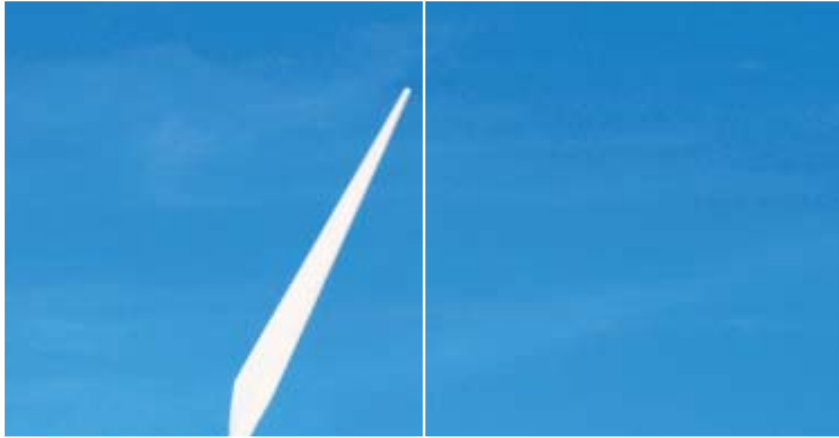


# Zephyr 2000™

Delivering Power  
Out of Thin Air™

Cable for  
Wind Farm  
Applications



grounded in service  
**wired to innovate™**



Wind power plays an important role in meeting the nation's long term energy needs and is a renewable energy source for the generation of electrical power. Zephyr2000 from Alcan Cable is the aluminum conductor solution for wind mill power generation.

## Zephyr2000™ Type RHH/RHW-2 2000V

### Description:

Alcan manufactures, upon special request, Zephyr2000 Type RHH/RHW-2 2000V rated AA-8030 conductors suitable for use in special applications, such as wind power generating facilities. As with all AA-8030 aluminum conductors, these products are high quality, dependable and offer tremendous flexibility. They meet the requirements of the applicable Underwriters Laboratories, Inc. standards and are approved for use in accordance with the recommendations of the National Electrical Code. AA-8030 alloy conductor is recognized by ASTM.

### Application:

Wind power generating installations may require conductor insulations rated higher than 600V to transfer the generated power to the step-up transformer. 2000V rated Type RHH/RHW-2 AA-8030 conductors are manufactured for these specific applications upon special request 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 Alcan Cable to ask about conductors rated for use in cable tray.

### Marking:

Conductors will bear the following surface marking:

Alcan (Plant of Manufacture) (Size) Compact STABILOY® AA-8030  
AL XLPE 2000V RHH or  
RHW-2 SUN-RES (UL)  
(Year of Manufacture).



Size AWG or kcmil	NOMINAL DIMENSION					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-8030	Total	Length	Reel
6	70	0.169	0.310	0.0224	0.0755	25	49	1000'	NRC 24.10
4	70	0.213	0.355	0.0356	0.0990	39	68	1000'	NRC 24.10
2	70	0.268	0.410	0.0564	0.1320	63	97	1000'	NRC 24.10
1	90	0.299	0.485	0.0702	0.1847	79	129	1000'	NRC 30.11
1/0	90	0.336	0.520	0.0887	0.2124	99	154	1000'	NRC 30.11
2/0	90	0.376	0.560	0.1110	0.2463	125	185	1000'	NRC 30.11
3/0	90	0.423	0.610	0.1405	0.2922	158	224	1000'	NRC 30.11
4/0	90	0.475	0.660	0.1772	0.3421	199	273	1000'	NRC 30.18
250	105	0.520	0.735	0.2124	0.4243	235	329	1000'	NRC 30.18
300	105	0.570	0.785	0.2552	0.4840	282	384	1000'	NRC 30.18
350	105	0.616	0.830	0.2980	0.5411	329	438	1000'	NRC 30.18
400	105	0.659	0.875	0.3411	0.6013	377	492	1000'	NRC 32.24
500	105	0.736	0.950	0.4254	0.7088	471	599	1000'	NRC 32.24
600	120	0.813	1.060	0.5191	0.8825	565	726	1000'	NRC 36.24
700	120	0.877	1.120	0.6041	0.9852	659	832	1000'	NRC 40.24
750	120	0.908	1.155	0.6475	1.0477	706	884	1000'	NRC 40.24
900	120	0.999	1.249	0.7838	1.2252	847	1042	1000'	NRC 42.26
1000	120	1.060	1.310	0.8825	1.3478	941	1147	1000'	NRC 42.26

**Note:** The insulation (mils) is from NEC Table 310.13(B) Thickness of Insulation for Nonshielded Types RHH and RHW-2 Solid Dielectric Insulated Conductors Rated 2000 Volts.

# STABILOY Ampacities and Correction Factors

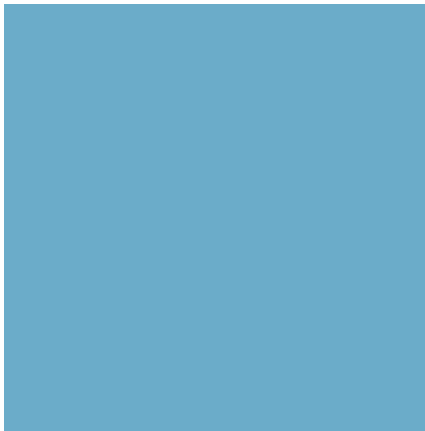
Size AWG or kcmil	Not more than three* single insulated conductors in a raceway in free air**		Single insulated conductor in free air**		Size AWG or kcmil
	75°C (167°F)	90°C (194°F)	75°C (167°F)	90°C (194°F)	
	XHHW, RHH, RHW-2, USE	XHHW-2, RHH, RHW-2, USE-2	XHHW, RHH, RHW-2, USE	XHHW-2, RHH, RHW-2, USE-2	
8	40	45	55	60	8
6	50	60	75	80	6
4	65	75	100	110	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	275	3/0
4/0	180	205	280	315	4/0
250	205	230	315	355	250
300	230	255	350	395	300
350	250	280	395	445	350
400	270	305	425	480	400
500	310	350	485	545	500
600	340	385	540	615	600
700	375	420	595	675	700
750	385	435	620	700	750
900	425	480	700	785	900
1000	445	500	750	845	1000

**NOTES:**

- Ampacities are based on conductor operating temperatures only and do not take voltage drop into consideration.
- 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.
- Based on Ambient Air Temperature of 30°C (86°F).  
\* See 310.15(B)(4)  
\*\* See termination provisions for conductor sizing as given in Underwriters Laboratories Electrical Construction Materials Directory, "Equipment for Use in Ordinary Locations."
- Based on NEC Table 310.16.

<i>Ampacity Correction Factors</i>			
For ambient temperatures other than 30°C (86°F), multiply the ampacities shown above by the appropriate factor shown below.			
Ambient Temp. °C	75°C	90°C	Ambient Temp. °F
21–25	1.05	1.04	70–77
26–30	1.00	1.00	79–86
31–35	.94	.96	88–95
36–40	.88	.91	97–104
41–45	.82	.87	106–113
46–50	.75	.82	115–122
51–55	.67	.76	124–131
56–60	.58	.71	133–140
61–70	.33	.58	142–158
71–80	—	.41	160–176

Alcan Cable operates throughout North America – in the U.S. as a division of Alcan Products Corporation, and in Canada as a division of Alcan, Inc. Alcan Cable has its own research and development facilities and is backed by the technology and laboratories of the Alcan Group. We're proud of our long history of providing new and innovative aluminum solutions to the many customers we serve.



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