UPS REC INV

We supply energy to your work

PC-03-17-ENG

ESIS POWER®

ESISPOWER®

OUR PRODUCTS

The information in this catalogue is subject to change without prior notice. Please call us for your customized product requests.

ESISPOWER®

UPS REC INV

We Supply Energy to Your Work

ESISPOWER has been setup in 2000 with the purpose of providing High Quality and Customized solutions to her Customers under Management of three Engineers who had more than 20 years professional background in Power Electronic sector.

The production adventure of **ESISPOWER** starting in 2000 by producing Inverter and Rectifier systems, has been developed by her own Research and Development department and made **ESISPOWER** is **ONE OF THE 3 BIGGEST MANUFACTURER** of TURKEY in Power Electronic sector today.

The main product portfolio of **ESISPOWER** today consist of;

- **Uninterruptible Power Supply system's up to 800KVA**
- **On-Grid and Off-Grid Inverter systems**
- **Rectifiers / Battery Chargers**
- **Frequency Converters**
- **Servo and Static type Voltage Stabilizers**
- **Batteries**

As a REAL MANUFACTURER, **ESISPOWER** does not only provide High Quality products but also provide Engineering Solutions for her Customers in Domestic and International area. This capability makes **ESISPOWER** is one of the main Engineering Solution supplier of International Contractor Companies like **SIEMENS** (Turkey, Saudi Arabia and Pakistan) **ABB** etc.

Presently, **ESISPOWER** continue to provide her Products, Engineering Solutions and After Sales Service for the Customers in more than 40 Countries all over the World through her Business partners.

The main philosophy of **ESISPOWER** is to provide her products and service to create additional values first for her Customers and Business partners by always considering the ethical principles and rights of her competitors in Business area.

ESISPOWER would be always proud of being a part of your happiness and life today and in future.

ESISPOWER






Pre-Sales Services

ESISPOWER's pre-sales service solutions are developed to welcome every customer's specific support requirements by providing local customers with access to certified technical staff support to make all imperative pre-sales inspections and metage to identify the actual product and power requirement of the customers. All these processes in foreign market are carried out by the help of local service points or remote technical inspections &interviews via technical and language skilled sales staff to take all obligatory detailed information. After evaluations in accordance with all these data reports collected in relevant departments, the most proper and economical solutions are offered.

After Sales Services

Device Technical Support provides customers with worldwide access around the daytime to ESISPOWER's support specialists by some amount of phone lines. Where ESISPOWER has network of service organization provides local on-site support and access to spare part for installation, commissioning or maintenance. In the absence of any local service point, ESISPOWER maintains these services by means of both remote redirections with the aid of technical documents and means of technical trainings to the technical staff of customers. In the event of all these applications are unproductive, ESISPOWER orientates its experienced experts fully equipped with all necessary spare parts, to the customer to service for on-time solutions.

Our Vision

ESIS aims to be a well-known company all over the world in the power electronic sector. We intend to add value to our country and employees increasing export revenues. ESIS wants to be a followed company with our all devices. To create exciting new electronic power equipments for consumers by bringing together the most quality technologic equipments with experience and trained staff. At ESISPOWER our philosophy is simple-Choice, Value and Service. We believe that you should be able to choose from an extensive off the diverse product range, be able to buy at the most competitive prices and enjoy a professional and efficient service on every order.

Our Mission

To provide reliable and continuous basis all kinds of electronic power supply to our customers with after sales services as well as to be satisfied. ESISPOWER is committed to developing a wide range of innovative products and services that challenge the way consumer's access and enjoy electronic power supply products. By ensuring synergy between businesses within the organization, ESISPOWER is constantly striving to create exciting new worlds of Electronic power supplies that can be experienced on a variety of different products. Our ultimate aim is to be a one-stop-shop for all your power supply needs. In order to achieve this, we take pride in being able to offer our customers a very diverse range of products to give you as much to choose from as possible.

Company Certifications

TÜV NORD

CERTIFICATE

Management system as per
ISO 9001 : 2008

In accordance with TÜV NORD CERT procedures, it is hereby certified that

ESISPOWER

Esis Enerji ve Elektronik San. ve Tic. A.Ş.
Dudullu Org. San. Bölg., Esenkent Mah., Baturalp Sok., No 14, Ümraniye,
TR-34776 Istanbul,
Turkey

applies a management system in line with the above standard for the following scope

Design, manufacture and sales of uninterruptible power supplies (UPS), static converters, rectifiers, inverters as well as their after sales technical services

Certificate Registration No. 44 100 063733
Audit Report No. TR 1207

Valid from 2015-12-31
Valid until 2018-09-14
(until 2018-12-30 in case of Upgrade to ISO 9001:2015)
Initial certification 2007

Certification Body
at TÜV NORD CERT GmbH

Istanbul, 2015-12-21

This certification was conducted in accordance with the TÜV NORD CERT auditing and certification procedures and is subject to regular surveillance audits.

TÜV NORD CERT GmbH Langemarckstraße 20 45141 Essen www.tuev-nord-cert.com

IAF DAkkS Deutsche Akkreditierungsstelle D-ZM-12007-01-01

ISO 9001:2008

TÜV NORD

CERTIFICATE

Management system as per
ISO 14001 : 2004

In accordance with TÜV NORD CERT procedures, it is hereby certified that

ESISPOWER

Esis Enerji ve Elektronik San. ve Tic. A.Ş.
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TR-34776 Istanbul,
Turkey

applies a management system in line with the above standard for the following scope

Sales, design and manufacture of uninterruptible power supplies (UPS), static converters, rectifiers, inverters and their after sales technical services

Certificate Registration No. 44 104 14530054
Audit Report No. TR 1207

Valid from 2016-12-15
Valid until 2018-09-14
(until 2018-12-14 in case of Upgrade to ISO 14001:2015)
Initial certification 2010

Certification Body
at TÜV NORD CERT GmbH

Istanbul, 2016-12-15

This certification was conducted in accordance with the TÜV NORD CERT auditing and certification procedures and is subject to regular surveillance audits.

TÜV NORD CERT GmbH Langemarckstraße 20 45141 Essen www.tuev-nord-cert.com

IAF DAkkS Deutsche Akkreditierungsstelle D-ZM-12007-01-01

0014332

ISO 14001:2004

СИСТЕМА СЕРТИФИКАЦИИ ГОСТ Р
ФЕДЕРАЛЬНОЕ АГЕНТСТВО ПО ТЕХНИЧЕСКОМУ РЕГУЛИРОВАНИЮ И МЕТРОЛОГИИ

СЕРТИФИКАТ СООТВЕТСТВИЯ

№ РОСС TR.ХП28.В04441
Срок действия с 08.04.2011 по 07.04.2014
№ 0565295

ОРГАН ПО СЕРТИФИКАЦИИ рег. № РОСС RU.0001.11ХП28.
ОРГАН ПО СЕРТИФИКАЦИИ ПРОДУКЦИИ "ПРОМСЕРТ".
119421, г. Москва, ул. Новаторов, д. 36/3, оф.42, тел. 8(495)721-38-31, info@org-promsert.ru.

ПРОДУКЦИЯ Источники для бесперебойного питания т.м. «ESISPOWER», модели (см. приложение на 1 листе, бланк № 0317504). Серийный выпуск.
код ОК 005 (ОКП): 40 2500

СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ НОРМАТИВНЫХ ДОКУМЕНТОВ
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код ТН ВЭД России: 8504 40 900 0

ИЗГОТОВИТЕЛЬ «ESIS ENERJI VE ELEKTRONIK SAN.TIC.A.S».
Адрес: Dudullu Org.San.Bol.3.Cd.G/125 Sk. N:8 Umraniye 34776 Istanbul/Turkiye, Турция.
Телефон 0090 216 540 90 00, факс 0090 216 540 90 10.

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Адрес: Dudullu Org.San.Bol.3.Cd.G/125 Sk. N:8 Umraniye 34776 Istanbul/Turkiye, Турция.
Телефон 0090 216 540 90 00, факс 0090 216 540 90 10.

НА ОСНОВАНИИ протокола сертификационных испытаний № 1-147/04-2011 от 07.04.2011г. Испытательная лаборатория ООО "Машпромэксперт", рег. № РОСС RU.0001.21ММ18 от 23.06.2010, адрес: 115035, Москва, ул. Пятницкая, 13/21, стр. 2; сертификата системы менеджмента качества ISO 9001:2008 № 44 100 063733 от 11.01.2007 г. до 10.01.2013 г., выданного ОС "TÜV NORD"

ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ Место нанесения знака соответствия: знак соответствия по ГОСТ Р 50460-92 наносится на корпус изделия и (или) в эксплуатационную документацию.
Схема сертификации: 3.

Руководитель органа Е.А. Дмитриева
Эксперт И.П. Максимов-Востоков

Сертификат имеет юридическую силу на всей территории Российской Федерации

GOST Certificate

IATCA
DEPARTMENT OF INSPECTION QUALITY
T.R. Independent Auditing of Export Products
SASO-GCC
CERTIFICATE OF CONFORMITY

Form Approved, IAAF No. 1651-0010
Exp. 01-21-2011

LIST ARTICLES EXPORTED

SERVO VOLTAGE STABILIZER
CODE: SWR-1212-1709, SWR-1212-1710

APPENDIX PAGE(S)

SASO(KSA) PRODUCT LIST PRE-IMPORT INSPECTION TESTING AND CERTIFICATION PROGRAM OF GOODS IN TO KING OF SAUDI ARABIA
—EXCLUSIONS—

SIGNATURE OF OWNER OR AGENT (Print or Type and Sign)

The Above-Described Articles Were:

SIGNATURE OF QMC-IATNSE APPROVAL OFFICER

SIGNATURE OF AUDITOR OFFICER

DESCRIPTION

Means Of Shipment: SEA
Place Of Loading FOR- ISTANBUL-Turkey

NOTE: Certifying officers shall draw lines through all unused spaces with ink or indelible pencil.

IATCA APPROVED

IATCA Form 4456 (1108)

002466

SASO Certificate

Product Certifications

UPS CE Certificate

Battery Charger CE Certificate

PV Inverter CE Certificate

Frequency Converter EMC

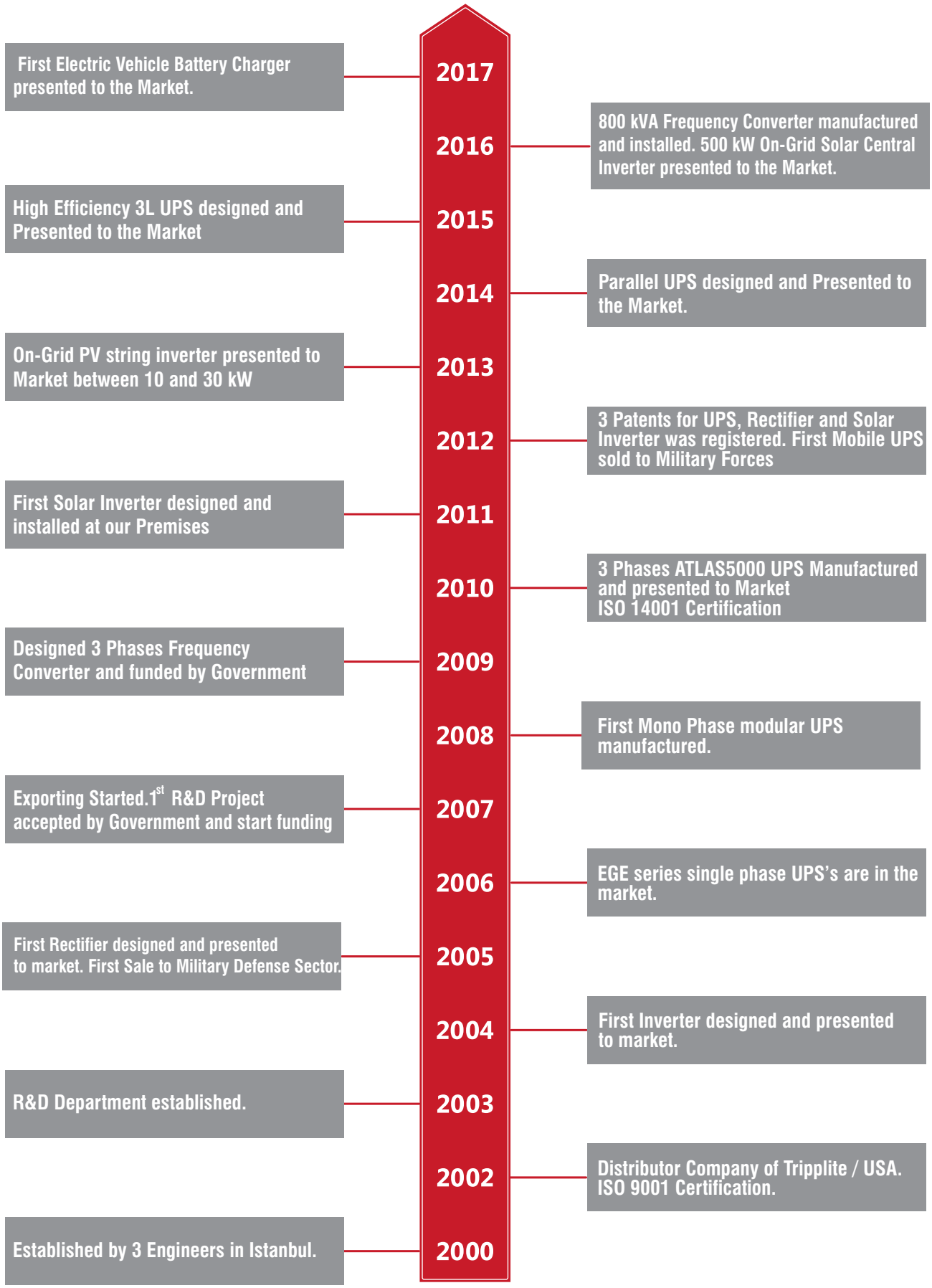
Frequency Converter LVD

Submarine Frq. Con. EMC

Solar Central Inverter LVD

Solar Central Inverter EMC

KEY MILESTONES



Our Patents

UPS PATENT

APPLICATION INFORMATION

Application Number	: 2012/06963	**Filed**	: 2012-G-203864	**Publication No**	: 2012 06963
Application Date	: 2012/06/14	**Filed Date**	: 2012/06/14	**Publication Date**	: 2014/09/22
Application Type	: National	**Protection Type**	: Patent	**Issue Date**	: 2013/08/22

