

Capabilities Bulletin

CB0010

Wind Turbine Tray Cable (WTTC)

Cables designed to withstand the rigors of extreme conditions encountered in wind turbine applications. Designed utilizing high performance Belflex® jacket material that combines exceptional oil resistance with outstanding cold temperature properties.

Multiconductor Control & Instrumentation Cables Rated 1000V WTTC And 600V TC-ER* For Use In Tray & Wind Turbine Applications.



The projected growth of the wind energy market will result in tremendous opportunities for wind turbine installations. The reliability of turbine system operations is critical to success and cable is a key component in attaining the results expected.

Belden has been the leader in high performance cable development with both design and manufacturing expertise to provide customers uncompromised performance. Belden has designed control and instrumentation cables specifically for the wind industry. The cables are designed to withstand the rigors of extreme conditions encountered in wind turbine installations.

WTTC cable applications include control and instrumentation functions in;

- Pitch & Yaw drive control
- Brake control
- Heating and cooling systems
- Pumps
- Gearbox
- Blade pitch control
- Monitoring systems

Belden High Performance Wind Turbine Tray Cable (WTTC) constructions are designed to provide maximum operational efficiency in wind turbine applications. Designed for the harshest conditions, these cables are capable of withstanding the effects of;

- Temperature extremes
- Humidity
- Oil exposure
- Flexing & vibration
- High EMI emissions

Belden High Performance WTTC cable design provides the requirements and approvals needed to assure maximum system reliability.

- 1000V UL 2277 Type WTTC
- 600V UL 1277 Type TC-ER*
- -50C Cold Bend, -40C Cold Impact
- Oil Res I & II
- 90C Wet & Dry; XHHW, XHHW-2
- c(UL) 1000V AWM I/II A/B
- c(UL) 600V CIC
- Shielding options available
- FT4 Flame Rating

High Performance WTTC products are available to quote by contacting your Belden Sales Representative or contacting Belden at 1-800-Belden-1 (1-800-235-3361)

Other WTTC approved products are also available from Belden to meet various application needs.

UL Type WTTC & TC

UL Subject 2277 & 1277

High Performance Belflex Jacket with XLPE Insulation

Oil-Res I & II
-40°C Cold Impact
-50°C Cold Bend
FT4 Flame Rating

Electrical Characteristics

Maximum Operating Voltage:	1000 VRMS (UL WTTC)
	600 VRMS (UL TC-ER*)

Physical Characteristics

Conductor Range	18 to 4/0 AWG	
Conductor Stranding	Fine Stranding per UL 62 Flexible Cords & Cable	
Jacket Material	Sunlight & Oil Resistant <i>Belflex</i> ® Jacket	
Oil Resistance	Oil Res I & II	
Cold Bend	-50°C	
Cold Impact	-40°C	
Flame Rating	FT4, IEEE 1202/383	
Temperature Rating	90°C Wet & Dry	
Insulation	XHHW, XHHW-2	
Torsion Test	10,000 cycles	
Min. Bend Radius	8x Diameter	
Applicable Standards	UL Type WTTC UL 2277	ICEA T-29-520
	UL Type TC-ER* UL 1277	ICEA S-73-532
	c(UL) 600 V CIC	ICEA S-95-658
	c(UL) 1000V AWM I/II A/B	ICEA S-61-402
	RoHS Compliant	
	CE	

*TC-ER Approvals 18 AWG - 5 AWG, Pending 4 AWG-4/O

For More Information

For any other product information call: 1-800-BELDEN-1 (1-800-235-3361) or visit us at www.Belden.com. All information is subject to change without notice, since Belden reserves the right to change its products as progress in engineering and manufacturing methods or other circumstances may warrant.