Service Entrance Cable

Alcan manufactures both the SE Style R (SER) and SE Style U (SEU) Service Entrance Cable which can be used for both above ground service entrance and interior wiring applications. As with all of Alcan's products, our Service Entrance Cable offers unique product attributes, top notch quality and excellent properties. In addition, all SE type cable meets or exceeds the requirements of Underwriters Laboratories Inc., Standard #854 and is approved for use in accordance with the recommendations of the National Electrical Code as Type SE. STABILOY® alloy conductor is recognized by ASTM.

Product Features

Alcan Type Service Entrance Cable has several exceptional features that provide amazing benefits:

- **Sunlight resistant, moisture resistant and flame retardant jacket** which enhances the life of the cable by fending off environmental elements that can cause deterioration.
- **Environmentally friendly** because the PVC jacket is lead-free and cadmium-free.
- **90 degree-rated insulation** which provides superior product quality.
- **Increased flexibility** because every piece of Service Entrance Cable is made with Stabiloy AA-8030 conductor (#8 is solid, all others are stranded) and cross-linked polyethylene insulation (XLPE).
- **Tristriping** which improves the visibility of the grounded conductor.
- **Sequential footage marking** which ensures measurement accuracy every time.

ALCAN

Type SE Style R (SER)

Type SE Style R (SER)

Description

The **insulated conductors in SER cable are phase-identified**. One insulated conductor has a single longitudinal red stripe, one is painted completely white or with three continuous white stripes and the last conductor is black. If applicable, a fourth insulated conductor has a single longitudinal blue stripe. The conductors are twisted together and wrapped with a glass-reinforced tape. The PVC jacket is then extruded over the assembly for a completed product.

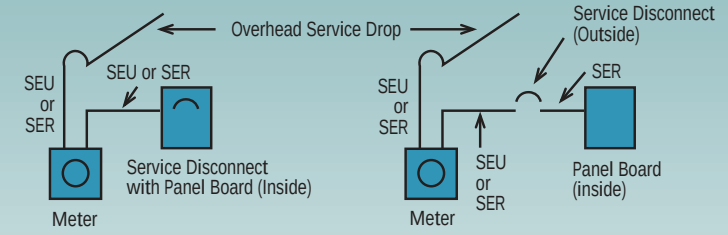
Marking

Three conductor cables with a bare conductor will bear the following surface marking:
Alcan (Plant Of Manufacture) STABILOY® AA-8030 AL Type SE Cable Style R XHHW-2 600 V 3 CDRS (Size) 1 CDR (Size) SUN-RES (UL) (Year Of Manufacture).

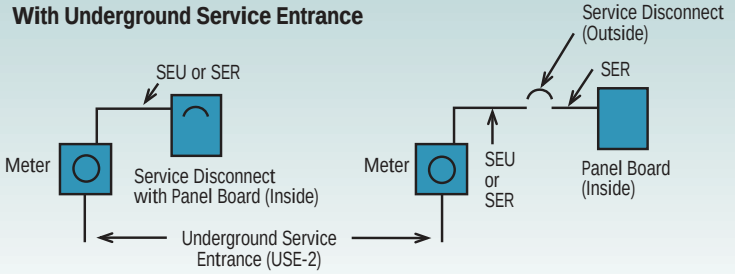
Three conductor cables without a bare conductor will bear the following surface marking: *Alcan (Plant Of Manufacture) STABILOY® AA-8030 AL Type SE Cable Style R XHHW-2 600 V 3 CDRS (Size) SUN-RES (UL) (Year Of Manufacture).*

