

Nicolas Vargas

1) Family number: 30473909 (US2004071000A)

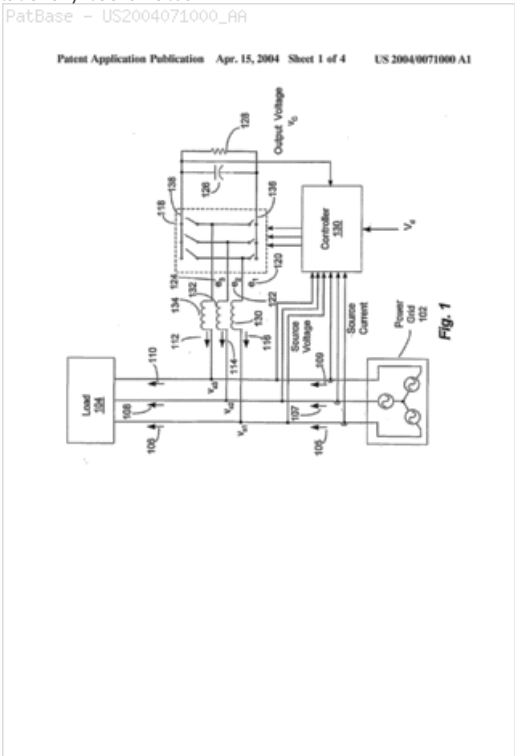
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Title: ADAPTIVE CONTROLLER FOR D-STATCOM IN THE STATIONARY REFERENCE FRAME TO COMPENSATE FOR REACTIVE AND HARMONIC DISTORTION UNDER UNBALANCED CONDITIONS

Abstract: Source: US2004071000A A controller (130) for compensating reactive power and selected current load harmonics in an unbalanced multi-phase power distribution system. Control current is injected from a multi-phase voltage source inverter (118) into the multi-phase power distribution system as a function of the voltage and current provided by the source inverter 118. The injected current is operative to balance the load seen by the power distribution system including non-linear/distorted and unbalanced loads in each phase. The controller includes an inner loop control processor (216), an outer loop control processor, and an adaptation processor. The adaptation processor (238) is operative to estimate a selected set of predetermined harmonic components in the periodic disturbance which is a function of the unknown system parameters, the source current, the source voltage, and their time derivatives in stationary coordinates.

Classifications:

International (IPC 8-9): H02J3/01 H02J3/18 (Advanced/Invention)
International (IPC 1-7): G05F1/70 H02H1/12 H02M1/12 H02M7/02 H04L
CPC: H02J3/01 H02J3/1842 Y02E40/16 Y02E40/22 Y02E40/40
European: H02J3/01 H02J3/18C3A Y02E40/16 Y02E40/22 Y02E40/40
US: 307/105 323/207 363/41 363/63 363/63P



Family:

Publication number	Publication date	Application number	Application date
US2004071000 AA	20040415	US20030467007	20030818
US6862199 BB	20050301	US20030467007	20030818
WO02062000 A2	20020808	WO2002US03167	20020131
WO02062000 A3	20021017	WO2002US03167	20020131

Priority:

US20010265727P 20010201 US20030467007 20030818 WO2002US03167 20020131

Probable Assignee: NORTHEASTERN UNIV

Assignee(s): (std): ESCOBAR GERARDO ; MATTAVELLI PAOLO ; STANKOVIC ALEX M ; UNIV NORTHEASTERN

Assignee(s): NORTHEASTERN UNIV ; NORTHEASTERN UNIVERSITY

Inventor(s): (std): ESCOBAR GERARDO ; MATTAVELLI PAOLO ; STANKOVIC ALEX M

Designated states: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR US

2) Family number: 42247296 (US2004266378A)

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Title: BYPASS FILTER, MULTI-BAND ANTENNA SWITCH CIRCUIT, AND LAYERED MODULE COMPOSITE PART AND COMMUNICATION DEVICE USING THEM

Abstract: Source: US2004266378A A multi-band antenna switch circuit including a diplexer connected to an antenna terminal for demultiplexing signals of different passing bands, a first and a second switch circuit for switching a high frequency signal and a low frequency signal demultiplexed by the diplexer to a plurality of transmission/reception terminals, a first and a second low pass filter connected to a transmission path between the diplexer and the transmission terminal or between the first and the second switch circuit and the transmission terminal, and a notch filter provided between the diplexer and the first switch circuit or between the diplexer and the second switch circuit. The multi-band antenna switch

circuit includes a high pass filter having an input terminal and an output terminal and provided at least between the diplexer and the antenna terminal and including a first inductor connected between the input terminal and the ground, a first capacitor connected between the input terminal and the output terminal, a second inductor connected to the output terminal, and a second capacitor connected between the second inductor and the ground.