APPLICANTS

ESİS ENERJİ VE ELEKTRONİK SANAYİ VE TİCARET ANONİM ŞİRKETİ
Dudullu Organize Sanayi Bölgesi Esenkent Mah. Baturalp Sok. No: 14 ÜMRANİYE / İSTANBUL

PUBLICATION CLASSIFICATION

H02J 1/14
H02J 9/06
H02M 3/335

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TITTLE OF INVENTION

Uninterruptible Power Supply

RECTIFIER PATENT

APPLICATION INFORMATION

Application Number	: 2012/05823	**Filed**	: 2012-G-167381	**Publication No**	: 2012 05823
Application Date	: 2012/05/18	**Filed Date**	: 2012/05/18	**Publication Date**	: 2015/01/21
Application Type	: National	**Protection Type**	: Patent	**Issue Date**	: 2013/12/23

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PUBLICATION CLASSIFICATION

H02J 1/14
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INVENTORS

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Eclipse Business, Akasya Sok. D Blok No:5 MASLAK / İSTANBUL

TITTLE OF INVENTION

Serial loaded quasi resonant Rectifier with signal processor controlled

SOLAR INVERTER PATENT

APPLICATION INFORMATION

Application Number	: 2012/04954	**Filed**	: 2012-G-138511	**Publication No**	: 2012 04954
Application Date	: 2012/04/27	**Filed Date**	: 2012/04/27	**Publication Date**	: 2015/07/21
Application Type	: National	**Protection Type**	: Patent	**Issue Date**	: 2013/11/21

APPLICANTS

ESİS ENERJİ VE ELEKTRONİK SANAYİ VE TİCARET ANONİM ŞİRKETİ
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PUBLICATION CLASSIFICATION

H02M 7/48

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Ferit Tek Sok. No:36 Sabur Sami Bey Apt. D:2 34710 Moda KADIKÖY / İSTANBUL

TITTLE OF INVENTION

Solar Inverter with conventional IGBT Modules

DEVICE SELECTION TABLE

UPS SELECTION TABLE

Model	Phase	POWER (kVA)																										Page
		0,6	1	2	3	5	6	7	10	15	20	30	40	60	80	90	100	120	150	160	200	250	300	400	500	600	800	1040	1560	
MAY	1/1	✔	✔	✔																										10
EGE 100K	1/1		✔	✔	✔		✔		✔																					11-12
EGE 100KR	1/1		✔	✔	✔		✔		✔																					13-14
ATLAS 100	1/1					✔		✔	✔	✔																				15
EGE 200K	3/1								✔	✔	✔																			16
ATLAS 600	3/1								✔	✔	✔	✔																		17
EGE 300K	3/3								✔	✔	✔	✔	✔																	18
ATLAS 4000	3/3								✔	✔	✔	✔	✔	✔	✔		✔	✔		✔	✔	✔	✔							19-20
ATLAS 5000	3/3								✔	✔	✔	✔	✔	✔	✔		✔	✔		✔	✔	✔	✔	✔	✔	✔	✔			21-22
ATLAS 5000PF	3/3								✔	✔	✔	✔	✔	✔	✔		✔	✔		✔	✔	✔	✔	✔	✔	✔	✔			23-24
ATLAS 7000	3/3								✔	✔	✔	✔	✔	✔	✔		✔	✔		✔	✔	✔	✔							25
MEDI	3/3								✔	✔				✔		✔	✔		✔		✔	✔	✔	✔			✔	✔	✔	26-27

RECTIFIER SELECTION TABLE

BORA SINGLE PHASE MODELS

V \ A	10	12	15	20	30	40	50	60	100	Page
24	1024-10	1024-12	1024-15	1024-20	1024-30	1024-40	1024-50	1024-60	1024-100	29
48	1048-10	1048-12	1048-15	1048-20	1048-30	1048-40	1048-50	1048-60	1048-100	29
110	1110-10	1110-12	1110-15	1110-20	1110-30	1110-40	1110-50	1110-60	1110-100	29

BORA THREE PHASE MODELS

V \ A	10	30	40	50	60	100	150	200	250	300	400	600	Page
24	3024-10	3024-30	3024-40	3024-50	3024-60	3024-100	3024-150	3024-200	3024-250	3024-300			30
48	3048-10	3048-30	3048-40	3048-50	3048-60	3048-100	3048-150	3048-200	3048-250	3048-300	3048-400	3048-600	30
110	3110-10	3110-30	3110-40	3110-50	3110-60	3110-100	3110-150	3110-200	3110-250	3110-300	3110-400	3110-600	30
220	3220-10	3220-30	3220-40	3220-50	3220-60	3220-100	3220-150	3220-200	3220-250	3220-300			30

POYRAZ

V \ A	30	40	50	60	100	150	200	250	300	400	600	Page
400	400-30	400-40	400-50	400-60	400-100	400-150	400-200	400-250	400-300	400-400	400-600	31
600	600-30	600-40	600-50	600-60	600-100	600-150	600-200	600-250	600-300	600-400	600-600	31

INVERTER SELECTION TABLE

Model	POWER (kVA)																			Sayfa
	1	1,5	2	2,4	3	4	5	6	8	10	12	15	18	20	30	110	150	250	500	
ELIT G														✔	✔					33
ELIT C																✔	✔	✔	✔	34
ELIT K					✔	✔	✔	✔	✔	✔	✔	✔	✔	✔						35
ELIT M	✔		✔		✔	✔	✔	✔												36

FREQUENCY CONVERTER SELECTION TABLE

Model	Phase	POWER (kVA)																Page
		10	15	20	30	40	60	80	100	120	160	200	250	300	400	500	600	800	
FN 3000	3/3	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔					39
FN 5000	3/3	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	40-41

MAY Series

May Series UPS
600 - 2000 VA Line Interactive UPS

EGE 100K Series

Ege 100K Series UPS
1-10 kVA 1Phase Input - 1 Phase Output (HF) Online UPS

EGE 100KR Series

Ege 100KR Series Rack Type UPS
1-10 kVA 1 Phase Input - 1Phase Output (HF) Online UPS

ATLAS 100 Series

Atlas 100 Series UPS
5 - 15 kVA 1Phase Input - 1 Phase Output (LF) Online UPS

ATLAS 600 Series

Atlas 600 Series UPS
10 - 30 kVA 3 Phase Input - 1 Phase Output (HF) Online UPS

EGE 200K Series

Ege 200K Series UPS
10 - 20 kVA 3 Phase Input - 1 Phase Output (HF) Online UPS

EGE 300K Series

Ege 300K Series UPS
10 - 40 kVA 3 Phase Input - 3 Phase Output (HF) Online UPS

ATLAS 4000 Series

Atlas 4000 Series UPS With Transformer
10 - 300 kVA 3 Phase Input - 3 Phase Output (HF) Online UPS

ATLAS 5000 Series

Atlas 5000 Series UPS
10 - 800 kVA 3 Phase Input - 3 Phase Output (HF) Online UPS

ATLAS 5000PF Series

Atlas 5000 PF Series UPS
10 - 800 kVA 3 Phase Input - 3 Phase Output 0,9 PF Online UPS

ATLAS 7000 Series

Atlas 7000 Series 3L UPS
10 - 300 kVA 3L 3 Phase Input - 3 Phase Output (HF) Online UPS

MEDI Series

Modular UPS
10 - 1560 kVA 3 Phase Input - 3 Phase Output (HF) Online UPS

UNINTERRUPTIBLE POWER SUPPLIES (UPS)

The critical loads connected to the grid line (mains) are going to be affected in case of possibly voltage fluctuations, harmonics, short or long mains fails etc. Particularly medical appliances, data processing and security are the sensitive loads such are mostly affected groups.

To avoid this situation, Uninterruptible Power Supply (UPS) has become imperative to use in Industrial, IT and even in home applications.

Through use of UPS you can,

- Feed your loads by clean energy filtering interferences born of mains
- Avoid of voltage and frequency fluctuations
- Dispose of power cut offs as critical loads keep on being fed by UPS
- Extend life-time of your devices protecting against mains fails and mains disorders

UPS is widely used in Computers and computer-aided automation and manufacturing systems, medical electronic equipment, hospitals, airport lighting, military radar systems, communications and broadcasting organizations, elevators, electronic doors, Cash registers, emergency lighting and in any field where uninterrupted and high quality energy is needed.

According to the operation mode, UPS's can be categorized as Online, Offline and Line-Interactive. UPS Offline mode is activated only during mains fails. UPS Line-interactive mode transfers energy to the loads purifying mains and waits ready to back your loads up via batteries during energy stoppage. MAY series developed by ESIS for home and office-type applications are used for this purpose. UPS Online mode is permanent turned on ensuring high quality and non-stop feeding for your loads through the UPS. ESIS Online UPSs providing high protection are produced by IGBT and PWM technology available 1-1560 kVA ranges.

MAY Series

May Series Technical Specifications
600 - 2000 VA Line Interactive UPS

MODEL	MAY 600	MAY 1000	MAY 2000
Apparent Power (VA)	600	1000	2000
Active Power (W)	360	600	1200
INPUT			
Voltage	220/230/240 Vac (1Ph+N+PE)		
Voltage Tolerance	162-290 Vac		
Frequency	50/60 Hz		
Frequency Tolerance	± 10%		
OUTPUT			
Voltage	220/230/240 Vac (1 Ph +N+PE)		
Waveform	Simulated Sine Wave at Nominal Voltage ±10%		
Voltage Regulation	±10%		
Frequency	50 or 60 Hz		
Frequency Range (Batt. Mode)	± 1%		
Transfer Time	Typical 2~6 ms, 10 ms max.		
Number of Output	2 sockets		4 sockets
BATTERY			
Type	Maintenance Free Lead Acid Battery		
Voltage / Ah	12 V / 7 Ah		12 V/ 9 Ah
Quantity	1	2	
Charging Time	Reaches 90% Charge in 6-8 Hours		
PROTECTION			
High/Low Voltage	Automatically Switches to Battery Mode		
Overload / Overcharge	Yes		
COMMUNICATION			
Interface	USB/RS-232 (optional), Supports Windows®2000/2003/XP/Vista Windows® 7,Linux,Unix and MAC		
FUNCTION			
Auto Start	Yes		
Automatic Charging	Automatic Charging When UPS OFF		
Software	Smart USB Interface for Power Management		
ENVIRONMENTAL			
Operating Temperature	0~40°C		
Relative Humidty	% 0-95		
Acoustic Noise	<40 dB		
PHYSICAL			
Dimenions (WxDxH) mm.	101x298x142	149,3x338x162	158x380x198
Product Weight (kg)	4,25	7,80	11,50
STANDARDS			
Harmonized Standards	IEC/EN62040-2; IEC61000-4-2; IEC61000-4-4; IEC61000-4-5; IEC61000-4-6; IEC61000-4-8		

FEATURES

- AVR boost and buck
- Cold start function
- Smart USB interface for power management
- Built-in Self-diagnostic function
- Compatible with generator set (optional)
- LCD Panel
- Fastest charging capacity
- Auto charging at off mode
- Auto-restart function

Line Interactive UPS

ESIS MAY series UPS use Line-Interactive topology and is generally used for home or small office applications.
ESIS MAY Series UPS transfer existing network power to load and charge the batteries at same time.
When the electric is cut off Inverter will work immediately and load will be fed from the batteries without any interruption.
Back up time is standard and cannot be increased by adding new batteries. The batteries inside UPS are maintenance free.
They are very silent working. These UPS are microprocessor controlled, fully automatic and easy to use.

