

Title (en)  
HUB-SITED TOWER MONITORING AND CONTROL SYSTEM FOR WIND TURBINES

Title (de)  
NABENINSTALLIERTE TURMÜBERWACHUNG UND STEUERSYSTEM FÜR WINDTURBINEN

Title (fr)  
SYSTÈME DE COMMANDE ET DE CONTRÔLE DE TOUR SUPPORTÉ PAR UN MOYEU POUR DES ÉOLIENNES

Publication  
**EP 2438300 A2 20120411 (EN)**

Application  
**EP 10726026 A 20100528**

Priority  
• EP 2010057382 W 20100528  
• DK PA200900695 A 20090603  
• US 18369109 P 20090603

Abstract (en)  
[origin: WO2010139613A2] In order to protect a wind turbine tower from extreme loads, e.g. during an emergency stop or to ensure safe operation in the event of a functional failure of a nacelle-housed control system, the wind turbine comprises a hub-sited control circuitry arranged in a hub section of the wind turbine, the hub section supporting the rotor blades. A measurement unit is provided in the hub section for determining at least one parameter, such as an acceleration of a component of the wind turbine, a load of a component of the wind turbine, or a rotational speed of the rotor or the turbine shaft. The hub-sited control circuitry is configured to determine a load, acceleration, velocity or deflection of the tower or a wind turbine blade on the basis of the at least one parameter measured by the measurement unit, and to control the wind turbine on the basis of the determined load, deflection, velocity, or acceleration of the tower or blade and a desired value for said load, deflection, velocity or acceleration.

IPC 8 full level  
**F03D 7/04** (2006.01)

CPC (source: EP)  
**F03D 7/0224** (2013.01); **F03D 7/0232** (2013.01); **F03D 7/0264** (2013.01); **F03D 7/0296** (2013.01); **F03D 7/042** (2013.01); **F05B 2240/3052** (2020.08); **F05B 2240/31** (2013.01); **F05B 2260/80** (2013.01); **F05B 2270/107** (2013.01); **F05B 2270/1095** (2013.01); **F05B 2270/304** (2013.01); **F05B 2270/327** (2013.01); **F05B 2270/331** (2013.01); **Y02E 10/72** (2013.01)

Citation (search report)  
See references of WO 2010139613A2

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)  
**WO 2010139613 A2 20101209; WO 2010139613 A3 20110505**; EP 2438300 A2 20120411

DOCDB simple family (application)  
**EP 2010057382 W 20100528**; EP 10726026 A 20100528