

Suzhou Desan Wire Co., Ltd.

Wind Power Energy Cables













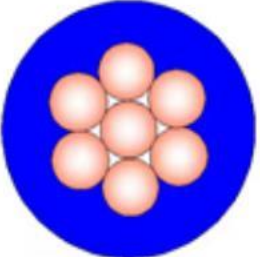







By 2030, the carbon dioxide emissions per unit of GDP will decrease by more than 65 % compared to 2005, and the proportion of non fossil fuels in primary energy consumption will reach around 25%. Among them, the total installed capacity of wind and solar power generation will reach over 1.2 billion kilowatts.

## Service Overview

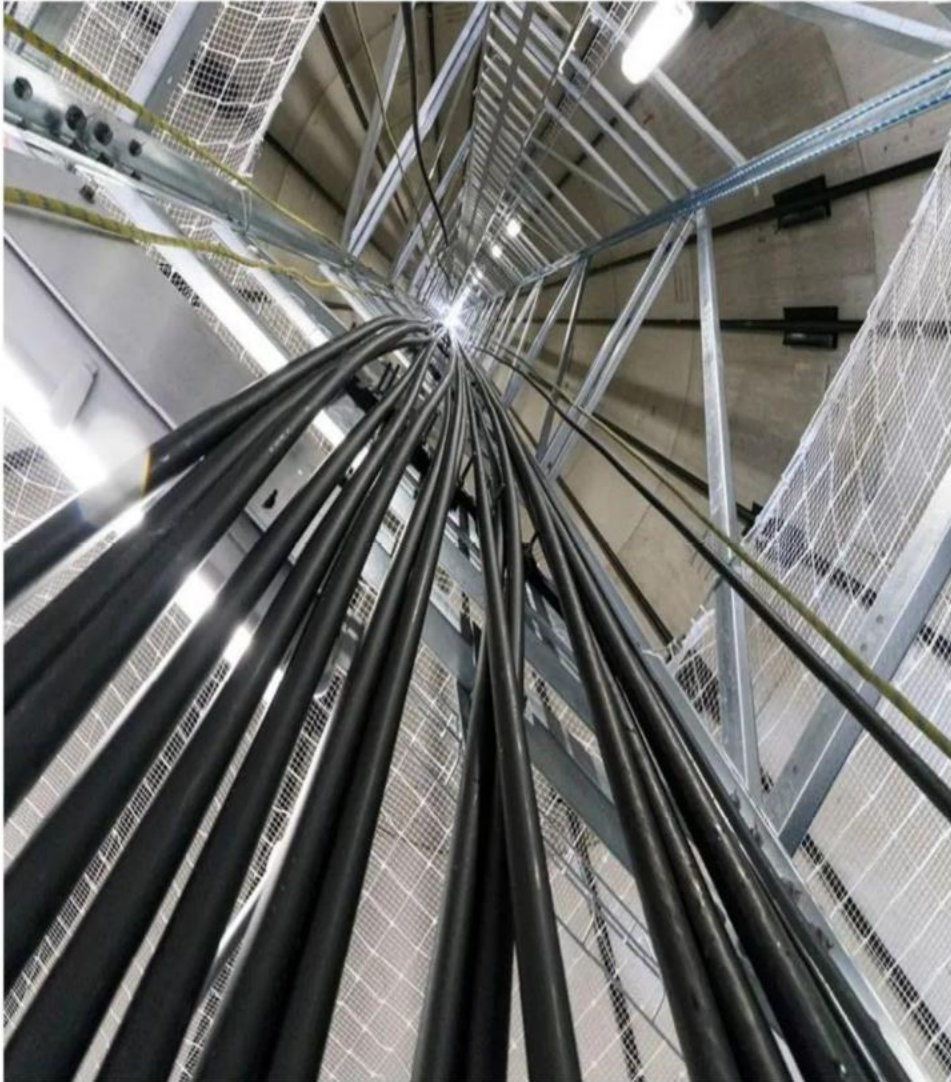


|                           |  |
|---------------------------|--|
| Market Case               | Main: Vision and other wind factory harness supporting manufacturers (Weien & Haoting)   |
| Service Type              | 2 MW to 6 MW   |
| Annual Performance Volume | 8GW approx. (3000 sets)  |
| Service Module            | <p>A:Variable Pitch Module</p> <p>B:Slip Ring Module</p> <p>C:Motor Drive Module</p> <p>D:Yaw Twist Module</p> <p>E:Internal and External Module</p> <p>F:Tower Control Module</p> |

