

“ Solar is the future ”
BME Business Plan

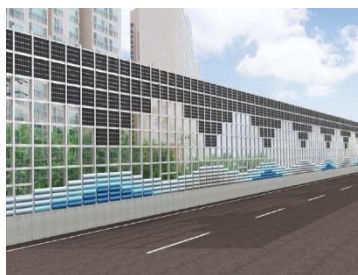
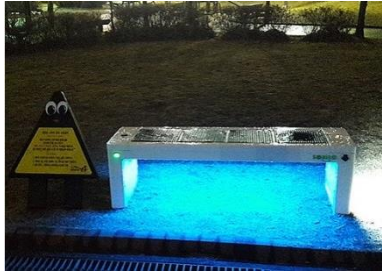
March, 2020

BME Co.,Ltd.

[Company Overview]

Company Name	BME Co.,Ltd.
Business License No.	455-88-00455
President & CEO	Mr. Kook-jin Jung
Foundation Date	July 1, 2006
Business Conditions	Manufacturing
Business Type	Renewable energy charging, Discharging controller, UPS
Items	Uninterruptible power supply (UPS), Charging/Discharging controller, etc.
Headquarters	407 SB Plaza, 136 Jiksan-ro, Jiksan-eup, Seobuk-ku, Cheonan, Chung-Nam, Republic of Korea (South)
Contact	Tel: +82-41-569-5757 Fax: +82-41-558-2121
Web Site	http:// www.bmekorea. com

“Solar is the future ! ”



BME Co., Ltd.

**Hybrid
Solar
Inverter**

Hybrid Solar Inverter

Solar
Street light

Solar power
generation
(Land, Water)

**Secondary
Battery**

ESS
UPS
BMS

Fire/Explosion
Proof battery case

**Environmental
Improvement**

Oxygen generator

Lake water quality
Improvement system

Wastewater Treatment
Plant Ozone Generator

Oxygen generator for
fishery



[Hybrid Solar Inverter]

Korea's only standalone hybrid solar inverter.

The use of electrical energy at the same time as the storage of solar energy.

Useful in areas with frequent power outages or where power is not desired.

CE, KC certification

[Solar Street Light]

Using stored solar energy without supply of electrical energy.

Street lamps can be used at night.

Export to the Philippines and other countries.

[Solar Power Generator (Land, Water)]

It is possible to use renewable energy, which is more qualitatively improved than before, by combining solar power generation with water or land power generation.

[Main Product 1] ESC-200

* Picture



- Charge the battery using solar power (DC) and commercial power (AC)
- Capable of using electricity at the same time as charging the battery is charged
- Electricity can be used through stored battery in case of power outage, earthquake, etc.
- Electricity can be used through solar power generation even if there is no commercial electricity
- Built-in battery for easy movement and installation
- Available in various range of applications with compact size

Model		ESC-200
Output Characteristic		
AC Output	Continuous Power	200W
	Voltage	200Va ± 5%
	Frequency	60Hz ± 0.5Hz (50Hz ± 0.5Hz)
Efficiency		>90%
Input Characteristic		
PV	Voltage (Max.)	40Vdc
	Power (Max.)	50W
Battery	Voltage	12Vdc
	Charging Current (Max.)	4.2A _{dc}
	Output Power (Max.)	200W
Environment		
Working Temperature		-10°C ~ 50°C
Storage Temperature		- 30°C ~ 70°C
Physical		
Product Size		240*240*245 (mm)

[Main Product 2] ESC-3000B/ESC-5000B

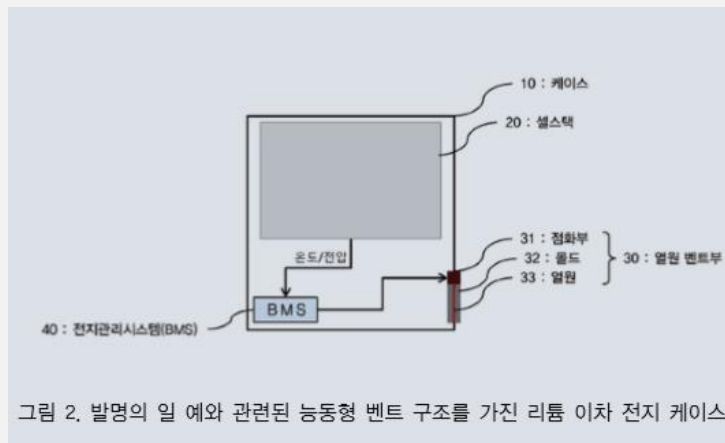


- The only hybrid inverter in Korea
- Unrestricted installation location
- Lead or lithium battery available
- Capable of charging at same time as using electrical energy
- Electrical energy from the battery can be used first to reduce electricity bills

