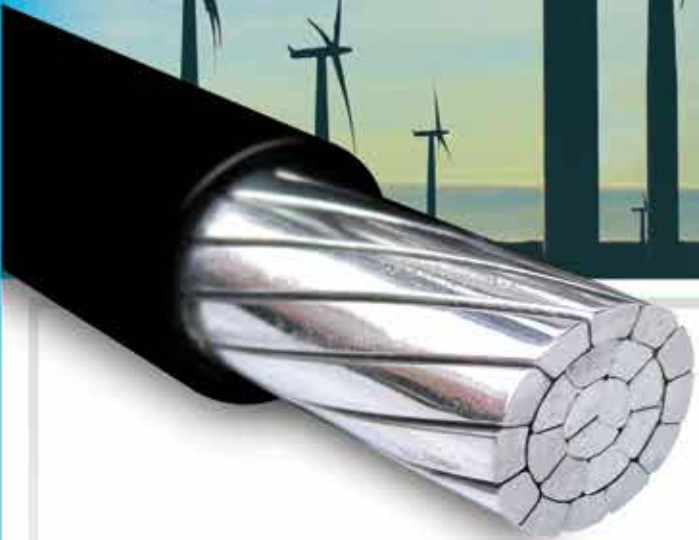


Zephyr 2000[™]

Aluminum Cable for **Wind Farm**
Applications





Zephyr2000™ Type RHH/RHW-2 2000 V

General Cable offers a broad range of wind generation, transmission and distribution cables that link turbine sources to the grid and beyond. Zephyr2000 is the aluminum conductor solution for wind power generation from the turbine to the step-up transformer.

Description

General Cable's Zephyr2000 Type RHH/RHW-2 2000 V rated AA-8000 single conductor is suitable for use in special applications, such as wind power generation. As with all AA-8000 aluminum conductors, this high quality product is dependable and offers tremendous flexibility. It meets the requirements of the applicable Underwriters Laboratories, Inc. standards and is approved for use in accordance with the recommendations of the National Electrical Code (NEC). AA-8000 alloy conductor is recognized by ASTM.

Application

Wind power generating installations may require conductor insulations rated higher than 600 V to transfer the generated power to the step-up transformer. 2000 V rated Zephyr2000 Type RHH/RHW-2 AA-8000 conductors are manufactured for these specific applications to satisfy customers' specifications. Type RHH/RHW-2 conductors are installed in raceways in accordance with the requirements of the NEC and may also be used in cable trays when marked for "CT USE." Contact General Cable to ask about conductors rated for use in cable tray.

Marking

Conductors will bear the following surface marking:
 GENERAL CABLE® (PLANT OF MANUFACTURE) (SIZE) ZEPHYR2000™
 COMPACT AA-8000 AL XLPE 2000V RHH or RHW-2 SUN-RES (UL)
 YEAR DATE TIME SEQUENTIAL FOOTAGE MARK

Size AWG or kcmil	Nominal Dimensions					Nominal Mass (lbs/1000')		Standard Package	
	Insulation (mils)	Conductor Diameter (inches)	RHH or RHW-2 Insulated Conductor Diameter (inches)	Bare Conductor Area (sq. inches)	RHH or RHW-2 Conductor Area (sq. inches)	AA-8000	Total	Length	Reel
6	70	0.169	0.309	0.0224	0.0750	25	49	1000'	NRC 24.10
4	70	0.213	0.350	0.0356	0.0962	39	69	1000'	NRC 24.10
2	70	0.268	0.408	0.0564	0.1307	63	98	1000'	NRC 24.10
1	90	0.298	0.480	0.0697	0.1810	79	133	1000'	NRC 30.11
1/0	90	0.337	0.517	0.0892	0.2099	99	160	1000'	NRC 30.11
2/0	90	0.374	0.550	0.1099	0.2376	125	191	1000'	NRC 30.11
3/0	90	0.421	0.601	0.1392	0.2837	158	232	1000'	NRC 30.11
4/0	90	0.470	0.650	0.1735	0.3318	199	281	1000'	NRC 30.18
250	105	0.514	0.724	0.2075	0.4117	235	338	1000'	NRC 30.18
300	105	0.566	0.780	0.2516	0.4778	282	395	1000'	NRC 30.18
350	105	0.607	0.817	0.2894	0.5242	329	450	1000'	NRC 30.18
400	105	0.659	0.870	0.3411	0.5945	377	496	1000'	NRC 32.24
500	105	0.736	0.946	0.4254	0.7029	471	602	1000'	NRC 32.24
600	120	0.813	1.050	0.5191	0.8659	565	731	1000'	NRC 36.24
700	120	0.877	1.117	0.6041	0.9799	659	837	1000'	NRC 40.24
750	120	0.908	1.115	0.6475	0.9764	706	889	1000'	NRC 40.24
900	120	0.999	1.239	0.7838	1.2057	847	1048	1000'	NRC 42.26
1000	120	1.060	1.300	0.8825	1.3273	941	1153	1000'	NRC 42.26

Note: The insulation (mils) is from NEC Table 310.104(B) Thickness of Insulation for Nonshielded Types RHH and RHW-2 Solid Dielectric Insulated Conductors Rated 2000 Volts.