## Reliability Testing of Wind Power Cables

|                            |   |   |   |   |
|----------------------------|---|---|---|---|
| <b>Names</b>               | <b>Servo Cable</b>  | <b>Signal Capture Cable</b>   | <b>Signal Capture Cable</b>   | <b>Data Cable</b>   |
| <b>Structure</b>           |                                |                               |                                |                                |
| <b>Reliability Testing</b> | <br>C:\Users\trator\Desktop\   | <br>C:\Users\trator\Desktop\   | <br>C:\Users\trator\Desktop\   | <br>C:\Users\trator\Desktop\   |
| <b>Names</b>               | <b>Single Insulation Cable</b>  | <b>Control Cable</b>  | <b>3M Alternative Cable</b>   | <b>Anti Torsion Cable</b>   |
| <b>Structure</b>           |                              |                             |                              |                              |
| <b>Reliability Testing</b> | <br>C:\Users\trator\Desktop\ | <br>C:\Users\trator\Desktop\ | <br>C:\Users\trator\Desktop\ | <br>C:\Users\trator\Desktop\ |

## Product Application 1: Tower Side Wall Link Cable



### Cables for Cabin and Tower Jumper Areas:

1、 It is subject to constant yaw torsion, friction and various complex mechanical stresses.

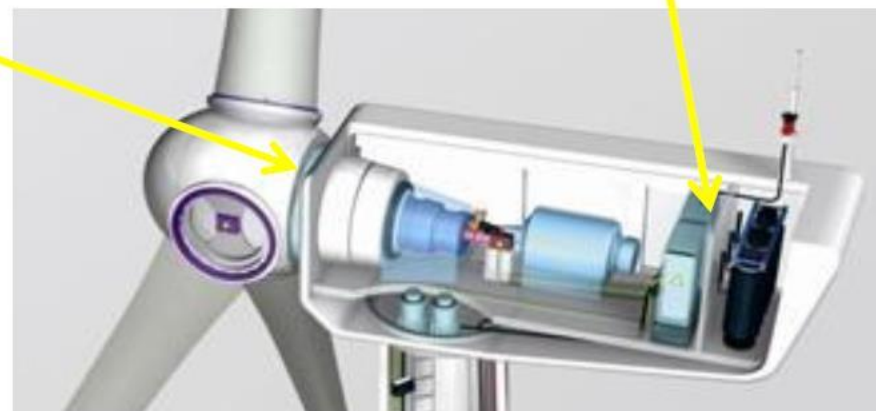
2、 Torsion resistance, low smoke, halogen free, flame retardant, oil resistance, UV resistance, ozone resistance, salt spray resistance, mold resistance, low temperature resistance and other characteristics.

3、 Desan's goal is to extend the service life of cables, which is a challenge for the structural design and material selection of products.

