. Allowable ampacities shown are for general use as specified by the National Electrical Code, 2011 Edition, Section 310.15.

60°C - When terminated to equipment for circuits rated 100 amperes or less or marked for 14 through 1 AWG conductors. See NEC Article 338.10 (B)(4).

75°C - When terminated to equipment for circuits rated 100 amperes or marked for conductors larger than 1 AWG conductors. May not apply, see NEC Article 338.10 (B)(4).

90°C - Wet or dry locations. For ampacity de-rating purposes.

Dwelling - For units, conductors shall be permitted at listed ampacities as 120/240-volt, 3-wire, single-phase services and feeders per NEC Article 310.15.

\*For compact-stranded construction, the number of wires, as permitted by UL Standard 854 and ASTM B-801 may be reduced as follows: 19-wire constructions - 18 wires minimum.

Package  
Codes:  
B - 1,000'  
C - 500'  
E-250'  
G-200'

#### RECOMMENDED SAMPLE SPECIFICATIONS:

SER Sample Specification: Cable shall be UL-listed Type SE, Style SER, suitable for operation at 600 volts or less as specified in the National Electrical Code. Conductors shall be AlumaFlex™ aluminum alloy, weather resistant PVC jacketed, as manufactured by Southwire Company or approved equal. SEU Sample Specification: Cable shall be UL-listed Type SE, Style SEU, suitable for operation at 600 volts or less as specified in the National Electrical Code. Conductors shall be AlumaFlex™ aluminum alloy, weather resistant PVC jacketed, as manufactured by Southwire Company or approved equal.



Conductor	Stranding		
Size/Const. AWG or kcmil	Phase Conductor & Neutral	Equipment Ground Conductor	Stock Numbers
SER Aluminum Two-Conductor With Bare Ground (Formerly referred to as "EZ-SE")			
6-6-6	7	-	<b>Stock #: 326678</b>
4-4-4	7	-	<b>Stock #: 326660</b>
4-4-6	7	-	<b>Stock #: 552500</b>
2-2-2	7	-	<b>Stock #: N/A</b>
SER Aluminum Three Conductor With Bare Ground (Formerly referred to as "Four Conductor")			
8-8-8-8	1	1	<b>Stock #: 130989</b>
6-6-6-6	7	7	<b>Stock #: 130997 (T), 592331 (X)</b>
4-4-4-6	7	7	<b>Stock #: 131003</b>
2-2-2-4	7	7	<b>Stock #: 131029</b>
1-1-1-3	8	7	<b>Stock #: 131037</b>
1/0-1/0-1/0-2	10	1	<b>Stock #: 131045</b>
2/0-2/0-2/0-1	12	1	<b>Stock #: 131052</b>
3/0-3/0-3/0-1/0	16	1	<b>Stock #: 131060</b>
4/0-4/0-4/0-2/0	19	1	<b>Stock #: 131078</b>
250-250-250-3/0	22	1	<b>Stock #: 552504</b>
SER Aluminum Four Conductor With Bare Ground (Formerly referred to as "Five Conductor")			
2-2-2-2-4	6	7	<b>Stock #: 277186</b>
2/0-2/0-2/0-2/0-1	12	1	<b>Stock #: 327445</b>
4/0-4/0-4/0-4/0-2/0	19	1	<b>Stock #: 279968</b>
250-250-250-250-3/0	22	1	<b>Stock #: 555869</b>

Conductor	Stranding		
Size/Const. AWG or kcmil	Phase Conductor & Neutral	Equipment Ground Conductor	Stock Numbers
SEU Aluminum Two Conductor With Bare Concentric Ground (Formerly referred to as "Three Conductor")			
6-6-6	7	8	<b>Stock #: 130864</b>
4-4-4	7	12	<b>Stock #: 130872</b>
4-4-6	7	15	<b>Stock #: 130948</b>
2-2-2	7	14	<b>Stock #: 130880</b>
2-2-4	7	18	<b>Stock #: 130955</b>
2/0-2/0-2/0	18	18	<b>Stock #: 130914</b>
2/0-2/0-1	18	14	<b>Stock #: 130963</b>
4/0-4/0-4/0	18	18	<b>Stock #: 130930</b>
4/0-4/0-2/0	18	18	<b>Stock #: 130971</b>



# Aluminum Service Entrance (SE) Cable



Type SE, Style SER and SEU Service Entrance Cable. 600 Volt. Alumaflex® Brand Aluminum Alloy (AA-8176) Conductors. Individual Conductors Rated XHHW or THHN/THWN Jacket and Inner Conductors are Sunlight Resistant.