EGE 100K Series

Ege 100K Series Technical Specifications

1-10 kVA 1 Phase Input - 1 Phase Output (HF) Online UPS

MODEL		EGE 101K	EGE 101KL	EGE 102K	EGE 102KL	EGE 103K	EGE 103KL
Rated Power (kVA)		1		2		3	
Active Power (kW)		0,9		1,8		2,7	
INPUT							
Rated Voltage		200/208/220/230/240 Vac (1P+N+PE)					
Voltage Range		125~290±%5@0-60% Rated Load 155~290±%5@70-80% Rated Load		135~290±%5@60-70% Rated Load 175~290±%5@80-100% Rated Load			
Operating Frequency Range		40/70 Hz					
Power Factor		0,99					
OUTPUT							
Rated Voltage		200/208/220/230/240 Vac (1P+N+PE)					
Voltage Regulation		±1%					
Frequency	Line	47-53 Hz or 57-63 Hz (Synchronized Range)					
	Battery	50/60±0,1 Hz					
Waveform		Pure Sine Wave					
Voltage Distortion (THDv)		<3% (Linear load); <6%(Non-linear load)					
Output Power Factor		0,9					
Crest Factor		3:1					
Efficiency	Line Mode	88%		92%			
	Battery Mode	85%	86%	87%	88%	89%	90%
SYSTEM FEATURES							
UPS Type / Technology		Standalone Tower Type / True Online Double Conversion					
Transfer Time	AC - Battery	Zero					
	INV - Bypass	4 ms (Typical)					
Overload Capability	Ambient Temp. <35 °C	105%-110%: UPS shuts down after 10 minutes at battery mode or transfer to bypass when the utility is normal					
		110%-130%: UPS shuts down after 1 minutes at battery mode or transfer to bypass when the utility is normal					
		>130%:UPS shuts down after 3 seconds at battery mode or transfer to bypass when the utility is normal					
	40°C< Ambient Temp.<35°C	105%-110%: UPS shuts down after 1 minutes at battery mode or transfer to bypass when the utility is normal					
		>110%:UPS shuts down after 3 seconds at battery mode or transfer to bypass when the utility is normal					
Short Circuit		Hold Whole System					
Overheat		Line Mode: Switch to Bypass; Backup Mode: Shut down UPS immediately					
Low Battery Voltage		Alarm and Switch Off					
EPO (optional)		Shut down UPS Immediately					
Communication Interface		USB (or RS-232), SNMP Card (optional) Relay card (optional)					
Audible & Visual Alarms		Line Failure, Battery Low, Overload, System Fault					
BATTERY							
Rated Voltage / Capacity		2x12V/9 Ah		4x12V/9 Ah		6x12V/9 Ah	
Typical Charge Time		4 Hours to %90 Capacity					
Charge Voltage		27,4 Vdc±%1		54,7 Vdc±%1		82,1 Vdc±%1	
Charge Current		1A	12 A Max	1A	12 A Max	1A	12 A Max
ENVIRONMENT							
Operating Temperature		0°C ~ 40 °C					
Storage Temperature		-25°C ~ 55°C					
Relative Humidity		< 20-95% @ 0°- 40 °C (non-condensing)					
Altitute		< 1500 m					
Audible Noise		< 50 dBA					
STANDARDS							
LVD (Safety)		IEC/EN 62040-1 / IEC/EN 60950-1					
EMC		IEC/EN 62040-2/IEC61000-4-2/IEC61000-4-3/IEC61000-4-4/IEC61000-4-5/IEC61000-4-6/IEC61000-4-8					
PHYSICAL							
Dimensions (WxDxH) [mm]		144x293x209		144x399x209		191x460x337	144x399x209
Weight [kg]		9,8	4,1	17	6,8	27,6	7,4

FEATURES

- True double-conversion
- Wide input voltage range (110-300 Vac)
- Input power factor correction 0.99
- Output Power Factor 0.9
- Maximum 12A charger for long-run models
- Charger current can be setting by LCD
- 50Hz/60Hz frequency converter mode
- Emergency power off function (EPO)
- Eco mode operation for energy saving (ECO)
- Generator compatible
- SNMP / USB / RS232 multiple communications
- Smart battery charger design for optimized battery performance
- Selectable output voltage: 200, 208, 220, 230, 240Vac

ONLINE UPS

ESIS EGE 100K Series, produced with PWM and IGBT technology provide sinusoidal waveform output and contains advanced communication options. These series are 1 phase input, 1 phase output online UPS. ESIS EGE Series manufactured in different power ranges, are used to supply vital important equipment's such as medical analysis equipment's, operating rooms in hospitals, ultrasound equipment's, security systems, all kinds of automation systems, computer networks and communication systems. Thanks to higher protection providing technology. EGE series protect them from problems of utility failures and irregular voltage.

EGE 100K Series

Ege 100K Series Technical Specifications

1-10 kVA 1 Phase Input - 1 Phase Output (HF) Online UPS

MODEL		EGE 106K	EGE 106KL	EGE 110K	EGE 110KL
Rated Power (kVA)		6		10	
Active Power (kW)		5,4		9	
INPUT					
Rated Voltage		220/230/240 Vac (1P+N+PE)			
Voltage Range		120~276 Vac			
Operating Frequency Range		50Hz: 45-55Hz: 60Hz: 54-66Hz (Auto Sensing)			
Harmonic Distortion (THDi)		<3% (100% Linear Load)			
Power Factor		0,99			
Bypass Voltage Range		Max. Voltage: 220Vac: +25%(optional+10%,+15%,+20%) 230Vac: +20%(optional+10%,+15%) 240Vac: +15%(optional+10%) Min.Voltage: -45% (optional -20%,-30%)			
ECO Range		Same as the Bypass			
Harmonic Distortion (THDİ)		<3% (100% Linear Load)			
Generator Input		Yes			
OUTPUT					
Rated Voltage		220/230/240 Vac (1P+N+PE)			
Voltage Regulation		±1%			
Frequency	Line	±1% / ±2%/ 4%/ ±5%/ ±10% of the Rated Frequency (Optional			
	Battery	50/60 ± 0,1 Hz			
Waveform		Pure Sine Wave			
Voltage Distortion (THDv)		≤ 2% (Linear Load); ≤ 5% (Non-Linear Load)			
Output Power Factor		0,9			
Crest Factor		3:1			
Efficiency		>93,5%			
SYSTEM FEATURES					
UPS Type / Technology		Standalone Tower Type / True Online Double Conversion			
Transfer Time		Mains to Battery: 0 ms. Mains to Bypass: 0 ms.			
Overload Capability	Line Mode	Load≤ 110%: 60min; ≤125%:10min, ≤150%:1min,>150% turn to bypass mode immediately			
	Bypass Mode	40A (Breaker)		60A (Breaker)	
Short Circuit		Hold Whole System			
Overheat		Line Mode: Switch to Bypass: Backup Mode: Shut down UPS immediately			
Low Battery Voltage		Alarm and Switch Off			
Battery		Advanced Battery Management			
LED & LCD Display		Line Mode, Batt Mode, Eco Mode, Bypass Mode, Battery Low, Overload & UPS Fault			
LCD Display		Input Voltage, Input Frequency, Output Voltage, Output Frequency, Load Percentage, Battery Voltage, Inner Temperature & Remaining Battery Backup Time			
Self - Diagnostics		Upon Power On and Software Control			
Communication Interface		USB (RS-232), SNMP card (optional), Relay card (optional)			
Audible & Visual Alarms		Line Failure, Battery Low, Overload, System Fault			
BATTERY					
Battery Voltage		±96/108/120 Vdc (Optional)			
Capacity		12V/7Ah/9Ah			
Typical Re-Charge Time		6-8 Hours (to 90% of full capacity)			
Charge Current		1A(Standard unit); long run unit max. current 10A (can be set according to battery capacity insalled)			
ENVIRONMENT					
Operating Temperature		0°C ~ 40°C			
Storage Temperature		-25°C ~ 55°C			
Relative Humidity		0-95% (non-condensing)			
Altitute		<1500m			
Audible Noise		<55 dBA			
STANDARDS					
LVD (Safety)		IEC / EN 62040-1 / IEC / EN 60950-1			
EMC		IEC/EN62040-2/IEC 61000-4-2/IEC61000-4-3/IEC61000-4-4/IEC61000-4-5/IEC61000-4-6/IEC61000-4-8			
PHYSICAL					
Dimensions (WxDxH) (mm)		250X502X616			
Weight (kg)		62	18	64	20

FEATURES

- N+X Parallel Redundancy
- Online Double Conversion with DSP Control
- Input Current Harmonic: <3%
- Optimization Battery Group, the Quantity of Battery: 16/18/20 pieces (optional)
- Output Power Factor is Changed When Selection Different Battery Quantity 16 pcs: 0.7PF; 18pcs:0.8PF; 20pcs:0.9PF
- Wide Input Voltage Range: 120-276Vac
- Wide Input Frequency Range (50Hz: 45-55Hz; 60Hz: 54-66Hz)
- Support Generator Input
- Support Economic (ECO) Operation Mode
- Self-Testing When UPS Startup
- Options: SNMP Card/Relay Card/ Parallel Board
- Cold start

ONLINE UPS

ESIS EGE 100K Series, produced with PWM and IGBT technology provide sinusoidal waveform output and contains advanced communication options. These series are 1 phase input, 1 phase output online UPS. ESIS EGE Series manufactured in different power ranges, are used to supply vital important equipment's such as medical analysis equipment's, operating rooms in hospitals, ultrasound equipment's, security systems, all kinds of automation systems, computer networks and communication systems. Thanks to higher protection providing technology. EGE series protect them from problems of utility failures and irregular voltage.

EGE 100KR Series

Ege 100KR Series Technical Specifications

1-10 kVA 1 Phase Input - 1 Phase Output (HF) Rack Type Online UPS

MODEL		EGE 101KR	EGE 101KRL	EGE 102KR	EGE 102KRL	EGE 103KR	EGE 103KRL
Rated Power (kVA)		1		2		3	
Active Power (kW)		0,9		1,8		2,7	
INPUT							
Rated Power		200/208/220/230/240 Vac (1P+N+PE)					
Voltage Range		110~300@0-60% Rated Load 160~300@61-100% Rated Load					
Operating Frequency Range		50Hz: 45-55Hz 60Hz: 54-66Hz (Auto Sensing)					
Power Factor		0,99@Nominal Voltage (%100 Load)					
OUTPUT							
Rated Voltage		200/208/220/230/240 Vac (1P+N+PE)					
Voltage Regulation		±1%					
Frequency	Line	45-55 Hz or 56-64 Hz (Synchronized Range)					
	Battery	50/60±0,1 Hz					
Waveform		Pure Sine Wave					
Voltage Distortion (THDv)		<3%(Linear Load);<6% (Non-Linear Load)					
Power Factor		0,9					
Crest Factor		3:1					
Efficiency	Line Mode	88%		89%		90%	
	Battery Mode	83%		85%		86%	
SYSTEM FEATURES							
UPS Type / Technology		Rack Mount Type / True Online Double Conversion					
Transfer Time	AC - Battery	Zero					
	INV - Bypass	4 ms (Typical)					
Management	RS-232/USB	Supports Windows • 2000/2003XP/2008 Windows 7/8, Linux, FreeBSD and MAC					
	Optional SNMP	Power Management from SNMP Manager and Web Browser					
LCD Indicators		Load Level, Battery Level,AC Mode, Battery Mode, Bypass Mode, and Fault Indicators					
Audible Alarms		Battery Mode, Fault,Overload, Battery Low,					
BATTERY							
Standart Model (KR)	Battery Type	2x12V/9Ah		4x12V/9 Ah		6x12V/9 Ah	
	Recharge Time	4 hours recover to 90% capacity					
	Charge Current	1.0 A					
	Charge Voltage	27,4Vdc±%1		54,7 Vdc±%1		82,1 Vdc±%1	
Long Back-up Model (KRL)	Charge Current	6 A/12A (Double Board)					
	Charge Voltage	27.4Vdc±%1		54,7 Vdc±%1		82,1 Vdc±%1	
ENVIRONMENT							
Operating Temperature		0°C ~ 40 °C					
Storage Temperature		-25°C ~ 55°C					
Relative Humidity		20-90@0°C - 40°C (non-condensing)					
STANDARDS							
LVD (Safety)		IEC/EN 62040-1/IEC/EN 60950-1					
EMC		IEC/EN62040-2/IEC61000-4-2/IEC61000-4-3/IEC61000-4-4/IEC61000-4-5/IEC61000-4-6/IEC61000-4-8					
PHYSICAL							
Dimensions (WxDxH)(mm)	Standart KR	440X430X86,5		440x552x86,5		440x710x86,5	
	Long KRL	440X430X86,5		440x552x86,5			
Weight (kg)	Standart KR	13,9	N/A	20,1	N/A	23,3	N/A
	Long KRL	8,2		N/A	10,9	N/A	11,3

FEATURES

- Rack / Tower Convertible Design
- Mimic LCD Display May be Rotated by Simply Pushing Front Button
- True Online Double Conversion
- High Output Power Factor at 0.9PF
- Comprehensive Display Allows Easy Monitoring and Access of UPS Status
- Smart SNMP works with either USB or RS-232 together
- Hot-Swappable Battery
- Efficiency up to 90%
- Estimated Remaining Time Displayed on the LCD
- Support Economic (ECO) Operation Mode
- Matching Battery Pack
- Optional Powerful Charger
- Cold Start
- Power Shedding May Turn off Uncritical Load In Battery Backup
- Emergency Power Off
- Frequency Converter Mode Is Settable

ONLINE UPS

EGE 100KR series online intelligent UPS, adopts DSP all-digital control technology, with more Excellent output index and multi term innovation design, able to provide full protection for high-performance serve, internet equipment telecommunication system, industry process and other key equipment. Tower and Rack Mount conversion function design, greatly improve the UPS adaptability to the Installation modes.