Model		ESC-3000B	ESC-5000B
PV Input Quantities (D.C)	Vmax.	150V	150V
	Vmin.	72V	72V
	Maximum Input Power	2400W	2400W
AC Output Quantities (A.C)	Voltage	220V ~ 240V (Adjustable)	220V ~ 240V (Adjustable)
	Maximum Output Power	3000W	5000W
	Inrush Current	27A, 1msec	45A, 1msec
	Frequency	50Hz/60Hz (Adjustable)	50Hz/60Hz (Adjustable)
Grid Input (A.C)	Voltage	220V ~ 240V	220V ~ 240V
	Current	15A	25A
	Frequency	50Hz/60Hz	50Hz/60Hz
D.C Input (Battery Terminal)	Voltage (normal or range)	48V	48V
	Current (Maximum Continuous)	62.5A	104A
D.C Output (Battery Terminal)	MPPT Charging Current (Max.)	50A	60A
	Grid Charging Current (Max.)	10A	10A
	Maximum Charging Current	60A	70A
Ingress Protection		IP20	IP20
Environmental Condition		Indoor, Conditioned	Indoor, Conditioned
Ambient Temperature		-20°C ~ 50°C	-20°C ~ 50°C
Storage Temperature		-30°C ~ 70°C	-30°C ~ 70°C
Product Size	Size (W*H*D)	370*500*135(mm)	370*500*135(mm)
	Weight	18.5kg	19.5kg



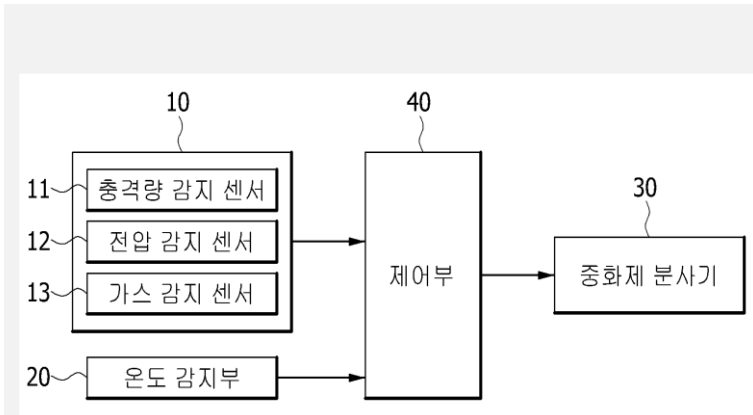
[ESS, UPS, BMS]



[Fire/Explosion Proof Battery Case]

BMS that monitors the status of lithium secondary batteries can provide a safe secondary battery by applying an active vent structure that can open a vent before the internal pressure increases by transmitting a vent open signal when the battery detects a malfunction, internal pressure or temperature rise. Prevents battery explosion due to moisture contact or overheating

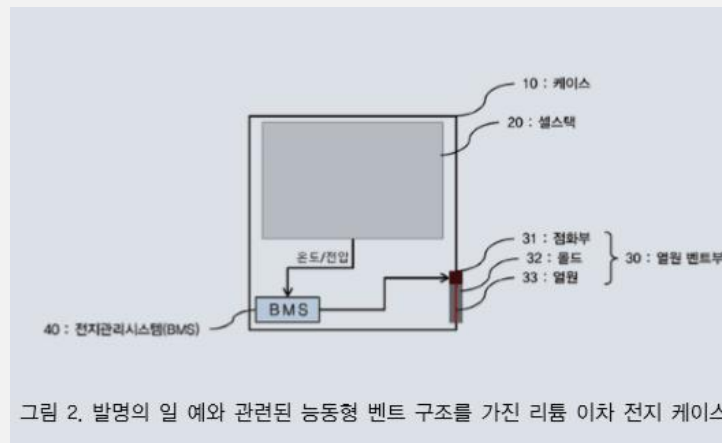
[BME ESS Fire/Explosion Proof Battery Case]



BME Co.,Ltd's New Technology

Patent Registration Number 10-1489837

(Technology Transfer of Korea Automotive Technology Institute)