## APPLICATIONS

Southwire Type SE, service entrance cable is used to convey power from the service drop to the meter base and from the meter base to the distribution panelboard; however, it may be used in all applications where Type SE cable is permitted. SE may be used in wet or dry above ground locations at temperatures not to exceed 90°C. The voltage rating is 600 volts.

## STANDARDS & REFERENCES

Southwire Type SE cable complies with the following:

- ASTM- B-800 and B-801
- UL Standard 44 for XHHW-2
- UL Standard 83 for THHN/THWN-2
- Federal Specification A-A-59544
- National Electrical Code, NFPA 70, 2011 Edition
- RoHS

## CONSTRUCTION

Southwire Type SE cable is constructed with Alumaflex® AA-8000 series aluminum alloy, compacted stranded conductors. The conductors are covered with a sunlight resistant Type XHHW-2 or Type THHN/THWN-2-insulation. A reinforcement tape is wrapped around the conductors for added strength and conformity. A gray sunlight-resistant polyvinyl chloride (PVC) outer jacket covers the entire assembly. Style SEU cable has two phase conductors surrounded by a concentric neutral while the SER style has two, three or four phase conductors and a bare neutral.

Southwire Style SER Cable's phase conductors are identified by a colored stripe on the insulation.

3 conductor – Black and Black with Red Stripe

4 conductor – Black, Black with White Stripe and Black with Red Stripe

5 conductor – Black, Black with White Stripe, Black with Red Stripe and Black with Blue Stripe



Conductor Size/Const. AWG or kcmil	Stranding		Nominal O.D. (Mils)	Allowable Ampacities				Approximate Net Weight Per 1000' (Lbs)	Standard Package
	Phase Conductor & Neutral	Equipment Ground Conductor		60°C	75°C	90°C	Dwelling		
SER Aluminum Two-Conductor With Bare Ground (Formerly referred to as "EZ-SE")									
6-6-6	7	-	650	40	50	60	-	150	B
4-4-4	7	-	745	55	65	75	-	203	B
4-4-6	7	-	745	55	65	75	-	203	B
2-2-2	7	-	864	75	90	100	100	290	B
SER Aluminum Three Conductor With Bare Ground (Formerly referred to as "Four Conductor")									
8-8-8-8	1	1	612	30	40	45	-	136	B
6-6-6-6	7	7	717	40	50	60	-	196	B
4-4-4-6	7	7	823	55	65	75	-	252	B
2-2-2-4	7	7	956	75	90	100	100	359	B
1-1-1-3	8	7	1079	85	100	115	110	449	C
1/0-1/0-1/0-2	10	1	1168	100	120	135	125	540	C
2/0-2/0-2/0-1	12	1	1264	115	135	150	150	652	C
3/0-3/0-3/0-1/0	16	1	1371	130	155	175	175	786	C
4/0-4/0-4/0-2/0	19	1	1496	150	180	205	200	960	C
250-250-250-3/0	22	1	1839	170	205	230	225	1458	C
SER Aluminum Four Conductor With Bare Ground (Formerly referred to as "Five Conductor")									
2-2-2-2-4	6	7	1059	75	90	100	100	452	B
2/0-2/0-2/0-2/0-1	12	1	1404	115	135	150	150	827	C
4/0-4/0-4/0-2/0	19	1	1672	150	180	205	200	1228	C
250-250-250-250-3/0	22	1	1847	170	205	230	225		C

Conductor Size/Const. AWG or kcmil	Stranding		Nominal O.D. (Mils)	Allowable Ampacities				Approximate Net Weight Per 1000' (Lbs)	Standard Package
	Phase Conductor & Neutral	Equipment Ground Conductor		60°C	75°C	90°C	Dwelling		
SEU Aluminum Two Conductor With Bare Concentric Ground (Formerly referred to as "Three Conductor")									
6-6-6	7	8	430x687	40	50	60	-	145	B,C,E
4-4-4	7	12	499x800	55	65	75	-	198	B
4-4-6	7	15	474x775	55	65	75	-	181	B
2-2-2	7	14	569x925	75	90	100	100	283	B,C,G
2-2-4	7	18	554x910	75	90	100	100	259	B,C,G
2/0-2/0-2/0	18	18	736x1221	115	135	150	150	514	C
2/0-2/0-1	18	14	720x1205	115	135	150	150	468	C
4/0-4/0-4/0	18	18	878x1462	150	180	205	205	765	C
4/0-4/0-2/0	18	18	835x1419	150	180	205	205	691	C

Table values reflect XHHW-2 conductors. Allowable ampacities shown are for general use as specified by the National Electrical Code, 2011 Edition, Section 310.15.