EGE 100KR Series

Ege 100KR Series Technical Specifications
1-10 kVA 1 Phase Input - 1 Phase Output (HF) Rack Type Online UPS

MODEL		EGE 106KR	EGE 110KR
Rated Power (kVA)		6	10
Active Power (kW)		5,4	9
INPUT			
Rated Voltage		220/230/240 Vac (1P+N+PE)	
Voltage Range		120~276 Vac	
Operating Frequency Range		50 Hz: 45-55 Hz; 60 Hz:54-66 Hz (Auto Sensing)	
Power Factor		≥ 0,99	
Bypass Voltage Range		Max. Voltage: 220Vac: +25% (optional +10%,+15%,+20%) 230Vac: +20% (optional +10%,+15%) 240Vac: +15% (optional +10%) Min. Voltage: -45% (optional -20%,-30%)	
ECO Range		Same as the Bypass	
Harmonic Distortion (THDi)		<3% (100% Linear load)	
Generator Input		Yes	
OUTPUT			
Rated Voltage		220/230/240 Vac (1P+N+PE)	
Voltage Regulation		±2%	
Frequency	Line	±1%/±2%/±4%/±5%/±10% of the Rated Frequency (Optional)	
	Battery	50/60± 0,1 Hz	
Waveform		Pure Sine Wave	
Voltage Distortion (THDv)		≤ 2% (Linear Load); ≤ 5% (Non-Linear Load)	
Power Factor		0,9	
Crest Factor		3 :1	
Efficiency		>93,5%	
SYSTEM FEATURES			
UPS Type / Technology		Rack Type / True Online Double Conversion	
Transfer Time		Mains to Battery: 0 ms; Mains to Bypass: 0 ms	
Overload Capability	Line Mode	Load ≤110%: 60min; ≤125%: 10min, ≤150%: 1min,>150% turn to bypass mode immediately	
	Bypass Mode	40A (Breaker)	60A (Breaker)
Short Circuit		Hold Whole System	
Overheat		Line Mode: Switch to Bypass; Backup Mode: Shut down UPS immediately	
Low Battery Voltage		Alarm and Switch Off	
Battery		Advanced Battery Mangemant	
LED & LCD Display		Line Mode, Batt. Mode, Eco Mode, Bypass Mode, Battery Low, Overload & UPS Fault	
LCD Display		Input Voltage, Input Frequency, Output Voltage,Output Frequency, Load Percentage, Battery Voltage, Inner Temperature & Remaining Battery Backup Time	
Self - Diagnostics		Upon Power On and Software Control	
Communication Interface		Paralel Port, USB (or RS-232), SNMP Card (optional), Relay card (optional)	
EPO (Optional)		Shut Down UPS Immediately	
BATTERY			
Battery Voltage		±96/108/120Vdc (Optional)	
Typical Re-Charge Time		6-8 Hours (to 90% of full capacity)	
Charge Current		Maximum Current 6A(Standard unit);Long run unit max. current 10A(can be set according to battery capacity installed)	
ENVIRONMENT			
Operating Temperature		0°C ~ 40 °C	
Storage Temperature		-25°C ~ 55°C	
Relative Humidity		0-95% (Non-Condensing)	
Altitute		< 1500m	
Audible Noise		< 55 dBA	
STANDARDS			
LVD (Safety)		IEC/EN 62040-1/IEC/EN 60950-1	
EMC		IEC/EN62040-2/IEC61000-4-2/IEC61000-4-3/IEC61000-4-4/IEC61000-4-5/IEC61000-4-6/IEC61000-4-8	
PHYSICAL			
Dimensions (WxDxH) [mm]		443x580x131 (3U)	
Weight [kg]		23	25

FEATURES

- Online-Double conversion
- Non Transfer Time of Output
- PFC Technology
- Full Digital Control (DSP)
- Output Power Factor: 0.9
- Input Current Harmonic<3%
- ECO Function
- Charging/Rectifier/Inverter Fully Digital Control Technology
- Optimization Battery Group, the Quantity of Battery: 16/18/20 pieces (optional)
- Wide Input Voltage Range: 120-276Vac
- Wide Input Frequency Range: 45-55Hz/54-66 Hz
- Self-Testing When UPS Startup
- Input Over/Under Voltage Protection
- Automatic Bypass
- Cold Start
- Communication Port: RS232, USB
- Options: SNMP Card/ Relay Card

ONLINE UPS

EGE 100KR series online intelligent UPS, adopts DSP all-digital control technology, with more excellent output index and multi term innovation design, able to provide full protection for high-performance serve, internet equipment telecommunication system, industry process and other key equipment. Tower and Rack Mount conversion function design, greatly improve the UPS adaptability to the Installation modes.

ATLAS 100 Series

Atlas 100 Series Technical Specifications

5-15 kVA 1 Phase Input - 1 Phase Output (LF) Online UPS

MODEL	ATLAS 105	ATLAS 107	ATLAS 110	ATLAS 115
Apparent Power (kVA)	5	7	10	15
Active Power (kW)	3,25	4,55	7	10,5
INPUT				
Voltage	220/230 Vac (1P+N+PE)			
Voltage Tolerance	±%15			
Frequency	50 Hz (60Hz On Request)			
Frequency Range	5%			
Current	30A	40A	58A	87A
OUTPUT				
Voltage	220 Vac (1P+N+PE)			
Voltage Regulation	±1%			
Frequency	50 Hz (60 Hz On Request)			
Frequency Tolerance	Synchronized to Network ±2% in Line Mode; ±0,2 Hz in Free Running			
Crest Ratio	3:1			
Efficiency (100% Load)	Up to %90		Up to %91	
THDv	<3% Linear Load, <5% Non-Linear Load			
Overload	%100<Load<%125 for 10 min., %125<Load<%150 for 1 min, Load> 150:Bypass			
Short Circuit Protection	Electronic Protection			
BATTERY				
Type	Maintenance Free Lead Acid Battery			
Quantity	16	18	20	
Charge Voltage	216VDC	243VDC	270VDC	
End of Discharge Voltage	160VDC	180VDC	200VDC	
Battery Protection	Battery Fuse/Low Battery-High Battery			
Ambient Temperature	25°C			
Battery Cabinet	Internal		External	
COMMUNICATION				
Interface	RS-232 and Dry Contacts			
Software	UPS Management SW (3Client + 1Server)			
ENVIRONMENTAL				
Operating Temperature	0 ~ 40 °C			
Storage Temperature	-25 ~ + 55°C			
Relative Humidity	%0-90 (Non-condensing)			
Altitude	<2000 m			
Protection Level	IP20			
Acoustic Noise	<45 dBA			
PHYSICAL				
Dimensions (WxDxH) mm.	265x600x595	265x660x645	265x740x720	300x800x775
Weight (kg)	60	75	82	107
OPTIONS				
Input Transformer	Galvanic Isolation for the Input			
MBS	Maintenance Bypass Switch for Complete Isolation			
Interface	SNMP, MODBUS,Remote Mon. Panel, RS-485			
Parallel Operation	N+1 Unit (Up to 4 Units)			
STANDARDS				
Harmonized Standards	EN 62040-1 (LVD), EN 62040-2 (EMC), EN 62040-3			

ONLINE UPS

ATLAS 100 Series Online UPSs protect mono phase critical loads against utility failures and irregular voltage cases. They produce pure sine wave output via microprocessor controlled, manufactured with the state of the art PWM and IGBT technology. Galvanic isolation transformer, parallel operability, communication port are available. IT applications, small offices, service providers, communication networks, control equipment's, automation systems etc. are the main fields of use with a proved reliable high technology.

FEATURES

- Output transformer for galvanic isolation
- Static by-pass through the utility at Overload or UPS breakdown
- Load, battery state and detailed information including advanced LCD panel
- 64 registered events history
- RS-232 and dry contact output

EGE 200K Series

Ege 200K Series Technical Specifications
10-20 kVA 3 Phase Input - 1 Phase Output (HF) Online UPS

MODEL		EGE 210K / 210KL	EGE 215K	EGE 220K
Rated Power (kVA)		10	15	20
Active Power (kW)		9	13,5	18
INPUT				
Rated Power		380/400/415 Vac (3P+N+PE)		
Voltage Range		208~478 Vac		
Operating Frequency Range		50Hz: 45-55Hz: 60Hz: 54-66Hz (Auto Sensing)		
Harmonic Distortion (THDi)		<5% (100% Linear Load)		
Power Factor		0,99		
Bypass Voltage Range		Max.Voltage: 380Vac: +25%(optional+10%,+15%,+20%) 400Vac: +20%(optional+10%,+15%) 415Vac: +15%(optional+10%) Min.Voltage: -45% (optional -20%,-30%)		
ECO Range		Same as the Bypass		
Harmonic Distortion (THDİ)		<5% (100% Linear Load)		
Generator Input		Yes		
OUTPUT				
Rated Voltage		220/230/240 Vac (1P+N+PE)		
Voltage Regulation		±1%		
Frequency	Line	±1% / ±2%/ 4%/ ±5%/ ±10% of the Rated Frequency (Optional)		
	Battery	50/60 ± 0,1 Hz		
Waveform		Pure Sine Wave		
Voltage Distortion (THDv)		≤ 2% (Liner Load); ≤ 5% (Non-Linear Load)		
Power Factor		0,9		
Crest Factor		3:1		
Efficiency		>93,5%	>94,5%	
SYSTEM FEATURES				
UPS Type / Technology		Standalone Tower Type / True Online Double Conversion		
Transfer Time		Mains to Battery: 0 ms Mains to Bypass: 0 ms		
Overload Capability	Line Mode	Load≤ 110%: 60min; ≤125%:10min, ≤150%:1min,>150% turn to bypass mode immediately		
	Bypass Mode	63A (Breaker)	100A (Breaker)	125A (Breaker)
Short Circuit		Hold Whole System		
Overheat		Line Mode: Switch to Bypass: Backup Mode: Shut down UPS immediately		
Low Battery Voltage		Alarm and Switch Off		
Battery		Advanced Battery Management		
LED & LCD Display		Line Mode, Batt. Mode, Eco Mode, Bypass Mode, Battery Low, Overload & UPS Fault		
LCD Display		Input Voltage, Input Frequency, Output Voltage, Output Frequency, Load Percentage, Battery Voltage, Inner Temperature & Remaining Battery Backup Time		
Self - Diagnostics		Upon Power On and Software Control		
Communication Interface		USB (or RS-232), SNMP card (optional), Relay card (optional)		
Audible & Visual Alarms		Line Failure, Battery Low, Overload, System Fault		
BATTERY				
Battery Voltage		±96/108/120 Vdc (Optional)		
Capacity		12V/7Ah/9Ah		
Typical Re-Charge Time		6-8 Hours (to 90% of full capacity)		
Charge Current		1A(Standard unit); long run unit max. current 10A (Long Run Unit)		
ENVIRONMENT				
Operating Temperature		0°C ~ 40°C		
Storage Temperature		-25°C ~ 55°C		
Relative Humidity		0-95% (non-condensing)		
Altitute		<1500m		
Audible Noise		<55 dBA	<58 dBA	
STANDARDS				
LVD (Safety)		IEC / EN 62040-1 / IEC / EN 60950-1		
EMC		IEC/EN62040-2/IEC 61000-4-2/IEC61000-4-3/IEC61000-4-4/IEC61000-4-5/IEC61000-4-6/IEC61000-4-8		
PHYSICAL				
Dimensions (WxDxH) (mm)		250x597x655(K)/250x502x616(KL)	250x502x616	
Weight (kg)		76(K) / 35(KL)	45	46

FEATURES

- N+X Parallel Redundancy
- Online Double Conversion with DSP Control
- Input Current Harmonic: <5%
- Optimization Battery Group, the Quantity of Battery: 16/18/20 pieces (optional)
- Output Power Factor is Changed When Selection Different Battery Quantity
  16 pcs: 0.7PF; 18pcs:0.8PF; 20pcs:0.9PF
- Wide Input Voltage Range: 208-478Vac
- Wide Input Frequency Range (50Hz: 45-55Hz; 60Hz: 54-66Hz)
- Support Generator Input
- Support Economic (ECO) Operation Mode
- Self-Testing When UPS Startup
- Options: SNMP Card / Relay Card / Parallel Board
- Cold start

ONLINE UPS

EGE 200K Series of three phases in / single phase out with high frequency online double conversion UPS is a stable and reliable UPS system which was designed by ESIS Company according to international power grid environment and network systems requirements. Its excellent quality and perfect usability provide safe network power supply with reliable protection and satisfy the users requirements of protecting overall equipment.