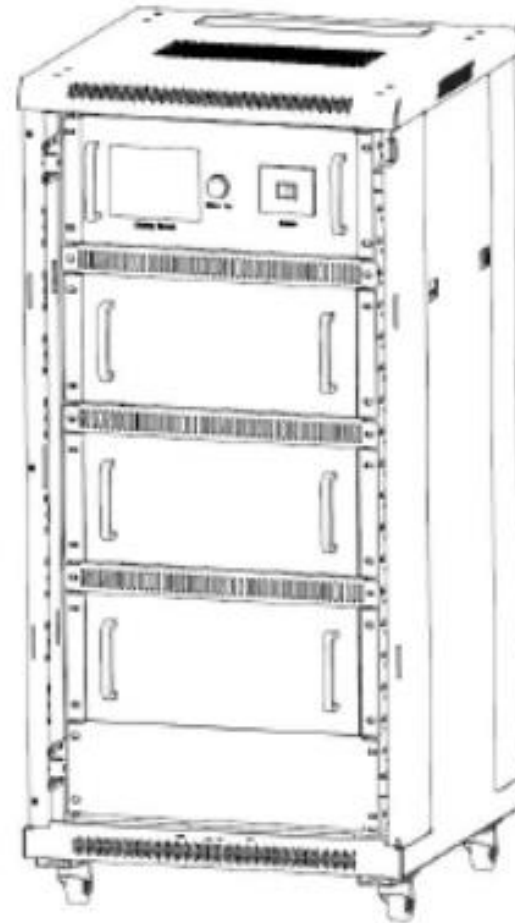


BME Co.,Ltd's New Technology

Patent Registration Number 10-1312102

(Technology Transfer of Agency for Defense Development)

[BME ESS Fire/Explosion Proof Battery Case]



[ALL IN ONE ESS]



[ALL IN ONE ESS]

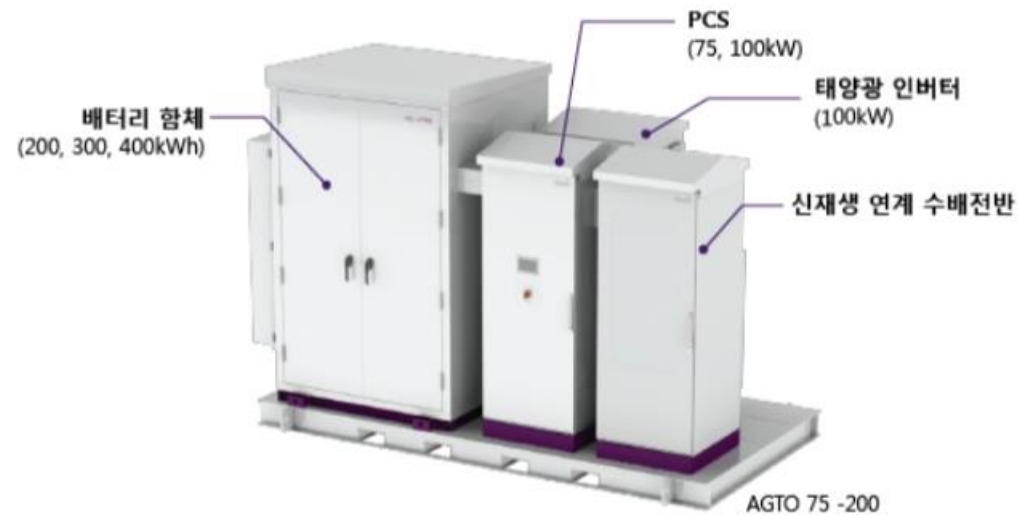
ALL IN ONE is a product that reflects market demands in line with various support systems for Energy storage devices that are being led by the government. In order to minimize the transportation and installation of the product, the buyer contained the batteries, power converter, inverter, and switchgear needed to build the ESS. It is divided into medium capacity and large capacity and ALL IN ONE OUTDOOR is a model for grid linkage that is always operated with the grid. Various applications such as PEAK CUT, renewable energy linkage and frequency adjustment are possible according to the buyer's use purpose.



The renewable energy linkage system is a product developed to enable operators who have existing solar energy generation furnaces to build ESS conveniently and quickly. ALL IN ONE OUTDOOR medium capacity products are manufactured in SKID TYPE for easy transportation and installation.

[ALL IN ONE ESS]

ALL in ONE 신재생 연계 시스템(신축용)



Renewable linkage system is a product that contains all the necessary product elements and installation needed to build and energy storage device for a new company that wants to run solar power plant and ESS at the same time.

[ALL IN ONE ESS]

ALL In ONE Series

ALL In ONE Series

ALL in ONE Outdoor E-House Type Specification

Model	Units	AGTO 400 - 1500	AGTO 800 - 4000
Performance Specifications			
AC Battery Capacity	kWh	1200 ~ 1500 (조절가능)	1600 ~ 4000 (조절가능)
AC Rated Output	kW	400	800
Availability	%	> 97	> 97
Round Trip Efficiency (Estimated)	%	92	92
Life Guarantee	yrs	15	15
Warranty	yrs	3	3
Environmental Specifications			
Ambient Temperature	℃	-20 ~ +50	-20 ~ +50
Humidity	%	0 ~ 95 (Non-Condensing)	0 ~ 95 (Non-Condensing)
IP Protection Class (배터리 합체)	-	IP44	IP44
AC Grid Connection	-	3 phase 4 wire 380V	3 phase 4 wire 22900V
Transformer	-	내장	외장
Mechanical Specifications			
Size (W/D/H)	mm	7736 / 2882 / 3406	12190 / 2882 / 3406 (배터리 합체) 2600 / 1000 / 2350 (PCS) 7000 / 2240 / 2505 (수백전반)
Weight (Estimated)	kg	16000	31000
EMC Specifications			
EMS System	-	클라우드 기반 EMS	
Security	-	SSR-VPN 터널링, 방화벽 정책 설정, 서버 접근 통제	
Compliance Specifications			
EMC	-	EN61000-6-2-conformity, EN61000-6-4-conformity, EN61000-3-3-conformity, EN61000-3-12-conformity	
PCS Requirement	-	SGSF-025-4	
Battery Requirement	-	KBIA-10104-01, KBIA-10104-02	
Option			
		신재생 연계 수백전반, EMS 서버 구축	

*해당 제품의 사양 및 외형 이미지는 추후에 변경될 수 있습니다.