Typical Applications for Type SE Cable

With Overhead Service Drop



With Underground Service Entrance



STABILOY® SER/SEU Specifications

Insulated Conductor Size / AWG	Bare Conductor Size / AWG	Nominal Diameter (inches)	Nominal Weight (lbs. / 1000 ft.)		Standard Package	
			STABILOY	Total	Length	Reel
Two Conductor SER with a Bare Ground						
8	8	0.488	46	97	1000’	24x15
6	6	0.574	74	138	1000’	24x18
4	6	0.632	104	177	1000’	27x18
4	4	0.669	118	193	1000’	27x18
2	4	0.748	165	254	1000’	30x18
2	2	0.788	188	280	1000’	30x18
1	1	0.884	237	349	1000’	30x24
1/0	2	0.915	237	384	500’	24x18
1/0	1/0	0.964	299	423	500’	27x18
2/0	1	0.951	330	459	500’	27x18
2/0	2/0	1.050	377	513	500’	30x18
4/0	2/0	1.193	526	690	500’	30x24
4/0	4/0	1.264	599	766	500’	30x24
Three Conductor SER with a Bare Ground						
8	8	0.571	61	128	1000’	24x18
6	6	0.650	99	182	1000’	27x18
4	6	0.736	143	240	1000’	30x24
2	4	0.863	228	346	1000’	30x24
1	3	0.973	287	435	1000’	34x26
1/0	2	1.061	362	526	500’	30x24
2/0	1	1.164	456	637	500’	30x24
3/0	1/0	1.274	576	776	500’	32x24
4/0	2/0	1.390	726	948	500’	36x24
250	3/0	1.601	868	1106	500’	40x24
300	4/0	1.741	1052	1311	500’	42x26
Four Conductor SER with a Bare Ground						
2	4	0.973	291	438	1000’	36x24
2/0	1	1.299	581	807	500’	36x24
4/0	2/0	1.557	926	1204	500’	40x24
250	3/0	1.798	1105	1404	500’	42x26
300	4/0	1.950	1335	1662	500’	42x28
Two Conductor SEU with a Bare Ground						
8	8	0.407 x 0.626	47	104	1000’	24x15
6	6	0.458 x 0720	75	143	1000’	24x18
4	6	0.502 x 0.808	104	184	1000’	27x18
4	4	0.505 x 0.811	118	198	1000’	27x18
2	4	0.559 x 0.919	165	259	1000’	30x18
2	2	0.559 x 0.919	188	282	1000’	30x18
1	1	0.625 x 1.037	236	353	1000’	30x24
1/0	2	0.647 x 1.095	261	387	500’	27x18
1/0	1/0	0.661 x 1.095	298	438	500’	27x18
2/0	1	0.702 x 1.190	329	467	500’	27x18
2/0	2/0	0.719 x 1.208	376	516	500’	27x18
4/0	2/0	0.818 x 1.406	524	692	500’	30x24
4/0	4/0	0.857 x 1.445	598	770	500’	30x24

NOTES:

1. Data are approximate and subject to normal manufacturing tolerances.
2. Standard lengths are subject to normal manufacturing tolerances of ±10%.

*Also available in two conductor with ground and four conductor with ground cable assemblies. STABILOY® and ALCAN are registered trademarks owned throughout the world by Alcan Inc. In the United States and Canada, Alcan Products Corporation is licensed to use such trademarks.

STABILOY® SEU and SER Ampacities and Correction Factors

SIZE AWG or kcmil	Dwelling Service and Feeders per NEC Table 310.15(B)(6)	Applications other than Dwelling Units per NEC Table 310.16		SIZE AWG or kcmil
		75° C	90° C	
8	-	40	45	8
6	-	50	60	6
4	-	65	75	4
2	100	90	100	2
1	110	100	115	1
1/0	125	120	135	1/0
2/0	150	135	150	2/0
3/0	175	155	175	3/0
4/0	200	180	205	4/0
250	225	205	230	250
300	250	230	255	300

	Ampacity Correction Factors		
Ambient °C	For ambient temperatures other than 30°C (86°F), multiply the ampacities shown above by the appropriate factor shown below.		Ambient °F
	Temp °F 75°C	Temp °F 90°C	
21-25	1.05	1.04	70-77
26-30	1.00	1.00	78-86
31-35	.94	.96	87-95
36-40	.88	.91	96-104
41-45	.82	.87	105-113
46-50	.75	.82	114-122
51-55	.67	.76	123-131
56-60	.58	.71	132-140
61-70	.33	.58	141-158
71-80	–	.41	159-176

NOTES:
1. Ampacities are based on conductor operating temperatures only and do not take voltage drop into consideration.
2. A neutral conductor which carries only the unbalanced current from other conductors, as in the case of normally balanced circuits of three or more conductors, shall not be counted in determining Ampacity Adjustment Factors. But in a three-wire circuit consisting of two phase wires and the neutral of a four-wire three-phase Wye-connected system, a common conductor carries approximately the same current as the other conductors and shall be counted in determining ampacities.
3. Based on Ambient Air Temperature of 30°C (86°F).
4. See termination provisions for conductor sizing as given in Underwriters Laboratories Electrical Construction Materials Directory, "Equipment for Use in Ordinary Locations."