Pitch Control Slip Ring

WP7214

For Clipper Liberty Wind Turbine

Description

Wind turbines require reliable transmission of power and data signals from the nacelle to the control system for the rotary blades. Moog's slip rings provide the performance and quality needed in demanding environments. Costly downtime is eliminated by using fiber brushes and robust mechanical components in the slip ring design.

Fiber Brush Technology

Over 30 years ago, Moog developed and patented the fiber brush technology for high reliability slip rings. The patented approach has led to hundreds of different slip ring designs for challenging applications which include satellite solar array drive power transfer, helicopter rotor blade de-icing, radar pedestals, industrial packaging equipment and now wind turbines —



just to name a few. The unique feature of the fiber brush technology is its ability to perform in environmental and operational extremes. In addition, the fiber brush has 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.

Direct Slip Ring Replacement

Moog now offers a direct replacement pitch control slip ring for the Clipper Liberty wind turbine. Moog's unit provide a direct interface to the turbine gear box with mating connections for direct connection to the turbine wire harness.

Features

- · No maintenance required
- · Direct bolt-in replacement
- Rugged dual-row bearing
- · Heater for cold weather installations

*Clipper Liberty (www.clipperwind.com) is one of the largest wind turbine manufacturers in the United States.



Advantages

- Maintenance free for 100 million revolutions
- Minimal wear debris generation
- · No lubrication required
- · Wide operating temperature
- · Lower life cycle cost
- High reliability

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Slip Ring

· No periodic inspections required



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Specifications			
Weight	60 pounds		
Brush Material	Silver alloy		
Ring Material	Silver plate		
Brush Life	> 100 million revolutions		
Ring Life	> 100 million revolutions		
Lubrication	No lubrication required		
Cleaning / Maintenance Interval	No maintenance required		
Power Circuit Rating	85 amps at 600 volts		
Communication Lines	100 Mbps		
Operating Temperature	-40°C to +80°C		
Heating Element	13 watts, standard		
Sealing	IP 54		

	Group 1	Group 2	Group 3
Number of Connections	4	2	12
Nominal Current	85 amps	15 amp	Data Lines
Max Operating Voltage	460 VAC	220 VAC	Logic; RS485

WP7214 Dimensions

