

AL 2000V XLPE Insulation. RHH/RHW-2 PV

Single Conductor Photovoltaic (Type PV) Power Cable 2000 Volt Aluminum Conductor XLPE Insulation. Sizes 6AWG through 1000 kcmil. Heat, Moisture, and Sunlight Resistant RoHS. 90°C

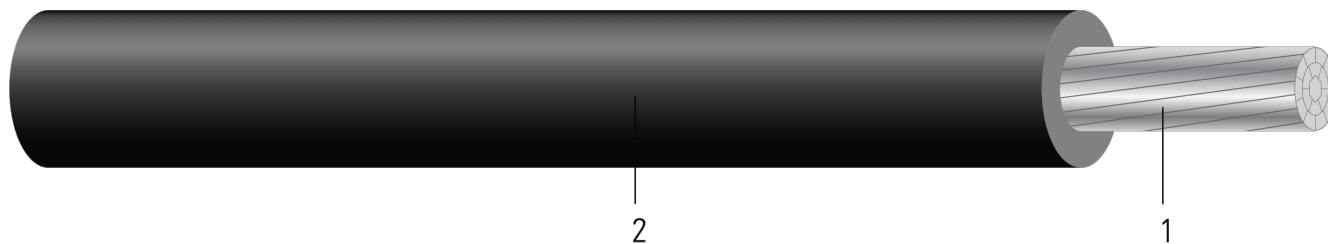


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** AlumaFlex® Compact Stranded Aluminum Alloy (AA-8176)
2. **Insulation:** Cross-linked Polyethylene (XLPE)

APPLICATIONS AND FEATURES:

The cable is available in sizes 6 AWG through 1000 kcmil. The product is approved for use in solar power applications per the NEC article 690 and is rated 90°C for exposed or concealed wiring in wet or dry locations. Individual conductors are stranded aluminum alloy covered with a cross-linked polyethylene (XLPE) insulation and is rated for direct burial. The cable is sunlight resistant, oil resistant PRI and PRII, RoHS compliant, passes -40°C cold bend.

SPECIFICATIONS:

- ASTM B836 Compact Rounded Stranded Aluminum Conductors
- UL 44 Thermoset-Insulated Wires and Cables
- UL 854 Service Entrance Cable
- UL 4703 Standard for Photovoltaic Wire
- VW-1 Vertical-Wire Flame Test (Optional)
- AA 8176 Stranded Aluminum Alloy Conductors

SAMPLE PRINT LEGEND:

SOUTHWIRE E316464 MASTER-DESIGN {UL} PV WIRE XXX KCMIL (XXX.XXX{mm²}) COMPACT AL. --- AlumaFlex{R} AA8176 2000V 90{D}C WET OR DRY -40{D}C SUN RES DIRECT BURIAL OR RHH-RHW-2 2000V --- RoHS {MMM/DD/YYYY} {SEQUENTIAL FOOTAGE MARKS} SEQ FEET



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Table 1 – Weights and Measurements

Stock Number	Cond. Size	Diameter Over Conductor	Insul. Thickness	Approx. OD	Aluminum Weight	Approx. Weight
	AWG/Kcmil	inch	mil	inch	lb/1000ft	lb/1000ft
585843	6	0.169	85	0.349	24	59
586673	4	0.212	85	0.383	39	77
586672	2	0.268	85	0.438	62	104
619879	1	0.298	105	0.519	78	146
591256	1/0	0.336	105	0.546	99	164
583673	2/0	0.376	105	0.586	125	195
577100	3/0	0.422	105	0.633	158	235
583678	4/0	0.474	105	0.685	199	284
577101	250	0.520	120	0.760	235	350
584290	300	0.569	120	0.810	282	397
582174	350	0.615	120	0.856	329	462
584291	400	0.659	120	0.899	376	518
582267	500	0.735	120	0.978	471	614
585499	600	0.812	135	1.083	565	745
586013	750	0.908	135	1.178	706	904
641387	1000	1.060	135	1.330	942	1168

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

† Ampacities are based on Table 310.16 of the NEC 2020 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts with not more than three current-carrying conductors in raceway, cable or direct buried based on ambient temperature of 30°C (86°F).

Table 2 – Electrical and Engineering Data

Stock Number	Cond. Size	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 90°C	Inductive Reactance @ 60Hz	Allowable Ampacity At 60° C†	Allowable Ampacity At 75° C†	Allowable Ampacity At 90° C†
	AWG/Kcmil	inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp	Amp
585843	6	2.8	157	0.674	0.812	0.051	40	50	55
586673	4	3.1	250	0.424	0.510	0.048	55	65	75
586672	2	3.5	398	0.267	0.321	0.045	75	90	100
619879	1	4.2	502	0.211	0.254	0.046	85	100	115
591256	1/0	4.4	633	0.168	0.201	0.044	100	120	135
583673	2/0	4.7	798	0.133	0.160	0.043	115	135	150
577100	3/0	5.1	1006	0.105	0.126	0.042	130	155	175
583678	4/0	5.5	1269	0.084	0.100	0.041	150	180	205
577101	250	6.1	1500	0.071	0.086	0.041	170	205	230
584290	300	6.5	1800	0.059	0.071	0.041	195	230	260
582174	350	6.8	2100	0.050	0.062	0.040	210	250	280
584291	400	7.2	2400	0.044	0.054	0.040	225	270	305
582267	500	7.8	3000	0.035	0.044	0.039	260	310	350
585499	600	8.7	3600	0.029	0.037	0.039	285	340	385
586013	750	9.4	4500	0.024	0.031	0.038	320	385	435
641387	1000	10.6	6000	0.018	0.025	0.037	375	445	500



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† Ampacities are based on Table 310.16 of the NEC 2020 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts with not more than three current-carrying conductors in raceway, cable or direct buried based on ambient temperature of 30°C (86°F).

MBR is based on an operating voltage of less than or equal to 1000 volts. MBR for operating voltages above 1000 Volt is 8 X OD per NEC 300.34.

Stock Codes and Colors

Size	Black	Brown	Orange	Yellow	White	Red	Green
AWG/ Kcmil							
6	585843						
4	586673						
2	586672						589171
1	619879						589051
1/0	591256				591241		
2/0	583673						
3/0	577100	669515	669516	669517	577843		669518
4/0	583678				597698	607400	591242
250	577101				577844	668535	
300	584290				589170	675225	
350	582174				597996	592618	
400	584291				596689	652801	
500	582267	591243	591244	591245	586671	588797	591246
600	585499				591247	588799	
750	586013				589375	592619	
1000	641387				641386		

