

8 Documents

Publication numbers	Title	Current assignees
EP2033833 A2	Secure electric braking device with permanent magnet motor and braking torque regulation	ALSTOM TRANSPORT
WO201367800 A1	Megawatt direct drive type squirrel-cage asynchronous generator ac-dc-ac wind generation system	RONGXIN POWER ELECTRONIC
US20100025995 A1	Current source converter-based wind energy system	ROCKWELL AUTOMATION
EP3188335 A1	Electrical generator unit	OPENHYDRO IP
EP3188333 A1	Array of electrical generator units and shedding of inter-unit transmission cables in response to fault	OPENHYDRO IP
EP2315345 A2	Grid fault ride-through for current source converter-based wind energy conversion systems	ROCKWELL AUTOMATION
EP1638184 A2	Power controller	CAPSTONE TURBINE
CN101982716 A	Wind generating compressor refrigerating and heating system	SHANGHAI GHREPOWER GREEN ENERGY

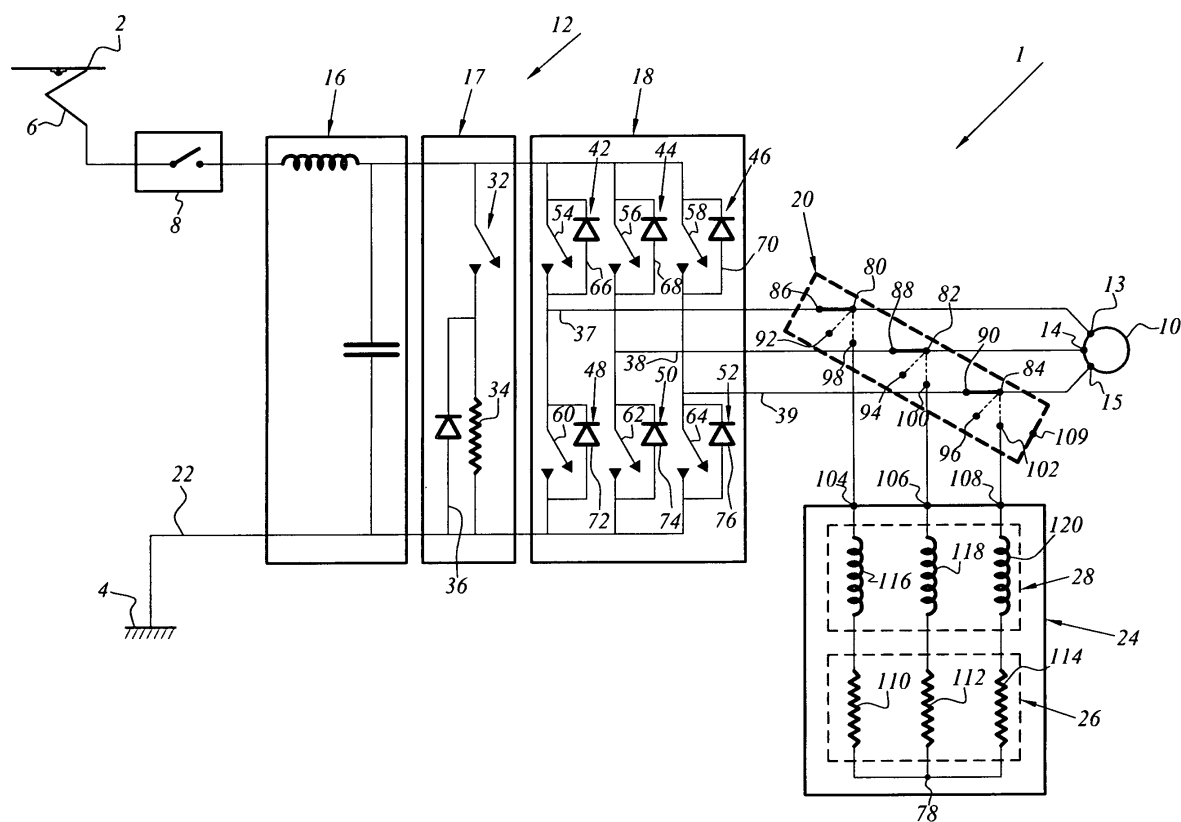
Family 1/8 - FAMPAT - ©Questel

Title

(EP2033833)

Secure electric braking device with permanent magnet motor and braking torque regulation