ATLAS 600 Series

Atlas 600 Series Technical Specifications
3 Phase Input - 1 Phase Output (HF) Online UPS

MODEL	610	615	620	630
Power (KVA)	10	15	20	30
Active Power (kW)	8	12	16	24
INPUT				
Voltage	380/400/415 (Optional 440) Vac (3Ph+N+PE)			
Voltage Tolerance	±%20			
Frequency	50 Hz (On Request 60 Hz)			
Frequency Tolerance	±6%			
THDi	<%5			
Power Factor	0,99			
OUTPUT				
Voltage	220/230/240 (Optional 254) Vac (1Ph+N+PE)			
Voltage Regulation	<±1%			
Frequency	50 Hz (60 Hz On Request)			
Frequency Range	Synchronized to Network ±2% in Online Mode; ±0,05 Hz in Free Running			
Crest Ratio	3:1			
Efficiency (100% Load)	Up to %91			
THDv	<3% Linear Load, <5% Non-Linear Load			
Power Factor	0,8			
Overload	%100<load<%125 for 10 min., %125<load<150 for 1 min., load>150: Bypass			
Short Circuit Protection	Electronic Protection			
BYPASS				
Voltage Range	220/230/240 (Optional 254) Vac ±%15			
Frequency Range	50 or 60 Hz ± %10			
BATTERY				
Type	Maintenance Free Lead Acid Battery (On request other types)			
Quantity	60			
Charge Voltage	810 Vdc			
End of Discharge Voltage	630 Vdc			
Protection	Deep Discharge Protection			
DISPLAY PANEL				
LCD	Graphic LCD Panel, Mimic Diagram and Control Panel			
LED	Line,Battery, Inverter, Load, Fault Indications			
COMMUNICATION				
Interface	Modbus RTU RS232, Dry Contacts (Battery Low, Input Failure, System Bypass)			
ENVIRONMENTAL				
Operating Temperature	-20 °C~+50°C			
Storage Temperature	-20 °C~+60°C			
Relative Humidity	%0-95 (non condensing)			
Altitude	<1000m			
Cooling	Air Cooling			
Protection Level	IP20			
Acoustic Noise	<55dBA			
PHYSICAL				
Dimensions (WxDxH) (mm)	350x795x1280			
Weight (kg)	95	100	100	105
OPTIONS				
Functions	Parallel Operation, EPO Emergency Stop, Isolation Transformer			
Communication	SNMP, Modem, Modbus			
STANDARDS				
Standards	EN 62040-1 (LVD), EN 62040-20 (EMC), EN 62040-3			

FEATURES

- Wide Power Range (Available 5-100 kVA per request)
- IGBT Rectifier and Inverter
- Input Current Harmonic < %5
- DSP Controlled
- Up to 0.99 Input Power Factor Correction
- Static Bypass at UPS Overload or UPS Failure
- Advanced LCD Panel
- Up to 500 Event History
- Optional SNMP

ONLINE UPS

ATLAS 600 Series Online UPS's protect mono phase critical loads against utility failures and irregular voltage cases where you have three phase electricity. They produce pure sine wave output via microprocessor controlled, manufactured with the state of the art PWM and IGBT technology. Industrial automation, integrated facilities, building security automation, medical, communication and laboratory equipment, etc. are the main fields of use with a proved reliable high technology.

EGE 300K Series

Ege 300K Series Technical Specifications
10-40 kVA 3 Phase Input - 3 Phase Output (HF) Online UPS

MODEL		EGE 310K/KL	EGE 315K/KL	EGE 320K/KL	EGE 330K/KL	EGE 340 KL
Rated Power (kVA)		10	15	20	30	40
Active Power (kW)		9	13,5	18	27	36
INPUT						
Rated Voltage		380/400/415 Vac (3P+N+PE)				
Voltage Range		208~478 Vac				323~478 Vac
Operating Frequency Range		50Hz: 45-55Hz: 60Hz: 54-66Hz (Auto Sensing)				
Harmonic Distortion (THDi)		<5% (100% Linear Load)				
Power Factor		0,99				
Bypass Voltage Range		Max. Voltage: 380Vac: +25%(optional+10%,+15%,+20%) 400Vac: +20%(optional+10%,+15%) 415Vac: +15%(optional+10%) Min.Voltage: -45% (optional -20%,-30%)				
Harmonic Distortion (THDi)		<3% (100% Linear Load)				
Generator Input		Yes				
OUTPUT						
Rated Voltage		380/400/415 Vac (3P+N+PE)				
Voltage Regulation		±1%				
Frequency	Line	Line Mode: synchronize with input; When input frequency > ±10% (±1%1±2%1±4%1±5% optional)				
	Battery	50/60 ± 0.1 Hz				
Voltage Distortion (THDv)		≤2% (Linear Load); ≤ 5% (Non-Linear Load)				
Power Factor		0.9				
Crest Factor		3:1				
Efficiency		>93.5%			>94.5	
SYSTEM FEATURES						
UPS Type / Technology		Standalone Tower Type / True Online Double Conversion				
Transfer Time		Mains to Battery:0 ms; Mains to Bypass:0 ms				
Overload Capability	Line Mode	Load≤ 110%: 60min; ≤125%:10min, ≤150%:1min,>150% turn to bypass mode immediately				
	Batt. Mode	Load≤ 110%: 10min; ≤125%:1min, ≤150%:10sec,;>150% Shut down UPS mode immedşately				
	Bypass Mode	20A (Breaker)	32A (Breaker)	40A (Breaker)	63A (Breaker)	80A (Breaker)
Alarm		Overload, Utility abnormal, UPS fault, Battery low, etc.				
Protection		Short Circuit, Overload, Over Temperature, Battery Low, Fan Fault Alarm.				
Communication Interface		USB, RS-485, Paralle Port, Dry Contact, Intelligent Slot, SNMP Card (Optional), Relay Card (Optional)				
BATTERY						
Battery Voltage	Standart (K)	120 Vdc	120 Vdc	120 Vdc	120 Vdc	N/A
	Long Backup(KL)	96V,108V,120Vdc	96V,108V,120Vdc	96V,108V,120Vdc	96V,108V,120Vdc	192,204,216,228,240Vdc
Built in Charger	Standart (K)	1,35 A	2,70 A	2,70 A	4 A	N/A
	Long Backup(KL)	10 A	10 A	10 A	10 A	10 A
Built in Battery	Standart (K)	20x12V/9Ah Max.40	40x12V/9Ah	40x12V/9Ah	60x12V/9Ah	N/A
ENVIRONMENT						
Operating Temperature		0°C ~ 40°C				
Storage Temperature		-25°C ~ 55°C (without battery)				
Relative Humidity		0-95% (non-condensing)				
Altitute		<1500m (no derating)				
Audible Noise		<55 dBA				<58 dBA
STANDARDS						
LVD (Safety)		IEC / EN 62040-1 / IEC / EN 60950-1				
EMC		IEC/EN62040-2/IEC 61000-4-2/IEC61000-4-3/IEC61000-4-4/IEC61000-4-5/IEC61000-4-6/IEC61000-4-8				
PHYSICAL						
Dimensions (WxDxH) (mm)		250x868x828				
Weight (kg)		95(K)/42(KL)	147(K)/45(KL)		147(K)/71(KL)	223(K)/73(KL)

FEATURES

- Smallest Footprint Design
- DSP-controlled Technology
- Parallel Redundancy up to 4 units
- Wide Input Voltage and Frequency
- Unity Power Factor and Low Input Distortion
- Output Power Factor at 0.9
- ECO Mode for Energy Saving
- Common Battery
- Programmable Battery Voltage from +/-96Vdc to +/-240Vdc
- Built-in Batteries makes UPS ready to Use
- Matching Battery Packs
- 3-level intelligent Charge Modes with Smart Charge Current Adjustment
- Powerful Charger up to 10A
- Versatile Communication Interfaces Provided for Different Applications
- Superior Overload Capability
- Programmable Control and Monitoring Software via RS232 port
- Emergency Power Off
- Cold Start

ONLINE UPS

EGE 300K Series are 3 phase input, 3 phase output, transformer-less parallel redundancy online UPS series, featured with smallest footprint cabinet, built-in batteries, DSP Control, Common Battery, Programmable battery voltage, 3-level intelligent charge mode with powerful battery charger, is an ideal budget-concerned solution to your server, bank, industrial equipment, internet data center, telecom, IT equipment and other Mission-critical application.

ATLAS 4000 Series

Atlas 4000 Series Technical Specifications

10-300 kVA 3 Phase Input - 3 Phase Output (HF) Online UPS with Transformer

MODEL	4010	4015	4020	4030	4040	4060	4080
Apparent Power (kVA)	10	15	20	30	40	60	80
Active Power (kW)	8	12	16	24	32	48	64
INPUT							
Voltage	380/400/415 (Optional 400) Vac (3 P+N+PE)						
Voltage Tolerance	± %5...%20 (Adjustable with %1 step)						
Frequency	50 Hz (Optional 60 Hz)						
Frequency Range	±5%						
THDi	<%5						
Power Factor	0,99						
OUTPUT							
Voltage	380/400/415 (Optional 440) Vac (3 P+N+PE)						
Voltage Regulation	<±1%						
Frequency	50 Hz (Optional 60 Hz)						
Frequency Range	Synchronized to Network±%2 in Line Mode: ± 0,05 Hz in Free Running						
Power Factor	0,8						
Overload	%100<Load<%125 for 10 min., %125<Load<%150 for 1 min., Load>150 :Bypass						
Efficiency (100% Load)	Up to %91						
Crest Ratio	3:1						
THDv	<3% Linear Load, <5% Non-Linear Load						
BYPASS							
Voltage Range	380/400/415 Vac (3 P+N+PE) (Optional 440 Vac)						
Frequency Range	50 (Optional 60) Hz ±%10						
BATTERY							
Battery Type	Maintenance Free Lead Acid Battery 12 Vdc (On request other types)						
Quantity	60						
Charge Voltage	810 Vdc						
Min. Discharge Voltage	630 Vdc						
Battery Protection	Deep Discharge Protection						
GENERAL							
Display	Graphic LCD Monitor, Control Panel, Mimic Diagram						
LED	Line, Battery, Inverter, Load, Fault Indications						
Operating Type	Static, Online,DSP Control						
Topology	High Frequency PWM, IGBT Technology, Output Isolation Transformer						
COMMUNICATION							
Interface	Modbus RTU RS232, Dry Contacts (Battery Low, Input Failure, System Bypass)						
ENVIRONMENTAL							
Operating Temperature	0~40°C						
Storage Temperature	-25~70°C						
Relative Humidity	%20-%90 (Non-Condensing)						
Altitude	<1000 m						
Protection Level	IP20						
Acoustic Noise (from 1m.)	<55 dBA				<60 dBA		
PHYSICAL							
Dimensions (WxDxH)mm	350x800x1650				500x810x1900		
Weight (kg)	195	205	215	225	260	290	410
OPTIONS							
Functions	Parallel Operation, Emergency Stop (EPO)						
Communication	SNMP, Modem						
STANDARDS							
Harmonized Standars	EN 62040-1(LVD), EN62040-2(EMC), EN62040-3						

FEATURES

- Output Isolation Transformer
- IGBT Rectifier and Inverter
- Input Current Harmonic < %5
- DSP Controlled
- Up to 0.99 Input Power Factor Correction
- Static Bypass at UPS Overload or UPS Failure
- Advanced LCD Panel
- Up to 500 Event History
- Optional SNMP

ONLINE UPS

ATLAS 4000 Series are, 3 Phase in/3 Phase out 10-300 kVA True Online, with isolation transformer, Double Conversion UPS Systems with IGBT rectifier providing high input power factor and low input current THD. They produce microprocessor controlled pure sine wave output to critical loads. Industrial manufacturing machines, hospital and monitoring equipment, heavy, medical, communication and laboratory equipment, etc. are the main fields of use with a proved reliable high technology.

