

## TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

ETAS ID: TM410639

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT		
<b>NATURE OF CONVEYANCE:</b>	SECURITY INTEREST		
<b>CONVEYING PARTY DATA</b>			
<b>Name</b>	<b>Formerly</b>	<b>Execution Date</b>	<b>Entity Type</b>
Enphase Energy, Inc.		12/27/2016	Corporation: DELAWARE
<b>RECEIVING PARTY DATA</b>			
<b>Name:</b>	Obsidian Agency Services, Inc.		
<b>Street Address:</b>	2951 28TH STREET, SUITE 1000		
<b>City:</b>	SANTA MONICA		
<b>State/Country:</b>	CALIFORNIA		
<b>Postal Code:</b>	90405		
<b>Entity Type:</b>	Corporation: CALIFORNIA		
<b>PROPERTY NUMBERS Total: 16</b>			
<b>Property Type</b>	<b>Number</b>	<b>Word Mark</b>	
<b>Registration Number:</b>	4418767	[E]	
<b>Registration Number:</b>	3758421	ENLIGHTEN	
<b>Registration Number:</b>	4514077	ENLIGHTEN MANAGER	
<b>Registration Number:</b>	4056628	ENPHASE	
<b>Registration Number:</b>	3595609	ENPHASE ENERGY	
<b>Registration Number:</b>	4056580	ENPHASE ENERGY	
<b>Registration Number:</b>	4071569	ENVIRON	
<b>Registration Number:</b>	4514076	MYENLIGHTEN	
<b>Serial Number:</b>	87079116	E	
<b>Serial Number:</b>	86572673	ENPHASE SOLARSTATION	
<b>Serial Number:</b>	85125462	ENVOY	
<b>Serial Number:</b>	86157024	GRIDZILLA	
<b>Serial Number:</b>	85523332	MICRO-STRING	
<b>Serial Number:</b>	77517417	MICRO-STRING	
<b>Serial Number:</b>	86563967	SOLARSTATION	
<b>Serial Number:</b>	86157151	ARRAYGUN	
<b>CORRESPONDENCE DATA</b>			
<b>Fax Number:</b>			
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent</i>			
<b>TRADEMARK</b>			

OP \$415.00 4418767

*using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.*

**Phone:** 8013374500  
**Email:** nwells@legendslaw.com  
**Correspondent Name:** Nicholas D. Wells  
**Address Line 1:** 330 N. Main St.  
**Address Line 4:** Kaysville, UTAH 84037

**NAME OF SUBMITTER:** Nicholas D. Wells

**SIGNATURE:** /Nicholas Wells/

**DATE SIGNED:** 12/30/2016

**Total Attachments: 37**

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## INTELLECTUAL PROPERTY SECURITY AGREEMENT

**THIS INTELLECTUAL PROPERTY SECURITY AGREEMENT** (as the same may be amended, restated, supplemented or otherwise modified from time to time, the "Agreement"), dated as of December 27, 2016, is made by each of the entities listed on the signature pages hereof (each a "Grantor" and, collectively, the "Grantors"), in favor of Obsidian Agency Services, Inc., a California corporation, as agent for Lenders (the "Agent").

### WITNESSETH:

WHEREAS, pursuant to the Loan and Security Agreement, dated as of July 8, 2016 (as the same may be amended, restated, supplemented or otherwise modified from time to time, the "Credit Agreement"), among Agent, Lenders and Enphase, Inc., ("Borrower"), Lenders have agreed to make Credit Extensions (collectively, "Loans") to Borrower upon the terms and subject to the conditions set forth therein; and

WHEREAS, pursuant to the Credit Agreement, Borrower is required to execute and deliver this Agreement.

NOW, THEREFORE, in consideration of the premises, to induce Lenders to enter into the Credit Agreement, to induce Lenders to make the Loans to Borrower thereunder, the mutual covenants herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantors, jointly and severally, hereby agree with Agent as follows:

1. **Defined Terms.** Capitalized terms used herein without definition are used as defined in the Credit Agreement.

2. **Grant of Security Interest in Collateral.** Each Grantor, as collateral security for the prompt and complete payment and performance when due (whether at stated maturity, by acceleration or otherwise) of the Obligations, hereby mortgages, pledges and hypothecates to Agent, and grants to Agent a Lien on and security interest in, all of its right, title and interest in, to and under the following property of such Grantor (the "Collateral"):

(a) all Intellectual Property including, without limitation, that referred to on Schedule I hereto;

(b) all licenses providing for the grant by or to such Grantor of any right under any Intellectual Property, including, without limitation, those referred to on Schedule I hereto;

(c) all reissues, reexaminations, continuations, continuations-in-part, divisionals, renewals, reversions and extensions of the foregoing;

(d) all goodwill of the Grantor connected with the use of, and symbolized by, such Intellectual Property; and

(e) all income, royalties, proceeds and liabilities at any time due or payable or asserted under and with respect to any of the foregoing, including, without limitation, all rights to sue and recover at law or in equity for any past, present and future infringement, misappropriation, dilution, violation or other impairment thereof;

provided, that the foregoing is subject in all cases to the exclusions described in the Credit Agreement (including, without limitation, Exhibit A thereof), and shall not include any property of Borrower excluded from the definition "Collateral" under the Credit Agreement.

3. **Credit Agreement.** The security interest granted pursuant to this Agreement is granted in conjunction with the security interest granted to the Agent pursuant to the Credit Agreement and each Grantor hereby acknowledges and agrees that the rights and remedies of Agent and Lenders with respect to the security interest in the Collateral made and granted hereby are more fully set forth in the Credit Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein. In the event that any provision of this Agreement is deemed to conflict with the Credit Agreement, the provisions of the Credit Agreement shall control.

4. **Termination.** Upon the payment in full of the Obligations, the security interest in the Intellectual Property granted under this Agreement shall automatically terminate, and Agent shall, at Borrower's request and expense, execute, acknowledge, and deliver to the Grantors an instrument in writing in recordable form releasing the security interest in the Intellectual Property under this Agreement.

5. **Grantor Remains Liable.** Each Grantor hereby agrees that, anything herein to the contrary notwithstanding, such Grantor shall assume full and complete responsibility for the prosecution, defense, enforcement or any other necessary or desirable actions in connection with their Intellectual Property subject to a security interest hereunder.

6. **Counterparts.** This Agreement may be executed in any number of counterparts and by different parties in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement. Signature pages may be detached from multiple separate counterparts and attached to a single counterpart. Delivery of an executed signature page of this Agreement by facsimile transmission or electronic transmission shall be as effective as delivery of a manually executed counterpart hereof.

7. **Choice of Law, Venue, Jury Trial Waiver.**

(a) **Governing Law.** California law governs the Loan Documents without regard to principles of conflicts of law. Grantors and Agent each submit to the exclusive jurisdiction of the State and Federal courts in Los Angeles County, California; provided, however, that nothing in this Agreement shall be deemed to operate to preclude Agent from bringing suit or taking other legal action in any other jurisdiction to realize on the Collateral or any other security for the Obligations, or to enforce a judgment or other court order in favor of Agent. Grantors expressly submit and consent in advance to such jurisdiction in any action or suit commenced in any such court, and each Grantor hereby waives any objection that it may have based upon lack of personal jurisdiction, improper venue, or forum non conveniens and hereby consents to the granting of such legal or equitable relief as is deemed appropriate by such court. Each Grantor hereby waives personal service of the summons, complaints, and other process issued in such action or suit and agrees that service of such summons, complaints, and other process may be made by registered or certified mail addressed to Grantor at the address set forth in, or subsequently provided by Grantors in accordance with, Section 10 of the Credit Agreement and

that service so made shall be deemed completed upon the earlier to occur of Grantors' actual receipt thereof or three (3) days after deposit in the U.S. mails, proper postage prepaid.

**(b) Waiver of Jury Trial. TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, GRANTORS AND AGENT AND EACH LENDER EACH WAIVES ITS RIGHT TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION ARISING OUT OF OR BASED UPON THE LOAN DOCUMENTS OR ANY CONTEMPLATED TRANSACTION, INCLUDING CONTRACT, TORT, BREACH OF DUTY AND ALL OTHER CLAIMS. THIS WAIVER IS A MATERIAL INDUCEMENT FOR BOTH PARTIES TO ENTER INTO THIS AGREEMENT. EACH PARTY HAS REVIEWED THIS WAIVER WITH ITS COUNSEL.**

**(c) Judicial Reference.** WITHOUT INTENDING IN ANY WAY TO LIMIT THE PARTIES' AGREEMENT TO WAIVE THEIR RESPECTIVE RIGHT TO A TRIAL BY JURY, if the above waiver of the right to a trial by jury is not enforceable, the parties hereto agree that any and all disputes or controversies of any nature between them arising at any time shall be decided by a reference to a private judge, mutually selected by the parties (or, if they cannot agree, by the Presiding Judge of Los Angeles County, California Superior Court) appointed in accordance with California Code of Civil Procedure Section 638 (or pursuant to comparable provisions of federal law if the dispute falls within the exclusive jurisdiction of the federal courts), sitting without a jury, in Los Angeles County, California; and the parties hereby submit to the jurisdiction of such court. The reference proceedings shall be conducted pursuant to and in accordance with the provisions of California Code of Civil Procedure §§ 638 through 645.1, inclusive. The private judge shall have the power, among others, to grant provisional relief, including without limitation, entering temporary restraining orders, issuing preliminary and permanent injunctions and appointing receivers. All such proceedings shall be closed to the public and confidential and all records relating thereto shall be permanently sealed. If during the course of any dispute, a party desires to seek provisional relief, but a judge has not been appointed at that point pursuant to the judicial reference procedures, then such party may apply to the Los Angeles County, California Superior Court for such relief. The proceeding before the private judge shall be conducted in the same manner as it would be before a court under the rules of evidence applicable to judicial proceedings. The parties shall be entitled to discovery which shall be conducted in the same manner as it would be before a court under the rules of discovery applicable to judicial proceedings. The private judge shall oversee discovery and may enforce all discovery rules and orders applicable to judicial proceedings in the same manner as a trial court judge.

**(d) Scope of Authority.** The parties agree that the selected or appointed private judge shall have the power to decide all issues in the action or proceeding, whether of fact or of law, and shall report a statement of decision thereon pursuant to California Code of Civil Procedure § 644(a). Nothing in this paragraph shall limit the right of any party at any time to exercise self-help remedies, foreclose against collateral, or obtain provisional remedies. The private judge shall also determine all issues relating to the applicability, interpretation, and enforceability of this paragraph.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, each Grantor has caused this Intellectual Property Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

Enphase Energy, Inc., as Grantor


By: Paul B. Nahi  
Name: Paul B. Nahi  
Title: President and CEO

Obsidian Agency Services, Inc., as Agent

\_\_\_\_\_  
Name:  
Title:

IN WITNESS WHEREOF, each Grantor has caused this Intellectual Property Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

Enphase Energy, Inc., as Grantor

By:   
Name: Paul B. Nahi  
Title: President and CEO

Obsidian Agency Services, Inc., as Agent

  
Name: David Hollander  
Title: VICE President



Schedule I  
Intellectual Property Security Agreement

# PATENTS:

Country	App. No.	File Date	Patent No.	Issue Date	Title
Australia	2007229854	20-Mar-2007	2007229854	19-May-2011	Method and Apparatus for Converting Direct Current to Alternating Current
Australia	2011202022	03-May-2011	2011202022	19-Dec-2013	Method and Apparatus for Converting Direct Current to Alternating Current
Australia	2013267001	04-Dec-2013	2013237001	03-Dec-2015	METHOD AND APPARATUS FOR CONVERTING DIRECT CURRENT TO ALTERNATING CURRENT
Germany	072512460	23-Mar-2007	6020070354897	12-Mar-2014	Method and Apparatus for Converting Direct Current to Alternating Current
European Patent Convention	072512460	23-Mar-2007	1837985	12-Mar-2014	Method and Apparatus for Converting Direct Current to Alternating Current
France	072512460	23-Mar-2007	1837985	12-Mar-2014	Method and Apparatus for Converting Direct Current to Alternating Current
United Kingdom	072512460	23-Mar-2007	1837985	12-Mar-2014	Method and Apparatus for Converting Direct Current to Alternating Current
Japan	2007077602	23-Mar-2007	5259108	02-May-2013	Method and Apparatus for Converting Direct Current to Alternating Current
Japan	2012151631	23-Mar-2007			Method and Apparatus for Converting Direct Current to Alternating Current
Korea, Republic of	1020087025255	20-Mar-2007			Method and Apparatus for Converting Direct Current to Alternating Current
Korea, Republic of	1020127021240	13-Aug-2012			Method and Apparatus for Converting Direct Current to Alternating Current
United States of America	11725763	20-Mar-2007	7796412	14-Sep-2010	Method and Apparatus for Converting Direct Current to Alternating Current
United States of America	13903409	28-May-2013	9436198	06-Sep-2016	METHOD AND APPARATUS FOR POWER CONVERSION
United States of America	13903457	28-May-2013	9461552	04-Oct-2016	METHOD AND APPARATUS FOR POWER CONVERSION
United States of America	12807715	13-Sep-2010	8717780	06-May-2014	METHOD AND APPARATUS FOR CONVERTING DIRECT CURRENT TO ALTERNATING CURRENT
United States of America	60743713	23-Mar-2006			Method and Apparatus for Converting Direct Current to Alternating Current
Patent Cooperation Treaty	PCTUS07006841	20-Mar-2007			Method and Apparatus for Converting Direct Current to Alternating Current
United States of America	12383499	25-Mar-2009	7817450	19-Oct-2010	METHOD AND APPARATUS FOR RESETTING A SILICON CONTROLLED RECTIFIER BRIDGE
United States of America	61070923	26-Mar-2008			METHOD AND APPARATUS FOR RESETTING A SILICON CONTROLLED RECTIFIER BRIDGE
Patent Cooperation Treaty	PCTUS2009038271	25-Mar-2009			METHOD AND APPARATUS FOR RESETTING A SILICON CONTROLLED RECTIFIER BRIDGE
European Patent Convention	080127236	15-Jul-2008			METHOD AND APPARATUS FOR CONVERTING A DIRECT CURRENT TO ALTERNATING CURRENT UTILIZING A PLURALITY OF INVERTERS
Japan	2008185276	16-Jul-2008			METHOD AND APPARATUS FOR CONVERTING A DIRECT CURRENT TO ALTERNATING CURRENT UTILIZING A PLURALITY OF INVERTERS
United States of America	11879054	16-Jul-2007			METHOD AND APPARATUS FOR CONVERTING A DIRECT CURRENT TO ALTERNATING CURRENT UTILIZING A PLURALITY OF INVERTERS
Canada	2717564	05-Mar-2009	2717564	30-Dec-2014	METHOD AND APPARATUS FOR A LEAKAGE ENERGY RECOVERY CIRCUIT
European Patent Convention	097164677	05-Mar-2009			METHOD AND APPARATUS FOR A LEAKAGE ENERGY RECOVERY CIRCUIT
United States of America	12380860	04-Mar-2009	7916505	29-Mar-2011	METHOD AND APPARATUS FOR A LEAKAGE ENERGY RECOVERY CIRCUIT
United States of America	61068296	06-Mar-2008			INVERTER WITH A LEAKAGE ENERGY RECOVERY CIRCUIT
Patent Cooperation Treaty	PCTUS09036101	05-Mar-2009			METHOD AND APPARATUS FOR A LEAKAGE ENERGY RECOVERY CIRCUIT
European Patent Convention	080170459	26-Sep-2008			METHOD AND APPARATUS FOR POWER CONVERSION WITH MAXIMUM POWER POINT TRACKING AND BURST MODE CAPABILITY
Japan	2008248833	26-Sep-2008	5455184	17-Jan-2014	METHOD AND APPARATUS FOR POWER CONVERSION WITH MAXIMUM POWER POINT TRACKING AND BURST MODE CAPABILITY