## Product Application 1: Tower Torsion Resistant Cable and Common Control Cable

| NO. | Product Category      | Product Structure Specification           | According to Customer Requirements  |
|-----|-----------------------|---|---|
| 1   | Lighthouse Lighting   | FLEX-JZ 2G0.75                            | <ul style="list-style-type: none"> <li>• Halogen-free: IEC60754-1(determination of total halogenated acid gas)</li> </ul>       |
| 2   | Data Torsion Cable    | FD CP (TP) plu, 165m, 4X2X0.25, Shielding | <ul style="list-style-type: none"> <li>• Combustion Gas Corrosiveness: IEC60754-(acidity determination)</li> </ul>              |
| 3   | Control Torsion Cable | FD- JZ 4*1.0                              | <ul style="list-style-type: none"> <li>• Low Smoke Density: IEC61034-2</li> </ul>   |
| 4   | Control Torsion Cable | FD- JZ 5*0.75                             | <ul style="list-style-type: none"> <li>• Oil Resistance: EN50363-4-1</li> </ul>   |
| 5   | Control Torsion Cable | FD- JZ 7*0.75                             | <ul style="list-style-type: none"> <li>• Uv Resistance and Weather Resistance: ISO4892-2</li> </ul>                             |
| 6   | Control Torsion Cable | FD- JZ 9*0.75                             | <ul style="list-style-type: none"> <li>• Ozone Resistance: IEC60811-403</li> </ul>  |
| 7   | Control Torsion Cable | FD- JZ 18*0.75 Shielded Cable             | <ul style="list-style-type: none"> <li>• Salt Spray Resistance: GB/T2423.17</li> </ul>  |
| 8   | Control Torsion Cable | FD- JZ 25*0.75                            | <ul style="list-style-type: none"> <li>• Mold Resistance: GB/T2423.16</li> </ul>  |
| 9   | Control Torsion Cable | FD- JZ 35*0.75                            | <ul style="list-style-type: none"> <li>• Torsion Resistance: TW-1,TW-2</li> <li>• Temperature Range: -40°C to +105°C</li> </ul> |

## Product Application 2: Motor Drive Control and Signal Data Cable

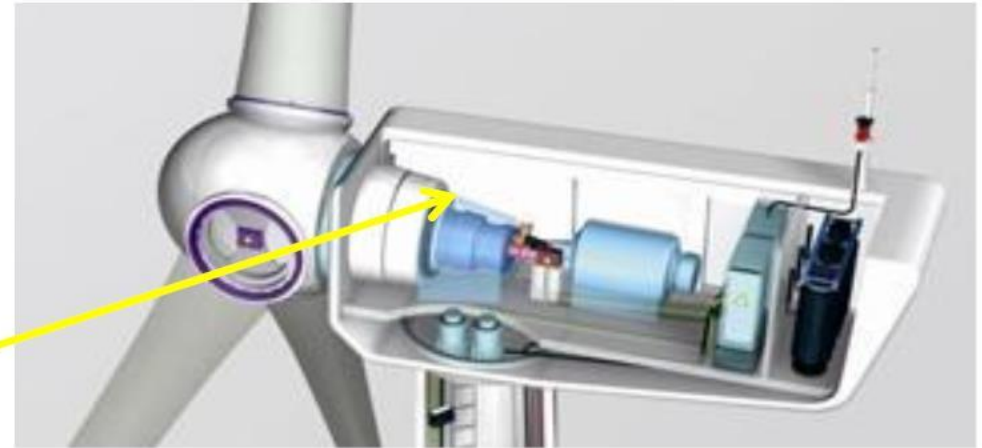




| NO. | Product Category    | Product Structure Specification   | According to Customer Requirements   |
|-----|---------------------|---|--|
| 11  | Signal Cable        | BUS PBplus1x2x0.64 torsion, shielding, 250V characteristic impedance 150 ohms | <ul style="list-style-type: none"> <li>• Halogen-free: IEC60754-1 (determination of total halogenated acid gas)</li> <li>• Oil Resistance: EN50363-4-1</li> <li>• Uv Resistance and Weather Resistance: ISO4892-2</li> <li>• Ozone Resistance: IEC60811-403</li> <li>• Salt Spray Resistance: GB/T2423.17</li> <li>• Mold Resistance: GB/T2423.16</li> <li>• Temperature Range: -40°C to +105°C</li> </ul> |
| 12  | Signal Cable        | BUS PBplus2x2x0.25 torsion, shielding, 250V characteristic impedance 120 ohms |  |
| 13  | Data Cable          | LICY-TP 3*2*014(26AWG) shielding, 250V characteristic impedance 120 ohms      |  |
| 14  | Data Cable          | LICY-TP 3*2*034(22AWG) shielding, 250V characteristic impedance 120 ohms      |  |
| 15  | Servo Drive Control | Servo cable 4G4+2*2*1.5 shielding,0.6~1KV                                     |  |
| 16  | Servo Drive Control | Servo cable 4G6+2*2*1.5 shielding,0.6~1KV                                     |  |
| 17  | Servo Drive Control | Servo cable 4G10+2*2*1.5 shielding,0.6~1KV                                    |  |
| 18  | Servo Drive Control | Servo cable 4G16+2*1.5 shielding,0.6~1KV                                      |  |