Images



Publication data including kind & date

EP2033833	B1	2019-07-03	EP2033833
CA2639391	C	2017-01-24	CA2639391
EP2033833	A3	2015-11-18	EP2033833
KR101504585	B1	2015-03-23	KR101504585
RU2471651	C2	2013-01-10	RU2471651
CN101380901	B	2012-11-21	CN101380901B
FR2920611	B1	2012-05-18	FR2920611
US8148925	B2	2012-04-03	US8148925
RU2008135805	A	2010-03-10	RU2008135805
IN2150/CHE/2008	A	2009-09-11	IN2008CH02150
JP2009077624	A	2009-04-09	JP2009077624
US20090066272	A1	2009-03-12	US20090066272
CN101380901	A	2009-03-11	CN101380901
EP2033833	A2	2009-03-11	EP2033833
KR20090024652	A	2009-03-09	KR20090024652
FR2920611	A1	2009-03-06	FR2920611
CA2639391	A1	2009-03-04	CA2639391



Abstract

(EP2033833)

Secure electrical braking device for electric traction vehicle i.e. rail transit car, has braking torque regulation inductors electrically connected in series between electromechanical switch and braking torque producing device

The device has an electromechanical switch (20) selectively connecting electrical input terminals (13-15) of a rotating

electromechanical machine (10) to an electrical braking torque producing device (26). Braking torque regulation inductors (116-120) are electrically connected in series between the electromechanical switch and the producing device. A contactor is connected at terminals of each inductor by switching the electromechanical switch. The torque producing device includes three resistors electrically assembled out of a star.

Inventors

JOBARD THIERRY

BONIN ERIC

Latest standardized assignees - inventors removed

ALSTOM TRANSPORT

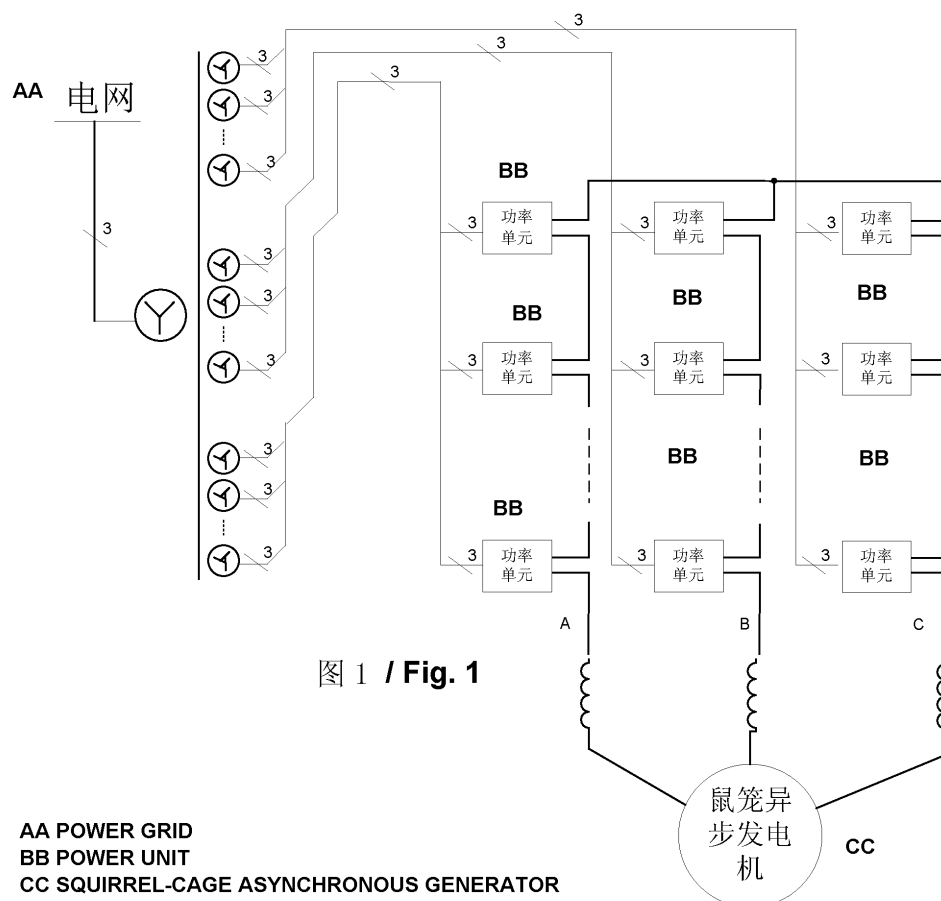
Family 2/8 - FAMPAT - ©Questel

Title

(WO201367800)

Megawatt direct drive type squirrel-cage asynchronous generator ac-dc-ac wind generation system

Images



Publication data including kind & date

WO2013/067800	A1	2013-05-16	WO201367800
CN102386633	A	2012-03-21	CN102386633



Abstract

(WO2013/067800)