United States of America	12284767	25-Sep-2008	7986122	26-Jul-2011	METHOD AND APPARATUS FOR POWER CONVERSION WITH MAXIMUM POWER POINT TRACKING AND BURST MODE CAPABILITY
United States of America	60995409	26-Sep-2007			A METHOD AND APPARATUS FOR MAXIMUM POWER POINT TRACKING WITH BURST MODE CAPABILITY
European Patent Convention	082528886	29-Aug-2008			METHOD AND APPARATUS FOR DETECTING IMPAIRMENT OF A SOLAR ARRAY
Japan	2008228445	05-Sep-2008			METHOD AND APPARATUS FOR DETECTING IMPAIRMENT OF A SOLAR ARRAY
United States of America	12229622	26-Aug-2008	9048693	02-Jun-2015	METHOD AND APPARATUS FOR DETECTING IMPAIRMENT OF A SOLAR ARRAY
United States of America	60970430	06-Sep-2007			METHOD AND APPARATUS FOR DETECTING IMPAIRMENT OF A SOLAR ARRAY
Canada	2693109	16-Jul-2008			METHOD AND APPARATUS FOR ANTI-ISLANDING OF DISTRIBUTED POWER GENERATION SYSTEMS
European Patent Convention	087802245	16-Jul-2008			METHOD AND APPARATUS FOR ANTI-ISLANDING OF DISTRIBUTED POWER GENERATION SYSTEMS
United States of America	12218752	16-Jul-2008	7899632	01-Mar-2011	METHOD AND APPARATUS FOR ANTI-ISLANDING OF DISTRIBUTED POWER GENERATION SYSTEMS
United States of America	12930544	10-Jan-2011	8195414	05-Jun-2012	METHOD AND APPARATUS FOR IDENTIFYING AN ISLANDING CONDITION
United States of America	60959644	16-Jul-2007			METHOD AND APPARATUS FOR ANTI-ISLANDING OF DISTRIBUTED POWER GENERATION SYSTEMS
Patent Cooperation Treaty	PCTUS0808712	16-Jul-2008			METHOD AND APPARATUS FOR ANTI-ISLANDING OF DISTRIBUTED POWER GENERATION SYSTEMS
European Patent Convention	080170442	26-Sep-2008			METHOD AND APPARATUS FOR MAXIMUM POWER POINT TRACKING IN POWER CONVERSION BASED ON DUAL FEEDBACK LOOPS AND POWER RIPPLES
Japan	2008248835	26-Sep-2008	5459634	24-Jan-2014	METHOD AND APPARATUS FOR MAXIMUM POWER POINT TRACKING IN POWER CONVERSION BASED ON DUAL FEEDBACK LOOPS AND POWER RIPPLES
United States of America	12284830	25-Sep-2008	7986539	26-Jul-2011	METHOD AND APPARATUS FOR MAXIMUM POWER POINT TRACKING IN POWER CONVERSION BASED ON DUAL FEEDBACK LOOPS AND POWER RIPPLES
United States of America	60995408	26-Sep-2007			METHOD AND APPARATUS FOR MAXIMUM POWER POINT TRACKING IN POWER CONVERSION BASED ON DUAL FEEDBACK LOOPS AND POWER RIPPLES
European Patent Convention	080170855	29-Sep-2008			METHOD AND APPARATUS FOR PROVIDING POWER CONVERSION USING AN INTERLEAVED FLYBACK CONVERTER WITH AUTOMATIC BALANCING
Japan	20080251161	29-Sep-2008			METHOD AND APPARATUS FOR PROVIDING POWER CONVERSION USING AN INTERLEAVED FLYBACK CONVERTER WITH AUTOMATIC BALANCING
United States of America	12284985	26-Sep-2008	8537572	17-Sep-2013	METHOD AND APPARATUS FOR PROVIDING POWER CONVERSION USING AN INTERLEAVED FLYBACK CONVERTER WITH AUTOMATIC BALANCING
United States of America	14028349	16-Sep-2013	9112417	18-Aug-2015	METHOD AND APPARATUS FOR PROVIDING POWER CONVERSION USING AN INTERLEAVED FLYBACK CONVERTER WITH AUTOMATIC BALANCING
United States of America	14827378	17-Aug-2015			METHOD AND APPARATUS FOR PROVIDING POWER CONVERSION USING AN INTERLEAVED FLYBACK CONVERTER WITH AUTOMATIC BALANCING
United States of America	60995784	28-Sep-2007			METHOD AND APPARATUS FOR PROVIDING POWER CONVERSION USING AN INTERLEAVED FLYBACK CONVERTER WITH AUTOMATIC BALANCING
European Patent Convention	080170848	29-Sep-2008			UNIVERSAL INTERFACE FOR A PHOTOVOLTAIC MODULE
Japan	2008248829	26-Sep-2008			UNIVERSAL INTERFACE FOR A PHOTOVOLTAIC MODULE
United States of America	12284915	26-Sep-2008			UNIVERSAL INTERFACE FOR A PHOTOVOLTAIC MODULE
United States of America	60976369	28-Sep-2007			UNIVERSAL INTERFACE FOR A PHOTOVOLTAIC MODULE
European Patent Convention	090034331	10-Mar-2009			APPARATUS FOR PHASE ROTATION FOR A THREE-PHASE AC CIRCUIT
United States of America	12075342	11-Mar-2008	7855473	21-Dec-2010	APPARATUS FOR PHASE ROTATION FOR A THREE-PHASE AC CIRCUIT

United States of America	12928685	16-Dec-2010	8222767	17-Jul-2012	APPARATUS FOR PHASE ROTATION FOR A THREE-PHASE AC CIRCUIT
Canada	2715340	12-Feb-2009	2715340	04-Aug-2015	METHOD AND APPARATUS FOR DISTRIBUTED VAR COMPENSATION
European Patent Convention	097113914	12-Feb-2009			METHOD AND APPARATUS FOR DISTRIBUTED VAR COMPENSATION
United States of America	12370036	12-Feb-2009	8076802	13-Dec-2011	METHOD AND APPARATUS FOR DISTRIBUTED VAR COMPENSATION
United States of America	61065463	12-Feb-2008			METHOD AND APPARATUS FOR DISTRIBUTED VAR COMPENSATION
Patent Cooperation Treaty	PCTUS09033880	12-Feb-2009			METHOD AND APPARATUS FOR DISTRIBUTED VAR COMPENSATION
European Patent Convention	090034752	10-Mar-2009			METHOD AND APPARATUS FOR ELECTRICAL POWER VISUALIZATION
United States of America	12381301	10-Mar-2009	8963923	24-Feb-2015	METHOD AND APPARATUS FOR ELECTRICAL POWER VISUALIZATION
United States of America	13618288	14-Sep-2012	8553035	08-Oct-2013	METHOD AND APPARATUS FOR ELECTRICAL POWER VISUALIZATION
United States of America	14622220	13-Feb-2015			METHOD AND APPARATUS FOR ELECTRICAL POWER VISUALIZATION
United States of America	61068921	11-Mar-2008			METHOD AND APPARATUS FOR ELECTRICAL POWER VISUALIZATION
Canada	2719265	17-Mar-2009			METHOD AND APPARATUS FOR MEASURING AC VOLTAGES
European Patent Convention	097244487	17-Mar-2009			METHOD AND APPARATUS FOR MEASURING AC VOLTAGES
Hong Kong	111065481	24-Jun-2011			METHOD AND APPARATUS FOR MEASURING AC VOLTAGES
Japan	2011501907	17-Mar-2009			METHOD AND APPARATUS FOR MEASURING AC VOLTAGES
Korea, Republic of	1020107023810	17-Mar-2009	101197807	30-Oct-2012	METHOD AND APPARATUS FOR MEASURING AC VOLTAGES
United States of America	12381809	17-Mar-2009	7923983	12-Apr-2011	METHOD AND APPARATUS FOR MEASURING AC VOLTAGES
United States of America	13065382	21-Mar-2011	8299776	30-Oct-2012	METHOD AND APPARATUS FOR MEASURING AC VOLTAGES
United States of America	13632601	01-Oct-2012	9279832	08-Mar-2016	METHOD AND APPARATUS FOR MEASURING AC VOLTAGES
United States of America	61070797	26-Mar-2008			METHOD AND APPARATUS FOR MEASURING AC VOLTAGES
Patent Cooperation Treaty	PCTUS09037393	17-Mar-2009			METHOD AND APPARATUS FOR MEASURING AC VOLTAGES
Canada	2719014	26-Mar-2009			METHOD AND APPARATUS FOR RESETTING SILICON CONTROLLED RECTIFIERS IN A HYBRID BRIDGE
European Patent Convention	097246383	26-Mar-2009			METHOD AND APPARATUS FOR RESETTING SILICON CONTROLLED RECTIFIERS IN A HYBRID BRIDGE
United States of America	12383729	26-Mar-2009			METHOD AND APPARATUS FOR RESETTING SILICON CONTROLLED RECTIFIERS IN A HYBRID BRIDGE
United States of America	61070798	26-Mar-2008			METHOD AND APPARATUS FOR RESETTING SILICON CONTROLLED RECTIFIERS IN A HYBRID BRIDGE
Patent Cooperation Treaty	PCTUS09038375	26-Mar-2009			METHOD AND APPARATUS FOR RESETTING SILICON CONTROLLED RECTIFIERS IN A HYBRID BRIDGE
Canada	2719002	25-Mar-2009	2719002	12-Jan-2016	METHOD AND APPARATUS FOR EXTENDING ZERO-VOLTAGE SWITCHING RANGE IN A DC TO DC CONVERTER
European Patent Convention	097244271	25-Mar-2009			METHOD AND APPARATUS FOR EXTENDING ZERO-VOLTAGE SWITCHING RANGE IN A DC TO DC CONVERTER
Japan	2011502025	25-Mar-2009	5654982	28-Nov-2014	METHOD AND APPARATUS FOR EXTENDING ZERO-VOLTAGE SWITCHING RANGE IN A DC TO DC CONVERTER
Japan	2014236176	21-Nov-2014			METHOD AND APPARATUS FOR EXTENDING ZERO-VOLTAGE SWITCHING RANGE IN A DC TO DC CONVERTER
Korea, Republic of	1020107023217	25-Mar-2009	101245080	12-Mar-2013	METHOD AND APPARATUS FOR EXTENDING ZERO-VOLTAGE SWITCHING RANGE IN A DC TO DC CONVERTER

United States of America	12383497	25-Mar-2009	8873252	28-Oct-2014	METHOD AND APPARATUS FOR EXTENDING ZERO-VOLTAGE SWITCHING RANGE IN A DC TO DC CONVERTER
United States of America	14492936	22-Sep-2014	9461550	04-Oct-2016	METHOD AND APPARATUS FOR EXTENDING ZERO-VOLTAGE SWITCHING RANGE IN A DC TO DC CONVERTER
United States of America	61070799	26-Mar-2008			APPARATUS FOR EXTENDING ZERO-VOLTAGE SWITCHING RANGE IN A DC TO DC CONVERTER
Patent Cooperation Treaty	PCTUS2009038270	25-Mar-2009			METHOD AND APPARATUS FOR EXTENDING ZERO-VOLTAGE SWITCHING RANGE IN A DC TO DC CONVERTER
Australia	2010284373	17-Aug-2010	2010284373	24-May-2014	METHOD AND SYSTEM FOR DISTRIBUTED ENERGY GENERATOR MESSAGE AGGREGATION
Australia	2014201681	20-Mar-2014	2014201681	16-Jul-2015	METHOD AND SYSTEM FOR DISTRIBUTED ENERGY GENERATOR MESSAGE AGGREGATION
Canada	2771631	17-Aug-2010			METHOD AND SYSTEM FOR DISTRIBUTED ENERGY GENERATOR MESSAGE AGGREGATION
China (People's Republic)	2010800284569	17-Aug-2010	2010800284569	02-Sep-2015	METHOD AND SYSTEM FOR DISTRIBUTED ENERGY GENERATOR MESSAGE AGGREGATION
China (People's Republic)	2015104590229	20-Jul-2015			METHOD AND SYSTEM FOR DISTRIBUTED ENERGY GENERATOR MESSAGE AGGREGATION
European Patent Convention	108104720	17-Aug-2010			METHOD AND SYSTEM FOR DISTRIBUTED ENERGY GENERATOR MESSAGE AGGREGATION
Israel	218154	17-Aug-2010			METHOD AND SYSTEM FOR DISTRIBUTED ENERGY GENERATOR MESSAGE AGGREGATION
Japan	2012525636	17-Aug-2010			METHOD AND SYSTEM FOR DISTRIBUTED ENERGY GENERATOR MESSAGE AGGREGATION
Korea, Republic of	1020127007111	17-Aug-2010			METHOD AND SYSTEM FOR DISTRIBUTED ENERGY GENERATOR MESSAGE AGGREGATION
United States of America	12583297	18-Aug-2009	8099197	17-Jan-2012	METHOD AND SYSTEM FOR DISTRIBUTED ENERGY GENERATOR MESSAGE AGGREGATION
United States of America	13327276	15-Dec-2011	8428783	23-Apr-2013	METHOD AND SYSTEM FOR DISTRIBUTED ENERGY GENERATOR MESSAGE AGGREGATION
Patent Cooperation Treaty	PCTUS2010045732	17-Aug-2010			METHOD AND SYSTEM FOR DISTRIBUTED ENERGY GENERATOR MESSAGE AGGREGATION
European Patent Convention	098198807	08-Oct-2009			METHOD AND APPARATUS FOR DETERMINING AC VOLTAGE WAVEFORM ANOMALIES
United States of America	12587516	08-Oct-2009	8183852	22-May-2012	METHOD AND APPARATUS FOR DETERMINING AC VOLTAGE WAVEFORM ANOMALIES
United States of America	61195606	08-Oct-2008			METHOD AND APPARATUS FOR DETERMINING AC VOLTAGE WAVEFORM ANOMALIES
Patent Cooperation Treaty	PCTUS2009059999	08-Oct-2009			METHOD AND APPARATUS FOR DETERMINING AC VOLTAGE WAVEFORM ANOMALIES
Australia	2009302200	09-Oct-2009	2009302200	23-Mar-2016	METHOD AND APPARATUS FOR IMPROVED BURST MODE DURING POWER CONVERSION
Canada	2739814	09-Oct-2009			METHOD AND APPARATUS FOR IMPROVED BURST MODE DURING POWER CONVERSION
European Patent Convention	098199375	09-Oct-2009			METHOD AND APPARATUS FOR IMPROVED BURST MODE DURING POWER CONVERSION
Japan	2011531206	07-Apr-2011	5773368	10-Jul-2015	METHOD AND APPARATUS FOR IMPROVED BURST MODE DURING POWER CONVERSION
Korea, Republic of	1020117010598	09-Oct-2009	101663957	04-Oct-2016	METHOD AND APPARATUS FOR IMPROVED BURST MODE DURING POWER CONVERSION
United States of America	12249533	10-Oct-2008	7768155	03-Aug-2010	METHOD AND APPARATUS FOR IMPROVED BURST MODE DURING POWER CONVERSION
United States of America	12804943	02-Aug-2010	8035257	11-Oct-2011	METHOD AND APPARATUS FOR IMPROVED BURST MODE DURING POWER CONVERSION
United States of America	13206311	09-Aug-2011	8319378	27-Nov-2012	METHOD AND APPARATUS FOR IMPROVED BURST MODE DURING POWER CONVERSION
United States of America	13615920	14-Sep-2012	8492932	23-Jul-2013	METHOD AND APPARATUS FOR IMPROVED BURST MODE DURING POWER CONVERSION
United States of America	13944575	17-Jul-2013	9461561	04-Oct-2016	METHOD AND APPARATUS FOR IMPROVED BURST MODE DURING POWER CONVERSION
Patent Cooperation Treaty	PCTUS09060148	09-Oct-2009			METHOD AND APPARATUS FOR IMPROVED BURST MODE DURING POWER CONVERSION