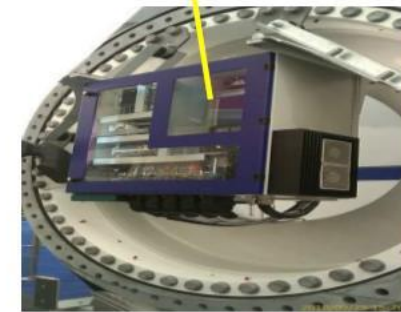
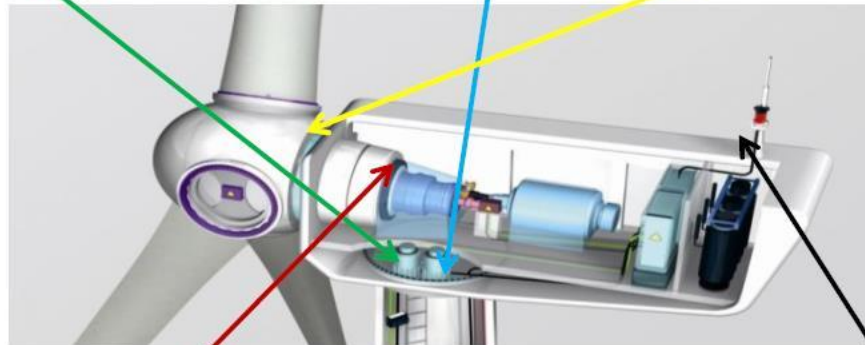
## Product Application 3: Single Insulated Cable for Variable Pitch Control Cabinet and Other Control Cabinets

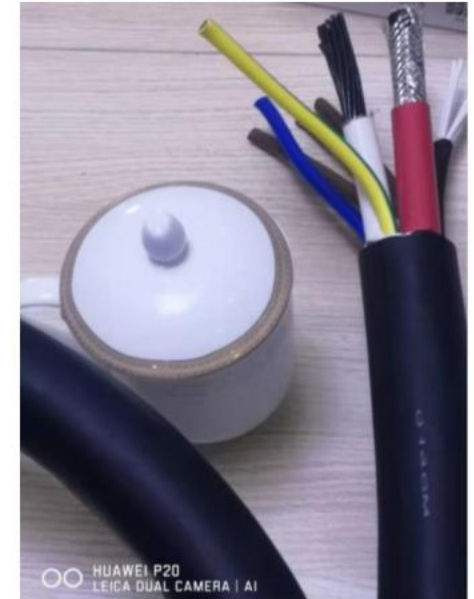




| NO. | Product Category       | Product Structure Specification                   | According to Customer Requirements   |
|-----|------------------------|---|--|
| 19  | Single Insulated Cable | UL1015 -40~105 600V 0.5MM2~95MM2(20AGWG~2/0AWG)   | <ul style="list-style-type: none"> <li>• Flame Retardant Rating: VW-1 or IEC60332***</li> <li>• Salt Spray Resistance: comply with GB/T 2423.17</li> </ul> |
| 20  | Single Insulated Cable | UL10269 -40~105 1000V 0.5MM2~95MM2(20AGWG~2/0AWG) |  |
| 21  | Single Insulated Cable | UL3817 -40~150 3000V 0.5MM2~95MM2(20AGWG~2/0AWG)  |  |

Product Application 4: Variable Pitch Module, Slip Ring Module, Yaw Module, Internal and External Control Cable