Classifications:

International (IPC 8-9): H01P1/10 H03H7/01 H03H7/075 H03H7/46 H04B1/40 H04B1/44 H04B1/48 H04B1/50 H04B1/52 (Advanced/Invention); H03H7/01 H04B1/44 (Advanced/Non-invention); H01P1/10 H03H7/00 H03H7/01 H03H7/075 H04B1/40 H04B1/44 H04B1/50 (Core/Invention)

International (IPC 1-7): H01Q1/50 H03H7/01 H03H7/075 H03H7/46 H04B1/06 H04B1/10 H04B1/16 H04B1/18 H04B1/40 H04B1/44 H04B1/50 H04B1/52 H04B7/00

CPC: H03H7/1758 H03H7/465 H03H7/0115 H03H7/0153 H03H7/1766 H03H7/1783 H03H2001/0085 H04B1/0057 H04B1/006 H04B1/406 H04B1/44 H04B1/48 H04B1/52 H03H7/01

European: H03H7/01B H03H7/01T H03H7/17R2 H03H7/17R3 H03H7/17R5 H03H7/46D1 H04B1/00M2D H04B1/00M2S H04B1/40C4 H04B1/48 H04B1/52 T03H1/00D9 T04B1/40C4 T04B1/44

US: 333/101 333/132 333/185 455/188.1 455/188.100P 455/272 455/272S 455/307 455/307S 455/339 455/339S

PatBase - US2004266378_AA

Present Application Publication No. 36, 2804 Sheet 1 of 17 US 2004/0266378 A1

Fig. 1

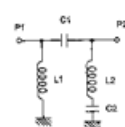


Fig. 2

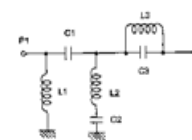
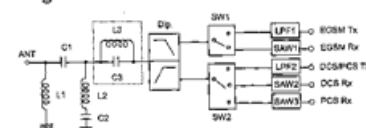


Fig. 3



Family:

Publication number	Publication date	Application number	Application date
CN1309178 C	20070404	CN20028015727	20020812
CN1541454 A	20041027	CN20028015727	20020812
EP1418680 A1	20040512	EP20020758832	20020812
EP1418680 A4	20050406	EP20020758832	20020812
JP2003133989 A2	20030509	JP20020228504	20020806
JP2003152588 A2	20030523	JP20020089023	20020327
JP2003273687 A2	20030926	JP20020073910	20020318
JP4006680 B2	20071114	JP20020089023	20020327
JP4210978 B2	20090121	JP20020228504	20020806
JP4224802 B2	20090218	JP20020073910	20020318
KR100902296 B1	20090610	KR20047002040	20020812
KR100906356 B1	20090706	KR20087026999	20020812
KR20040023745 A	20040318	KR20047002040	20020812
KR20080104389 A	20081202	KR20087026999	20020812
US2004266378 AA	20041230	US20040486326	20040827
US7057472 BB	20060606	US20040486326	20040827
WO03015301 A1	20030220	WO2002JP08215	20020812

Priority:

JP20010244343	20010810	JP20010264843	20010831	WO2002JP08215	20020812
JP20020089023	20020327	JP20020228504	20020806	JP20020073910	20020318
WO2002JP08215	20020812	WO2002JP08215	20081104	WO2002JP08215	20040210

Probable Assignee: HITACHI METALS LTD

Assignee(s): (std): FUKAMACHI KEISUKE ; HITACHI METALS LTD ; KEMMOCHI SHIGERU ; TAI HIROYUKI ; TAKETA TSUYOSHI ; WATANABE MITSUHIRO ; YOKOUCHI SATORU