United Kingdom	098199375	09-Oct-2009			METHOD AND APPARATUS FOR IMPROVED BURST MODE DURING POWER CONVERSION
France	098199375	09-Oct-2009			METHOD AND APPARATUS FOR IMPROVED BURST MODE DURING POWER CONVERSION
Germany	098199375	09-Oct-2009			METHOD AND APPARATUS FOR IMPROVED BURST MODE DURING POWER CONVERSION
Canada	2740238	16-Oct-2009			METHOD AND APPARATUS FOR DETERMINING AN OPERATING VOLTAGE FOR PREVENTING PHOTOVOLTAIC CELL REVERSE BREAKDOWN DURING POWER CONVERSION
European Patent Convention	098213291	16-Oct-2009			METHOD AND APPARATUS FOR DETERMINING AN OPERATING VOLTAGE FOR PREVENTING PHOTOVOLTAIC CELL REVERSE BREAKDOWN DURING POWER CONVERSION
United States of America	12589025	16-Oct-2009	7925459	12-Apr-2011	METHOD AND APPARATUS FOR DETERMINING AN OPERATING VOLTAGE FOR PREVENTING PHOTOVOLTAIC CELL REVERSE BREAKDOWN DURING POWER CONVERSION
United States of America	13065381	21-Mar-2011	8359176	22-Jan-2013	METHOD AND APPARATUS FOR DETERMINING AN OPERATING VOLTAGE FOR PREVENTING PHOTOVOLTAIC CELL REVERSE BREAKDOWN DURING POWER CONVERSION
United States of America	61196253	16-Oct-2008			METHOD AND APPARATUS FOR DETERMINING AN OPERATING VOLTAGE FOR PREVENTING PHOTOVOLTAIC CELL REVERSE BREAKDOWN DURING POWER CONVERSION
Patent Cooperation Treaty	PCTUS09061021	16-Oct-2009			METHOD AND APPARATUS FOR DETERMINING AN OPERATING VOLTAGE FOR PREVENTING PHOTOVOLTAIC CELL REVERSE BREAKDOWN DURING POWER CONVERSION
United States of America	61196252	16-Oct-2008			DUAL[E] AC CABLE DEVELOPMENT
Canada	2751254	05-Feb-2010			METHOD AND APPARATUS FOR DETERMINING A CORRECTED MONITORING VOLTAGE
European Patent Convention	107391617	05-Feb-2010			METHOD AND APPARATUS FOR DETERMINING A CORRECTED MONITORING VOLTAGE
United States of America	12701262	05-Feb-2010	8666561	04-Mar-2014	METHOD AND APPARATUS FOR DETERMINING A CORRECTED MONITORING VOLTAGE
United States of America	14197087	04-Mar-2014			METHOD AND APPARATUS FOR DETERMINING A CORRECTED MONITORING VOLTAGE
United States of America	61206891	05-Feb-2009			METHOD AND APPARATUS FOR DETERMINING A CORRECTED MONITORING VOLTAGE
Patent Cooperation Treaty	PCTUS2010023307	05-Feb-2010			METHOD AND APPARATUS FOR DETERMINING A CORRECTED MONITORING VOLTAGE
Canada	2750103	21-Jan-2010			METHOD AND APPARATUS FOR CHARACTERIZING A CIRCUIT COUPLED TO AN AC LINE
European Patent Convention	107389488	21-Jan-2010			METHOD AND APPARATUS FOR CHARACTERIZING A CIRCUIT COUPLED TO AN AC LINE
United States of America	12657447	21-Jan-2010	7944083	17-May-2011	METHOD AND APPARATUS FOR CHARACTERIZING A CIRCUIT COUPLED TO AN AC LINE
United States of America	61205589	21-Jan-2009			METHOD AND APPARATUS FOR CHARACTERIZING A CIRCUIT COUPLED TO AN AC LINE
Patent Cooperation Treaty	PCTUS10021643	21-Jan-2010			METHOD AND APPARATUS FOR CHARACTERIZING A CIRCUIT COUPLED TO AN AC LINE
Australia	2010271405	08-Jul-2010	2010271405	23-Oct-2014	METHOD AND APPARATUS FOR SINGLE-PATH CONTROL AND MONITORING OF AN H-BRIDGE
Canada	2767628	08-Jul-2010			METHOD AND APPARATUS FOR SINGLE-PATH CONTROL AND MONITORING OF AN H-BRIDGE
United States of America	12803890	08-Jul-2010	8837178	16-Sep-2014	METHOD AND APPARATUS FOR SINGLE-PATH CONTROL AND MONITORING OF AN H-BRIDGE
United States of America	61270545	09-Jul-2009			METHOD AND APPARATUS FOR SINGLE-PATH CONTROL AND MONITORING OF AN H-BRIDGE
Patent Cooperation Treaty	PCTUS2010041341	08-Jul-2010			METHOD AND APPARATUS FOR SINGLE-PATH CONTROL AND MONITORING OF AN H-BRIDGE
Australia	2009322282	04-Dec-2009	2009322282	19-Mar-2015	MOUNTING RAIL AND POWER DISTRIBUTION SYSTEM FOR USE IN A PHOTOVOLTAIC SYSTEM
Canada	2745337	04-Dec-2009	2745337	03-Mar-2015	MOUNTING RAIL AND POWER DISTRIBUTION SYSTEM FOR USE IN A PHOTOVOLTAIC SYSTEM
United States of America	12592889	04-Dec-2009	8469735	25-Jun-2013	MOUNTING RAIL AND POWER DISTRIBUTION SYSTEM FOR USE IN A PHOTOVOLTAIC SYSTEM

United States of America	61200845	04-Dec-2008			INTEGRATED PHOTOVOLTAIC MODULE POWER RAIL AND AC POWER DISTRIBUTION SYSTEM
Patent Cooperation Treaty	PCTUS09066746	04-Dec-2009			MOUNTING RAIL AND POWER DISTRIBUTION SYSTEM FOR USE IN A PHOTOVOLTAIC SYSTEM
United States of America	12657071	13-Jan-2010	8360390	29-Jan-2013	METHOD AND APPARATUS FOR POTTING AN ELECTRONIC DEVICE
United States of America	13751350	28-Jan-2013	9137916	15-Sep-2015	METHOD AND APPARATUS FOR POTTING AN ELECTRONIC DEVICE
United States of America	61204929	13-Jan-2009			METHOD AND APPARATUS FOR POTTING AN ELECTRONIC DEVICE
United States of America	61211984	06-Apr-2009			APPARATUS FOR MOUNTING AN INVERTER TO A PHOTOVOLTAIC MODULE FRAME
Australia	2010201291	31-Mar-2010	2010201291	25-Mar-2013	APPARATUS FOR COUPLING POWER GENERATED BY A PHOTOVOLTAIC MODULE TO AN OUTPUT
Canada	2698046	29-Mar-2010			APPARATUS FOR COUPLING POWER GENERATED BY A PHOTOVOLTAIC MODULE TO AN OUTPUT
China (People's Republic)	201010164485X	16-Apr-2010			APPARATUS FOR COUPLING POWER GENERATED BY A PHOTOVOLTAIC MODULE TO AN OUTPUT
European Patent Convention	101600567	15-Apr-2010			APPARATUS FOR COUPLING POWER GENERATED BY A PHOTOVOLTAIC MODULE TO AN OUTPUT
Israel	204827	06-Apr-2010			APPARATUS FOR COUPLING POWER GENERATED BY A PHOTOVOLTAIC MODULE TO AN OUTPUT
Japan	2010078005	30-Mar-2010			APPARATUS FOR COUPLING POWER GENERATED BY A PHOTOVOLTAIC MODULE TO AN OUTPUT
Korea, Republic of	1020100034740	15-Apr-2010			APPARATUS FOR COUPLING POWER GENERATED BY A PHOTOVOLTAIC MODULE TO AN OUTPUT
United States of America	12657069	13-Jan-2010	8435056	07-May-2013	APPARATUS FOR COUPLING POWER GENERATED BY A PHOTOVOLTAIC MODULE TO AN OUTPUT
United States of America	61212811	16-Apr-2009			APPARATUS FOR MOUNTING AN INVERTER TO A PHOTOVOLTAIC MODULE
Australia	2010273590	12-Jul-2010	2010273590	02-Jan-2014	METHOD AND APPARATUS FOR IDENTIFYING REDEPLOYED DISTRIBUTED GENERATOR COMPONENTS
Canada	2768459	12-Jul-2010			METHOD AND APPARATUS FOR IDENTIFYING REDEPLOYED DISTRIBUTED GENERATOR COMPONENTS
China (People's Republic)	2010800253255	12-Jul-2010	1663840	03-Jun-2015	METHOD AND APPARATUS FOR IDENTIFYING REDEPLOYED DISTRIBUTED GENERATOR COMPONENTS
European Patent Convention	108003864	12-Jul-2010			METHOD AND APPARATUS FOR IDENTIFYING REDEPLOYED DISTRIBUTED GENERATOR COMPONENTS
Israel	217510	12-Jul-2010			METHOD AND APPARATUS FOR IDENTIFYING REDEPLOYED DISTRIBUTED GENERATOR COMPONENTS
Japan	2012520703	12-Jul-2010	5550725	30-May-2014	METHOD AND APPARATUS FOR IDENTIFYING REDEPLOYED DISTRIBUTED GENERATOR COMPONENTS
Korea, Republic of	1020127003895	12-Jul-2010			METHOD AND APPARATUS FOR IDENTIFYING REDEPLOYED DISTRIBUTED GENERATOR COMPONENTS
United States of America	12804017	12-Jul-2010	9165275	20-Oct-2015	METHOD AND APPARATUS FOR IDENTIFYING REDEPLOYED DISTRIBUTED GENERATOR COMPONENTS
United States of America	61270809	14-Jul-2009			METHOD AND APPARATUS FOR IDENTIFYING REDEPLOYED DISTRIBUTED GENERATOR COMPONENTS
Patent Cooperation Treaty	PCTUS2010041725	12-Jul-2010			METHOD AND APPARATUS FOR IDENTIFYING REDEPLOYED DISTRIBUTED GENERATOR COMPONENTS
Australia	2010286576	27-Aug-2010	2010286576	16-Oct-2014	POWER LINE COMMUNICATIONS APPARATUS
Canada	2772573	27-Aug-2010			POWER LINE COMMUNICATIONS APPARATUS
China (People's Republic)	2010800255763	27-Aug-2010	1554855	31-Dec-2014	POWER LINE COMMUNICATIONS APPARATUS
Germany	108126525	27-Aug-2010	2471190	27-May-2015	POWER LINE COMMUNICATIONS APPARATUS
European Patent Convention	108126525	27-Aug-2010	2471190	27-May-2015	POWER LINE COMMUNICATIONS APPARATUS
France	108126525	27-Aug-2010	2471190	27-May-2015	POWER LINE COMMUNICATIONS APPARATUS

United Kingdom	108126525	27-Aug-2010	2471190	27-May-2015	POWER LINE COMMUNICATIONS APPARATUS
Israel	218371	27-Aug-2010			POWER LINE COMMUNICATIONS APPARATUS
Japan	2012527017	27-Aug-2010	5562422	20-Jun-2014	POWER LINE COMMUNICATIONS APPARATUS
Japan	2014119702	10-Jun-2014			POWER LINE COMMUNICATIONS APPARATUS
Korea, Republic of	1020127008012	27-Aug-2010			POWER LINE COMMUNICATIONS APPARATUS
United States of America	12807089	27-Aug-2010	8107516	31-Jan-2012	POWER LINE COMMUNICATIONS APPARATUS
United States of America	13336569	23-Dec-2011	8411790	02-Apr-2013	POWER LINE COMMUNICATIONS APPARATUS
United States of America	13850845	26-Mar-2013			POWER LINE COMMUNICATIONS APPARATUS
United States of America	61275350	28-Aug-2009			POWER LINE COMMUNICATIONS APPARATUS
Patent Cooperation Treaty	PCTUS2010046942	27-Aug-2010			POWER LINE COMMUNICATIONS APPARATUS
Australia	2008254814	16-May-2008	2008254814	21-Jul-2011	DISTRIBUTED INVERTER AND INTELLIGENT GATEWAY
Australia	2011203367	07-Jul-2011	2011203367	24-Dec-2013	DISTRIBUTED INVERTER AND INTELLIGENT GATEWAY
Canada	2686272	16-May-2008			DISTRIBUTED INVERTER AND INTELLIGENT GATEWAY
European Patent Convention	087557369	16-May-2008			DISTRIBUTED INVERTER AND INTELLIGENT GATEWAY
Israel	202197	16-May-2008	202197	01-Dec-2012	SYSTEM AND APPARATUS FOR USE IN ENERGY CONVERSION
Japan	2010508611	16-May-2008			DISTRIBUTED INVERTER AND INTELLIGENT GATEWAY
Japan	2014158805	04-Aug-2014			DISTRIBUTED INVERTER AND INTELLIGENT GATEWAY
Korea, Republic of	1020097026286	16-May-2008	101535589	03-Jul-2015	DISTRIBUTED INVERTER AND INTELLIGENT GATEWAY
United States of America	12121616	15-May-2008			DISTRIBUTED INVERTER AND INTELLIGENT GATEWAY
United States of America	13619259	14-Sep-2012	8581441	12-Nov-2013	DISTRIBUTED INVERTER AND INTELLIGENT GATEWAY
United States of America	14872361	01-Oct-2015			DISTRIBUTED INVERTER AND INTELLIGENT GATEWAY
United States of America	60938663	17-May-2007			DISTRIBUTED INVERTER AND INTELLIGENT GATEWAY
Patent Cooperation Treaty	PCTUS08063937	16-May-2008			DISTRIBUTED INVERTER AND INTELLIGENT GATEWAY
Australia	2008254822	16-May-2008	2008254822	28-Jun-2012	PHOTOVOLTAIC MODULE-MOUNTED AC INVERTER
Australia	2012203475	14-Jun-2012	2012203475	27-Aug-2015	PHOTOVOLTAIC MODULE-MOUNTED AC INVERTER
Canada	2691967	16-May-2008			PHOTOVOLTAIC MODULE-MOUNTED AC INVERTER
European Patent Convention	087694980	16-May-2008			PHOTOVOLTAIC MODULE-MOUNTED AC INVERTER
Israel	202198	16-May-2008			PHOTOVOLTAIC MODULE-MOUNTED AC INVERTER
Japan	2010508612	16-May-2008			PHOTOVOLTAIC MODULE-MOUNTED AC INVERTER
Korea, Republic of	1020097026241	16-May-2008	101577594	09-Dec-2015	PHOTOVOLTAIC MODULE-MOUNTED AC INVERTER
Korea, Republic of	1020157001152	16-Jan-2015	1580207	18-Dec-2015	PHOTOVOLTAIC MODULE-MOUNTED AC INVERTER



