

## **PCS Series**

### **Pitch Control Slipring 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

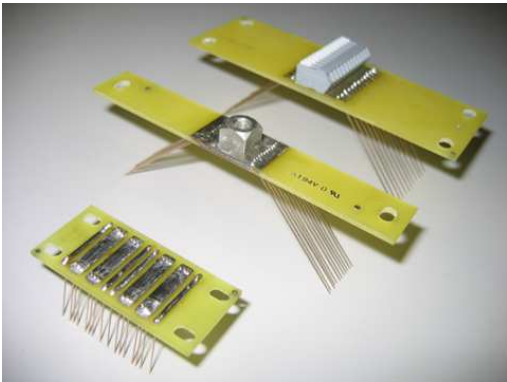


#### **Description**

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

## PCS Series

### Pitch Control Slipping for Wind Turbines

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 <sup>2</sup> 6 AWG	2.5mm <sup>2</sup> 16 AWG	2.5mm <sup>2</sup> 16 AWG	1mm <sup>2</sup> 24AWG	1mm <sup>2</sup> 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