A megawatt direct drive type squirrel-cage asynchronous generator AC-DC-AC wind generation system with a medium-voltage squirrel-cage asynchronous generator as a wind generator comprises a squirrel-cage asynchronous generator, a megawatt four-quadrant AC-DC-AC converter and a phase-shifting transformer. The converter is configured by converter chains composed of three power units connected in series. One end of each converter chains is connected together, and the other end of each converter chain is connected to the stator windings of the corresponding phase of the squirrel-cage asynchronous generator. The output terminal of each power unit in every converter chain is connected to the secondary windings of the corresponding phase of the phase-shifting transformer, and the primary-side three-phase windings of the phase-shifting transformer are connected with the three phases of the power grid. The wind generation system uses a medium-voltage squirrel-cage asynchronous generator, has small size, light weight, easy installment, free maintenance, no increasing gearbox and brush, and can improve the capacity of the wind generation system, reduce the difficulty and cost of manufacturing a large-capacity motor, improve system reliability, and be easy to low voltage ride through.

Inventors

LI XING

BAI DEFANG

GUO ZIYONG

WANG WENJU

LONG HAO

WANG DAN

YU CHANGYI

DING YALI

WANG XUBAO

SUN XIANDA

CUI XIAOYU

Latest standardized assignees - inventors removed

RONGXIN POWER ELECTRONIC

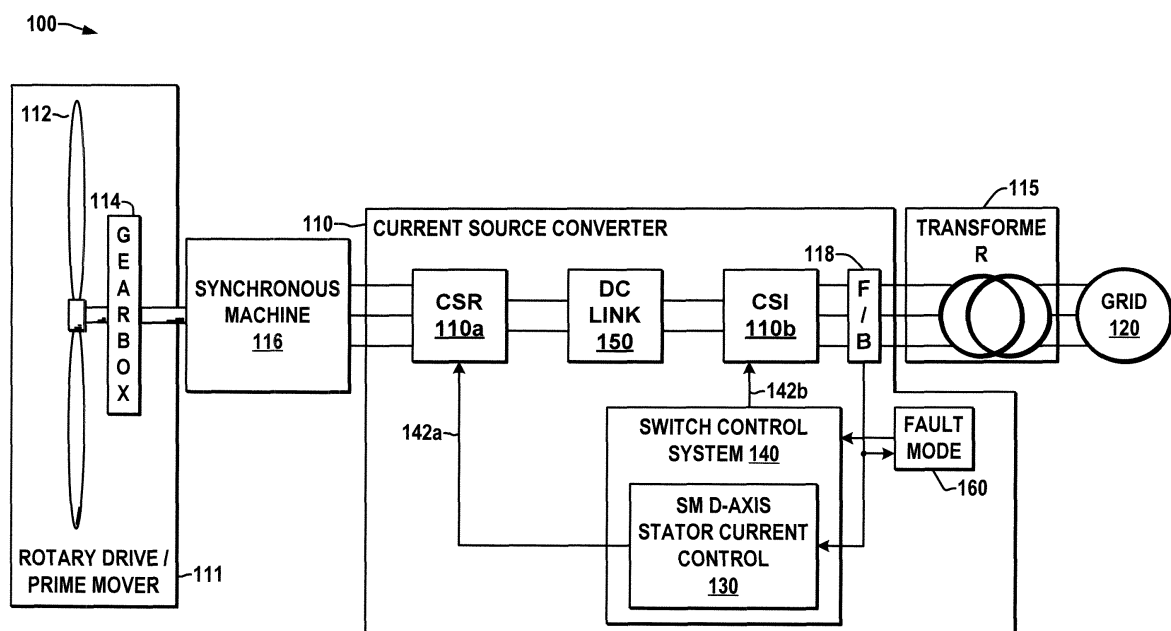
Family 3/8 - FAMPAT - ©Questel

Title

(US8030791)

Current source converter-based wind energy system

Images



Publication data including kind & date

US8350397	B2	2013-01-08	US8350397
US20110316490	A1	2011-12-29	US20110316490
US8030791	B2	2011-10-04	US8030791
US20100025995	A1	2010-02-04	US20100025995

**Abstract**

(US20100025995)

Power conversion apparatus and methods are presented for providing electrical power to a grid or other load in which a synchronous machine is driven by a wind turbine or other prime mover to provide generator power to a switching type current source converter (CSC), with a current source rectifier (CSR) of the CSC being switched to provide d-axis control of the synchronous machine current based on grid power factor feedback, and with a current source inverter (CSI) of the CSC being switched to provide leading firing angle control and selective employment of dumping resists to dissipate excess generator energy in a fault mode when a grid voltage drops below a predetermined level.