Inventor(s): (std): KEISUKE FUKAMACHI ; KEMMOCHI ; KEMMOCHI SHIGERU ; KENMOCHI SHIGERU ; MITSUHIRO FUKAMACHI KEISUKE KE ; MITSUHIRO WATANABE ; TADAI HIROYUKI ; TAI HIROYUKI ; TAKEDA TSUYOSHI ; TAKETA TSUYOSHI ; WATANABE MITSUHIRO ; YOKOUCHI SATORU ; YOKOUCHI SATOSHI ; FUKAMACHI KEISUKE

Inventor(s): FUKAMACHI KEISUKE KEMMOCHI WATANABE MITSUHIRO

Agent(s): FINNEGAN HENDERSON FARABOW GARRETT AND DUNNER LLP

Designated states: AT BE BG CH CN CY CZ DE DK EE ES FI FR GB GR IE IT KR LI LU MC NL PT SE SK TR US

3) Family number: 34916872 (US2007170910A)

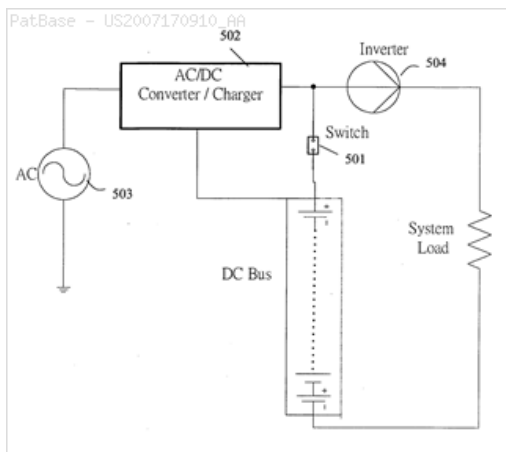
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Title: SPECTRAL RESISTOR, SPECTRAL CAPACITOR, ORDER-INFINITY RESONANT TANK, EM WAVE ABSORBING MATERIAL, AND APPLICATIONS THEREOF

Abstract: Source: US2007170910A A spectral resistor based on the constitute law of "elasticity of electricity" derived from the Riemann-Lebesgue lemma is provided to build a substantial order-8 resonant tank. The substantial order-8 resonant tank according to embodiments of the present invention can function as many different roles such as an electric filter, a harmonic and sub-harmonic power waveform distortion filter, a dynamic damper, a dynamic impedance matching circuit and a kind of electromagnetic wave absorbing material. By attaching an order-8 resonant tank according to the present invention to an ordinary system with equivalent inductance in a suitable topology as an electric filter, a substantial snubber network, or so-called DeLenzor, is obtained. The duality of an electric system can be handled by coupling the system with an order-8 resonant tank according to the present invention, and thus the disadvantageous effects caused by the duality of the system can be canceled immediately without any drawbacks. Furthermore, the reactive (or so-called regenerated) power caused by the duality of the electric system can be recycled according to embodiments of the present invention.

Classifications:

International (IPC 8-9): B60L7/00 G01R31/28 H01C13/00 H01G7/00 H01L29/861 H02J7/00 H02M1/00 H02M1/42 H02M3/28 H02M5/44 H02M7/00 H02M7/48 H03H11/28 H03H3/00 H03H7/01 H03L7/00 (Advanced/Invention); G01R31/28 H02M1/00 H02M7/48 (Core/Invention)
CPC: H01C1/16 H01C13/00 H01G7/025 H01G7/026 H01L47/026 H03H5/12 Y02T10/7022
European: H01C1/16 H01C13/00 H01G7/02C H01G7/02C2 H03H5/12 T01L47/02C Y02T10/70D
US: 257/E47.004 257/E47.004S 324/158.1 333/172 333/172P



Family:

Publication number	Publication date	Application number	Application date
CN101009150 A	20070801	CN200710001013	20070119
JP2007202393 A2	20070809	JP20070008529	20070117
TW200729707 A	20070801	TW20060126846	20060721
US2007170910 AA	20070726	US20060341105	20060126

Priority:

US20060341105 20060126

Probable Assignee: CHANG MING HOO

Assignee(s): (std): CHANG MING HOO ; HSU YEN TANG ; HSU YEN WEAY ; LIN TSUN CHENG

Inventor(s): (std): CHANG MING HOO ; CHANG MING HOO LIN ; HSU YEN TANG ; HSU YEN WEAY ; LIN TSUN CHENG

Inventor(s): MING HOO LIN CHANG

Agent(s): LADAS AND PARRY

4) Family number: 57562274 (US2014300433A)