60°C - When terminated to equipment for circuits rated 100 amperes or less or marked for 14 through 1 AWG conductors. See NEC Article 338.10 (B)(4).

75°C - When terminated to equipment for circuits rated 100 amperes or marked for conductors larger than 1 AWG conductors. May not apply, see NEC Article 338.10 (B)(4).

90°C - Wet or dry locations. For ampacity de-rating purposes.

Dwelling - For units, conductors shall be permitted at listed ampacities as 120/240-volt, 3-wire, single-phase services and feeders per NEC Article 310.15.

\*For compact-stranded construction, the number of wires, as permitted by UL Standard 854 and ASTM B-801 may be reduced as follows: 19-wire constructions - 18 wires minimum.

Package  
Codes:  
B - 1,000'  
C - 500'  
E-250'  
G-200'

**RECOMMENDED SAMPLE SPECIFICATIONS:**

SER Sample Specification: Cable shall be UL-listed Type SE, Style SER, suitable for operation at 600 volts or less as specified in the National Electrical Code. Conductors shall be AlumaFlex™ aluminum alloy, weather resistant PVC jacketed, as manufactured by Southwire Company or approved equal. SEU Sample Specification: Cable shall be UL-listed Type SE, Style SEU, suitable for operation at 600 volts or less as specified in the National Electrical Code. Conductors shall be AlumaFlex™ aluminum alloy, weather resistant PVC jacketed, as manufactured by Southwire Company or approved equal.



Conductor	Stranding		
Size/Const. AWG or kcmil	Phase Conductor & Neutral	Equipment Ground Conductor	Stock Numbers
SER Aluminum Two-Conductor With Bare Ground (Formerly referred to as "EZ-SE")			
6-6-6	7	-	<b>Stock #: 326678</b>
4-4-4	7	-	<b>Stock #: 326660</b>
4-4-6	7	-	<b>Stock #: 552500</b>
2-2-2	7	-	<b>Stock #: N/A</b>
SER Aluminum Three Conductor With Bare Ground (Formerly referred to as "Four Conductor")			
8-8-8-8	1	1	<b>Stock #: 130989</b>
6-6-6-6	7	7	<b>Stock #: 130997 (T), 592331 (X)</b>
4-4-4-6	7	7	<b>Stock #: 131003</b>
2-2-2-4	7	7	<b>Stock #: 131029</b>
1-1-1-3	8	7	<b>Stock #: 131037</b>
1/0-1/0-1/0-2	10	1	<b>Stock #: 131045</b>
2/0-2/0-2/0-1	12	1	<b>Stock #: 131052</b>
3/0-3/0-3/0-1/0	16	1	<b>Stock #: 131060</b>
4/0-4/0-4/0-2/0	19	1	<b>Stock #: 131078</b>
250-250-250-3/0	22	1	<b>Stock #: 552504</b>
SER Aluminum Four Conductor With Bare Ground (Formerly referred to as "Five Conductor")			
2-2-2-2-4	6	7	<b>Stock #: 277186</b>
2/0-2/0-2/0-2/0-1	12	1	<b>Stock #: 327445</b>
4/0-4/0-4/0-4/0-2/0	19	1	<b>Stock #: 279968</b>
250-250-250-250-3/0	22	1	<b>Stock #: 555869</b>

Conductor	Stranding		
Size/Const. AWG or kcmil	Phase Conductor & Neutral	Equipment Ground Conductor	Stock Numbers
SEU Aluminum Two Conductor With Bare Concentric Ground (Formerly referred to as "Three Conductor")			
6-6-6	7	8	<b>Stock #: 130864</b>
4-4-4	7	12	<b>Stock #: 130872</b>
4-4-6	7	15	<b>Stock #: 130948</b>
2-2-2	7	14	<b>Stock #: 130880</b>
2-2-4	7	18	<b>Stock #: 130955</b>
2/0-2/0-2/0	18	18	<b>Stock #: 130914</b>
2/0-2/0-1	18	14	<b>Stock #: 130963</b>
4/0-4/0-4/0	18	18	<b>Stock #: 130930</b>
4/0-4/0-2/0	18	18	<b>Stock #: 130971</b>