Inventors

LANG YONGQIANG

ZARGARI NAVID REZA

PANDE MANISH

WU BIN

Latest standardized assignees - inventors removed

ROCKWELL AUTOMATION

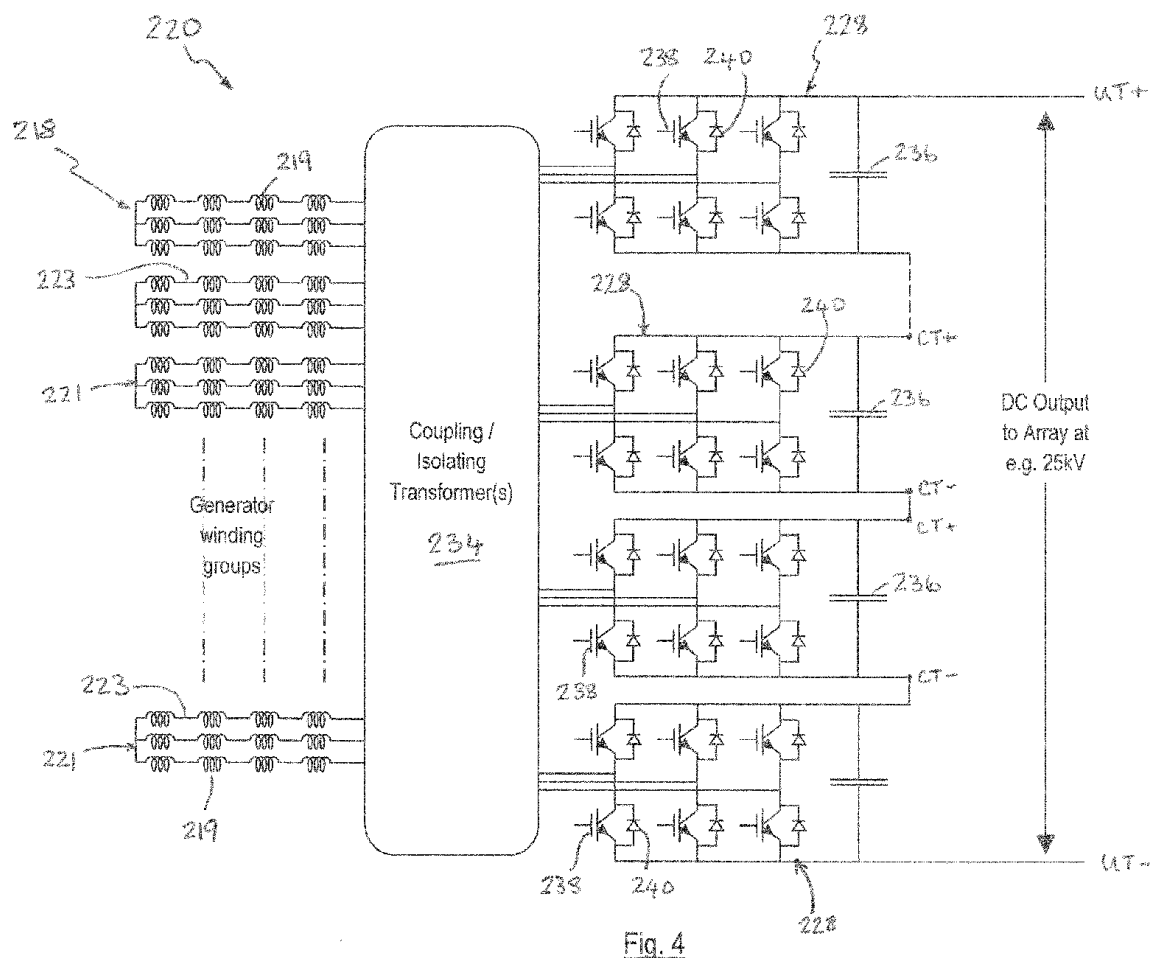
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Title

(EP3188335)

Electrical generator unit

Images



Publication data including kind & date

JP2019509001	A	2019-03-28	JP2019509001
PH12018501258	A1	2019-02-04	PH12018501258
PH12018501255	A1	2019-01-28	PH12018501255
JP2019500847	A	2019-01-10	JP2019500847
CA3009104	A1	2017-07-06	CA3009104
CA3009136	A1	2017-07-06	CA3009136
WO2017/114696	A1	2017-07-06	WO2017114696
WO2017/114699	A1	2017-07-06	WO2017114699
EP3188335	A1	2017-07-05	EP3188335



Abstract

(EP3188335)

An electrical generator unit comprises an electrical generator and a plurality of AC to DC converters. Each converter is coupled to the generator to receive an AC electrical input and is configured to produce a respective DC electrical output. The converter outputs are connected together in series to provide the DC generator unit output. The converters may be VSI converters. The generator unit is particularly suited for use as part of a hydroelectric turbine generator.