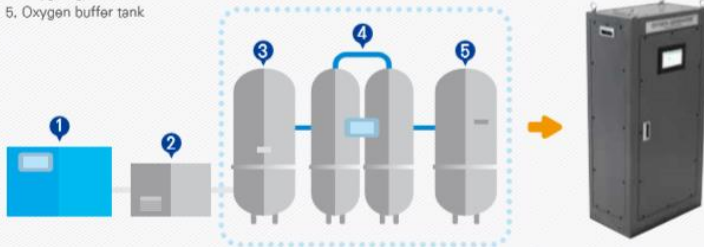
ALL in ONE Outdoor Skid Type Specification

Model	Units	AGTO 50 - 200	AGTO 75 - 200	AGTO 75 - 300	AGTO 100 - 200	AGTO 100 - 300
Performance Specifications						
AC Battery Capacity ¹⁾	kWh	221.8 (190)	221.8 (190)	332.8 (285)	221.8 (190)	332.8 (285)
AC Rated Output	kW	50	75	75	100	100
Availability	%	> 97	> 97	> 97	> 97	> 97
Round Trip Efficiency	%	92	92	92	92	92
Life Guarantee	yrs	15	15	15	10	15
Warranty	yrs	3	3	3	3	3
Environmental Specifications						
Ambient Temperature	℃	-20 ~ +50	-20 ~ +50	-20 ~ +50	-20 ~ +50	-20 ~ +50
Humidity	%	0 ~ 95 (Non-Condensing)	0 ~ 95 (Non-Condensing)	0 ~ 95 (Non-Condensing)	0 ~ 95 (Non-Condensing)	0 ~ 95 (Non-Condensing)
IP Protection Class (배터리 합체)	-	IP54	IP54	IP54	IP54	IP54
IP Protection Class (PCS)	-	IP44	IP44	IP44	IP44	IP44
AC Grid Connection	-	3 phase 4 wire 380V	3 phase 4 wire 380V	3 phase 4 wire 380V	3 phase 4 wire 380V	3 phase 4 wire 380V
Transformer	-	내장	내장	내장	내장	내장
Mechanical Specifications						
Size (기축용 신재생 연계 수백전반 적용)	mm	3000(W) / 2000(D) / 2883(H)				
Size (신축용 신재생 연계 수백전반 적용)	mm	4000(W) / 2000(D) / 2883(H)				
Weight (기축용 신재생 연계 수백전반 적용)	kg	5000	5000	5900	5000	5900
Weight (신축용 신재생 연계 수백전반 적용)	kg	6200	6200	7300	6200	7300
EMC Specifications						
EMS System	-	클라우드 기반 EMS				
Security	-	SSR-VPN 터널링, 방화벽 정책 설정, 서버 접근 통제				
Compliance Specifications						
EMC	-	SGSF-025-4, KS C IEC 62040-2				
PCS Requirement	-	SGSF-025-4				
Battery Requirement	-	KBIA-10104-01, KBIA-10104-02				
Option						
		신재생 연계 수백전반(기축용/신축용), 태양광 인버터 100kW, EMS 서버 구축				

*해당 제품의 사양 및 외형 이미지는 추후에 변경될 수 있습니다.

1 배터리 설치 용량(가용 용량)을 의미하며, 가용 용량은 DOD(93%)와 충-방전 효율이 반영되었습니다.

1. Air compressor
2. Air dryer
3. Air buffer tank
4. Oxygen generator
5. Oxygen buffer tank



[Oxygen Generator]

More than 80% of diseases are due to harmful environment and lack of oxygen.

It supplies high purity oxygen and maintains oxygen concentration as if it is in natural recreation forest to lead a healthy and pleasant life.

It has several advantages, such as 80% reduction in installation space, 70% reduction in weight, and maintenance.



[Lake Water Quality Improvement System]

In order to improve water pollution caused by harmful environment and lack of oxygen, high-concentration oxygen is generated by ultra fine bubbles to supply high purity oxygen, improve the underwater environment and maintain oxygen concentration.

Odor has been removed by installing micro bubble system for low dissolved oxygen deficiency and odor elimination and improved to living environment.



[Wastewater Treatment Plant Ozone Generator]

It is possible to increase capacity by reducing the initial operation time of existing products from 30 minutes to 1 hour within 5 minutes.

