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TOWERGUARD CCA® 2KV (UL) RHH OR RHW-2 COPPER CLAD ALUMINUM CONDUCTOR/90°C WET OR DRY FOR CABLE TRAY USE - SUNLIGHT RESISTANT - FOR DIRECT BURIAL U.S. PATENT NO.

8,618,688

Applications

This cable is intended for fixed installation in wind turbine towers. Good resistance to temperatures, oils, ozone and fire. This cable is intended for use in solar power generation applications to connect the inverter to transformer where high flexibility is required, commonly applied to prefabricated inverter and transformer skids. Additionally, this cable is appropriate for tight battery applications, as well as superior alternatives to battery cable. TOWERGUARD CCA® can also be used for secondary voltage resistance welding leads and in power supply applications not exceeding 2000V volts.

Construction

Nominal voltage: RHH or RHW-2 2000V UL

Conductor: The conductor shall be a flexible Copperclad Aluminum (CCA), an electrical conductor that has an outer sleeve of copper metallurgically bonded to a solid aluminum core. The combination of these two metals makes it uniquely suited to many electrical applications where weights to electrical conductivity issues are important. This bimetallic wire is much lighter than copper and only slightly heavier than bare aluminum. The density of CCA is about 35% lighter than copper. CCA conducts like copper for AC frequencies. This product meets or exceeds the minimum requirements set forth in ASTM B 566 04.

Separator: A suitable tape separator between the conductor and insulation.

Insulation: Ethylene-propylene rubber (EPR) type EP, meeting UL and ICEA requirements for 90°C.

Jacket: A heavy duty, thermosetting CPE in accordance with ICEA S-95-658 NEMA WC70 or optional Low Smoke Zero Halogen jacket LSZH.

Jacket Color: Black

Print Legend: TOWERGUARD CCA® (SIZE AWG OR KCMIL) CU CLAD AL UL 217923 RHH or RHW-2 2000V SUN RES OIL RES U.S. Patent No. 8,618,688 (SEQUENTIAL FOOTAGE MARKER)

Specifications

ICEA S-95-658 / NEMA WC70

UL Standard 44

ASTM B 566

ASTM B 172

Product Features

35% less expensive than copper cables with equal ampacity

Flexible cable design - **TOWERGUARD CCA®** can bend to a radius of 6 times the O.D. without impairing the insulation.

90 °C (dry) 90 °C (wet)

Ozone, sunlight, oil, grease, weather, water, chemical and abrasion resistant jacket

Surface printed for easy identification

35% lighter weight and easier to install than copper cables with equal ampacity

No scrap value (theft deterrent)

Sequential footage markers

U.S. Patent No. 8,618,688

Terminals and Splices

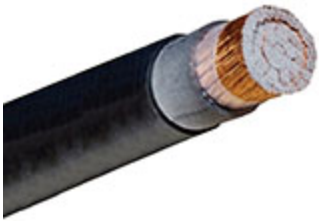
Testing has been completed using TOWERGUARD CCA® with BURNDY® aluminum HYLUG™ terminals and HYLINK™ splices. Both are UL Listed for use on copper clad aluminum cable.

[Click HERE to view a chart of cable sizes and corresponding Burndy part numbers in PDF format.](#)

*Ampacity is calculated based on ambient air temperature of 30°C, per 2008 NEC, Table 310-17

**Ampacity is calculated based on ambient air temperature of 30°C, not more than three current-carrying conductors in raceway, cable, or earth, per 2008 NEC, Table 310-16

† Actual shipping weight may vary.



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Item #	Conductor Cross-Sectional Area AWG/kcmil	Conductor Nominal No. of wires	Conductor Overall Diameter Approximate (inches)	Average Insulation Thickness (mils)	Average Jacket Thickness (mils)	Nominal Cable Diameter	Ampacity* 90 °C Free Air	Ampacity** 90 °C Duct	Corresponding Size of DLO(CU) AWG/kcmil	Net Cable Weight† lbs/MFT
<u>CCA1-01TWRGRD</u>	1	133	0.37	65	45	0.59	175	115	4	211
<u>CCA1/0-01TWRGRD</u>	1/0	168	0.42	65	45	0.64	205	135	2	250
<u>CCA2/0-01TWRGRD</u>	2/0	210	0.47	65	45	0.69	235	150	1	295

Item #	Conductor Cross-Sectional Area AWG/kcmil	Conductor Nominal No. of wires	Conductor Overall Diameter Approximate (inches)	Average Insulation Thickness (mils)	Average Jacket Thickness (mils)	Nominal Cable Diameter	Ampacity* 90 °C Free Air	Ampacity** 90 °C Duct	Corresponding Size of DLO(CU) AWG/kcmil	Net Cable Weight† lbs/MFT
<u>CCA3/0-01TWRGRD</u>	3/0	266	0.52	65	45	0.75	275	175	1/0	352
<u>CCA4/0-01TWRGRD</u>	4/0	329	0.58	65	45	0.80	315	205	2/0	417
<u>CCA250-01TWRGRD</u>	250	399	0.65	75	65	0.93	355	230	3/0	546
<u>CCA350-01TWRGRD</u>	350	551	0.76	75	65	1.04	455	280	4/0	704
<u>CCA500-01TWRGRD</u>	500	779	0.91	75	65	1.19	545	350	313	934
<u>CCA600-01TWRGRD</u>	600	925	0.99	90	65	1.27	615	385	373	1124
<u>CCA750-01TWRGRD</u>	750	1184	1.12	90	65	1.43	700	435	444	1381
<u>CCA800-01TWRGRD</u>	800	1258	1.16	90	65	1.47	725	450	535	1454
<u>CCA900-01TWRGRD</u>	900	1406	1.22	90	65	1.54	785	480	535	1599
<u>CCA1000-01TWRGRD</u>	1000	1554	1.29	90	65	1.60	845	500	646	1743
<u>CCA1250-01TWRGRD</u>	1250	1924	1.43	115	95	1.85	960	545	777	2285
<u>CCA1500-01TWRGRD</u>	1500	2379	1.57	115	95	2.00	1075	585	929	2730