United States of America	12121580	15-May-2008			AN INVERTER FOR USE IN PHOTOVOLTAIC MODULE
United States of America	13620101	14-Sep-2012	8659922	25-Feb-2014	PHOTOVOLTAIC MODULE-MOUNTED AC INVERTER
Patent Cooperation Treaty	PCTUS08063958	16-May-2008			PHOTOVOLTAIC MODULE-MOUNTED AC INVERTER
Australia	2008254828	16-May-2008	2008254828	09-May-2013	PHOTOVOLTAIC AC INVERTER MOUNT AND INTERCONNECT
Canada	2692602	16-May-2008			PHOTOVOLTAIC AC INVERTER MOUNT AND INTERCONNECT
European Patent Convention	087557542	16-May-2008			PHOTOVOLTAIC AC INVERTER MOUNT AND INTERCONNECT
Israel	202199	16-May-2008			PHOTOVOLTAIC AC INVERTER MOUNT AND INTERCONNECT
Japan	2010508614	16-May-2008			PHOTOVOLTAIC AC INVERTER MOUNT AND INTERCONNECT
Korea, Republic of	1020097026357	16-May-2008			PHOTOVOLTAIC AC INVERTER MOUNT AND INTERCONNECT
United States of America	12121578	15-May-2008			PHOTOVOLTAIC AC INVERTER MOUNT AND INTERCONNECT
United States of America	13619203	14-Sep-2012			PHOTOVOLTAIC AC INVERTER MOUNT AND INTERCONNECT
Patent Cooperation Treaty	PCTUS08063965	16-May-2008			PHOTOVOLTAIC AC INVERTER MOUNT AND INTERCONNECT
Australia	2010275466	23-Jul-2010	2010275466	10-Mar-2016	METHOD AND APPARATUS FOR DETECTION AND CONTROL OF DC ARC FAULTS
Canada	2758815	23-Jul-2010			METHOD AND APPARATUS FOR DETECTION AND CONTROL OF DC ARC FAULTS
Germany	108029687	23-Jul-2010	6020100140822	05-Mar-2014	METHOD AND APPARATUS FOR DETECTION AND CONTROL OF DC ARC FAULTS
European Patent Convention	108029687	23-Jul-2010	2457313	06-Feb-2014	METHOD AND APPARATUS FOR DETECTION AND CONTROL OF DC ARC FAULTS
European Patent Convention	141576082	04-Mar-2014	2741388	21-Oct-2015	METHOD AND APPARATUS FOR DETECTION AND CONTROL OF DC ARC FAULTS
France	108029687	23-Jul-2010	2457313	05-Mar-2014	METHOD AND APPARATUS FOR DETECTION AND CONTROL OF DC ARC FAULTS
United Kingdom	108029687	23-Jul-2010	2457313	05-Mar-2014	METHOD AND APPARATUS FOR DETECTION AND CONTROL OF DC ARC FAULTS
Japan	2012521839	23-Jul-2010	5524335	18-Apr-2014	METHOD AND APPARATUS FOR DETECTION AND CONTROL OF DC ARC FAULTS
Korea, Republic of	1020127004802	23-Jul-2010			METHOD AND APPARATUS FOR DETECTION AND CONTROL OF DC ARC FAULTS
United States of America	12804541	23-Jul-2010	8179147	15-May-2012	METHOD AND APPARATUS FOR DETECTION AND CONTROL OF DC ARC FAULTS
United States of America	13453545	23-Apr-2012	9478967	25-Oct-2016	METHOD AND APPARATUS FOR DETECTION AND CONTROL OF DC ARC FAULTS
United States of America	61227949	23-Jul-2009			METHOD AND APPARATUS FOR DETECTION AND CONTROL OF DC ARC FAULTS
Patent Cooperation Treaty	PCTUS2010043096	23-Jul-2010			METHOD AND APPARATUS FOR DETECTION AND CONTROL OF DC ARC FAULTS
Germany	141576082	04-Mar-2014	2741388	21-Oct-2015	METHOD AND APPARATUS FOR DETECTION AND CONTROL OF DC ARC FAULTS
France	141576082	04-Mar-2014	2741388	21-Oct-2015	METHOD AND APPARATUS FOR DETECTION AND CONTROL OF DC ARC FAULTS
United Kingdom	141576082	04-Mar-2014	2741388	21-Oct-2015	METHOD AND APPARATUS FOR DETECTION AND CONTROL OF DC ARC FAULTS
Canada	2779133	27-Oct-2010			METHOD AND APPARATUS FOR DISTRIBUTED GENERATOR PLANNING
European Patent Convention	108286911	27-Oct-2010			METHOD AND APPARATUS FOR DISTRIBUTED GENERATOR PLANNING
United States of America	12925705	27-Oct-2010			METHOD AND APPARATUS FOR DISTRIBUTED GENERATOR PLANNING

United States of America	14691266	20-Apr-2015			METHOD AND APPARATUS FOR DISTRIBUTED GENERATOR LIFECYCLE MANAGEMENT
United States of America	61279844	27-Oct-2009			METHOD AND APPARATUS FOR DISTRIBUTED GENERATOR PLANNING
Patent Cooperation Treaty	PCTUS2010054295	27-Oct-2010			METHOD AND APPARATUS FOR DISTRIBUTED GENERATOR PLANNING
Australia	2011240594	13-Apr-2011	2011240594	24-Apr-2014	IMPROVED TRANSFORMER
Canada	2795949	30-Nov-2012			IMPROVED TRANSFORMER
China (People's Republic)	2011800267229	29-Nov-2012	102918609	25-Nov-2015	IMPROVED TRANSFORMER
European Patent Convention	117695171	13-Apr-2011			IMPROVED TRANSFORMER
Japan	2013505090	13-Apr-2011	5804609	11-Sep-2015	IMPROVED TRANSFORMER
United States of America	13086115	13-Apr-2011	8456265	04-Jun-2013	TRANSFORMER
United States of America	61342371	13-Apr-2010			IMPROVED TRANSFORMER
Patent Cooperation Treaty	PCTUS2011032298	13-Apr-2011			IMPROVED TRANSFORMER
European Patent Convention	117427914	10-Feb-2011			METHOD AND APPARATUS FOR SMART CLIMATE CONTROL
United States of America	13023347	08-Feb-2011	8620476	31-Dec-2013	METHOD AND APPARATUS FOR SMART CLIMATE CONTROL
United States of America	61337999	12-Feb-2010			METHOD AND APPARATUS FOR SMART CLIMATE CONTROL
Patent Cooperation Treaty	PCTUS2011024346	10-Feb-2011			METHOD AND APPARATUS FOR SMART CLIMATE CONTROL
Australia	2011207434	24-Jan-2011	2011207434	15-Jan-2015	METHOD AND APPARATUS FOR INTERCONNECTING DISTRIBUTED POWER SOURCES
Australia	2014277776	18-Dec-2014			METHOD AND APPARATUS FOR INTERCONNECTING DISTRIBUTED POWER SOURCES
Canada	2787330	24-Jan-2011			METHOD AND APPARATUS FOR INTERCONNECTING DISTRIBUTED POWER SOURCES
China (People's Republic)	2011800105794	24-Jan-2011	1685864	03-Jun-2015	METHOD AND APPARATUS FOR INTERCONNECTING DISTRIBUTED POWER SOURCES
European Patent Convention	117353052	24-Jan-2011			METHOD AND APPARATUS FOR INTERCONNECTING DISTRIBUTED POWER SOURCES
Israel	220944	24-Jan-2011	220944	15-Feb-2016	METHOD AND APPARATUS FOR INTERCONNECTING DISTRIBUTED POWER SOURCES
India	2052KOLNP2012	24-Jan-2011			METHOD AND APPARATUS FOR INTERCONNECTING DISTRIBUTED POWER SOURCES
Japan	2012550191	24-Jan-2011	5737660	01-May-2015	METHOD AND APPARATUS FOR INTERCONNECTING DISTRIBUTED POWER SOURCES
Korea, Republic of	1020127022373	24-Jan-2011			METHOD AND APPARATUS FOR INTERCONNECTING DISTRIBUTED POWER SOURCES
United States of America	12931081	24-Jan-2011	8257106	04-Sep-2012	METHOD AND APPARATUS FOR INTERCONNECTING DISTRIBUTED POWER SOURCES
United States of America	13864337	17-Apr-2013			METHOD AND APPARATUS FOR INTERCONNECTING DISTRIBUTED POWER SOURCES
United States of America	13595417	27-Aug-2012			METHOD AND APPARATUS FOR INTERCONNECTING DISTRIBUTED POWER SOURCES
United States of America	13597718	29-Aug-2012	8963378	24-Feb-2015	METHOD AND APPARATUS FOR INTERCONNECTING DISTRIBUTED POWER SOURCES
United States of America	61298074	25-Jan-2010			METHOD AND APPARATUS FOR INTERCONNECTING DISTRIBUTED POWER SOURCES
Patent Cooperation Treaty	PCTUS2011022251	24-Jan-2011			METHOD AND APPARATUS FOR INTERCONNECTING DISTRIBUTED POWER SOURCES
Australia	2011235110	31-Mar-2012	2011235110	13-Feb-2014	METHOD AND APPARATUS FOR MANAGING INSTALLATION INFORMATION

Canada	2795061	22-Nov-2012			METHOD AND APPARATUS FOR MANAGING INSTALLATION INFORMATION
European Patent Convention	117634360	31-Mar-2011			METHOD AND APPARATUS FOR MANAGING INSTALLATION INFORMATION
Israel	222303	31-Mar-2011	222303	01-Dec-2015	METHOD AND APPARATUS FOR MANAGING INSTALLATION INFORMATION
Japan	2013502842	31-Mar-2011			METHOD AND APPARATUS FOR MANAGING INSTALLATION INFORMATION
Korea, Republic of	1020127028810	31-Mar-2011			METHOD AND APPARATUS FOR MANAGING INSTALLATION INFORMATION
United States of America	13065879	31-Mar-2011	8626616	07-Jan-2014	METHOD AND APPARATUS FOR MANAGING INSTALLATION INFORMATION
United States of America	14148081	06-Jan-2014			METHOD AND APPARATUS FOR MANAGING INSTALLATION INFORMATION
United States of America	61341538	01-Apr-2010			METHOD AND APPARATUS FOR MANAGING INSTALLATION INFORMATION
Patent Cooperation Treaty	PCTUS2011030722	31-Mar-2011			METHOD AND APPARATUS FOR MANAGING INSTALLATION INFORMATION
United States of America	13088997	18-Apr-2011	8749395	10-Jun-2014	METHOD AND APPARATUS FOR INDICATING A DISCONNECTION WITHIN A DISTRIBUTED GENERATOR
United States of America	61342573	16-Apr-2010			METHOD AND APPARATUS FOR INDICATING A DISCONNECTION WITHIN A DISTRIBUTED GENERATOR
Patent Cooperation Treaty	PCTUS2011032862	18-Apr-2011			METHOD AND APPARATUS FOR INDICATING A DISCONNECTION WITHIN A DISTRIBUTED GENERATOR
Australia	2011250957	07-Dec-2012	2011250957	05-Feb-2015	LOSSLESS COMMUTATION DURING OPERATION OF A POWER CONVERTER
Australia	2014271327	05-Dec-2014			LOSSLESS COMMUTATION DURING OPERATION OF A POWER CONVERTER
Canada	2798708	10-May-2011			LOSSLESS COMMUTATION DURING OPERATION OF A POWER CONVERTER
China (People's Republic)	2011800318150	26-Dec-2012	2011800318150	26-Aug-2015	METHOD FOR OPERATING A DC-DC CONVERTER
China (People's Republic)	2015104379204	23-Jul-2015			LOSSLESS COMMUTATION DURING OPERATION OF A POWER CONVERTER
European Patent Convention	117811661	10-Dec-2012			LOSSLESS COMMUTATION DURING OPERATION OF A POWER CONVERTER
Israel	222937	10-May-2011	222937	01-May-2016	LOSSLESS COMMUTATION DURING OPERATION OF A POWER CONVERTER
Japan	2013510254	10-May-2011	5754823	05-Jun-2015	LOSSLESS COMMUTATION DURING OPERATION OF A POWER CONVERTER
Korea, Republic of	1020127032313	10-Dec-2012			LOSSLESS COMMUTATION DURING OPERATION OF A POWER CONVERTER
United States of America	13104829	10-May-2011	8937817	20-Jan-2015	LOSSLESS COMMUTATION DURING OPERATION OF A POWER CONVERTER
United States of America	14586416	30-Dec-2014			LOSSLESS COMMUTATION DURING OPERATION OF A POWER CONVERTER
United States of America	61395310	10-May-2010			LOSSLESS COMMUTATION DURING OPERATION OF A POWER CONVERTER
Patent Cooperation Treaty	PCTUS2011035968	10-May-2011			LOSSLESS COMMUTATION DURING OPERATION OF A POWER CONVERTER
Canada	2797823	28-Apr-2011			METHOD AND APPARATUS FOR DISTRIBUTED POWER GENERATION
United States of America	13068014	29-Apr-2011	8811049	19-Aug-2014	METHOD AND APPARATUS FOR DISTRIBUTED POWER GENERATION
United States of America	14289404	28-May-2014	9407169	02-Aug-2016	METHOD AND APPARATUS FOR DISTRIBUTED POWER GENERATION
United States of America	61343481	29-Apr-2010			METHOD AND APPARATUS FOR DISTRIBUTED POWER GENERATION
Patent Cooperation Treaty	PCTUS2011034324	28-Apr-2011			METHOD AND APPARATUS FOR DISTRIBUTED POWER GENERATION
China (People's Republic)	2011800263247	27-Nov-2012	1747404	05-Aug-2015	METHOD AND APPARATUS FOR POWER CONVERTER INPUT VOLTAGE REGULATION

European Patent Convention	117875013	27-Dec-2012			METHOD AND APPARATUS FOR POWER CONVERTER INPUT VOLTAGE REGULATION
United States of America	13116587	26-May-2011			METHOD AND APPARATUS FOR POWER CONVERTER INPUT VOLTAGE REGULATION
United States of America	61348984	27-May-2010			METHOD AND APPARATUS FOR POWER CONVERTER INPUT VOLTAGE REGULATION
Patent Cooperation Treaty	PCTUS2011038354	27-May-2011			METHOD AND APPARATUS FOR POWER CONVERTER INPUT VOLTAGE REGULATION
Canada	2823713	30-Aug-2013			METHOD AND APPARATUS FOR RESONANT CONVERTER CONTROL
China (People's Republic)	2012800044085	27-Jun-2013	ZL2012800044085	13-Jan-2016	METHOD AND APPARATUS FOR RESONANT CONVERTER CONTROL
European Patent Convention	127322543	02-Aug-2013			METHOD AND APPARATUS FOR RESONANT CONVERTER CONTROL
United States of America	13342169	02-Jan-2012	9048744	02-Jun-2015	METHOD AND APPARATUS FOR RESONANT CONVERTER CONTROL
United States of America	61460470	03-Jan-2011			METHOD AND APPARATUS FOR RESONANT CONVERTER CONTROL
Patent Cooperation Treaty	PCTUS2012020006	02-Jan-2012			METHOD AND APPARATUS FOR RESONANT CONVERTER CONTROL
Canada	2823737	30-Aug-2013			METHOD AND APPARATUS FOR RESONANT POWER CONVERSION
China (People's Republic)	201280004462x	28-Jun-2013			METHOD AND APPARATUS FOR RESONANT POWER CONVERSION
European Patent Convention	127324549	02-Aug-2013			METHOD AND APPARATUS FOR RESONANT POWER CONVERSION
United States of America	13342368	03-Jan-2012	9479082	25-Oct-2016	METHOD AND APPARATUS FOR RESONANT POWER CONVERSION
United States of America	61460526	04-Jan-2011			METHOD AND APPARATUS FOR RESONANT POWER CONVERSION
Patent Cooperation Treaty	PCTUS201220058	03-Jan-2012			METHOD AND APPARATUS FOR RESONANT POWER CONVERSION
United States of America	15280609	29-Sep-2016			METHOD AND APPARATUS FOR RESONANT POWER CONVERSION
European Patent Convention	127892032	16-Dec-2013			METHOD AND APPARATUS FOR GENERATING SINGLE-PHASE POWER FROM A THREE-PHASE RESONANT POWER CONVERTER
Japan	2014512130	03-Oct-2013			METHOD AND APPARATUS FOR GENERATING SINGLE-PHASE POWER FROM A THREE-PHASE RESONANT POWER CONVERTER
United States of America	13481369	25-May-2012	9444367	13-Sep-2016	METHOD AND APPARATUS FOR GENERATING SINGLE-PHASE POWER FROM A THREE-PHASE RESONANT POWER CONVERTER
United States of America	61490327	26-May-2011			METHOD AND APPARATUS FOR GENERATING SINGLE-PHASE POWER FROM A THREE-PHASE RESONANT POWER CONVERTER
Patent Cooperation Treaty	PCTUS2012039503	25-May-2012			METHOD AND APPARATUS FOR GENERATING SINGLE-PHASE POWER FROM A THREE-PHASE RESONANT POWER CONVERTER
United States of America	13310249	02-Dec-2011	8466582	18-Jun-2013	METHOD AND APPARATUS FOR APPLYING AN ELECTRIC FIELD TO A PHOTOVOLTAIC ELEMENT
United States of America	61459000	03-Dec-2010			METHOD AND APPARATUS FOR APPLYING AN ELECTRIC FIELD TO A PHOTOVOLTAIC CELL
Patent Cooperation Treaty	PCTUS2011063234	05-Dec-2011			METHOD AND APPARATUS FOR APPLYING AN ELECTRIC FIELD TO A PHOTOVOLTAIC ELEMENT
China (People's Republic)	2012800225184	08-Nov-2013			METHOD AND APPARATUS FOR CONTROLLING RESONANT CONVERTER OUTPUT POWER
European Patent Convention	127852507	16-Dec-2013			METHOD AND APPARATUS FOR CONTROLLING RESONANT CONVERTER OUTPUT POWER
Japan	2014511610	28-Aug-2013			METHOD AND APPARATUS FOR CONTROLLING RESONANT CONVERTER OUTPUT POWER
Korea, Republic of	1020137025966	01-Oct-2013			METHOD AND APPARATUS FOR CONTROLLING RESONANT CONVERTER OUTPUT POWER
United States of America	13475460	18-May-2012			METHOD AND APPARATUS FOR CONTROLLING RESONANT CONVERTER OUTPUT POWER
United States of America	61519242	19-May-2011			METHOD AND APPARATUS FOR CONTROLLING RESONANT CONVERTER OUTPUT POWER