80% less installation space, 70% less weight, and easier maintenance than existing products.



[Oxygen Generator for Fishery]

High purity oxygen generator using compressed air. Automated system by PCB control with segment module type that separates adsorption layer by applying input car separation principle.

80% reduction in liquid oxygen costs.

Can be used in combination with an oxygen dissolver.

[Market Outlook] Major Issues for Forecasting the Solar Energy Business

- Photovoltaic efficiency will increase with the development of technology, and the unit price will also decrease and the market will gradually expand.

* Government Policy

- The budget for renewable energy is about 600 billion won in 2019 (increase of 52.3% over the previous year)
- Achieve 10.5% of renewable energy generation by 2022.
- 27 billion won support to community poor reservoirs.
- 555.3 billion won to expand support for solar energy installation in houses, farms etc. (increase of 51.7% over the previous year)

* Changed the Mountain Regulation

- Converted the forest solar power that was the permission for the mountain area to the temporary license.
- Average gradient of mountain area to be used as solar power generation facility : Strengthened permission from below 25 degrees → below 15 degrees
- Reduced to 0.7 weight for forest solar power
- Move center of gravity from large-scale solar to small-scale solar

* Energy Vision 2040 – Recommendation on the Direction of the 3rd Energy Basic Plan

- Plan to increase the proportion of renewable energy generation by 2040.

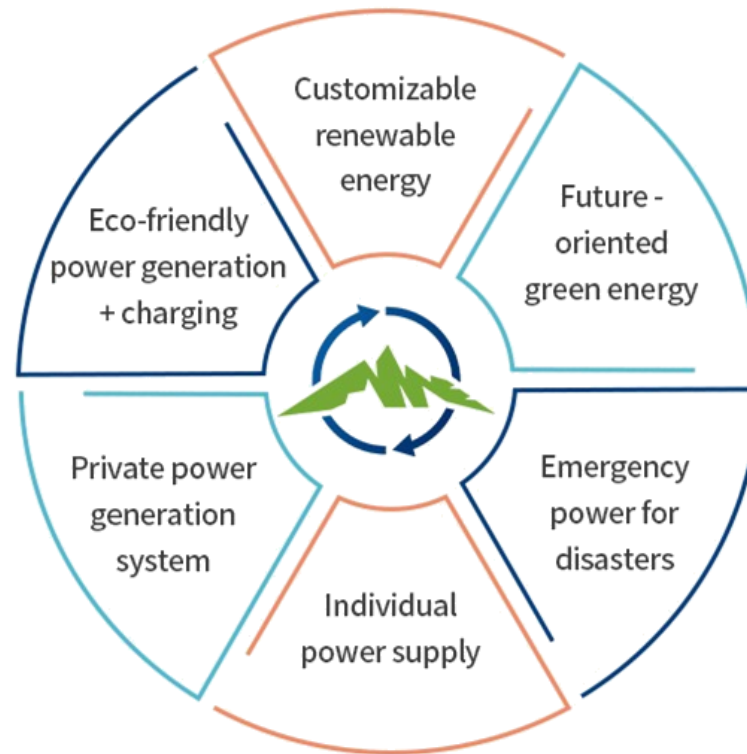
* Adjustment of Duty Supply Ratio

- The mandatory rate of RPS, which is mandatory for supplying renewable energy, was 10% in 2023.
- Upgraded to 25% as of 2030.

[Business Overview]

Blue Mountain Energy !

Eco-friendly green energy business that joins the trend
Ceaseless study for energy-based generation and charging systems
We recognize the value of renewable energy. Moreover, we develop and manufacture
future-oriented and customized individual power supplies.



[Core Competence]

Technology

Portable power supply
patented technology
(10-16338373)

Portable DC AC
power supply
utility model
(20-0465609)

Guarantee

International standard
for quality management
system
ISO 9001

International
certification for
environmental
management
ISO 14001

Certification

Certification by CE
(ESC-2000
ESC-3000
ESC-5000)

Certification by KC
(ESC-3000
ESC-5000)

**Order
Made**

Customized capacity,
specification,
configuration, etc. to
suit customer's needs

[SWOT Analysis]

		Internal factors	
		STRENGTH	WEAKNESS
External factors		<ul style="list-style-type: none"> • Competitiveness of technology, function, differentiated specialized product • Sales infrastructure for domestic and overseas marketing • Harmonize with partner companies with world-specific technology 	<ul style="list-style-type: none"> • Lack of reference site
OPPORTUNITY	<ul style="list-style-type: none"> • Renewable energy issue raise domestic and overseas public demand budget • Future-oriented technology R&D global investment trend 	SO Strategy / Performance Task	WO Strategy / Complementary Task
		<ul style="list-style-type: none"> • Establishment of overseas branch/agency • Receive a national project with a professional company and a consortium • Operation of open innovation platform 	<ul style="list-style-type: none"> • Become a global marketing infrastructure investment partner • Cooperation with specialized function, leading technologies, transfer
THREAT	<ul style="list-style-type: none"> • Entering Europe with creativity and technology • Market shrinking due to global political and economic deterioration 	ST Strategy / Risk Resolution	WT Strategy / Preventive Complement
		<ul style="list-style-type: none"> • Jointly linking pilot projects in new industrial fields • Customized consumer-oriented niche market 	<ul style="list-style-type: none"> • Application for technology transfer commercialization support • Utilization of local government, and KOTRA program support • Strategic alliances and M&A growth

