

NKOSITHANDILEB SOLAR

Six kilowatt wind power generation system



Overview

What is a SD6 wind turbine?

Available as Grid-Tied and Battery Charge, the SD6 small wind turbine is designed for those with a high energy demand, or for applications that require a greater level of power autonomy when used in an off-grid or hybrid system. The unique over-speed protection system, the delta rotor, ensures continuous energy generation during extreme winds.

What is a six-phase wind power generator?

Currently, the six-phase wind power generator is mainly equivalent to two sets of three-phase wind power generator, which is connected to the grid through two sets of converters. However, the circular current issue of this topology is critical.

How to connect six-phase wind power generator to MV AC grid?

The six phases of wind power generator and three phases of grid are interlaced with the nine vertices of E-MMC, which can directly connect the six-phase wind power generator to the MV AC grid. By changing the number of SMs, six-phase wind power generator can be connected to AC grid with different voltage levels.

How to determine the working state of a six-phase wind power converter?

The working state of the converter is related to the phase-shifting angle $\Delta \theta$ between the two windings of the six-phase wind power generator. The optimal phase-shifting angle is determined with the aim of minimizing the switching device capacity.

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wind ...

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In this chapter, a six-phase synchronous machine is selected as a potential option as generator in grid connected mode for wind power generation system. An exhaustive ...

In Reference [6], a MV wind power generation system with three phase cascaded H-bridge (CHB) converter for grid integration of wind power generator is proposed. However, the ...

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