ATLAS 4000 Series

Atlas 4000 Series Technical Specifications

10-300 kVA 3 Phase Input - 3 Phase Output (HF) Online with Transformer

MODEL	4100	4120	4160	4200	4250	4300
Apparent Power (kVA)	100	120	160	200	250	300
Active Power (kW)	80	96	128	160	200	240
INPUT						
Voltage	380/400/415 (Optional 440) Vac (3P+N+PE)					
Voltage Range	±%5...%20 (Adjustabe with %1 Step)					
Frequency	50 Hz (Optional 60 Hz)					
Frequency Range	±5%					
THDi	<%5					
Power Factor	0,99					
OUTPUT						
Voltage	380/400/415 (Optional 440) Vac (3P+N+PE)					
Voltage Regulation	<±1%					
Frequency	50 Hz (Optional 60 Hz)					
Frequency Range	Synchronized to Network ± %2 in Line Mode; ±0.05Hz in Free Running					
Power Factor	0,8 (Full Load)					
Overload	%100<Load<%125 for 10 min., %125<Load<%150 for 1 min., Load>150 :Bypass					
Efficiency (100% Load)	Up to % 92					
Crest Factor	3:1					
THDv	Linear Load for <3%, Non-Linear Load for <5%					
BYPASS						
Voltage	380/400/415 Vac (3P+N+PE) (Optional 440 Vac)					
Frequency	50 Hz ±%10					
BATTERY						
Battery Type	Maintenance Free Lead Acid Battery 12 Vdc (On request other types)					
Quantity	60					
Charge Voltage	810 Vdc					
Min. Discharge Voltage	630 Vdc					
Battery Protection	Deep Discharge Protection					
GENERAL						
Display	Graphic LCD, Control Panel, Mimic Diagram					
LED	Line, Battery, Inverter, Load Fault Indications					
Operating Type	Static, Online DSP Control					
Topology	High Frequency PWM, IGBT Technology, Output Isolation Tranformer					
COMMUNICATION						
Interface	Modbus RTU RS232, Dry Contacts (Battery Low, Input Failure, System Bypass)					
ENVIRONMENTAL						
Operating Temperature	0~40 °C					
Storage Temperature	-25~+70°C					
Relative Humidity	%20-%90 (Non-condensing)					
Altitude	<1000 m					
Protection Level	IP20					
Acoustic Noise (from 1m.)	<65 dBA		<70 dBA		<75 dBA	
PHYSICAL						
Dimensions (WxDxH) mm	550x810x2040		1610x870x1900			
Weight (kg)	600	680	900	1030	1640	1720
OPTIONS						
Functions	Parallel Operation, Emergency Stop (EPO)					
Communication	SNMP, Modem					
STANDARDS						
Harmonized Standards	EN 62040-1 (LVD), EN 62040-2 (EMC), EN 62040-3					

FEATURES

- Output Isolation Transformer
- IGBT Rectifier and Inverter
- Input Current Harmonic < %5
- DSP Controlled
- Up to 0.99 Input Power Factor Correction
- Static Bypass at UPS Overload or UPS Failure
- Advanced LCD Panel
- Up to 500 Event History
- Optional SNMP

ONLINE UPS

ATLAS 4000 Series are, 3 Phase in/3 Phase out 10-300 kVA True Online, with isolation transformer, Double Conversion UPS Systems with IGBT rectifer providing high input power factor and low input current THD. They produce microprocessor controlled pure sine wave output to critical loads. Industrial manufacturing machines, hospital and monitoring equipment, heavy, medical, communication and laboratory equipment, etc. are the main fields of use with a proved reliable high technology.

ATLAS 5000 Series

Atlas 5000 Series UPS

10-800 kVA 3 Phase Input - 3 Phase Output (HF) Online UPS

MODEL	5010	5015	5020	5030	5040	5060	5080
Apparent Power (kVA)	10	15	20	30	40	60	80
Active Power (kW)	8	12	16	24	32	48	64
INPUT							
Voltage	380/400/415 (Optional 440) Vac (3P+N+PE)						
Voltage Tolerance	±%5...%20 (Adjustable with 1% step)						
Frequency	50 Hz (On Request 60 Hz)						
Frequency Range	%5						
THDi	<5%						
Power Factor	0,99						
OUTPUT							
Voltage	380/400/415 (Optional 440) Vac (3P+N+PE)						
Voltage Regulation	<±1%						
Frequency	50 Hz(On request 60 Hz)						
Frequency Range	Synchronized to Network ±2% in Line mode; ±0,05 Hz in Free Running						
Crest Ratio	3:1						
Efficiency (100% Load)	Up to %93						
Power Factor	0,8						
THDv	<3% Linear Load, <5% Non Linear Load						
Overload	%100<Load<%125 for 10 min., %125<Load<150 for 1 min.,Load>150: Bypass						
Short Circuit Protection	Electronic Protection						
BYPASS							
Voltage Range	380/400/415 Vac (3P+N+PE) (Optional 440 Vac)						
Frequency Range	50 (Optional 60) Hz±10%						
BATTERY							
Type	Maintenance Free Lead Acid Battery						
Quantity	60						
Charge Voltage	810 Vdc						
End of Discharge Voltage	630 Vdc						
Battery Protection	Deep Discharge Protection						
Battery Test	Automatic / Manuel						
DISPLAY PANEL							
LCD	Graphic LCD Panel, Mimic Panels and Control Panel						
LED	Line,Battery,Inverter, Load, Fault Indications						
COMMUNICATION							
Interface	Modbus RTU RS232, Dry Contacts (Battery Low, Input Failure, System Bypass)						
ENVIRONMENTAL							
Operating Temperature	0~40°C						
Storage Temperature	-25~+70°C						
Relative Humidity	%0-95 (Non- Condensing)						
Altitude	<1000 m						
Cooling	Air Cooling						
Protection Level	IP20						
Acoustic Noise	<55 dBA				<60 dBA		
PHYSICAL							
Dimensions (WxDxH)cm	350x795x1110				500x806x1213		
Weight without Batteries(kg)	100	105	110	110	135	140	155
OPTIONS							
Connections	Without Neutral for Input and / or Output						
Functions	Up to 6 Units Parallel Operation, EPO Emergency Stop, Split Bypass, Battery Temperature Compensation, Transportable LCD Panel						
Communication	SNMP, Modem						
STANDARDS							
Harmonized Standadrs	EN 62040-1 (LVD), EN 62040-2 (EMC), EN 62040-3						

FEATURES

- IGBT Rectifier and Inverter
- Input Current Harmonic < %5
- Regenerative Operating
- Re-adjustable Battery Charge Current
- Built-in Self-Test
- Silent Performance
- Up to 6 Unit Parallel Operation
- DSP Controlled
- Up to 0.99 Input Power Factor Correction
- Static Bypass at UPS Overload or UPS Failure
- Advanced LCD Panel
- Up to 500 Event History
- High Performance for Medical Instruments
- Parallel Operating without Communication
- CE Certificate
- Patented Technology

ONLINE UPS

ATLAS 5000 Series are, 3 Phase in/3 Phase out 10-800 kVA True Online, Transformer-less, Double Conversion UPS Systems with IGBT rectifier providing high input power factor and low input current THD. They produce microprocessor controlled pure sine wave output to critical loads. Industrial manufacturing machines, hospital and monitoring equipment, heavy, medical, communication and laboratory equipment, etc. are the main fields of use with a proved reliable high technology.

ATLAS 5000 Series

Atlas 5000 Series UPS
10-800 kVA 3 Phase Input - 3 Phase Output (HF) Online UPS

MODEL	5100	5120	5160	5200	5250	5300	5400	5500	5600	5800
Apparent Power (kVA)	100	120	160	200	250	300	400	500	600	800
Active Power (kW)	80	96	128	160	200	240	320	400	480	640
INPUT										
Voltage	380/400/415 (Optional 440) Vac (3P+N+PE)									
Voltage Tolerance	±%5...%20 (Adjustable with 1% step)									
Frequency	50 Hz (On Reequest 60 Hz)									
Frequency Range	%5									
THDi	<5%									
Power Factor	0,99									
OUTPUT										
Voltage	380/400/415 (Optional 440) Vac (3P+N+PE)									
Voltage Regulation	<±1%									
Frequency	50 Hz(On Request 60 Hz)									
Frequency Range	Synchronized to Network ±2% in Line mode; ±0,05 Hz in Free Running									
Crest Ratio	3:1									
Efficiency (100% Load)	> %93									
Power Factor	0,8									
THDv	<3% Linear Load, <5% Non Linear Load									
Owerload	%100<Load<%125 for min., %125<Load<150for 1 min., Load>150: Bypass									
Short Circuit Protection	Electronic Protection									
BYPASS										
Voltage Range	380/400/415 Vac (3 P+N+PE) (Optional 440 Vac)									
Frequency Range	50 Hz±10%									
BATTERY										
Type	Maintenance Free Lead Acid Battery									
Quantity	60									
Charge Voltage	810 Vdc									
End of Discharge Voltage	630 Vdc									
Battery Protection	Deep Discharge Protection									
Battery Test	Automatic / Manuel									
DISPLAY PANEL										
LCD	Graphic LCD Panel, Mimic Panels and Control Panel									
LED	Line, Battery, Inverter, Load, Fault Indications									
COMMUNICATION										
Interface	Modbus RTU RS232, Dry Contacts (Battery Low, Input Failure, System Bypass)									
ENVIRONMENTAL										
Operating Temperature	0~40°C									
Storage Temperature	-25~+70°C									
Relative Humidity	%0-95 (Non-Condensing)									
Altitude	<1000 m									
Cooling	Air Cooling									
Protection Level	IP20									
Acoustic Noise	<65dBA		<70 dBA		<74 dBA		<75 dBA			
PHYSICAL										
Dimesions (WxDxH)cm	55x80x134		68x101x175		78x126x190		160x87x180	219x81x203		322x87x180
Weight without Batteries(kg)	240	250	380	400	820	850	950	990	1400	2100
OPTIONS										
Connections	Without Neutral for Input and / or Output									
Functions	Up to 6 Units Parallel Operation, EPO Emergency Stop, Split Bypass, Battery Temperature Compensation, Transportable LCD Panel									
Communication	SNMP, Modem									
STANDARDS										
Harmonized Standards	EN 62040-1 (LVD), EN 62040-2 (EMC), EN 62040-3									

FEATURES

- IGBT Rectifier and Inverter
- Input Current Harmonic < %5
- Regenerative Operating
- Re-adjustable Battery Charge Current
- Built-in Self-Test
- Silent Performance
- Up to 6 Parallel Operation
- DSP Controlled
- Up to 0.99 Input Power Factor Correction
- Static Bypass at UPS Overload or UPS Failure
- Advanced LCD Panel
- Up to 500 Event History
- High Performance for Medical Instruments
- Parallel Operating without Communication
- CE Certificate
- Patented Technology

ONLINE UPS

ATLAS 5000 Series are, 3 Phase in / 3 Phase out 10-800 kVA True Online, Transformer-less, Double Conversion UPS Systems with IGBT rectifier providing high input power factor and low input current THD. They produce microprocessor controlled pure sine wave output to critical loads. Industrial manufacturing machines, hospital and monitoring equipment, heavy, medical, communication and laboratory equipment, etc. are the main fields of use with a proved reliable high technology.

ATLAS 5000PF Series

Atlas 5000PF Series UPS

10-800 kVA 3 Phase Input - 3 Phase Output 0,9 PF Online UPS

MODEL	5010PF	5015PF	5020PF	5030PF	5040PF	5060PF	5080PF
Apparent Power (kVA)	10	15	20	30	40	60	80
Active Power (kW)	9	13,5	18	27	36	54	72
INPUT							
Voltage	380/400/415 (Optional 440) Vac (3P+N+PE)						
Voltage Tolerance	±%5...±%20(Adjustabe with %1 Step)						
Frequency	50 Hz (On Request 60 Hz)						
Frequency Range	%5						
THDi	<5%						
Power Factor	0,99						
OUTPUT							
Voltage	380/400/415 (Optional 440) Vac (3P+N+PE)						
Voltage Regulation	<±1%						
Frequency	50 Hz(On request 60 Hz)						
Frequency Range	Synchronized to Network ±2% in Line mode; ±0,05 Hz in Free Running						
Crest Ratio	3:1						
Efficiency (100% Load)	>%92						
Power Factor	0,9						
THDv	<3% Linear Load, <5% Non-Linear Load						
Owerload	%100<Load<%125 for 10 min %125<Load<150 for 1 min., Load>150: Bypass						
Short Circuit Protection	Electronic Protection						
BYPASS							
Voltage Range	380/400/415 Vac (3P+N+PE) (Optional 440 Vac)						
Frequency Range	50 (Optional 60) Hz±10%						
BATTERY							
Type	Maintenance Free Lead Acid Battery						
Quantity	60						
Charge Voltage	810 Vdc						
End of Discharge Voltage	630 Vdc						
Battery Protection	Deep Discharge Protection						
Battery Test	Automatic / Manuel						
DISPLAY PANEL							
LCD	Graphic LCD Panel, Mimic Panels and Control Panel						
LED	Line, Battery, Inverter, Load, Fault Indications						
COMMUNICATION							
Interface	Modbus RTU RS232, Dry Contacts (Battery Low, Input Failure, System Bypass)						
ENVIRONMENTAL							
Operating Temperature	0~40°C						
Storage Temperature	-25~+55°C						
Relative Humidity	%0-95 (Non- Condensing)						
Altitude	<1000 m						
Cooling	Air Cooling						
Protection Level	IP20						
Acoustic Noise	<55 dBA				<60 dBA		
PHYSICAL							
Dimensions (WxDxH)cm	350x795x1110				500x806x1213		
Weight without Batteries(kg)	100	105	110	110	135	140	155
OPTIONS							
Functions	Parallel Operation, EPO Emergency Stop						
Communication	SNMP, Modem						
STANDARDS							
Harmonized Standards	EN 62040-1 (LVD), EN 62040-2 (EMC), EN 62040-3						

FEATURES

- IGBT Rectifier and Inverter
- Input Current Harmonic < %5
- Regenerative Operating
- Re-adjustable Battery Charge Current
- Built-in Self-Test
- Silent Performance
- Up to 6 Parallel Operation
- DSP Controlled
- Up to 0.99 Input Power Factor Correction
- Static Bypass at UPS Overload or UPS Failure
- Advanced LCD Panel
- Up to 500 Event History
- High Performance for Medical Instruments
- Parallel Operating without Communication
- CE Certificate
- Patented Technology

ONLINE UPS

ATLAS 5000PF Series are, 3 Phase in/3 Phase out 10-800 kVA True Online, Transformer-less, Double Conversion UPS Systems with IGBT rectifier providing 0,9 Output Power factor and very low input current THD. They produce microprocessor controlled pure sine wave output to critical loads. Industrial manufacturing machines, hospital and monitoring equipment, heavy, medical, communication and laboratory equipment, etc. are the main fields of use with a proved reliable high technology.