[Marketing Plan]

PRODUCT

Product Concept
Customized product production according to customer's environment by utilizing specialized technology and global platform

PRICE

Price Policy
All processes of product development, production and operation are customized by customers and normalization of sales prices and conversion of long-term service

PLACE

Distribution Route
Sales by HYPER CONNECTED PLATFORM based on BME Co.,Ltd.'s branch/agent

PROMOTION

Sales Promotion
Digital marketing, information exchange system for the concentrated management of potential customers, participation in international exhibitions, holding seminars

[Overseas Branch] Planning to Open Soon



[Certificate]

1. Certification by CE (ESC-2000, ESC-3000, ESC-5000)
2. Certification by KC (ESC-3000, ESC-5000)

Declaration of Conformity
BME Co., Ltd.
 212(Chungnam Techno Park) Rechargeable Battery Center,
 Jiksan-ro 136, Jiksan-eup, Seobuk-ku, Cheonan-city,
 Chungcheongnam-do Republic of Korea

WE DECLARE UNDER OUR SOLE RESPONSIBILITY THAT THE PRODUCT:

PRODUCT : Solar Inverter
MODEL : ELIM ESC-3000B, ELIM ESC-3000A,
 ELIM ESC-2000A, ELIM ESC-2000B

TO WHICH THIS DECLARATION RELATES IS IN CONFORMITY WITH THE FOLLOWING STANDARDS AND THEREFORE BEARS **CE MARKING**:

LVD Standard	EMC Standard	RoHS Standard
- EN 62109-1:2010 - EN 62109-2:2011	- EN 55011:2009+A1:2010 (Group1) - EN 61000-6-2:2005	- IEC 62321-1:2013 - IEC 62321-2:2013 - IEC 62321-3-1:2013 - IEC 62321-3-2:2013 - IEC 62321-4:2013

FOLLOWING THE PROVISIONS OF THE APPLICABLE DIRECTIVES:
 LOW VOLTAGE DIRECTIVE 2014/35/EU
 EMC DIRECTIVE 2014/53/EU
 Restriction of the use of certain hazardous substances (RoHS) Directive 2011/65/EU

Authorized person
 Name: 서지민 Signature: [Signature]

Declaration of Conformity
BME Co., Ltd.
 212(Chungnam Techno Park) Rechargeable Battery Center,
 Jiksan-ro 136, Jiksan-eup, Seobuk-ku, Cheonan-city,
 Chungcheongnam-do Republic of Korea

WE DECLARE UNDER OUR SOLE RESPONSIBILITY THAT THE PRODUCT:

PRODUCT : Solar Inverter
MODEL : ELIM ESC-3000, ELIM ESC-3000

Reference Report No. : CTS-R18-0032

TO WHICH THIS DECLARATION RELATES IS IN CONFORMITY WITH THE FOLLOWING STANDARDS AND NORMATIVE DOCUMENT:

IEC 62321-1: 2013 + IEC 62321-2: 2013 + IEC 62321-3-1: 2013 +

Declaration of Conformity
BME Co., Ltd.
 212(Chungnam Techno Park) Rechargeable Battery Center,
 Jiksan-ro 136, Jiksan-eup, Seobuk-ku, Cheonan-city,
 Chungcheongnam-do Republic of Korea

WE DECLARE UNDER OUR SOLE RESPONSIBILITY THAT THE PRODUCT:

PRODUCT : Solar Inverter
MODEL : ELIM ESC-5000B, ELIM ESC-5000A

Reference Report No. : CTS-R18-0044

TO WHICH THIS DECLARATION RELATES IS IN CONFORMITY WITH THE FOLLOWING STANDARDS AND NORMATIVE DOCUMENT:

EN 62321-1: 2013 + EN 62321-2: 2014 + EN 62321-3-1: 2014 + EN 62321-3-2: 2014 + EN 62321-4: 2014/A1: 2017 + EN 62321-5: 2014 + EN 62321-6: 2015 + EN 62321-7-1: 2015 + EN 62321-7-2: 2017 + EN 62321-8: 2017 and EN 50581: 2012

FOLLOWING THE PROVISIONS OF THE APPLICABLE DIRECTIVES:
 Restriction of the use of certain hazardous substances (RoHS) Directive 2011/65/EU

Authorized person
 Name: 서지민 Date: _____
 Signature: [Signature]