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Title: DRIVE OUTPUT HARMONIC MITIGATION DEVICES AND METHODS OF USE THEREOF

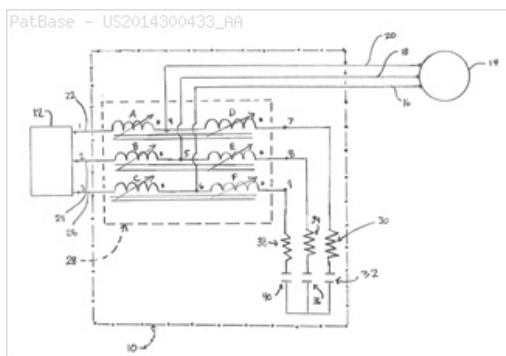
Abstract: Source: US2014300433A A filter for filtering a three-phase electrical power waveform produces a three-phase output power waveform. The filter has an inductor with three sets of first and second coils, each having a capacitor connected in series therewith. Each of the three sets of first and second coils has a tap intermediate the first and second coils where the output waveform is present, each tap capable of being connected to a load. In some embodiments, the inductor is passive adaptive and includes resistors for reducing current in-rush.

Classifications:

International (IPC 8-9): H02M1/12 H02P27/04 H03H7/00 H03H7/01 H03H7/06 (Advanced/Invention)

CPC: H03H7/1741 H03H7/0115 H02M1/126

US: 1/1 333/177 333/181 333/185



Family:

Publication number	Publication date	Application number	Application date
CA2909163 AA	20151008	CA20142909163	20140409
MX2015014284 A1	20160929	MX20150014284	20140409
US2014300433 AA	20141009	US20140249043	20140409
US2015303894 AA	20151022	US20150788058	20150630
US9083234 BB	20150714	US20140249043	20140409
US9571058 BB	20170214	US20150788058	20150630
WO14169053 A1	20141016	WO2014US33523	20140409

Priority:

US20130809963P 20130409
WO2014US33523 20140409

US20140249043 20140409

US20150788058 20150630

Probable Assignee: MTE CORP

Assignee(s): (std): MERTES JOEL ; MTE CORP ; SHUDAREK TODD

Inventor(s): (std): JOEL MERTES ; MERTES JOEL ; SHUDAREK TODD ; TODD SHUDAREK

Agent(s): SMART AND BIGGAR ; GREENBERG TRAURIG LLP; SWIFT PAUL F

Designated states: AE AG AL AM AO AT AU AZ BA BB BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG

5) Family number: 61194498 (BR102013032760A)

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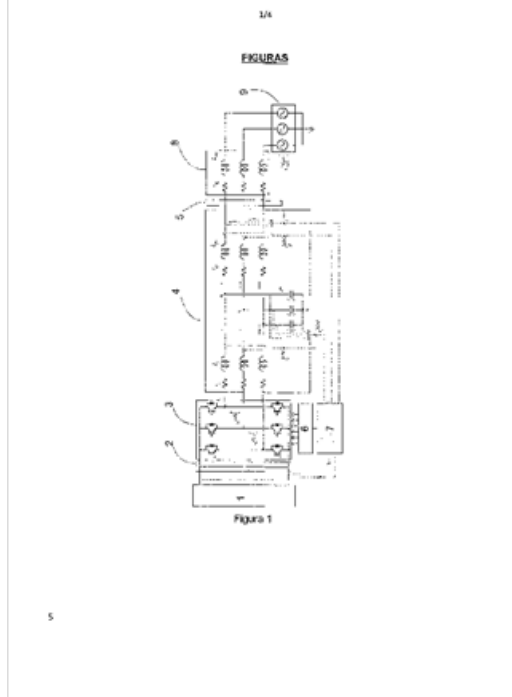
Title: SISTEMA E METODO DE CONTROLE ADAPTATIVO DE CONVERSORES ESTATICOS CONECTADOS A REDE SYSTEM AND CONTROL CONVERTERS ADAPTIVE METHOD static CONNECTED NETWORK (Machine translation)

