

PCS Series

Pitch Control Slipping for Wind Turbines

Technical Requirement:

Transfer of power and data from nacelle to rotating hub of wind turbine

Customised to meet your requirements

Maintenance free

> 100 million revolutions

4 year warranty

Wide operating temperature

Lower life cycle cost

High reliability

No periodic inspections required

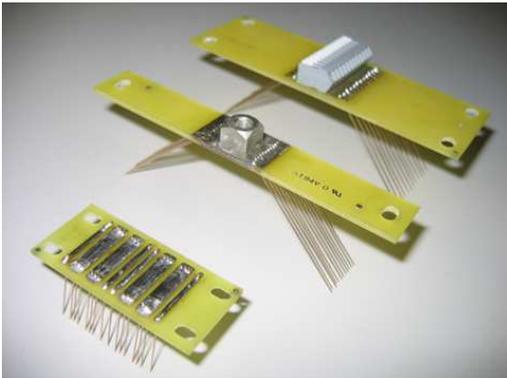


Description

Wind turbines require reliable transmission of power and data signals from the nacelle to the control system for the rotary blades. Conductix-Wampfler slip rings provide the performance and quality needed in such demanding and safety-critical environments. Costly downtime is eliminated by using gold-alloy wire contacts and robust mechanical components in the slip ring design.

Gold-Wire Contacts

The unique feature of the gold-wire contact technology is its ability to perform in environmental and operational extremes. In addition, the gold-wire contacts have the capability to handle high power while at the same time transferring data signals. And all this performance while maintenance free for over 100 million revolutions.



- No Maintenance Required
- No dust generation
- No lubrication required
- Rugged dual-row bearing
- Heater for cold weather installations

OEM Supply or Direct Slip Ring Replacement

Conductix-Wampfler now offers a pitch control slip ring for wind turbines customized for individual OEM requirements. Alternatively it is available in various pre-configured specifications* as a direct replacement for certain wind turbines (please contact Conductix-Wampfler for the latest available specifications).

Conductix-Wampfler's unit provides direct mechanical connection to the gearbox with electrical connection by either pre-wired industry standard plugs or wire terminal connections in both stator and rotor junction boxes. Each unit is provided with a heater already installed for cold weather installations.

** subject to availability*

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General Specifications:	
Weight (typical)	60lbs (32kg)
Brush Material	Gold Alloy Wire
Ring Material	Gold Plate
Brush Life	> 100 million revolutions
Ring Life	> 100 million revolutions
Lubrication	No lubrication required
Cleaning / Maintenance Interval	No maintenance required
Power Circuit Rating	65 – 100A at 600V (* depending on specification)
Data Circuits	Up to 100 Mbps
Operating Temperature	-40°C to +80°C
Heating Element	15 watt, 120 / 240 volts standard
Protection	IP 54

Please Note: Each PCS slipping model is customized to the requirements of a particular wind turbine. A typical electrical specification might be as shown below:

Typical Ring Specifications:					
	Group 1 Main Power	Group 2 Aux Power	Group 3 Signals	Group 4 Data	Group 5 Heater
Circuit Numbers	1 - 5	6 - 10	11 - 21	22 - 36	37 - 38
Number of Circuits	5	5	11	15	2
Nominal Current	65-100A	16A	16A	Data	1A
Max. Operating Voltage	600 V	600 V	110-230 V	24 VDC	120V
Wire Gauge	10mm ² 6 AWG	2.5mm ² 16 AWG	2.5mm ² 16 AWG	1mm ² 24AWG	1mm ² 24AWG

This unit is configured as standard with a thermostatic 100W, 120VAC heater for cold weather operation.

Options:

Connections via plug/socket or junction box

Fibre-optic Rotary Joint (FORJ) for data transmission (see datasheet CFO2)

Positional encoder