Declaration of Conformity
BME Co., Ltd.
 212(Chungnam Techno Park) Rechargeable Battery Center,
 Jiksan-ro 136, Jiksan-eup, Seobuk-ku, Cheonan-city,
 Chungcheongnam-do Republic of Korea

WE DECLARE UNDER OUR SOLE RESPONSIBILITY THAT THE PRODUCT:

PRODUCT : Solar Inverter
MODEL : ELIM ESC-5000B, ELIM ESC-5000A

Reference Report No. : CTS-S18-0018

TO WHICH THIS DECLARATION RELATES IS IN CONFORMITY WITH THE FOLLOWING STANDARDS AND THEREFORE BEARS **CE MARKING**:

EN 62109-2:2011 used in conjunction with EN 62109-1:2010.

FOLLOWING THE PROVISIONS OF THE APPLICABLE DIRECTIVES:
 LOW VOLTAGE DIRECTIVE 2014/35/EU

Authorized person
 Name: 서지민 Date: _____
 Signature: [Signature]

방송통신기자재등의 적합등록 필증
 Registration of Broadcasting and Communication Equipments

상호 또는 상품명 Trade Name or Register	주식회사 비엠에이
기자재명 등(제품명칭) Equipment Name	Solar Inverter
기본모델명 Base Model Number	ELIM ESC-5000B
과장모델명 Over Model Number	
등록번호 Registration No.	R-18-1946-ESC-3000B
제조사명(제조국) Manufacturer/Country of Origin	주식회사 비엠에이 / 한국
등록연월일 Date of Registration	2018-01-31
기타 Others	

이 기자재는 「전기법」 제58조제2항에 따라 등록되었음을 증명합니다.
 It is verified that foregoing equipment has been registered under the Clause 3, Article 58-2 of Radio Wave Act.

2019년 (Year) 01월 (Month) 12일 (Day)

국립전파연구원장
 Director General of National Radio Research Agency

※ 해당등록 방송통신기자재용 인시드인 "적합등록필증"을 부착하여 사용하여야 합니다.
 부착의 차례로 모든 등록자료 표시될 수 있습니다.

방송통신기자재등의 적합등록 필증
 Registration of Broadcasting and Communication Equipments

상호 또는 상품명 Trade Name or Register	주식회사 비엠에이
기자재명 등(제품명칭) Equipment Name	Solar Inverter
기본모델명 Base Model Number	ELIM ESC-5000B
과장모델명 Over Model Number	
등록번호 Registration No.	R-18-1946-ESC-5000B
제조사명(제조국) Manufacturer/Country of Origin	주식회사 비엠에이 / 한국
등록연월일 Date of Registration	2018-02-01
기타 Others	

이 기자재는 「전기법」 제58조제2항에 따라 등록되었음을 증명합니다.
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2019년 (Year) 01월 (Month) 14일 (Day)

국립전파연구원장
 Director General of National Radio Research Agency

※ 해당등록 방송통신기자재용 인시드인 "적합등록필증"을 부착하여 사용하여야 합니다.
 부착의 차례로 모든 등록자료 표시될 수 있습니다.

Overseas Business in India

With the conditional contract to purchase mine waterproof and dust proof (IP 68 UPS), the product is made completely and it is under testing at the moment.
Visited India as Korean President's economic delegates



Overseas Business in Brazil

With cities of Piracicaba, Rio Claro, and Charqueada in Brazil, business agreement was made for constructing solar energy plant with 50MW for the use of public organizations



Overseas Business in Mongolia

Individual solar energy system for ger and home
(Completed delivery with BME products)
(That is the contract portion with LSIS. Co.,Ltd.)



Overseas Business in the Philippines

Solar street light in Palawan Island, generation system for low cost houses, business agreement for constructing 5 MW solar power generation plant in Lubang Island are in progress.



Overseas Business in Indonesia

Bike charging station was established in Bali, and business agreement and contract for constructing 5 MW solar power plant are in progress



Overseas Business in Hungary

Delivery for home solar power system through NKM is in progress.



Patent, License and Approval Certificate Issued by the Korean Government

특허증 CERTIFICATE OF PATENT



특허 제 10-163837 호
Patent Number

출원번호 제 10-2014-0138325 호
Application Number

출원일 2014년 10월 14일
Filing Date

등록일 2016년 06월 21일
Registration Date

발명의 명칭 Title of the Invention
휴대용 전원 공급장치

특허권자 Patentee
주식회사 비엠에너지(161511-*****)
충청남도 천안시 동남구 정수14로 96, 713호(정당동, 백석문화센터)

발명자 Inventor
신동현(640923-*****)
대전광역시 대덕구 중리남로8번길 27

위의 발명은 「특허법」에 따라 특허등록원부에 등록되었음을 증명합니다.
This is to certify that, in accordance with the Patent Act, a patent for the invention has been registered at the Korean Intellectual Property Office.