Patent Cooperation Treaty	PCTUS2012038756	21-May-2012			METHOD AND APPARATUS FOR CONTROLLING RESONANT CONVERTER OUTPUT POWER
China (People's Republic)	2012800302617	19-Dec-2013			Resilient mounting assembly for photovoltaic modules
European Patent Convention	128150646	03-Feb-2014			Resilient mounting assembly for photovoltaic modules
Japan	2014521709	29-Nov-2013			RESILIENT MOUNTING ASSEMBLY FOR PHOTOVOLTAIC MODULES
Korea, Republic of	1020147004021	17-Feb-2014			Resilient mounting assembly for photovoltaic modules
United States of America	13551003	17-Jul-2012	9118273	25-Aug-2015	Resilient mounting assembly for photovoltaic modules
United States of America	14833709	24-Aug-2015			RESILIENT MOUNTING ASSEMBLY FOR PHOTOVOLTAIC MODULES
United States of America	61508891	18-Jul-2011			RESILIENT MOUNTING ASSEMBLY FOR PHOTOVOLTAIC MODULES
Patent Cooperation Treaty	PCTUS2012047044	17-Jul-2012			Resilient mounting assembly for photovoltaic modules
United States of America	13668970	05-Nov-2012	9013171	21-Apr-2015	METHOD AND APPARATUS FOR DETECTING A ZERO-VOLTAGE CONDITION ACROSS FOUR QUADRANT SWITCHES
United States of America	61555225	03-Nov-2011			METHOD AND APPARATUS FOR DETECTING A ZERO VOLTAGE CONDITION ACROSS FOUR QUADRANT SWITCHES
Patent Cooperation Treaty	PCTUS2012063565	05-Nov-2012			METHOD AND APPARATUS FOR DETECTING A ZERO VOLTAGE CONDITION ACROSS FOUR QUADRANT SWITCHES
Australia	2012262169	27-Sep-2013	2012262169	01-Sep-2016	METHOD AND APPARATUS FOR GRID IMPEDANCE DETECTION
Canada	2831576	26-Sep-2013			METHOD AND APPARATUS FOR GRID IMPEDANCE DETECTION
European Patent Convention	127924595	16-Dec-2013			METHOD AND APPARATUS FOR GRID IMPEDANCE DETECTION
Japan	2014513699	26-Nov-2013	5987903	19-Aug-2016	METHOD AND APPARATUS FOR GRID IMPEDANCE DETECTION
Korea, Republic of	1020137035096	31-Dec-2013			METHOD AND APPARATUS FOR GRID IMPEDANCE DETECTION
United States of America	13486450	01-Jun-2012	8896330	25-Nov-2014	METHOD AND APPARATUS FOR GRID IMPEDANCE DETECTION
United States of America	14550610	21-Nov-2014			METHOD AND APPARATUS FOR GRID IMPEDANCE DETECTION
United States of America	61519915	01-Jun-2011			GRID IMPEDANCE DETECTION
Patent Cooperation Treaty	PCTUS2012040229	31-May-2012			METHOD AND APPARATUS FOR GRID IMPEDANCE DETECTION
European Patent Convention	127816528	10-Dec-2013			FOUR QUADRANT BIDIRECTIONAL SWITCH
United States of America	13468815	10-May-2012	9130570	08-Sep-2015	FOUR QUADRANT BIDIRECTIONAL SWITCH
United States of America	61484582	10-May-2011			A FULLY CONTROLLED FOUR QUADRANT BIDIRECTIONAL SWITCH IMPLEMENTED USING A BI-CASCODE CONFIGURATION
Patent Cooperation Treaty	PCTUS2012037350	10-May-2012			FOUR QUADRANT BIDIRECTIONAL SWITCH
European Patent Convention	127894103	16-Dec-2013			RESONANT POWER CONVERSION CIRCUIT
United States of America	13476683	21-May-2012	8797767	05-Aug-2014	RESONANT POWER CONVERSION CIRCUIT
United States of America	14450858	04-Aug-2014	9379627	28-Jun-2016	RESONANT POWER CONVERSION CIRCUIT
United States of America	61488524	20-May-2011			RESONANT POWER CONVERSION CIRCUIT
Patent Cooperation Treaty	PCTUS2012038834	21-May-2012			RESONANT POWER CONVERSION CIRCUIT
United States of America	13720602	19-Dec-2012	9031140	12-May-2015	METHOD AND APPARATUS FOR TRANSMITTING COMBINED POWER, CONTROL AND DATA THROUGH AN ISOLATION BARRIER

United States of America	61579462	22-Dec-2011			METHOD AND APPARATUS FOR TRANSMITTING COMBINED POWER, CONTROL AND DATA THROUGH AN ISOLATION BARRIER
Patent Cooperation Treaty	PCTUS2012070318	18-Dec-2012			METHOD AND APPARATUS FOR TRANSMITTING COMBINED POWER, CONTROL AND DATA THROUGH AN ISOLATION BARRIER
European Patent Convention	118697515	12-Feb-2014			METHOD AND APPARATUS FOR MULTI-PHASE POWER TRANSFER
United States of America	13185422	18-Jul-2011			METHOD AND APPARATUS FOR MULTI-PHASE POWER CONVERSION HAVING MODIFIED BURST CURRENT
Patent Cooperation Treaty	PCTUS2011044478	19-Jul-2011			METHOD AND APPARATUS FOR MULTI-PHASE POWER TRANSFER
European Patent Convention	128402757	13-May-2014			RESILIENT EXPANSION ABSORPTION LAYER FOR POTTED MATERIALS
United States of America	13649802	11-Oct-2012			METHOD AND APPARATUS FOR REDUCING PRESSURE EFFECTS ON AN ENCAPSULATED DEVICE
United States of America	61547451	14-Oct-2011			RESILIENT EXPANSION ABSORPTION LAYER FOR POTTED MATERIALS
Patent Cooperation Treaty	PCTUS2012059766	11-Oct-2012			RESILIENT EXPANSION ABSORPTION LAYER FOR POTTED MATERIALS
European Patent Convention	128379716	30-Apr-2014			METHOD AND APPARATUS FOR RELAY CONTROL
United States of America	13644665	04-Oct-2012			METHOD AND APPARATUS FOR RELAY CONTROL
United States of America	61543062	04-Oct-2011			METHOD AND APPARATUS FOR RELAY CONTROL
Patent Cooperation Treaty	PCTUS2012058581	04-Oct-2012			METHOD AND APPARATUS FOR RELAY CONTROL
United States of America	13623302	20-Sep-2012			METHOD AND APPARATUS FOR POWER MODULE OUTPUT POWER REGULATION
United States of America	61626121	21-Sep-2011			POWER MODULE OUTPUT POWER REGULATION
Patent Cooperation Treaty	PCTUS2012056319	20-Sep-2012			METHOD AND APPARATUS FOR POWER MODULE OUTPUT POWER REGULATION
Australia	2013221272	30-Apr-2014	2013221272	26-Nov-2015	METHOD AND APPARATUS FOR THREE-PHASE POWER LINE COMMUNICATIONS
Canada	2854360	01-May-2014			METHOD AND APPARATUS FOR THREE PHASE POWER LINE COMMUNICATIONS
China (People's Republic)	2013800089112	11-Aug-2014	ZL2013800089112	05-Oct-2016	METHOD AND APPARATUS FOR THREE PHASE POWER LINE COMMUNICATIONS
European Patent Convention	137489670	15-Sep-2014			METHOD AND APPARATUS FOR THREE PHASE POWER LINE COMMUNICATIONS
Japan	2014557860	18-Jul-2014			METHOD AND APPARATUS FOR THREE PHASE POWER LINE COMMUNICATIONS
United States of America	13768648	15-Feb-2013	9030302	12-May-2015	METHOD AND APPARATUS FOR THREE PHASE POWER LINE COMMUNICATIONS
United States of America	14708652	11-May-2015	9407326	02-Aug-2016	METHOD AND APPARATUS FOR THREE-PHASE POWER LINE COMMUNICATIONS
United States of America	61599717	16-Feb-2012			METHOD AND APPARATUS FOR THREE-PHASE POWER LINE COMMUNICATIONS
Patent Cooperation Treaty	PCTUS2013026579	18-Feb-2013			METHOD AND APPARATUS FOR THREE PHASE POWER LINE COMMUNICATIONS
United States of America	15224146	29-Jul-2016			METHOD AND APPARATUS FOR THREE PHASE POWER LINE COMMUNICATIONS
United States of America	13398981	17-Feb-2012			ELECTROMAGNETIC INTERFERENCE CANCELLING DURING POWER CONVERSION
Australia	2013315830	16-Dec-2014			METHOD AND APPARATUS FOR BIDIRECTIONAL POWER PRODUCTION IN A POWER MODULE
Canada	2877136	14-Jan-2015			METHOD AND APPARATUS FOR BIDIRECTIONAL POWER PRODUCTION IN A POWER MODULE
European Patent Convention	138374871	27-Mar-2015			METHOD AND APPARATUS FOR BIDIRECTIONAL POWER PRODUCTION IN A POWER MODULE
United States of America	14021257	09-Sep-2013			METHOD AND APPARATUS FOR BIDIRECTIONAL POWER PRODUCTION IN A POWER MODULE

United States of America	61699688	11-Sep-2012			METHOD AND APPARATUS FOR BIDIRECTIONAL POWER PRODUCTION IN A POWER MODULE
Patent Cooperation Treaty	PCTUS2013058717	09-Sep-2013			METHOD AND APPARATUS FOR BIDIRECTIONAL POWER PRODUCTION IN A POWER MODULE
United States of America	29420584	10-May-2012	D673114	25-Dec-2012	INVERTER MODULE
European Community	002133652	09-Nov-2012	002133652000199	09-Nov-2012	INVERTER MODULE
United States of America	14011220	27-Aug-2013	9184652	10-Nov-2015	METHOD AND APPARATUS FOR INVERTER OUTPUT CURRENT HARMONIC REDUCTION
United States of America	61694022	28-Aug-2012			METHOD AND APPARATUS FOR INVERTER OUTPUT CURRENT HARMONIC REDUCTION
United States of America	29424108	07-Jun-2012	D708143	01-Jul-2014	DROP CABLE CONNECTOR
United States of America	29424100	07-Jun-2012	D707632	24-Jun-2014	TRUNK CONNECTOR
European Patent Convention	138384284	21-Apr-2015			METHOD AND APPARATUS FOR SCHEDULING MAINTENANCE OF ALTERNATIVE ENERGY SYSTEMS
United States of America	14033996	23-Sep-2013			METHOD AND APPARATUS FOR SCHEDULING MAINTENANCE OF ALTERNATIVE ENERGY SYSTEMS
United States of America	61704086	21-Sep-2012			METHOD AND APPARATUS FOR SCHEDULING MAINTENANCE OF ALTERNATIVE ENERGY SYSTEMS
Patent Cooperation Treaty	PCTUS2013061181	23-Sep-2013			METHOD AND APPARATUS FOR SCHEDULING MAINTENANCE OF ALTERNATIVE ENERGY SYSTEMS
United States of America	14034051	23-Sep-2013			SURGE BLOCKING INDUCTOR
United States of America	14290008	29-May-2014			SURGE BLOCKING INDUCTOR
United States of America	61703865	21-Sep-2012			SURGE BLOCKING INDUCTOR
Patent Cooperation Treaty	PCTUS2013061185	23-Sep-2013			SURGE BLOCKING INDUCTOR
United States of America	14101572	10-Dec-2013	9450500	20-Sep-2016	METHOD AND APPARATUS FOR MODULATING LOWER POWERS IN RESONANT CONVERTERS
United States of America	61735438	10-Dec-2012			METHOD AND APPARATUS FOR MODULATING LOWER POWERS IN RESONANT CONVERTERS
Patent Cooperation Treaty	PCTUS2013074008	10-Dec-2013			METHOD AND APPARATUS FOR MODULATING LOWER POWERS IN RESONANT CONVERTERS
United States of America	61703008	19-Sep-2012			SERIALLY CONNECTED MICRO-INVERTER SYSTEM
United States of America	14031763	19-Sep-2013			SERIALLY CONNECTED MICRO-INVERTER SYSTEM WITH TRUNK AND DROP CABLING
United States of America	61703017	19-Sep-2012			SERIALLY CONNECTED MICRO-INVERTER SYSTEM WITH TRUNK AND DROP CABLING
Patent Cooperation Treaty	PCTUS2013060682	19-Sep-2013			SERIALLY CONNECTED MICRO-INVERTER SYSTEM WITH TRUNK AND DROP CABLING
United States of America	14032808	20-Sep-2013			SERIALLY CONNECTED MICRO-INVERTER SYSTEM HAVING CONCERTINA OUTPUT VOLTAGE CONTROL
United States of America	61703864	21-Sep-2012			SERIALLY CONNECTED MICRO-INVERTER SYSTEM HAVING CONCERTINA OUTPUT VOLTAGE CONTROL
Patent Cooperation Treaty	PCTUS2013061187	23-Sep-2013			SERIALLY CONNECTED MICRO-INVERTER SYSTEM HAVING CONCERTINA OUTPUT VOLTAGE CONTROL
United States of America	61703010	19-Sep-2012			SERIALLY CONNECTED MICRO-INVERTER SYSTEM HAVING A GATEWAY
United States of America	61703862	21-Sep-2012			SERIALLY CONNECTED MICRO-INVERTER SYSTEM WITH A POWER-BASED CONTROLLER
United States of America	61703877	21-Sep-2012			SERIALLY CONNECTED MICRO-INVERTER SYSTEM WITH BURST MODE
European Patent Convention	138437132	05-May-2015			SYSTEM AND METHOD FOR A MESH POWER SYSTEM
Japan	2015535699	03-Feb-2015			SYSTEM AND METHOD FOR A MESH POWER SYSTEM