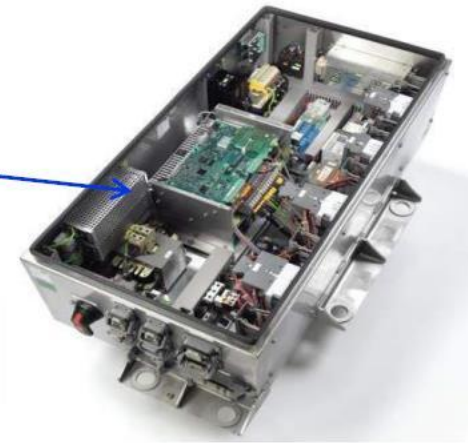




## Product Application 4: Variable Pitch Module, Slip Ring Module, Yaw Module, Internal and External Control Cable

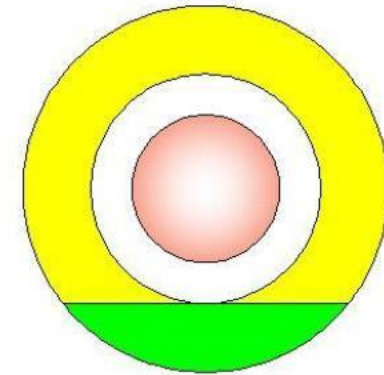
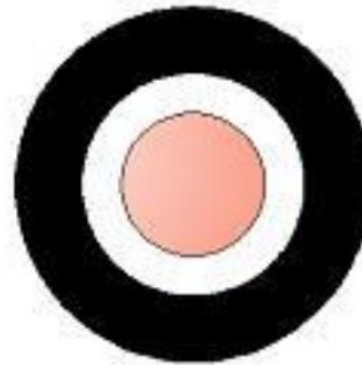
| NO. | Product Category | Product Structure Specification                                 | According to Customer Requirements   |
|-----|------------------|---|--|
| 22  | Control Cable    | OLFLEX CLASSIC 110 BLACK,,4G1.5,unshielded                      | <ul style="list-style-type: none"> <li>• Design Scope:UL CE CCC</li> <li>• Flame Retardant Rating:VW-1 IEC60332-23-2</li> <li>• Low Smoke Density:IEC 61034-2</li> <li>• Oil Resistance:EN 50363-4-1</li> <li>• Uv and Weather Resistance:ISO 4892-2</li> <li>• Ozone Resistance:IEC 60811-403</li> <li>• Salt Spray Resistance:GB/T 2423.17</li> <li>• Mold Resistance:GB/T 2423.16</li> <li>• Torsional Resistance:TW-1, TW-2</li> <li>• Temperature Range: -40°C to +105°C</li> </ul> |
| 23  | Control Cable    | CLASSIC110 4G1.5 torsion resistance,unshielded,300/500V,0.6/1KV |  |
| 24  | Control Cable    | CLASSIC1305G2.5,torsion resistance,unshielded,300/500V          |  |
| 25  | Control Cable    | CLASSIC1103G1.5, non-torsion,unshielded,300/5                   |  |
| 26  | Control Cable    | Communication Cable,2X2X0.25 non-torsion,shielded,250V          |  |
| 27  | Control Cable    | CLASSIC 110 CY 5G6, non-torsion,shielded,300/500V               |  |
| 28  | Control Cable    | TRONIC LIYCY 2X0.75, non-torsion,shielded,250V                  |  |
| 29  | Control Cable    | CLASSIC 110 BLACK 7G1.5 non-torsion,unshielded,0.6/1KV          |  |
| 30  | Control Cable    | CLASSIC 110 4X0.75, non-torsion,unshielded,300/500V             |  |
| 31  | Control Cable    | CLASSIC110 BLACK 4G1.5, non-torsion,unshielded,0.6/1KV          |  |
| 32  | Control Cable    | TRONIC LIYCY, 4X0.75, non-torsion,shielded,250V                 |  |
| 33  | Control Cable    | CLASSIC110BLACK3G1.5non-torsion,unshielded,0.                   |  |
| 34  | Control Cable    | CLASSIC100CY5G16 non-torsion,shielded,300/5                     |  |
| 35  | Control Cable    | CLASSIC 110 CY 3G1.5, non-torsion,shielded,300/500V             |  |
| 36  | Control Cable    | CLASSIC1103G2.5,torsion resistance,unshielded,300/500           |  |
| 37  | Control Cable    | TRONIC BUS L2/FIP, 1X2X0.64, non-torsion,shielded,250V          |  |
| 38  | Control Cable    | CLASSIC110BLACK4G2.5 non-torsion,unshielded,0.6/1KV             |  |
| 39  | Control Cable    | CLASSIC110CYBLACK5G1.5 non-torsion,shielded,0.6/                |  |
| 40  | Control Cable    | CLASSIC110 BLACK 5G2.5 non-torsion,unshielded,0.6/1KV           |  |
| 41  | Control Cable    | TRONIC LIYCY 7X0.75 non-torsion,shielded,250 V                  |  |
| 42  | Control Cable    | CLASSIC 110 3G0.75, ,unshielded,300/500V,                       |  |
| 43  | Control Cable    | 4G4 Cable,Olflex CLASSIC 110 BLACK,unshielded                   |  |
| 44  | Control Cable    | TRONICLIYCY 12X0.75, non-torsion,shielded,250V                  |  |
| 45  | Control Cable    | TRONIC BUS PB105plus1x2x0.64 torsion resistance,shielded,250V   |  |
| 46  | Control Cable    | CASSIC1005G6.0, non-torsion,unshielded,450V/750V                |  |
| 47  | Control Cable    | CLASSIC110CY12G0.75non-torsion,shielded,300/5                   |  |