Abstract: Source: BR102013032760A 1 Resumo Sistema e Metodo de Controle Adaptativo de Conversores Estaticos Conectados a Rede 5 A presente invencao compreende um novo sistema e metodo de controle adaptativo de conversores estaticos usando filtro LCL (indutor-capacitor-indutor). O sistema da presente invencao e desenvolvido em tempo discreto e conectado a rede eletrica por meio de um filtro LCL, onde a corrente do lado da rede e a variavel controlada. A presente invencao e indicada para a conexao de geradores eolicos e 10 sistemas foto voltaicos a rede eletrica, assim como outros sistemas de geracao distribuida. A invencao e adequada para uso em sistemas de controle de corrente de conversores estaticos monofasicos ou trifasicos que utilizam filtro LCL para atenuacao das componentes harmonicas de corrente oriundas da comutacao do conversor. A presente invencao se situa nos campos da Engenharia de Controle, 15 Eletronica de Potencia e de sistemas conectados a rede eletrica. 20 1 System Overview and Method Converters Adaptive Control static Connected to Network 5 The present invention comprises a new system and adaptive control method of static converters using LCL filter (inductor-capacitor-inductor). The system of the present invention is developed in discrete time connected to the mains through a LCL filter, where the power supply side of the network and the controlled variable. The present invention is suitable for the connection of wind generators and 10 systems photo come again cos the power grid, as well as other distributed generation systems. The invention is suitable for use in single or three phase static converter current control system using LCL filter for attenuation of harmonic components derived from the converter switching current. The present invention lies in the fields of Control Engineering, 15 power electronics and systems connected to electrical network. 20

Classifications:

International (IPC 8-9): H02J3/01 H02M1/12
H02M7/44 (Advanced/Invention)

PatBase - BR102013032760_A2

**Family:**

Publication number	Publication date	Application number	Application date
BR102013032760 A2	20151208	BR20131032760	20131219

Priority:

BR20131032760 20131219

Probable Assignee: UNIV FED DE SANTA MARIA UFSM

Assignee(s): (std): UNIV FED DE SANTA MARIA UFSM

Assignee(s): UNIVERSIDADE FEDERAL DE SANTA MARIA UFSM

Inventor(s): (std): GRUENDLING HILTON ABILIO ; MASSING JORGE RODRIGO ; PINHEIRO HUMBERTO ; TAMBARA RODRIGO VARELLA

Inventor(s): RODRIGO VARELLA TAMBARA ; HILTON ABILIO GRUENDLING ; HUMBERTO PINHEIRO ; JORGE RODRIGO MASSING

6) Family number: 64436955 (US2016373025A)

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Title: ADAPTIVE CONTROL METHOD FOR GRID-CONNECTED INVERTERS USED WITH DISTRIBUTED POWER GENERATION

Abstract: Source: US2016373025A Systems, methods, and devices relating to control systems for grid-connected inverters. Because grid conditions may vary and because control system stability is dependent on the parameters of the components within the inverter, the present invention adaptably monitors the varying values of these components. Based on the sensed values and on predicted values, controller gains are adaptably adjusted to maintain system stability.

Classifications:

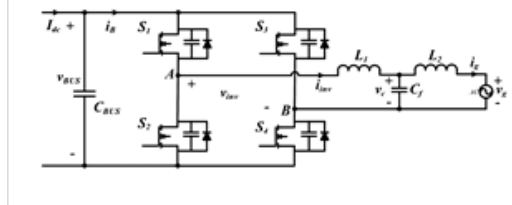
International (IPC 8-9): H02J3/38 H02M1/12 H02M7/53 H02M7/537

H02M7/538 H02M7/5387 (Advanced/Invention)

CPC: H02M7/537 H02M7/53 H02M7/538 H02J3/383 H02M1/12

H02M7/53871

US: 363/97

**Family:**

Publication number	Publication date	Application number	Application date
US2016373025 AA	20161222	US20150745043	20150619
US9692320 BB	20170627	US20150745043	20150619

Priority:

US20150745043 20150619

Probable Assignee: SPARQ SYSTEMS INC**Assignee(s):** (std): SPARQ SYSTEMS INC**Inventor(s):** (std): EREN SUZAN ; JAIN PRAVEEN ; PAHLEVANINEZHAD MAJID ; MASCIOLI MATTHEW LORENZO**Agent(s):** BRION RAFFOUL