Inventors

SPOONER EDWARD
CAWTHORNE SIMON

Latest standardized assignees - inventors removed

OPENHYDRO IP

Family 5/8 - FAMPAT - ©Questel

Title

(EP3188333)

Array of electrical generator units and shedding of inter-unit transmission cables in response to fault

Images

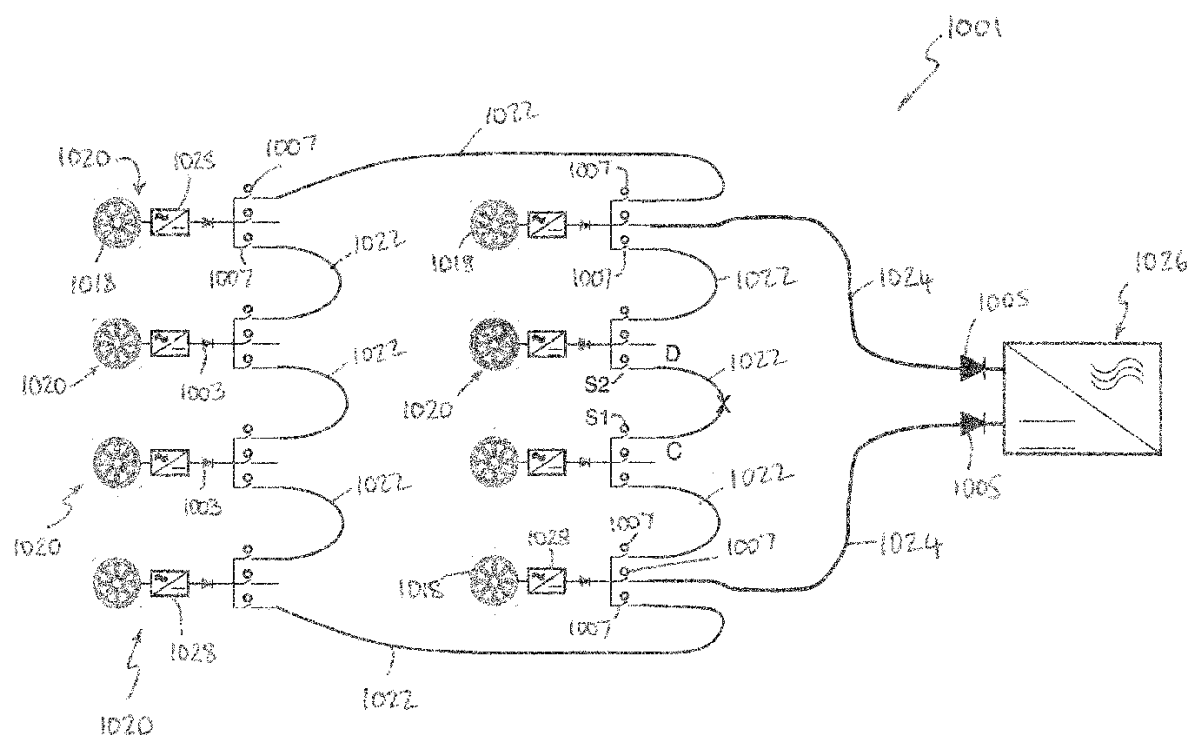


Fig. 13

Publication data including kind & date

PH12018501261	A1	2019-02-04	PH12018501261
JP2019500846	A	2019-01-10	JP2019500846
WO2017/114697	A3	2017-09-14	WO2017114697
CA3009103	A1	2017-07-06	CA3009103
WO2017/114697	A2	2017-07-06	WO2017114697
EP3188333	A1	2017-07-05	EP3188333



Abstract

(EP3188333)

An array of generator units (1020) each producing a DC electrical output that are connected in parallel to provide the array DC electrical output. The array is connectable to a receiving station (1026) by output power transmission cables (1024), each transmission cable being connected to a respective one of the generator units being array output units. Each array output unit is connected to at least one other of the generator units in order to receive the DC output from the respective connected generator unit, and each generator unit that is not an array output unit is connected to one or more array output unit and/or to one or more other non-array output generator unit by means of inter_unit transmission cables (1022) so that its DC output is transmittable to any one or each of the units to which it is connected and so that the DC output of each generator unit is transmittable to said at least two output transmission cables (1024). The array further includes fault detection means for detecting faults in the inter-unit transmission cables (1022). In response to detection of a fault, the fault detection means causes switching devices (1007) at each end of the faulty cable to reduce the DC output from each generator unit, preferably to zero, and to open to disconnect the respective generator units from the faulty cable.