United States of America	14036556	25-Sep-2013			SYSTEM AND METHOD FOR A MESH POWER SYSTEM
United States of America	61710255	05-Oct-2012			MESH POWER SYSTEM
Patent Cooperation Treaty	PCTUS2013061882	26-Sep-2013			SYSTEM AND METHOD FOR A MESH POWER SYSTEM
United States of America	61703013	19-Sep-2012			SERIALLY CONNECTED MICRO-INVERTER SYSTEM WITH SCMI REDUNDANCY MANAGEMENT
United States of America	14459363	14-Aug-2014			METHOD AND APPARATUS FOR MONITORING MAXIMUM POWER POINT TRACKING
United States of America	61865793	14-Aug-2013			METHOD AND APPARATUS FOR MONITORING MAXIMUM POWER POINT TRACKING
Patent Cooperation Treaty	PCTUS2014051014	14-Aug-2014			METHOD AND APPARATUS FOR MONITORING MAXIMUM POWER POINT TRACKING
United States of America	14132562	18-Dec-2013			NON-ISOLATED DC/AC INVERTER
United States of America	61738739	18-Dec-2012			NON-ISOLATED DC/AC INVERTER
United States of America	14104536	12-Dec-2013	9105765	11-Aug-2015	SMART JUNCTION BOX FOR A PHOTOVOLTAIC SYSTEM
United States of America	61738758	18-Dec-2012			SMART JUNCTION BOX FOR A PHOTOVOLTAIC SYSTEM
Patent Cooperation Treaty	PCTUS2013075324	16-Dec-2013			SMART JUNCTION BOX FOR A PHOTOVOLTAIC SYSTEM
United States of America	14189813	25-Feb-2014	9450405	20-Sep-2016	METHOD AND APPARATUS FOR REACTIVE POWER CAPABLE INVERTERS
United States of America	61768894	25-Feb-2013			METHOD AND APPARATUS FOR REACTIVE POWER CAPABLE INVERTERS
Patent Cooperation Treaty	PCTUS2014018389	25-Feb-2014			METHOD AND APPARATUS FOR REACTIVE POWER CAPABLE INVERTERS
United States of America	14104576	12-Dec-2013			METHOD AND APPARATUS FOR REDUCING STRESS ON MOUNTED ELECTRONIC DEVICES
United States of America	61738766	18-Dec-2012			METHOD AND APPARATUS FOR REDUCING STRESS ON MOUNTED ELECTRONIC DEVICES
Patent Cooperation Treaty	PCTUS2013075331	16-Dec-2013			METHOD AND APPARATUS FOR REDUCING STRESS ON MOUNTED ELECTRONIC DEVICES
United States of America	14160913	22-Jan-2014			METHOD AND APPARATUS FOR POWER IMBALANCE CORRECTION IN A MULTI-PHASE POWER GENERATOR
United States of America	61755164	22-Jan-2013			METHOD AND APPARATUS FOR POWER IMBALANCE CORRECTION IN A MULTI-PHASE POWER GENERATOR
United States of America	61749663	07-Jan-2013			METHOD AND APPARATUS FOR PERFORMING ACTIVE CURRENT PROFILING WHILE MAINTAINING SYSTEM STABILITY
Australia	2014209063	08-Apr-2015			METHOD AND APPARATUS FOR ENERGY DATA VISUALIZATION
China (People's Republic)	2014800107100	26-Aug-2015			METHOD AND APPARATUS FOR ENERGY DATA VISUALIZATION
European Patent Convention	147428296	27-Aug-2015			METHOD AND APPARATUS FOR ENERGY DATA VISUALIZATION
United States of America	14166269	28-Jan-2014			METHOD AND APPARATUS FOR ENERGY DATA VISUALIZATION
United States of America	61757513	28-Jan-2013			METHOD AND APPARATUS FOR ENERGY DATA VISUALIZATION
Patent Cooperation Treaty	PCTUS2014013347	28-Jan-2014			METHOD AND APPARATUS FOR ENERGY DATA VISUALIZATION
United States of America	29436820	09-Nov-2012	D734653	21-Jul-2015	AC MODULE MOUNTING BRACKET
Australia	2013370231	10-Apr-2015			METHOD AND APPARATUS FOR THREE PORT LINE FREQUENCY ENERGY STORAGE
China (People's Republic)	2013900010267	29-Jun-2015	ZL2013900010267	23-Mar-2016	METHOD AND APPARATUS FOR THREE PORT LINE FREQUENCY ENERGY STORAGE
European Patent Convention	138665922	30-Jul-2015			METHOD AND APPARATUS FOR THREE PORT LINE FREQUENCY ENERGY STORAGE



United States of America	14143112	30-Dec-2013			METHOD AND APPARATUS FOR THREE PORT LINE FREQUENCY ENERGY STORAGE
United States of America	61747357	30-Dec-2012			METHOD AND APPARATUS FOR THREE PORT LINE FREQUENCY ENERGY STORAGE
Patent Cooperation Treaty	PCTUS2013078195	30-Dec-2013			METHOD AND APPARATUS FOR THREE PORT LINE FREQUENCY ENERGY STORAGE
Australia	2013370446	14-Apr-2015			THREE PORT CONVERTER WITH DUAL INDEPENDENT MAXIMUM POWER POINT TRACKING
China (People's Republic)	2013900010341	30-Jun-2015			THREE PORT CONVERTER WITH DUAL INDEPENDENT MAXIMUM POWER POINT TRACKING
European Patent Convention	138683016	29-May-2015			THREE PORT CONVERTER WITH DUAL INDEPENDENT MAXIMUM POWER POINT TRACKING
United States of America	14140221	24-Dec-2013			THREE PORT CONVERTER WITH DUAL INDEPENDENT MAXIMUM POWER POINT TRACKING AND DUAL OPERATING MODES
United States of America	61747358	30-Dec-2012			THREE PORT CONVERTER WITH DUAL INDEPENDENT MAXIMUM POWER POINT TRACKING
United States of America	61799958	15-Mar-2013			HALF-BRIDGE OPERATIONAL MODE FOR DUAL INPUT MICROINVERTER
Patent Cooperation Treaty	PCTUS2013077671	24-Dec-2013			THREE PORT CONVERTER WITH DUAL INDEPENDENT MAXIMUM POWER POINT TRACKING
United States of America	14143119	30-Dec-2013			INDUCTIVE POWER TRANSFER CONVERTER
United States of America	61747359	30-Dec-2012			INDUCTIVE POWER TRANSFER CONVERTER
United States of America	14313255	24-Jun-2014			METHOD AND APPARATUS FOR PROVIDING POWER CONVERSION USING AN INTERLEAVED FLYBACK CONVERTER WITH REACTIVE POWER CONTROL
United States of America	61839134	25-Jun-2013			METHOD AND APPARATUS FOR PROVIDING POWER CONVERSION USING AN INTERLEAVED FLYBACK CONVERTER WITH REACTIVE POWER CONTROL
United States of America	14178521	12-Feb-2014	9391540	12-Jul-2016	METHOD AND APPARATUS FOR CHAOTIC DEMOCRATIC PULSE WIDTH MODULATION GENERATION
United States of America	61763654	12-Feb-2013			METHOD AND APPARATUS FOR CHAOTIC DEMOCRATIC PULSE WIDTH MODULATION GENERATION
Patent Cooperation Treaty	PCTUS2014015943	12-Feb-2014			METHOD AND APPARATUS FOR CHAOTIC DEMOCRATIC PULSE WIDTH MODULATION GENERATION
United States of America	14212082	14-Mar-2014			EFFICIENT RESONANT TOPOLOGY FOR DC-AC INVERSION WITH MINIMAL USE OF HIGH FREQUENCY SWITCHES
United States of America	61782079	14-Mar-2013			EFFICIENT RESONANT TOPOLOGY FOR DC-AC INVERSION WITH MINIMAL USE OF HIGH FREQUENCY SWITCHES
Australia	2014241154	26-Jun-2015			METHOD AND APPARATUS FOR IMPROVED BURST MODE DURING POWER CONVERSION
China (People's Republic)	2014800145278	11-Sep-2015			METHOD AND APPARATUS FOR IMPROVED BURST MODE DURING POWER CONVERSION
Korea, Republic of	20157019307	16-Jul-2015			METHOD AND APPARATUS FOR IMPROVED BURST MODE DURING POWER CONVERSION
United States of America	13853239	29-Mar-2013			METHOD AND APPARATUS FOR IMPROVED BURST MODE DURING POWER CONVERSION
Patent Cooperation Treaty	PCTUS2014032036	27-Mar-2014			METHOD AND APPARATUS FOR HALF CYCLE BURST MODE DURING POWER CONVERSION
China (People's Republic)	2014800087287	13-Aug-2015			METHOD AND APPARATUS FOR DETERMINING A BRIDGE MODE FOR POWER CONVERSION
European Patent Convention	147740674	12-Oct-2015			METHOD AND APPARATUS FOR DETERMINING A BRIDGE MODE FOR POWER CONVERSION
Japan	2016501947	17-Aug-2015			METHOD AND APPARATUS FOR DETERMINING A BRIDGE MODE FOR POWER CONVERSION
Korea, Republic of	20157018111	07-Jul-2015			METHOD AND APPARATUS FOR DETERMINING A BRIDGE MODE FOR POWER CONVERSION
United States of America	14208549	13-Mar-2014	9444355	13-Sep-2016	METHOD AND APPARATUS FOR DETERMINING A BRIDGE MODE FOR POWER CONVERSION
United States of America	61783583	14-Mar-2013			METHOD AND APPARATUS FOR DETERMINING A BRIDGE MODE FOR POWER CONVERSION

Patent Cooperation Treaty	PCTUS2014025706	13-Mar-2014			METHOD AND APPARATUS FOR DETERMINING A BRIDGE MODE FOR POWER CONVERSION
United States of America	14249465	10-Apr-2014			METHOD AND APPARATUS FOR IMPROVING PV MODULE FILL FACTOR USING A VOLTAGE CLAMPING CIRCUIT
United States of America	61810816	11-Apr-2013			METHOD AND APPARATUS FOR IMPROVING PV MODULE FILL FACTOR USING A VOLTAGE CLAMPING CIRCUIT
Patent Cooperation Treaty	PCTUS2014033589	10-Apr-2014			METHOD AND APPARATUS FOR IMPROVING PV MODULE FILL FACTOR USING A VOLTAGE CLAMPING CIRCUIT
China (People's Republic)	2014101488826	14-Apr-2014			MAGNETIC COMPONENT AND TRANSFORMER MADE THEREFROM
United States of America	14259761	23-Apr-2014			MAGNETIC COMPONENT AND TRANSFORMER MADE THEREFROM
United States of America	61815096	23-Apr-2013			HIGHLY INTEGRATED MAGNETIC COMPONENT
United States of America	61920100	23-Dec-2013			CONCENTRIC POT CORE TRANSFORMER
United States of America	14278372	15-May-2014			METHOD AND APPARATUS FOR DERIVING CURRENT FOR CONTROL IN A RESONANT POWER CONVERTER
United States of America	61828761	30-May-2013			APPARATUS FOR DERIVING CURRENT FOR CONTROL IN A RESONANT POWER CONVERTER
Patent Cooperation Treaty	PCTUS2014039566	07-May-2014			METHOD AND APPARATUS FOR DERIVING CURRENT FR CONTROL IN A RESONANT POWER CONVERTER
United States of America	14319154	30-Jun-2014	9112522	18-Aug-2015	DELTA CONVERSION ANALOG TO DIGITAL CONVERTER PROVIDING DIRECT AND QUADRATURE OUTPUT
United States of America	61842108	02-Jul-2013			DELTA CONVERSION ANALOG TO DIGITAL CONVERTER PROVIDING DIRECT AND QUADRATURE OUTPUT
Patent Cooperation Treaty	PCTUS2014044822	30-Jun-2014			DELTA CONVERSION ANALOG TO DIGITAL CONVERTER PROVIDING DIRECT AND QUADRATURE OUTPUT
United States of America	61835878	17-Jun-2013			INTEGRATED POWER TRAIN
United States of America	62011301	12-Jun-2014			INTEGRATED POWER TRAIN
United States of America	62173124	09-Jun-2015			INTEGRATED POWER TRAIN
United States of America	62347187	08-Jun-2016			INTEGRATED POWER TRAIN
United States of America	14490833	19-Sep-2014			METHOD AND APPARATUS FOR POWER LINE COMMUNICATIONS DISTORTION COMPENSATION
United States of America	61879892	19-Sep-2013			POWER LINE COMMUNICATIONS DISTORTION COMPENSATION
Patent Cooperation Treaty	PCTUS2014056484	19-Sep-2014			METHOD AND APPARATUS FOR POWER LINE COMMUNICATIONS DISTORTION COMPENSATION
China (People's Republic)	2014800315565	02-Dec-2015			LED LIGHTING CONVERTER
European Patent Convention	148106073	18-Dec-2015			LED LIGHTING CONVERTER
United States of America	14291550	30-May-2014	9247595	26-Jan-2016	LED LIGHTING CONVERTER
United States of America	61833583	11-Jun-2013			LED LIGHTING CONVERTER
Patent Cooperation Treaty	PCTUS2014040517	02-Jun-2014			LED LIGHTING CONVERTER
United States of America	14482021	10-Sep-2014			SINGLE-PHASE CYCLOCONVERTER WITH INTEGRATED LINE-CYCLE ENERGY STORAGE
United States of America	61878393	16-Sep-2013			SINGLE-PHASE CYCLOCONVERTER WITH INTEGRATED LINE-CYCLE ENERGY STORAGE
Patent Cooperation Treaty	PCTUS2014055545	15-Sep-2014			SINGLE-PHASE CYCLOCONVERTER WITH INTEGRATED LINE-CYCLE ENERGY STORAGE
China (People's Republic)	2014800389677	07-Jan-2016			SINGLE-PHASE CYCLOCONVERTER WITH INTEGRATED LINE-CYCLE ENERGY STORAGE
European Patent Convention	148448731	15-Dec-2015			SINGLE-PHASE CYCLOCONVERTER WITH INTEGRATED LINE-CYCLE ENERGY STORAGE