AA-8000 Ampacities and Correction Factors

Allowable Ampacities					
Size AWG or kcmil	Not more than three* current-carrying insulated conductors in a raceway, cable or directly buried**		Single insulated conductor in free air***		Size AWG or kcmil
	75°C (167°F)	90°C (194°F)	75°C (167°F)	90°C (194°F)	
	RHH, RHW-2	RHH, RHW-2	RHH, RHW-2	RHH, RHW-2	
6	50	55	75	85	6
4	65	75	100	115	4
2	90	100	135	150	2
1	100	115	155	175	1
1/0	120	135	180	205	1/0
2/0	135	150	210	235	2/0
3/0	155	175	240	270	3/0
4/0	180	205	280	315	4/0
250	205	230	315	355	250
300	230	260	350	395	300
350	250	280	395	445	350
400	270	305	425	480	400
500	310	350	485	545	500
600	340	385	545	615	600
700	375	425	595	670	700
750	385	435	620	700	750
900	425	480	700	790	900
1000	445	500	750	845	1000

Ampacity Correction Factors				
For ambient temperatures other than 30°C (86°F), multiply the allowable ampacities specified in the ampacity tables by the appropriate factor shown below.****				
Ambient Temp. °C	Temperature Rating of Conductor			Ambient Temp. °F
	60°C	75°C	90°C	
10 or less	1.29	1.20	1.15	50 or less
11-15	1.22	1.15	1.12	51-59
16-20	1.15	1.11	1.08	60-68
21-25	1.08	1.05	1.04	69-77
26-30	1.00	1.00	1.00	78-86
31-35	0.91	0.94	0.96	87-95
36-40	0.82	0.88	0.91	96-104
41-45	0.71	0.82	0.87	105-113
46-50	0.58	0.75	0.82	114-122
51-55	0.41	0.67	0.76	123-131
56-60	–	0.58	0.71	132-140
61-65	–	0.47	0.65	141-149
66-70	–	0.33	0.58	150-158
71-75	–	–	0.50	159-167
76-80	–	–	0.41	168-176
81-85	–	–	0.29	177-185

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, is not required to 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 must 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."

* See 310.15(B)(5)

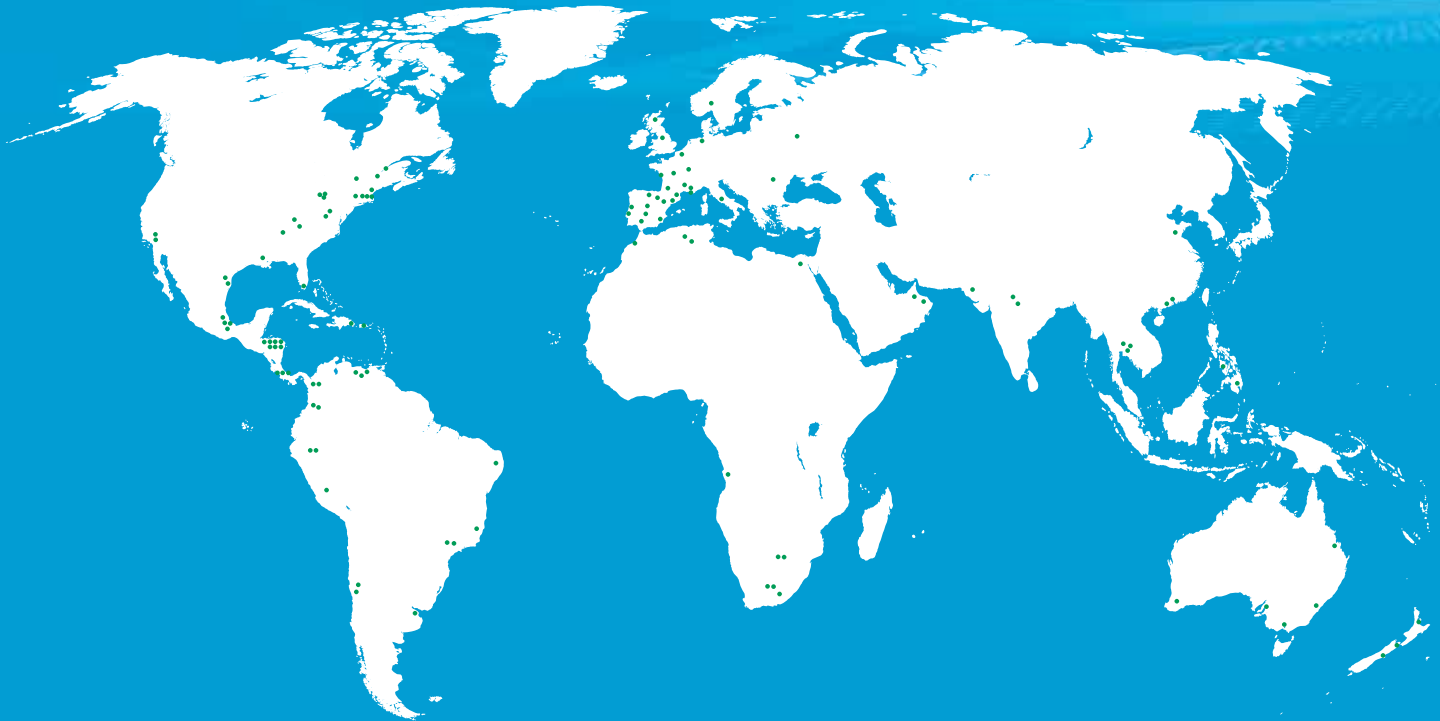
** Based on NEC Table 310.15(B)(16)

***Based on NEC Table 310.15(B)(17)

****Per NEC Table 310.15(B)(2)(a)



Global Reach



General Cable, a leading wire and cable innovator for over 165 years, serves customers through a global network of 57 manufacturing facilities in 26 countries and has worldwide sales representation and distribution. The Company is dedicated to the production of high-quality aluminum, copper and fiber optic wire and cable and systems solutions for the energy, construction, industrial, specialty and communications sectors. In addition to our strong brand recognition and strengths in technology and manufacturing, General Cable is also competitive in such areas as distribution and logistics, marketing, sales and customer service. This combination enables General Cable to better serve its customers as they expand into new geographic markets.



A commitment to achieving industry-leading standards and responding proactively to environmental global issues.

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