Inventors

SPOONER EDWARD

CAWTHORNE SIMON

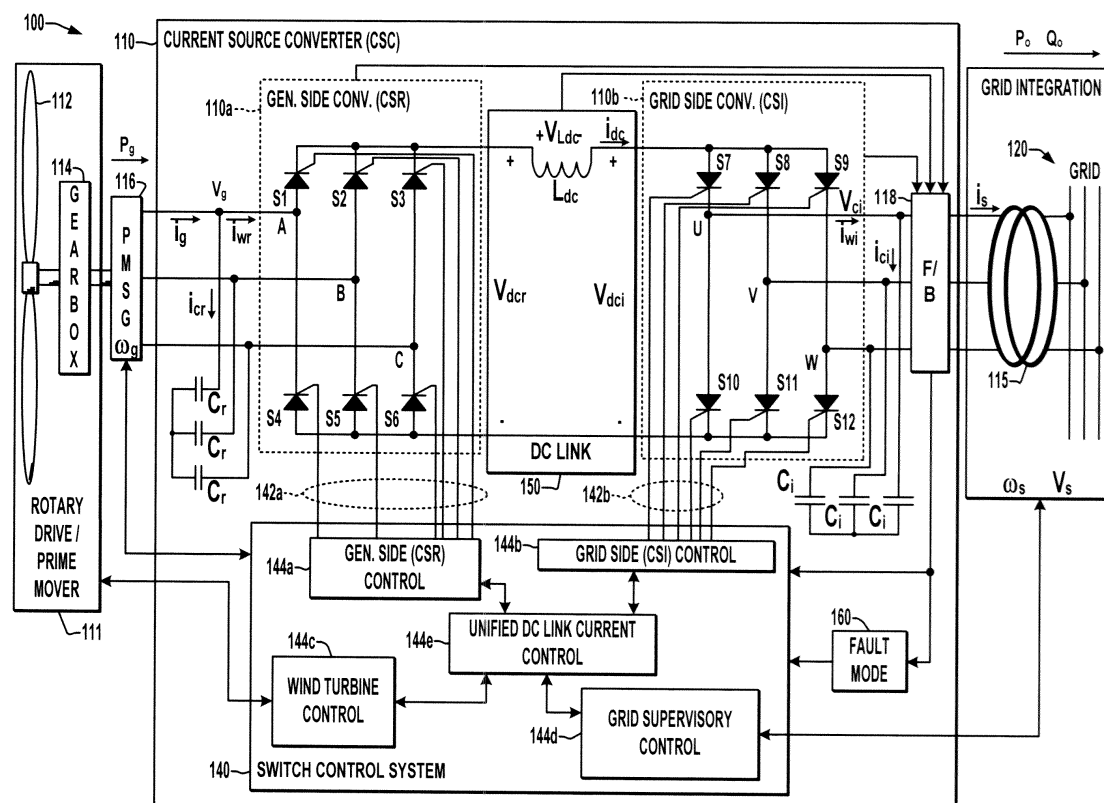
Latest standardized assignees - inventors removed

OPENHYDRO IP

Title

(EP2315345)

Grid fault ride-through for current source converter-based wind energy conversion systems

Images**Publication data including kind & date**

EP2315345	A3	2017-06-07	EP2315345
CN102130605	B	2014-09-17	CN102130605B
US8587160	B2	2013-11-19	US8587160
CN102130605	A	2011-07-20	CN102130605
EP2315345	A2	2011-04-27	EP2315345
US20110057444	A1	2011-03-10	US20110057444

**Abstract**

(EP2315345)

Current source converter (CSC) based wind energy power conversion systems (WECS) and methods are presented in which a unified DC link current control scheme is employed to facilitate grid fault ride-through conditions, with a multiple-mode converter control system that combines the power flow control capabilities of the generator-side and grid-side converters, in which transitions between normal operation and fault condition are achieved automatically by monitoring the grid voltage without the need for, or with partial additional ride-through components.