Japan	2016542843	15-Dec-2015			SINGLE-PHASE CYCLOCONVERTER WITH INTEGRATED LINE-CYCLE ENERGY STORAGE
Korea, Republic of	20167001894	22-Jan-2016			SINGLE-PHASE CYCLOCONVERTER WITH INTEGRATED LINE-CYCLE ENERGY STORAGE
United States of America	61843663	08-Jul-2013			Coss RELATED ENEGRY LOSS IN POWER MOSFETs USED IN ZERO-VOLTAGE-SWITCHED APPLICATIONS
United States of America	61923082	02-Jan-2014			Coss RELATED ENERGY LOSS IN POWER MOSFETs USED IN ZERO-VOLTAGE-SWITCHED APPLICATIONS
United States of America	14339850	24-Jul-2014			MULTI-CONNECTOR SPLICE BOX FOR COUPLING A PLURALITY OF POWER CONVERTERS
United States of America	61859480	29-Jul-2013			MULTI-CONNECTOR SPLICE BOX FOR COUPLING A PLURALITY OF POWER CONVERTERS
Patent Cooperation Treaty	PCTUS2014047977	24-Jul-2014			MULTI-CONNECTOR SPLICE BOX FOR COUPLING A PLURALITY OF POWER CONVERTERS
United States of America	14450699	04-Aug-2014			METHOD AND APPARATUS FOR MULTI PHASE SHIFT POWER CONVERTER CONTROL
United States of America	61865827	14-Aug-2013			METHOD AND APPARATUS FOR MULTI-PHASE SHIFT POWER CONVERTER CONTROL
Patent Cooperation Treaty	PCTUS2014049679	05-Aug-2014			METHOD AND APPARATUS FOR MUTLI PHASE SHIFT POWER CONVERTER CONTROL
United States of America	14445680	29-Jul-2014			ELECTROMAGNETIC COMPATIBILITY FILTER WITH AN INTEGRATED POWER LINE COMMUNICATION INTERFACE
United States of America	61859482	29-Jul-2013			EMC FILTER WITH AN INTEGRAL PLC INTERFACE
Patent Cooperation Treaty	PCTUS2014048457	28-Jul-2014			ELECTROMAGNETIC COMPATIBILITY FILTER WITH AN INTEGRATED POWER LINE COMMUNICATION INTERFACE
United States of America	14505299	02-Oct-2014			METHOD AND APPARATUS FOR INDEPENDENT CONTROL OF MULTIPLE POWER CONVERTER SOURCES
United States of America	61886375	03-Oct-2013			MULTIPLE INDEPENDENT MPPT INPUT MICROINVERTER WITH ARC FAULT PROTECTION
Patent Cooperation Treaty	PCTUS2014058882	02-Oct-2014			METHOD AND APPARATUS FOR INDEPENDENT CONTROL OF MULTIPLE POWER CONVERTER SOURCES
United States of America	14505268	02-Oct-2014			METHOD AND APPARATUS FOR CONTROLLING POWER BASED ON PREDICTED WEATHER EVENTS
United States of America	61885737	02-Oct-2013			METHOD AND APPARATUS FOR CONTROLLING POWER BASED ON PREDICTED WEATHER EVENTS
Patent Cooperation Treaty	PCTUS2014058876	02-Oct-2014			METHOD AND APPARATUS FOR CONTROLLING POWER BASED ON PREDICTED WEATHER EVENTS
United States of America	14656070	12-Mar-2015			SYSTEMS AND METHODS FOR SYNCHRONIZING AN APPLIANCE LOAD TO A LOCAL POWER GENERATING CAPABILITY
United States of America	61952352	13-Mar-2014			ZERO ENERGY APPLIANCE
Patent Cooperation Treaty	PCTUS2015020382	13-Mar-2015			SYSTEMS AND METHODS FOR SYNCHRONIZING AN APPLIANCE LOAD TO A LOCAL POWER GENERATING CAPABILITY
United States of America	14568911	12-Dec-2014			METHOD AND APPARATUS FOR MAXIMUM POWER POINT TRACKING FOR MULTI-INPUT POWER CONVERTER
United States of America	61917672	18-Dec-2013			METHOD AND APPARATUS FOR MAXIMUM POWER POINT TRACKING FOR MULTI-INPUT POWER CONVERTER
Patent Cooperation Treaty	PCTUS2014070274	15-Dec-2014			MPPT CONCEPTS FOR MULTI-INPUT INVERTERS
United States of America	14591355	07-Jan-2015	9480185	25-Oct-2016	DOUBLE INSULATED HEATED SPREADER
United States of America	61924861	08-Jan-2014			DOUBLE INSULATED HEATED SPREADER
Patent Cooperation Treaty	PCTUS2015010443	07-Jan-2015			DOUBLE INSULATED HEATED SPREADER
China (People's Republic)	2015800029322	03-Jun-2016			DOUBLE INSULATED HEATED SPREADER
United States of America	15280567	29-Sep-2016			DOUBLE INSULATED HEATED SPREADER
United States of America	62021909	08-Jul-2014			MAGNETIZING CURRENT COMPENSATION OF TANK CURRENT MEASUREMENT IN RESONANT TRANSFORMER

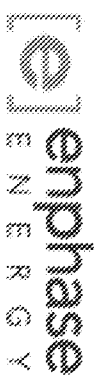
Australia	2014240283	03-Oct-2014	2014240283	04-Aug-2016	METHOD AND APPARATUS FOR GROUND FAULT DETECTION
Canada	2863963	19-Sep-2014			METHOD AND APPARATUS FOR GROUND FAULT DETECTION
China (People's Republic)	2014105585168	20-Oct-2014			METHOD AND APPARATUS FOR GROUND FAULT DETECTION
European Patent Convention	141955005	28-Nov-2014			METHOD AND APPARATUS FOR GROUND FAULT DETECTION
Japan	2014190397	18-Sep-2014			METHOD AND APPARATUS FOR GROUND FAULT DETECTION
Korea, Republic of	1020140183461	18-Dec-2014			METHOD AND APPARATUS FOR GROUND FAULT DETECTION
United States of America	14132830	18-Dec-2013			METHOD AND APPARATUS FOR GROUND FAULT DETECTION
United States of America	14870178	30-Sep-2015			METHOD AND APPARTUS FOR GROUND FAULT DETECTION
United States of America	14669084	26-Mar-2015			APPARATUS FOR GROUNDING INTERCONNECTED ELECTRICAL COMPONENTS AND ASSEMBLIES
United States of America	61970654	26-Mar-2014			ETD USED FOR GROUNDING BOS EQUIPMENT
United States of America	14644865	11-Mar-2015			METHOD AND APPARATUS FOR SUBSTATION FINGERPRINTING
United States of America	61952329	13-Mar-2014			SUBSTATION FINGERPRINTING
Patent Cooperation Treaty	PCTUS2015020072	12-Mar-2015			METHOD AND APPARATUS FOR SUBSTATION FINGERPRINTING
United States of America	14665782	23-Mar-2015	9270388	23-Feb-2016	METHOD AND APPARATUS FOR IMPULSE NOISE MITIGATION FOR POWER LINE NETWORKING
United States of America	61968944	21-Mar-2014			IMPULSE NOISE MITIGATION FOR POWER LINE NETWORKING
Patent Cooperation Treaty	PCTUS2015022027	23-Mar-2015			METHOD AND APPARATUS FOR IMPULSE NOISE MITIGATION FOR POWER LINE NETWORKING
United States of America	14587606	31-Dec-2014			PORTABLE SOLAR PANEL KIT
United States of America	61923112	02-Jan-2014			RESIDENTIAL KIT
United States of America	62021918	08-Jul-2014			RESIDENTIAL KIT
Patent Cooperation Treaty	PCTUS2014072989	31-Dec-2014			PORTABLE SOLAR PANEL KIT
United States of America	14793164	07-Jul-2015			APPARATUS AND SYSTEM FOR COUPLING POWER ELECTRONICS TO A PHOTOVOLTAIC MODULE
United States of America	62022307	09-Jul-2014			PHOTOVOLTAIC MODULE WITH INTEGRATED POWER ELECTRONICS
Patent Cooperation Treaty	PCTUS2015039358	07-Jul-2015			APPARATUS AND SYSTEM FOR COUPLING POWER ELECTRONICS TO A PHOTOVOLTAIC MODULE
United States of America	12576661	09-Oct-2009	8207637	26-Jun-2012	SYSTEM AND APPARATUS FOR INTERCONNECTING AN ARRAY OF POWER GENERATING ASSEMBLIES
United States of America	13344362	05-Jan-2012	8227942	24-Jul-2012	SYSTEM AND APPARATUS FOR INTERCONNECTING AN ARRAY OF POWER GENERATING ASSEMBLIES
United States of America	14843180	02-Sep-2015			METHOD AND APPARATUS FOR DETECTION OF LOCAL LINE PHASE IN A MULTI-PHASE POWER LINE SYSTEM
United States of America	62044660	02-Sep-2014			METHOD AND APPARATUS FOR DETECTION OF LOCAL LINE PHASE IN A MULTI-PHASE POWER LINE SYSTEM
Patent Cooperation Treaty	PCTUS2015048063	02-Sep-2015			METHOD OF DETECTION OF LOCAL LINE PHASE IN A THREE-PHASE POWER LINE SYSTEM
United States of America	14725720	29-May-2015			UNGROUNDING INVERTER ENCLOSURE AND CABLING
United States of America	62006608	02-Jun-2014			INVERTER ENCLOSURE AND CABLING
Patent Cooperation Treaty	PCTUS2015033315	29-May-2015			UNGROUNDING INVERTER ENCLOSURE AND CABLING

United States of America	14505725	03-Oct-2014	9431922	30-Aug-2016	ARC FAULT PROTECTION FOR POWER CONVERSION
Patent Cooperation Treaty	PCTUS1458980	03-Oct-2014			MULTIPLE INDEPENDENT MPPT INPUT MICROINVERTER WITH ARC FAULT PROTECTION
United States of America	14841010	31-Aug-2015			PARALLEL POWER CONVERTER
United States of America	62044116	29-Aug-2014			MASSIVELY PARALLEL POWER CONVERTER
Patent Cooperation Treaty	PCTUS2015047760	31-Aug-2015			PARALLEL POWER CONVERTER
United States of America	14921241	23-Oct-2015			PARALLEL BATTERY SYSTEM
United States of America	62068227	24-Oct-2014			MASSIVELY PARALLEL AC STORAGE SYSTEM
Patent Cooperation Treaty	PCTUS2015057083	23-Oct-2015			PARALLEL BATTERY SYSTEM
United States of America	14869202	29-Sep-2015			METHOD AND APPARATUS FOR AN INTEGRATED PV CURVE TRACER
United States of America	62058248	01-Oct-2014			INTEGRATED PV CURVE TRACER
United States of America	14918094	20-Oct-2015			METHOD AND APPARATUS FOR SECURING A SEGMENTED POWER CABLE FOR SHIPPING AND STORAGE
United States of America	62066278	20-Oct-2014			SEGMENTED CABLE SHIPPING AND INSTALLATION FIXTURE
United States of America	62095430	22-Dec-2014			SEGMENTED CABLE SHIPPING AND INSTALLATION FIXTURE
Patent Cooperation Treaty	PCTUS2015056418	20-Oct-2015			METHOD AND APPARATUS FOR SECURING A SEGMENTED POWER CABLE FOR SHIPPING AND STORAGE
United States of America	15048651	19-Feb-2016			METHOD AND APPARATUS FOR TIME-DOMAIN DROOP CONTROL WITH INTEGRATED PHASOR CURRENT CONTROL
United States of America	62118230	19-Feb-2015			TIME-DOMAIN DROOP CONTROL WITH INTEGRATED PHASOR CURRENT LIMITING
Patent Cooperation Treaty	PCTUS2016018781	19-Feb-2016			METHOD AND APPARATUS FOR TIME-DOMAIN DROOP CONTROL WITH INTEGRATED PHASOR CURRENT CONTROL
United States of America	15047337	18-Feb-2016			METHOD AND APPARATUS FOR ACTIVATION AND DE-ACTIVATION OF POWER CONDITIONERS IN DISTRIBUTED RESOURCE ISLAND SYSTEMS USING LOW VOLTAGE AC
United States of America	62117543	18-Feb-2015			BLACK-START OF DISTRIBUTED RESOURCE ISLAND SYSTEM USING LOW VOLTAGE AC
Patent Cooperation Treaty	PCTUS2016018519	18-Feb-2016			METHOD AND APPARATUS FOR ACTIVATION AND DE-ACTIVATION OF POWER CONDITIONERS IN DISTRIBUTED RESOURCE ISLAND SYSTEMS USING LOW VOLTAGE AC
United States of America	14918121	20-Oct-2015			ENERGY STORAGE/DELIVERY DEVICE MOUNTING PLATE
United States of America	62066147	20-Oct-2014			AC BATTERY MOUNTING PLATE
Patent Cooperation Treaty	PCTUS2015056455	20-Oct-2015			ENERGY STORAGE/DELIVERY DEVICE MOUNTING PLATE
European Patent Convention	971012927	28-Jan-1997	0793278	08-Jul-2009	PHOTO-VOLTAIC APPARATUS
Germany	19970101292	28-Jan-1997	0793278	08-Jul-2009	PHOTO-VOLTAIC APPARATUS
United States of America	08790116	29-Jan-1997	5951785	14-Sep-1999	PHOTO-VOLTAIC APPARATUS
Japan	9003983	13-Jan-1997	3357808	04-Oct-2002	SOLAR BATTERY EQUIPMENT
United States of America	881205	24-Jun-1997	5886890	23-Mar-1999	POWER-SUPPLY SYSTEM INVOLVING SYSTEM INTERCONNECTION
China (People's Republic)	1997111831	24-Jun-1997	1170262	22-May-2002	POWER-SUPPLY SYSTEM INVOLVING SYSTEM INTERCONNECTION
European Patent Convention	19970109954	18-Jun-1997	0817350	26-Mar-2008	POWER-SUPPLY SYSTEM INVOLVING SYSTEM INTERCONNECTION

Germany	19970109954	18-Jun-1997	0817350	26-Mar-2008	POWER-SUPPLY SYSTEM INVOLVING SYSTEM INTERCONNECTION
Italy	19970109954	18-Jun-1997	0817350	26-Mar-2008	POWER-SUPPLY SYSTEM INVOLVING SYSTEM INTERCONNECTION
Netherlands	19970109954	18-Jun-1997	0817350	26-Mar-2008	POWER-SUPPLY SYSTEM INVOLVING SYSTEM INTERCONNECTION
Japan	19960162808	24-Jun-1996	3630854	24-Dec-2004	POWER-SUPPLY SYSTEM INVOLVING SYSTEM INTERCONNECTION
India	1997BO35419	12-Jun-1997	189774	19-Apr-2003	POWER-SUPPLY SYSTEM INVOLVING SYSTEM INTERCONNECTION
United States of America	62129236	06-Mar-2015			FASTENER FREE FRAME ATTACH BRACKET
United States of America	15061131	04-Mar-2016			APPARATUS FOR MOUNTING A POWER CONDITIONER TO A PHOTOVOLTAIC MODULE FRAME
United States of America	15001534	20-Jan-2016			APPARATUS AND METHOD FOR REACTIVE POWER CONTROL
United States of America	62105886	21-Jan-2015			POWER CONVERTER HAVING REACTIVE POWER CONTROL
Patent Cooperation Treaty	PCTUS2016014235	21-Jan-2016			APPARATUS AND METHOD FOR REACTIVE POWER CONTROL
United States of America	15001582	20-Jan-2016			ISOLATED GATE DRIVER AUXILIARY POWER SUPPLY
United States of America	62105360	20-Jan-2015			ISOLATED GATE DRIVER AUXILIARY POWER SUPPLY
United States of America	62199673	31-Jul-2015			LOAD SHEDDING DEVICE FOR RETROFIT APPLICATIONS
United States of America	15225116	01-Aug-2016			METHOD AND APPARATUS FOR CONTROLLING A LOAD SHEDDING DEVICE
United States of America	15068922	14-Mar-2016			BULKHEAD INTERFACE AND CABLE CONNECTOR
Patent Cooperation Treaty	PCTUS2016022274	14-Mar-2016			BULKHEAD INTERFACE AND CABLE CONNECTOR
United States of America	62132667	13-Mar-2015			BULKHEAD INTERFACE AND CABLE CONNECTOR
United States of America	62217405	11-Sep-2015			METHOD FOR IMPEDANCE MATCHING IN VIRTUAL IMPEDANCE DROOP CONTROLLED INVERTERS
United States of America	15262089	12-Sep-2016			METHOD AND APPARATUS FOR IMPEDANCE MATCHING IN VIRTUAL IMPEDANCE DROOP CONTROLLED POWER CONDITIONING UNITS
Patent Cooperation Treaty	PCTUS2016051225	12-Sep-2016			METHOD AND APPARATUS FOR IMPEDANCE MATCHING IN VIRTUAL IMPEDANCE DROOP CONTROLLED POWER CONDITIONING UNITS
United States of America	62198374	29-Jul-2015			SMART HOT WATER HEATER
United States of America	62217574	11-Sep-2015			METHOD AND APPARATUS FOR CHANNEL ESTIMATION FOR THREE-PHASE PLC SYSTEMS
United States of America	15262470	12-Sep-2016			METHOD AND APPARATUS FOR CHANNEL ESTIMATION FOR THREE-PHASE PLC SYSTEMS
United States of America	15180051	12-Jun-2016			METHOD AND APPARATUS FOR CONTROL OF INTELLIGENT LOADS IN MICROGRIDS
Patent Cooperation Treaty	PCTUS2016037115	12-Jun-2016			METHOD AND APPARATUS FOR CONTROL OF INTELLIGENT LOADS IN MICROGRIDS
United States of America	62174861	12-Jun-2015			METHOD AND APPARATUS FOR CONTROL OF INTELLIGENT LOADS IN MICROGRIDS
United States of America	62241365	14-Oct-2015			DISTRIBUTED SEQUENCE OF EVENT LOGGING BY A NETWORK OF MICROINVERTERS
United States of America	15292912	13-Oct-2016			METHOD AND APPARATUS FOR SEQUENCE OF EVENT LOGGING BY A POWER CONDITIONER
United States of America	62262663	03-Dec-2015			STRATEGY FOR MINIMIZING CIRCULATING CURRENTS IN MICROGRIDS
United States of America	62255782	16-Nov-2015			ACTIVATION AND DE-ACTIVATION OF INVERTERS IN DISTRIBUTED RESOURCE ISLAND SYSTEMS USING LOW VOLTAGE AC
United States of America	62275414	06-Jan-2016			MICROGRID INTERCONNECT DEVICE AND RELATED METHODS