ATLAS 5000PF Series

Atlas 5000PF Series UPS

10-800 kVA 3 Phase Input - 3 Phase Output 0,9 PF Online UPS

MODEL	5100PF	5120PF	5160PF	5200PF	5250PF	5300PF	5400PF	5500PF	5600PF	5800PF
Apparent Power (kVA)	100	120	160	200	250	300	400	500	600	800
Active Power (kW)	90	108	144	180	225	270	360	450	540	720
INPUT										
Voltage	380/400/415 (Optional 440) Vac (3P+N+PE)									
Voltage Tolerance	±%5...%20 (Adjustabe with %1 Step)									
Frequency	50 Hz (On Request 60 Hz)									
Frequency Range	%5									
THDi	<5%									
Power Factor	0,99									
OUTPUT										
Voltage	380/400/415 (Optional 440) Vac (3P+N+PE)									
Voltage Regulation	<±1%									
Frequency	50 Hz (On Request 60 Hz)									
Frequency Range	Synchronized to Network ±2% in line mode;±0,05 Hz in Free Running									
Crest Ratio	3:1									
Efficiency (100% Load)	Up to %93									
Power Factor	0,9									
THDv	<3% Linear Load, <5% Non-Linear Load									
Owerload	%100<Load<125 for 10 min., %125<Load<%150 for 1 min., Load>150: Bypass									
Short Circuit Protection	Electronic Protection									
BYPASS										
Voltage Range	380/400/415 Vac (3 P+N+PE) (Optional 440 Vac)									
Frequency Range	50 Hz ±10%									
BATTERY										
Type	Maintenance Free Lead Acid Battery									
Quantity	60									
Charge Voltage	810 Vdc									
End of Discharge Voltage	630 Vdc									
Battery Protection	Deep Discharge Protection									
Battery Test	Automatic / Manuel									
DISPLAY PANEL										
LCD	Graphic LCD Panel, Mimic Panels and Control Panel									
LED	Line, Battery, Inverter, Load, Fault Indications									
COMMUNICATION										
Interface	Modbus RTU RS232, Dry Contacts (Battery Low, Input Failure, System Bypass)									
ENVIRONMENTAL										
Operating Temperature	0~40°C									
Storage Temperature	-25~+70°C									
Relative Humidity	%0-95 (Non Condensing)									
Altitude	<1000 m									
Cooling	Air Cooling									
Protection Level	IP20									
Acoustic Noise	<65dBA		<70 dBA		<74 dBA		<75 dBA			
PHYSICAL										
Dimensions (WxDxH)cm	550x800x1335		680x1010x1750		780x1260x1900	1600x870x1800		2190x801x2030	3220x870x1800	
Weight (kg)	290	315	490	540	870	1300	1370	1480	1700	1750
OPTIONS										
Functions	Parallel Operation, EPO Emergency Stop									
Communication	SNMP, Modem									
STANDARDS										
Harmonized Standards	EN 62040-1 (LVD), EN 62040-2 (EMC), EN 62040-3									

FEATURES

- IGBT Rectifier and Inverter
- Input Current Harmonic < %5
- Regenerative Operating
- Re-adjustable Battery Charge Current
- Built-in Self-Test
- Silent Performance
- Up to 6 Parallel Operation
- DSP Controlled
- Up to 0.99 Input Power Factor Correction
- Static Bypass at UPS Overload or UPS Failure
- Advanced LCD Panel
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ONLINE UPS

ATLAS 5000PF Series are, 3 Phase in/3 Phase out 10-800 kVA True Online, Transformer-less, Double Conversion UPS Systems with IGBT rectifier providing 0,9 Output Power factor and very low input current THD. They produce microprocessor controlled pure sine wave output to critical loads. Industrial manufacturing machines, hospital and monitoring equipment, heavy, medical, communication and laboratory equipment, etc. are the main fields of use with a proved reliable high technology.

ATLAS 7000 Series

Atlas 7000 Series Technical Specations

Three Level (3L) High Efficiency 3 Phase Input - 3 Phase Output Online UPS

MODEL	7010	7020	7030	7040	7060	7080	7100	7120	7160	7200	7250	7300
Rated Power (kVA)	10	20	30	40	60	80	100	120	160	200	250	300
Active Power (kW)	9	18	27	36	54	72	90	108	144	180	225	270
INPUT												
Voltage	380/400/415 (Optional 440) Vac (3P+N+PE)											
Voltage Tolerance	±%5...%20 (Adjustabe with %1 Step)											
Frequency	50 Hz (On Request 60 Hz)											
Frequency Range	5%											
THDi	<%3											
Power Factor	0,99											
OUTPUT												
Voltage	380/400/415 (Optional 440) Vac (3P+N+PE)											
Voltage Regulation	<±1%											
Frequency	50 Hz (On request 60 Hz)											
Frequency Range	Synchronized to Network ±2% in line mode,±0,05 Hz in Free Running											
Crest Ratio	3:1											
Efficiency (100% Load)	Up to %96											
Power Factor	0,9											
THDv	<2%											
Overload	%100<Load<%125 for 10 min., %125<Load<%150 for 1 min., Load>150 :Bypass											
Short Circuit Protection	Electronic Protection											
BYPASS												
Voltage Range	380/400/415 Vac (3P+N+PE) (Optional 440 Vac)											
Frequency Range	50 Hz ± %10											
BATTERY												
Battery Type	Maintenance Free Lead Acid Battery											
Quantity	60											
Charge Voltage	810 Vdc											
End of Discharge Voltage	630 Vdc											
Battery Test	Automatic / Manuel											
Battery Protection	Deep Discharge Protection											
DISPLAY PANEL												
LCD	Graphic LCD Panel, Mimic Panels and Control Panel											
LED	Line,Battery,Inverter, Load, Fault Indications											
COMMUNICATION												
Interface	Modbus RTU RS232, Dry Contacts (Battery Low, Input Failure, System Bypass)											
ENVIRONMENTAL												
Operating Temperature	0~40°C											
Storage Temperature	-25~+70°C											
Relative Humidity	%0-95 (Non Condensing)											
Altitude	<1000 m											
Cooling	Forced Air Cooling											
Protection Level	IP20											
Acoustic Noise	<55 dBA			<60 dBA			<65 dBA			<70 dBA		
PHYSICAL												
Dimesions (WxDxH)mm.	350x795x1110		500x806x1213		500x880x1360			605x936x1605		780x1260x1900		
Weight (kg)	105		110		140	155	240	300	380	400	820	850
OPTIONS												
Functions	Parallel Operation, EPO Emergency Stop, Isolation Transformer											
Communication	SNMP, Modem											
STANDARDS												
Harmonized Standards	EN 62040-1 (LVD), EN 62040-2 (EMC), EN 62040-3											

GENERAL FEATURES

- 3L UPS Technology
- High Efficiency Up to %96
- IGBT Rectifier and Inverter
- Input Current Harmonic<%5
- Up to 0,999 Input Power Factor
- Very Low Output THDv <%2
- Advanced LCD Panel
- Up to 500 Event Log History

ONLINE UPS

ATLAS 7000 Series are, 3 Phase in/3 Phase out 3 Level, High Efficiency True Online, Transformer-less, UPS Systems with IGBT rectifier providing highest input power factor and lowest input current THD. They produce microprocessor controlled pure sine wave output to critical loads. Industrial manufacturing machines, hospital and monitoring equipment, heavy, medical, communication and laboratory equipment, etc. are the main fields of use with a proved reliable high technology.

MEDI Series

MODULAR UPS Technical Specifications
10-1560 kVA 3 Phase Input - 3 Phase Output Modular UPS

MODEL		MEDI-3060	MEDI-3100	MEDI-3200	MEDI-3250	MEDI-3090	MEDI-3150	MEDI-3300
Capacity (kVA/kW)	UPS Cabinet	10-60k/9-54k	10-100k/9-90k	10-200k/9-180k	250k/225k	90k/81k	150k/135k	300k/270k
	Module	10kVA/9kW;15kVA/13,5Wk;20kVA/18kW			25kVA/22,5kW	25kVA/22,5kW: 30kVA/27kW		
INPUT								
Rated Voltage		380/400/415 Vac (3P+N+PE)						
Voltage Range		208~478 Vac						
Operating Frequency Range		40~70 Hz						
Harmonic Distortion (THDi)		<3% (100% Linear Load)						
Power Factor		≥0,99						
Bypass Voltage Range		Max. Voltage:220Vac:+25%(Optional+10%,+15%,+20%) 230Vac:+20%(Optional+10%,+15%) 240Vac:+15%(Optional+10%) Min.Voltage:+45%(Optional-20%,-30%) Frequency Protection Range10%						
Harmonic Distortion (THDi)		<2% (100% Non-Linear Load)			<3%(100% Non-Linear Load)			
Generator Input		Yes						
OUTPUT								
Rated Voltage		380/400/415 Vac (3P+N+PE)						
Voltage Regulation		±1%						
Frequency	Line	±1%/±2%/±4%/±5%/±10% of the Rated Frequency (Optional)						
	Battery	50/60 ± 0,1 Hz						
Voltage Distortion (THDv)		≤2% (Linear Load); ≤5% (Non-Linear Load)						
Power Factor		0,9						
Crest Factor		3:1						
Efficiency		95,5%			95%			
SYSTEM FEATURES								
UPS Type / Technology		Modular Type / True Online Double Conversion						
Transfer Time		Mains to Battery: 0 ms; Mains to Bypass: 0 ms						
Overload Capability	Line Mode	Load ≤110%: 60min; ≤125%: 10min, ≤150%: 1min, >150% turn to bypass mode immediately						
	Battery Mode	Load ≤110%: 10min; ≤125%: 1min, ≤150%: 1sec >150% turn to bypass mode immediately						
	Bypass Mode	Breaker (10k:20A, 15k:32A, 20k:40A)			Breaker(25k:40A, 30K:60A)			
Short Circuit		Hold Whole System						
Noise Suppression		Complies with EN62040-2						
Communication Interface	UPS Cabinet	RS232, RS485, Dry Contact, 2x Intelligent Slot (SNMP Card, Relay Card optional)						
	MEDI Module	RS232						
BATTERY								
Battery Voltage		±192/204/216/228/240Vdc (Battery quantity Optional)						
Charge Current	UPS Cabinet	Max. 18A	Max. 30A	Max. 60A	Max. 60A	Max. 30A	Max. 50A	Max. 100A
	MEDI Module	Max. 6A			Max. 6A	25 kVA: 6A Max; 30 kVA: 10A Max		
ENVIRONMENT								
Operating Temperature		0°C ~ 40 °C						
Storage Temperature		-25°C ~ 55°C						
Relative Humidity		0-95% (Non-Condensing)						
Altitute		< 1500 m						
Audible Noise		< 65 dB			< 70 dB			
STANDARDS								
LVD (Safety)		IEC/EN 62040-1 / IEC/EN 60950-1						
EMC		IEC/EN 62040-2 / IEC61000-4-2 / IEC61000-4-3/ IEC61000-4-4 / IEC61000-4-5 / IEC61000-4-6 / IEC61000-4-8						
PHYSICAL								
Dimensions (WxDxH) [mm]	UPS Cabinet	600x840x1400		600x1100x2000		840x600x1400		1100x600x2000
	MEDI Module	580x443x131 (3U)						
Weight [kg]	UPS Cabinet	149	152	290		158	170	307
	MEDI Module	10 kVA:26; 15 kVA:30; 20 kVA:31			32	25 kVA:32; 30 kVA:33,5		