Inventors

DAI JINGYA

XU DAVID DEWEI

WU BIN

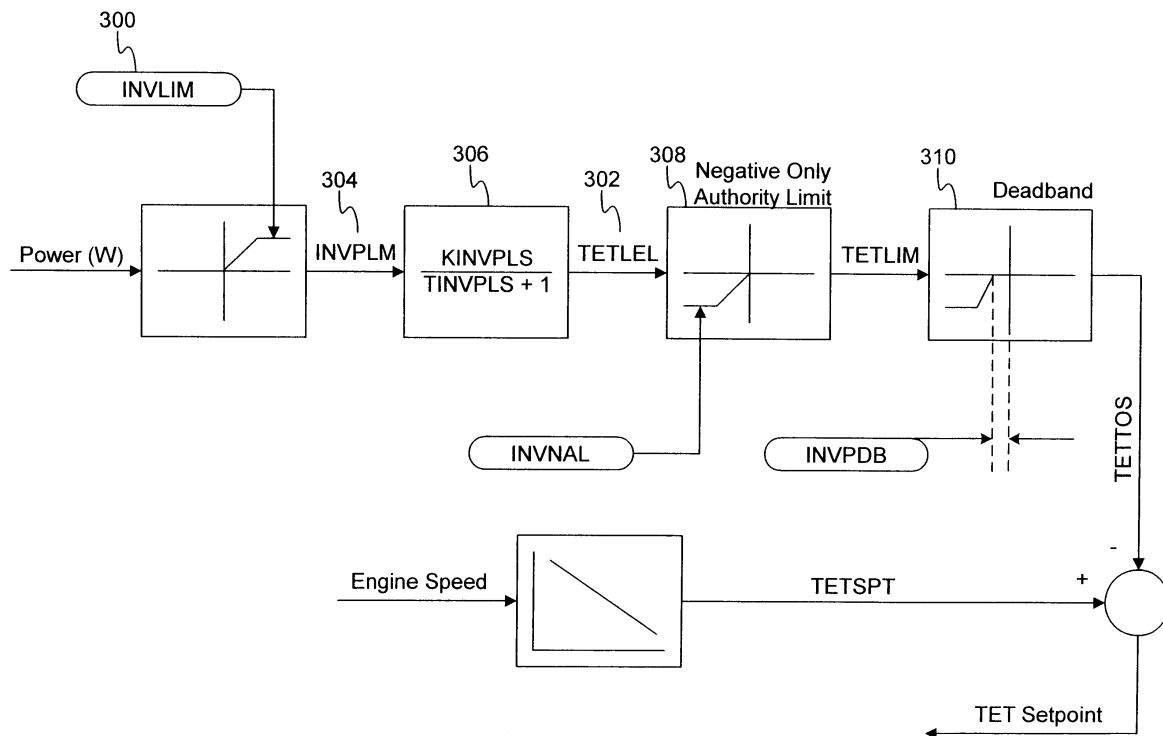
ZARGARI NAVID

Latest standardized assignees - inventors removed

ROCKWELL AUTOMATION

(EP1638184)

Power controller

Images**Publication data including kind & date**

EP1638184	A3	2009-03-25	EP1638184
DE69832533	T2	2006-03-30	DE69832533
EP1638184	A2	2006-03-22	EP1638184
DE69832533	D1	2005-12-29	DE69832533
AT311027	T	2005-12-15	ATE311027
EP1075724	B1	2005-11-23	EP1075724
US6958550	B2	2005-10-25	US6958550
US20040245783	A1	2004-12-09	US20040245783
US6612112	B2	2003-09-02	US6612112
US20030007369	A1	2003-01-09	US20030007369
US20020121091	A1	2002-09-05	US20020121091
US20020099476	A1	2002-07-25	US20020099476
JP2002510957	A	2002-04-09	JP2002510957
EP1075724	A1	2001-02-14	EP1075724
CA2326192	A1	1999-10-14	CA2326192
WO99/52193	A1	1999-10-14	WO9952193

**Abstract**

(EP1638184)

A turbogenerator/motor control arrangement (10, 156) for connection to an AC power grid (18, 152). The turbogenerator/motor control arrangement comprises at least one AC generator (166), at least one turbine (168) operatively connected to the generator (166), a first converter (14,160) operatively connected to the generator (166), a second converter (16, 158) operatively connected between the first converter (14,160) and an electric utility interface (154) for connection to the AC power grid (152), and a DC bus (24,162) operatively connected to the first (14,160) and second (16,158) converters. Power is supplied to the DC bus (24,162) via the second converter (16,158) during a first starting mode of the turbogenerator (12, 168/166), and power is supplied to the DC bus (24,162) by the first converter (14,160) during a second generating mode of the turbogenerator (12,168/166).