2016년 06월 21일

특허청장
COMMISSIONER
KOREAN INTELLECTUAL PROPERTY OFFICE

최동규



실용신안등록증 CERTIFICATE OF UTILITY MODEL REGISTRATION

등록 제 20-0465609 호
(REGISTRATION NUMBER)

출원번호 제 2010-0007692 호
(APPLICATION NUMBER)

출원일 2010년 07월 22일
(FILING DATE(Y/M/D))

등록일 2013년 02월 22일
(REGISTRATION DATE(Y/M/D))

고안의 명칭 (TITLE OF THE DEVICE)
휴대용 리튬 교류 전원공급장치

실용신안권자 (OWNER OF THE UTILITY MODEL RIGHT)
등록사항만에 기재

고안자 (DESIGNER)
등록사항만에 기재

위의 고안은 「실용신안법」에 의하여 실용신안등록원부에 등록되었음을 증명합니다.
(THIS IS TO CERTIFY THAT THE DEVICE IS REGISTERED ON THE REGISTER OF THE KOREAN INTELLECTUAL PROPERTY OFFICE.)

2013년 02월 22일



특허청
COMMISSIONER, THE KOREAN INTELLECTUAL PROPERTY OFFICE

연차등록료 납부일은 출원일 이후 4년차부터 매년 02월 22일까지이며 등록원부도 관리관계를 확인바랍니다.



특허증 CERTIFICATE OF PATENT

특허 제 10-1489837 호
Patent Number

출원번호 제 10-2012-0131200 호
Application Number

출원일 2012년 11월 19일
Filing Date

등록일 2015년 01월 29일
Registration Date

발명의 명칭 Title of the Invention
리튬이온 배터리 화재 방지 장치 및 방법

특허권자 Patentee
주식회사 비엠이(161511-*****)
충청남도 천안시 서북구 직산읍 직산로 136, 2차 전자기술센터 212호(충남테크노파크)

발명자 Inventor
등록사항만에 기재

위의 발명은 「특허법」에 따라 특허등록원부에 등록되었음을 증명합니다.
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특허청
Korean Intellectual Property Office

2019년 12월 30일

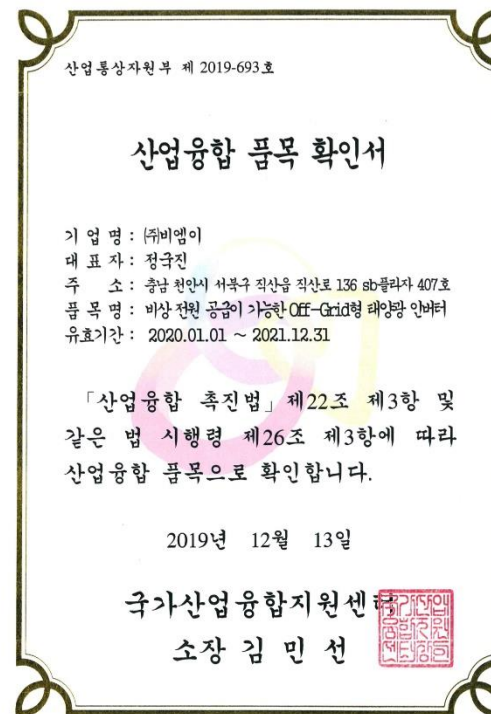
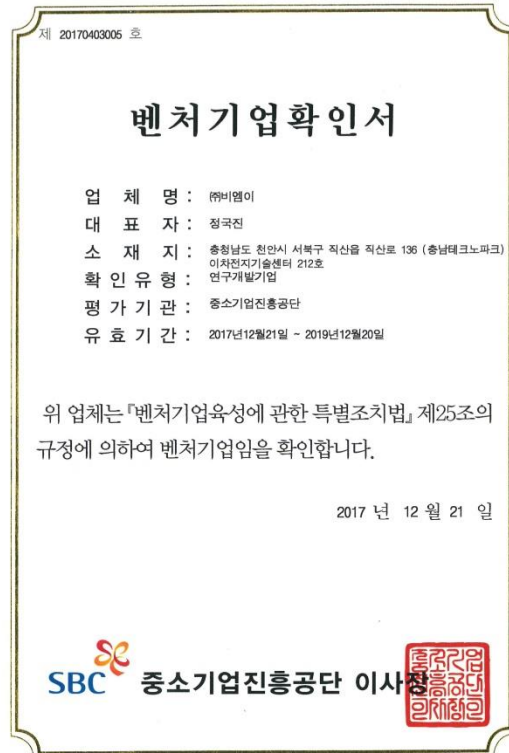
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박원주



QR코드 탑재기준
등록사항을 확인하세요

Confirmation Certificates Issued by the Korean Government Agencies



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“THANK YOU”

President & CEO Kook-jin Jung

Tel: + 82 41 569 5757

E-mail: jkj@bmekorea.com

BME Co.,Ltd.

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