## Product Application 5: Replace 3M Round Shielded Cable



| NO. | Product Structure Specification |  | As per customers' requirements   |
|-----|---------------------------------|--|--|
| 48  | Banked Cable                    | UL20267#28(7/0.127)*12P ,Outer Jacket: black,300V, | <ul style="list-style-type: none"> <li>● Rated Temperature: 105°C</li> <li>● Rated Voltage: 300V</li> <li>● Reference Standard: UL758,UL1581</li> <li>● PVC Insulation: ROHS environmental standards</li> <li>● Passed UL VW-1 and JQA F-Mark</li> </ul> |
| 49  | Banked Cable                    | UL20267#28(7/0.127)*14P ,Outer Jacket: black,300V, |  |
| 50  | Banked Cable                    | UL20267#28(7/0.127)*20P ,Outer Jacket: black,300V, |  |
| 51  | Banked Cable                    | UL20267#28(7/0.127)*26P ,Outer Jacket: black,300V, |  |
| 52  | Banked Cable                    | UL20267#28(7/0.127)*34P ,Outer Jacket: black,300V, |  |
| 53  | Banked Cable                    | UL20267#28(7/0.127)*40P ,Outer Jacket: black,300V, |  |
| 54  | Banked Cable                    | UL20267#28(7/0.127)*60P ,Outer Jacket: black,300V, |  |

## Product Application 6 :DC Cable



| NO. | Product Category        | Product Structure Specification | According to Customer Requirements  |
|-----|-------------------------|---------------------------------|---|
| 55  | WDZA-YJY Flexible Cable | WDZA-YJY DC 1800V 400MM2        | <ul style="list-style-type: none"> <li>●Rated Temperature: -40~125°C(Instant temperature resistance 250 degrees for 3 minutes)</li> </ul> |
| 56  | WDZA-YJY Flexible Cable | WDZA-YJY DC 1800V 150MM2        | <ul style="list-style-type: none"> <li>●Rated Voltage: 1800V</li> </ul>   |
| 57  | WDZA-YJY Flexible Cable | WDZA-YJY DC 1800V 120MM2        | <ul style="list-style-type: none"> <li>●Reference Standard: UL758,UL1581 GB</li> </ul>  |
| 58  | WDZA-YJY Flexible Cable | WDZA-YJY DC 1800V 95MM2         | <ul style="list-style-type: none"> <li>●XLPE Insulation: ROHS environmental standards</li> </ul>  |
| 59  | WDZA-YJY Flexible Cable | WDZA-YJY DC 1800V 70MM2         | <ul style="list-style-type: none"> <li>●Passed UL VW-1 IEC60332-23-A</li> </ul>   |