Inventors

GILBRETH MARK

WACKNOV JOEL

WALL SIMON

Latest standardized assignees - inventors removed

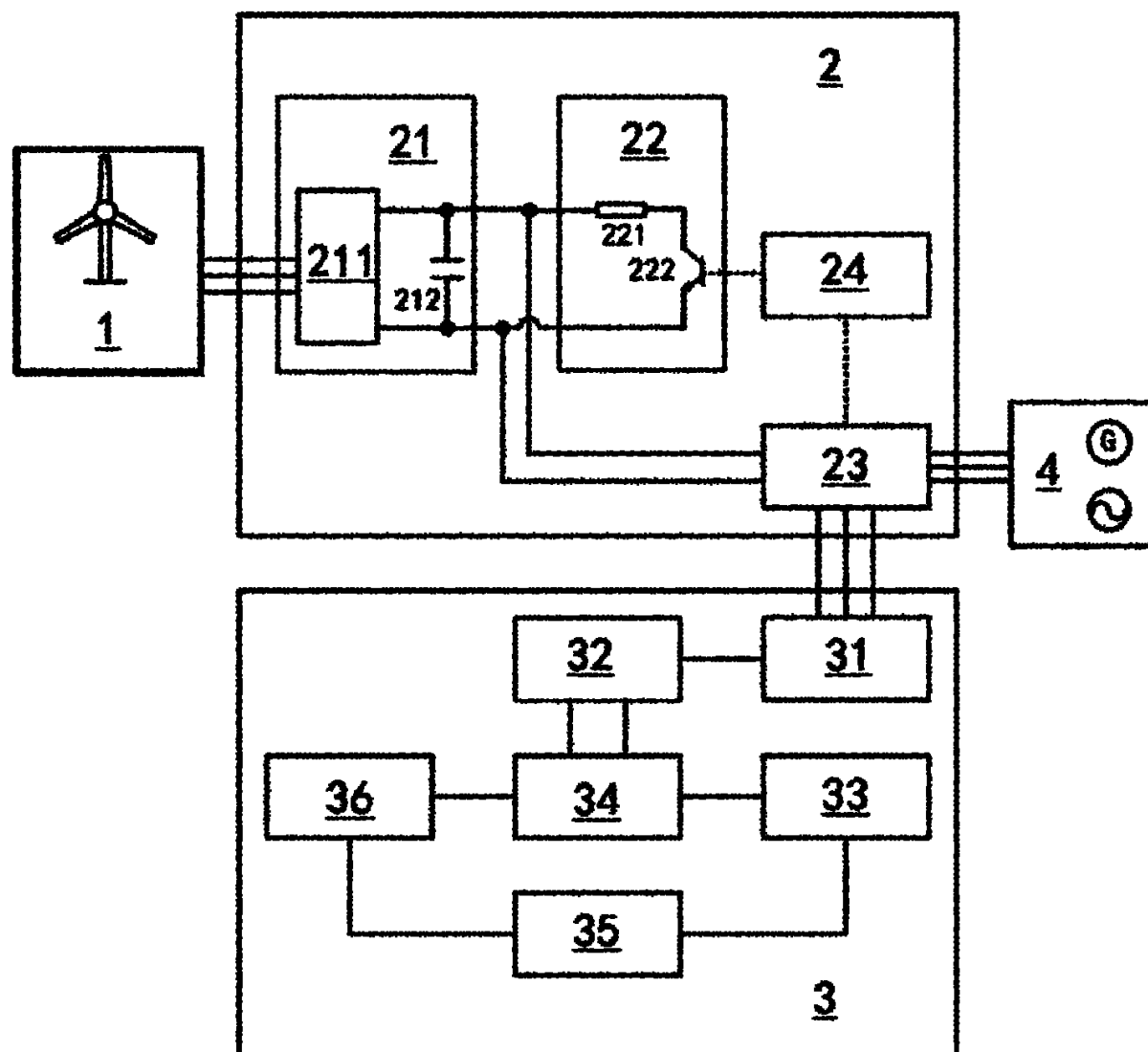
CAPSTONE TURBINE

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Title

(CN101982716B)

Wind generating compressor refrigerating and heating system

Images**Publication data including kind & date**

CN101982716	B	2012-08-08	CN101982716B
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CN101982716	A	2011-03-02	CN101982716
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**Abstract**

(CN101982716)

The patent refers to the field of 'heating and refrigeration systems and'. The invention discloses a wind generating compressor refrigerating and heating system, which comprises a wind generating set, a wind generating compressor driver and a refrigerating and heating device of a compressor driven by a motor. The wind generating compressor driver comprises a rectifying and filtering module for converting alternating current of the wind generating set into direct current, a resistance braking module for controlling the rotational speed of the wind generating set and the direct current voltage of

the rectifying and filtering module, a frequency converter connected with the compressor driving motor and the resistance braking module, and a main control unit. The main control unit is set to control the output frequency of the frequency converter so that the wind generating set runs with highest output power and utility power or diesel electricity complements power supply under the condition that the wind power cannot meet the power demands of the system, otherwise, the system preferentially consumes the wind power; and the main control unit also controls the resistance braking module to variably consume the direct current power to limit the rotational speed of the wind generating set and the direct current voltage of the rectifying and filtering module so that the system has strong adaptability and high efficiency and saves the cost in the absence of the storage battery.

Inventors

YU WEI

HE XUESONG

YE YUSHENG

DONG BIN

Latest standardized assignees - inventors removed

SHANGHAI GHREPOWER GREEN ENERGY