United States of America	62257370	19-Nov-2015	POWER CONVERTER HAVING SINGLE-PHASE CYCLOCONVERTER WITH INTEGRATED LINE CYCLE ENERGY STORAGE, AC SIDE CONTROLLER AND AUXILIARY PSU
United States of America	62402325	30-Sep-2016	METHOD AND APPARATUS FOR CONTROLLING POWER GRID MEMBER BEHAVIOR
United States of America	62286669	25-Jan-2016	DROOP CONTROL IN A GRID-CONNECTED MICROGRID
United States of America	62258032	20-Nov-2015	INTERCONNECT DEVICE FOR USE IN ISLANDING A MICROGRID
United States of America	62286719	25-Jan-2016	INCREASED ENERGY HARVEST IN A MICROGRID
United States of America	62275380	06-Jan-2016	COORDINATION OF GENERATORS IN DROOP CONTROLLED MICROGRIDS USING HYSTERESIS
United States of America	62262696	03-Dec-2015	AUTONOMOUS CHARGE BALANCING OF DISTRIBUTED AC COUPLED BATTERIES WITH DROOP OFFSET
United States of America	15267894	16-Sep-2016	PV MODULE POWER ELECTONICS MOUNTING SYSTEM WITH COMPRESSION SPRING
United States of America	62219884	17-Sep-2015	PV MODULE POWER ELECTONICS MOUNTING SYSTEM WITH COMPRESSION SPRING
United States of America	62352760	21-Jun-2016	LEAKY SECONDARY REGULATION SCHEME
United States of America	62252331	06-Nov-2015	FIRE DETECTION, AUTOMATED SHUTOFF AND ALERTS USING DISTRIBUTED ENERGY RESOURCES AND MONITORING SYSTEM
United States of America	62268920	17-Dec-2015	USING TIME STAMPED DC VOLTAGE AND CURRENT DATA COLLECTED BY A MICROINVERTER TO INFER OR VALIDATE MODULE LOCATION AND ORIENTATION
United States of America	62336125	13-May-2016	MATRIX PLANAR TRANSFORMER
United States of America	62287554	27-Jan-2016	DUAL-POSITION MOUNT FOR ELECTRONICS MODULES
United States of America	62361797	13-Jul-2016	SWITCHED MODE AUTOTRANSFORMER
United States of America	62362676	15-Jul-2016	METHOD AND APPARATUS FOR DETERMINING KEY PERFORMANCE PHOTOVOLTAIC CHARACTERISTICS USING SENSORS FROM MODULE-LEVEL POWER ELECTRONICS
United States of America	62351060	16-Jun-2016	ENERGY FLOW CALCUATIONS



TRADEMARKS:




Trademark Status Chart

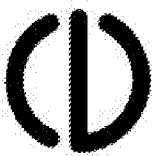

MARK DOCKET NO.	COUNTRY	APPLN. NO.	APPLN. DATE	REG. NO.	REG. DATE	STATUS	NEXT ACTION
E Design [e] EE_TM124AU	AU	International Reg. No. 1263188 Madrid System Ref. No. A0051259	Jun-24-2015	1263188	06/24/2015	Abandoned	Abandoned per client's instructions.
ENLIGHTEN EE_TM126 AU	AU	1451275	Sep-29-2011	1451275	Sep-29-2011	Registered	Renewal due 09/29/2021
ENLIGHTEN MANAGER EE_TM131AU	AU	1615423	Apr-3-2014	1615423	Apr-3-2014	Registered	Renewal due 04/03/2024
ENPHASE EE_TM125AU	AU	1666023	Dec-22-2014	1666023	Dec-22-2014	Registered	Renewal due 12/22/2024
ENPHASE ENERGY EE_TM122AU	AU	Appln. No. 1666023	12/22/2014	1666022	12/22/2014	Registered	Renewal due 12/22/2024
ENVOY EE_TM128AU	AU	1702494	Jun-24-2015	1702494	6/24/2015	Registered	Renewal due 6/24/2025
MYENLIGHTEN EE_TM130AU	AU	1615424	Apr-3-2014	1615424	4/3/2014	Registered	Renewal due 4/3/2024
NEW E LOGO EE_TM138AUMAD	AU	USPTO Ref. No. A0059934	6/30/2016	TBD	TBD	Pending	Awaiting action by TM Office




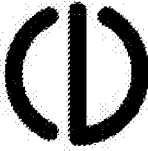



MARK DOCKET NO.	COUNTRY	APPLN. NO.	APPLN. DATE	REG. NO.	REG. DATE	STATUS	NEXT ACTION
							
E Design [e]	Canada	1735134 Filed 06/30/2015	Jun-30-2015			Abandoned	Abandoned per client's instructions.
EE_TM124CA							
ENLIGHTEN EE_TM126CA	Canada	1546035	Sep-30-2011			Abandoned	Abandoned. Does client want to refile due to fact that prior conflicting mark is no longer in use?
NEW E LOGO EE_TM138CA	Canada	TBD	TBD	TBD	TBD	Instructions sent to agent.	Awaiting filing receipt from agent.
							
ENLIGHTEN EE_TM126CN	China	10127328	Oct-31-2011	10127328	1/14/2016	Registered	Renewal due 1/13/2026
ENPHASE EE_TM125CN	China	Appln. No. 16190829 AT14190829	Jan-20-2015			Pending	Publication successfully finished on March 20, 2016 – Awaiting registration

MARK DOCKET NO.	COUNTRY	APPLN. NO.	APPLN. DATE	REG. NO.	REG. DATE	STATUS	NEXT ACTION
ENPHASE ENERGY EE_TM122CN	China	Appln. No. 16190830 ATT14190830	Jan-20-2015			Pending	Publication successfully finished on March 20, 2016 – Awaiting registration
E Design [e]	EU	International Reg. No. 1263188 Madrid System Ref. No. A0051259	Jun-24-2015	1263188	06/24/2015	Abandoned	Abandoned per client's instructions.
EE_TM124EM							
ENLIGHTEN EE_TM126EM	European Community (CTM)	10305101	Sep-30-2011	10305101	Mar-05-2012	Registered	Confirm with Client as to evidence of Use by 3/5/2017 Renewal due 9/30/2021
ENPHASE EE_TM125EMMAD	EU	International Reg. No. 1263627 Ref. No. A0051855	7/20/2015	1263627	7/20/2015	Provisional Registration	Awaiting Statement of Grant after 11/16/2016 Renewal due 07/20/2025
ENPHASE ENERGY EE_TM122EM	European Community (CTM)	OHIM Filing 6525927	Dec-18-2007	6525927	Dec-04-2008	Registered	Renewal due 12/18/2017
ENPHASE ENERGY EE_TM122DE	Germany	National Filing 307830284	Dec-21-2007	30783028	Jul-28-2008	Registered	Renewal due 12/21/2017
ENPHASE ENERGY EE_TM122IT	Italy	National Filing RM001154	Feb-25-2008	000132776	Aug-17-2010	Registered	Renewal due 02/25/2018
ENPHASE ENERGY	Spain	National Filing	Jan-31-2008	2.813.565	Sep-15-2008	Registered	Renewal due

MARK DOCKET NO.	COUNTRY	APPLN. NO.	APPLN. DATE	REG. NO.	REG. DATE	STATUS	NEXT ACTION
EE_TM122ES		2813565 M2					01/31/2018
ENPHASE ENERGY EE_TM122GB	United Kingdom	National Filing 2476685	Jan-11-2008	2476685	Sep-19-2008	Registered	Renewal due 01/11/2018
ENVIRON EE_TM127EM	European Community (CTM)	9792491	Mar-08-2011	9792491	Aug-18-2011	Registered	Renewal due 3/8/2021
ENVVOY EE_TM128EM	European Community (CTM)	9792516	Mar-08-2011	9792516	Aug-18-2011	Registered	Renewal due 3/8/2021
NEW E LOGO EE_TM138EMMAD	EM (Madrid)	USPTO Ref. No. A0059934	6/30/2016	TBD	TBD	Pending	Awaiting action by TM Office
							
ENLIGHTEN EE_TM126IN	IN	2212469	Sep-28-2011			Pending	POA filed by India Foreign Agent and under fresh examination after initial objections raised
ENLIGHTEN EE_TM126JP	JP	2011-069417	Sep-28-2011	5480921	Mar-23-2012	Registered	Renewal due 3/23/2022
E Design [e]	JP	2015064693	Jul-8-2015			Abandoned.	Abandoned per client's instructions.
EE_TM124JP							
ENPHASE	JP	2015-064692	Jul-8-2015	5813075	12/11/2015	Registered	Renewal due on

MARK DOCKET NO.	COUNTRY	APPLN. NO.	APPLN. DATE	REG. NO.	REG. DATE	STATUS	NEXT ACTION
EE_TM125JP							12/12/2025
ENPHASE EE_TM125MXMAD	MX	International Reg. No. 1263627 Ref. No. A0051855	7/20/2015	1263627	7/20/2015	P	Awaiting Statement of Grant. Renewal due 07/20/2025
NEW E LOGO EE_TM138MXMAD	MX (Madrid)	USPTO Ref. No. A0059934	6/30/2016	TBD	TBD	Pending	Awaiting action by TM Office
							
ENLIGHTEN EE_TM129NZ	NZ	983227	Aug-22-2013	983227	08/22/2013	Registered	Renewal due 8/2/2023
ENPHASE EE_TM125NZ	NZ	841942	May-13-2011	841942	Nov-14-2011	Registered	Renewal due 5/13/2021
NEW E LOGO EE_TM138NZMAD	NZ	USPTO Ref. No. A0059934	6/30/2016	TBD	TBD	Pending	Awaiting action by TM Office
							
ENPHASE EE_TM125PA	PA	242469-01	Jul-13-2015			Pending	Awaiting Office Action
NEW E LOGO EE_TM138PA1	Panama	TBD	TBD	TBD	TBD	Instructions sent to agent.	Awaiting filing receipt.

MARK DOCKET NO.	COUNTRY	APPLN. NO.	APPLN. DATE	REG. NO.	REG. DATE	STATUS	NEXT ACTION
	US	International Reg. No. 1263188 Madrid System Ref. No. A0051259	Jun-24-2015	4418767	10/15/2013	Abandoned	Abandoned per client's instructions.
	Panama	TBD	TBD	TBD	TBD	Instructions sent to agent.	Awaiting filing receipt.
	Panama	TBD	TBD	TBD	TBD	Instructions sent to agent.	Awaiting filing receipt.
	Panama	TBD	TBD	TBD	TBD	Instructions sent to agent.	Awaiting filing receipt.
ENLIGHTEN EE_TM126	US	77490152	Jun-03-2008	3,758,421	Mar-09-2010	Registered	Renewal due 03/09/2020
ENLIGHTEN MANAGER EE_TM131	US	86051978	Aug-29-2013	4,514,077	04/15/2014	Registered	Section 8 & 15 Renewal Declarations due 4/15/2020
ENPHASE	US	77517421	Jul-08-2008	4056628	Nov-15-2011	Registered	Section 8 &

MARK DOCKET NO.	COUNTRY	APPLN. NO.	APPLN. DATE	REG. NO.	REG. DATE	STATUS	NEXT ACTION
EE_TM125							15 Renewals due 11/15/2017
ENPHASE ENERGY EE_TM122	US	77210815	Jun-20-2007	3595609	Mar-24-2009	Registered	Section 8 & 9 Renewals due 3/24/2019
ENPHASE ENERGY EE_TM122US2	US	77353930	Dec-17-2007	4056580	Nov-15-2011	Registered	Section 8 & 9 Renewals due 11/15/2021
ENVIRON EE_TM127	US	85125464	Sep-08-2010	4071569	Dec-13-2011	Abandoned	Abandoned per client's instructions.
MYENLIGHTEN EE_TM130	US	86051968	Aug-29-2013	4,514,076	04/15/2014	Registered	Section 8 & 15 Renewal Declarations due 4/15/2020
NEW E LOGO EE_TM138	US	87/079,116	6/21/2016	TBD	TBD	Pending	Scheduled to publish on December 27. Awaiting confirmation notice from USPTO.
							
ENPHASE SOLARSTATION EE_TM136EM	EU	Filed and awaiting particulars from foreign associate				Abandoned	Abandon per Client Instruction 6/2015
SOLARSTATION 5 EE_TM137EM	EU	Filed and awaiting particulars from foreign associate				Abandoned	Abandon per Client Instruction 6/2015

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ENPHASE SOLARSTATION EE_TM136IN	IN	Filed and awaiting particulars from foreign associate				Abandoned	Abandon per Client Instruction 6/2015
SOLARSTATION 5 EE_TM135IN	IN	Filed and awaiting particulars from foreign associate				Abandoned	Abandon per Client Instruction 6/2015
ENLIGHTEN EE_TM126NZ	NZ	849912	Sep-29-2011			Abandoned	Abandoned per client's instructions of 8/23/2013 - New App filed w/ new descript. - see below
ENPHASE SOLARSTATION EE_TM136US	US	86572673	Mar 23 2015			Abandoned	Abandon per Client Instruction 6/2015
ENVOY EE_TM128	US	85125462	Sep-08-2010			Abandoned	Abandoned per client instructions of 6/20/11
GRIDZILLA EE_TM132	US	86157024	Jan-03-2014			Abandoned	Abandoned per client's instructions of 7/25/2014
MICRO-STRING EE_TM123	US	85/523.332	Jan-23-2012			Abandoned	Abandoned per client instructions of 8/12/13

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MICRO-STRING EE_TM123	US	77517417	Jul-08-2008			Abandoned	Abandoned per client's instructions 2/21/12
SOLARSTATION EE_TM135US	US	86563967	Mar 13 2015			Abandoned	Abandon per Client Instruction 6/2015
ARRAYGUN EE_TM133	US	86/157,151	Jan-03-2014			Abandoned	Abandoned per client instructions. 10/10/2014.