FEATURES

- High Frequency and Double Conversion Online Technology
- Advanced PFC technology
- 3U Frame, Rack-Mounted and Tower Convertible
- EPO Function
- Wide Input Voltage Range
- Fully Digitized Microprocessor Control
- Parallel Redundancy
- Advanced Battery Management
- Lightning and Surge Protection, Short Circuit and Overload Protection
- Multilingual LCD and LED display
- EMI RFI Noise Filter
- Smart RS232 Communication with Monitoring Software
- Optional SNMP Card Slot

MEDI Series

MODULAR UPS Technical Specifications

10-1560 kVA 3 Phase Input - 3 Phase Output Modular UPS

MODEL		MEDI-3400	MEDI-3520	MEDI-3800	MEDI-31040	MEDI-31560
Capacity (kVA/kW)	UPS Cabinet	400kVA/360kW	520kVA/468kW	800kVA/720kW	1040kVA/936kW	1560kVA/1404kW
	Module	40kVA/36kW				
INPUT						
Rated Voltage		380/400/415 Vac (3P+N+PE)				
Voltage Range		208~478 Vac				
Operating Frequency Range		40~70 Hz				
Power Factor		0,99				
Bypass Voltage Range		Max. Voltage: 220Vac: +25%(optional +10%,+15%,+20%) 230Vac: +20%(optional +10%,+15%) 240Vac: +15%(optional +10%) Min.Voltage: -45% (optional -20%,-30%) Frequency Protection Range 10%				
Harmonic Distortion (THDi)		<3% (100% nonlinear load)				
Generator Input		Yes				
OUTPUT						
Rated Voltage		380/400/415 Vac (3P+N+PE)				
Voltage Regulation		±1%				
Frequency	Line	±1%/±2%/±4%/±5%/±10% of the Rated Frequency (Optional)				
	Battery	50/60 ± 0,1 Hz				
Voltage Distortion (THDv)		≤2% (Linear Load); ≤5% (Non-Linear Load)				
Output Power Factor		0,9				
Crest Factor		3:1				
Efficiency		95%				
SYSTEM FEATURES						
UPS Type / Technology		Modular Type / True Online Double Conversion				
Transfer Time		Mains to Battery: 0 ms; Mains to Bypass: 0 ms				
Overload Capability	Line Mode	Load ≤110%: 60min; ≤125%: 10min, ≤150%: 1min, >150% turn to bypass mode immediately				
	Battery Mode	Load ≤110%: 10min; ≤125%: 1min, ≤150%: 1sec >150% turn to bypass mode immediately				
	Bypass Mode	Breaker (40k:95A)				
Short Circuit		Hold Whole System				
Noise Suppression		Complies with EN62040-2				
Communication Interface	UPS Cabinet	RS232, RS485, Dry Contact, 2x Intelligent Slot (SNMP Card, Relay Card optional)				
	MEDI Module	RS232				
BATTERY						
Battery Voltage		±192/204/216/228/240Vdc (Battery quantity Optional)				
Charge Current	UPS Cabinet	Max. 100A	Max. 130A	Max. 200A	Max. 260A	Max. 390A
	MEDI Module	Max. 10A				
ENVIRONMENT						
Operating Temperature		0°C ~ 40 °C				
Storage Temperature		-25°C ~ 55°C				
Relative Humidity		0-95% (Non-Condensing)				
Altitute		< 1500 m				
Audible Noise		< 73 dB				
STANDARDS						
LVD (Safety)		IEC/EN 62040-1 / IEC/EN 60950-1				
EMC		IEC/EN 62040-2 / IEC61000-4-2 / IEC61000-4-3/ IEC61000-4-4 / IEC61000-4-5 / IEC61000-4-6 / IEC61000-4-8				
PHYSICAL						
Dimensions (WxDxH) [mm]	UPS Cabinet	860x1200x2000		860x1800x2000	860x3000x2000	1100x4800x2000
	MEDI Module	580x443x131 (3U)				
Weight [kg]	UPS Cabinet	750	860	1300	1810	2800
	MEDI Module	34				

FEATURES

- High Frequency and Double Conversion Online Technology
- Advanced PFC technology
- 3U Frame, Rack-Mounted and Tower Convertible
- EPO Function
- Wide Input Voltage Range
- Fully Digitized Microprocessor Control
- Parallel Redundancy
- Advanced Battery Management
- Lightning and Surge Protection, Short Circuit and Overload Protection
- Multilingual LCD and LED display
- EMI RFI Noise Filter
- Smart RS232 Communication with Monitoring Software
- Optional SNMP Card Slot

BATTERY CHARGING RECTIFIERS

BORA 1 Phase Series

Bora Series
Mono Phase Input Battery Charger / Rectifier

Main purpose of Battery Charging Rectifier is to convert AC Voltage to DC Voltage. Rectifiers are designed to charge batteries and to provide energy needs of DC power-fed devices. According to the fields of application, Rectifiers are entitled as Rectifier, Battery Charger and Rectifier & Charger. In accordance with input voltage, rectifiers are produced in two types as 1 phase 220VAC and 3 phase 380VAC. Battery chargers can be designed in 12V, 24V, 48V, and 110 and 220 VDC output voltages to the type of applications.

BORA 3 Phase Series

Bora Series
3 Phase Input Battery Charger / Rectifier

Bora Series Battery chargers (rectifiers) can usually charge all battery types like as gel battery, liquid battery or dry battery etc. Recently, solar charger, wind charger, solar and wind inverters are widely used together with inverter & battery charging rectifier in solar and wind energy applications. The most common uses of direct current power supplies are zones where storage of energy is needed (stored), emergency lighting, security systems and routing systems.

POYRAZ Series

Poyraz Series
3 Phase Input Electric Vehicle Battery Charger

POYRAZ series Battery Chargers are designed by using today's technology for charging batteries of electric vehicles and DC energy necessity of the equipment's which are supplied with the very sensitive direct current. To provide the minimum ripples, Battery Charger uses DSP Controlled IGBT technology and advanced filters at the input and output.

Battery chargers' most common usage areas are telecommunications, power distribution stations, sea and land transport vehicles, industrial and military facilities, substations, wind and solar power plants, power stations, UPS (Uninterruptible Power Supply)systems,intelligent building projects and all kinds of battery charging applications.

BORA **1 Phase** Series

Bora Series Technical Specifications

Mono Phase Input Rectifier / Battery Charger with Transformer

MODEL (See Below Tables)*		
INPUT		
Voltage		220 Vac (Optional 230/240 Vac)
Voltage Tolerance		± 20%
Frequency		50 / 60 Hz (Automatic Selection)
Frequency Tolerance		± 5 Hz
OUTPUT		
Voltage Range (Vdc)		12, 24, 48, 110, 220 Vdc (Others on Request)
Voltage Regulation		± 2%
Output Currents (A)		10, 15, 20, 25, 30, 40, 50, 60, 75, 80,100, 120, 125 (Others on Request)
Ripple		< 5% (Without Battery)
Efficiency		Up to 88%
GENERAL		
Control		Microprocessor Controlled
Protections		Short Circuit, Over Current, Over Temperature, Ouput Voltage Low/High, DC Ground Missing Warning
Battery Charge Mode		Float Charge, Boost Charge, Equalizing Charge
		Float Charge : 2 - 2.45V/Cell (Depends Battery Type)
Display		128x64 Graphic LCD, 6 Buttons, 6 pcs LED
Isolation		Input-Output: 2000 V, Input/Output-Ground: 500V
Communication		Dry Contacts, (Optional MODBUS)
ENVIRONMENTAL		
Operating Temperature		0 ~+40 °C
Storage Temperature		-20 ~+70 °C
Relative Humidty		% 0-95 (Non-condensing)
Cooling		Forced Cooling with Fan
Protection Level		IP20 (Others on Request)
Acoustic Noise		55 dBA
PHYSICAL		
Dimensions (HxWxD) mm.	Up to 1,2 kW	500x370x630
	Up to 10 kW	580x470x870
STANDARDS		
Harmonized Standards		EN62040-1, EN 61204 (LVD), EN61204-3 (EMC)

BATTERY CHARGING RECTIFIERS

BORA series rectifiers are designed by today's technology for charging batteries and for the DC energy necessity of the equipment's which are supplied with the direct current. Common usage areas are telecommunication, energy distribution stations, land and marine transport vehicles, industrial and military foundations and all kinds of battery charging applications. Rectifiers have completely electronic structure and they check the output current and voltage by power part with thyristor. To provide the minimum ripples, the output part is equipped with the filter containing capacitors, and choke inductors.

GENERAL FEATURES

- Thyristor Phase Control Technology
- Voltage and Current Controlled Automatic Charge
- Usage as DC Power Supply
- Temperature Controlled Charge
- Battery Test Function
- Event History
- Wide Power Range
- High Efficiency and Reliability
- Electronic Protections
- User Friendly LCD Panel
- Optional Double LCD for Load and Battery
- Optional Portable LCD Panel
- LCD works without AC Input
- Easy to Use

BORA SINGLE PHASE MODELS

V \ A	10	12	15	20	30	40	50	60	100
24	1024-10	1024-12	1024-15	1024-20	1024-30	1024-40	1024-50	1024-60	1024-100
48	1048-10	1048-12	1048-15	1048-20	1048-30	1048-40	1048-50	1048-60	1048-100
110	1110-10	1110-12	1110-15	1110-20	1110-30	1110-40	1110-50	1110-60	1110-100

* Other models are available per request.

BORA **3 Phase** Series

Bora Series Technical Specifications

3 Phase Input Rectifier / Battery Charger with Transformer

MODEL (See Below Tables)*		
INPUT		
Voltage		380 (Optional 400/415/440) Vac (3P+N+PE)
Voltage Tolerance		± 20%
Frequency		50/60 Hz (Automatic Selection)
Frequency Tolerance		± 5 Hz
OUTPUT		
Voltage Range (Vdc)		24, 48,110, 220 Vdc (Others on Request)
Voltage Regulation		± 2%
Output Currents (A)		10, 20, 30, 40, 50, 60, 80, 100, 150, 200, 250, 300, 400, 600 (Others on Request)
Ripple		< 5% (Without Battery)
Efficiency		Up to 90%
GENERAL		
Control		Microprocessor Controlled
Protections		Short Circuit, Over Current, Over Temperature, Ouput Voltage Low/High, DC Ground Missing Warning
Battery Charge Mode		Float Charge, Boost Charge, Equalizing Charge
		Float Charge : 2 - 2.45V/Cell (Depends Battery Type)
Display		128x64 Graphic LCD, 4 Buttons, 6 pcs LED
Isolation		Input-Output: 2000 V, Input/Output-Ground: 500V
Communication		Dry Contacts, (Optional MODBUS)
ENVIRONMENTAL		
Operating Temperature		0 ~ +40 °C
Storage Temperature		-20 ~ +70 °C
Relative Humidty		% 0-95 (Non-condensing)
Cooling		Forced Cooling with Fan
Protection Level		IP20 (Others on Request)
Acoustic Noise		55 dBA
PHYSICAL		
Dimensions (HxWxD) mm.	Up to 10 kW	580x470x870
	Up to 33 kW	650x1100x700
	Others	Ask for Other Models
STANDARDS		
Harmonized Standards		EN62040-1, EN 61204 (LVD), EN61204-3 (EMC)

BATTERY CHARGING RECTIFIERS

BORA series rectifiers are designed by today's technology for charging batteries and for the DC energy necessity of the equipment's which are supplied with the direct current. Common usage areas are telecommunication, energy distribution stations, land and marine transport vehicles, industrial and military foundations and all kinds of battery charging applications. Rectifiers have completely electronic structure and they check the output current and voltage by power part with thyristor. To provide the minimum ripples, the output part is equipped with the filter containing capacitors and choke inductors.

GENERAL FEATURES

- Thyristor Phase Control Technology
- Voltage and Current Controlled Automatic Charge
- Usage as DC Power Supply
- Temperature Controlled Charge
- Battery Test Function
- Event History
- Wide Power Range
- High Efficiency and Reliability
- Electronic Protections
- User Friendly LCD Panel
- Optional Double LCD for Load and Battery
- Optional Portable LCD Panel
- LCD works without AC Input
- Easy to Use

BORA THREE PHASE MODELS

V \ A	30	40	50	60	100	150	200	250	300	400	600
24	3024-30	3024-40	3024-50	3024-60	3024-100	3024-150	3024-200	3024-250	3024-300		
48	3048-30	3048-40	3048-50	3048-60	3048-100	3048-150	3048-200	3048-250	3048-300	3048-400	3048-600
110	3110-30	3110-40	3110-50	3110-60	3110-100	3110-150	3110-200	3110-250	3110-300	3110-400	3110-600
220	3220-30	3220-40	3220-50	3220-60	3220-100	3220-150	3220-200	3220-250	3220-300		

* Other models are available per request.

POYRAZ Series

Poyraz Series Technical Specifications
3 Phase Input Vehicle Battery Charger With Isolation Transformer

MODEL (See Below Tables)*		
INPUT		
Voltage		380 Vac (Optional 400/415) Vac
Voltage Tolerance		± 20%
Frequency		50 Hz , (Optional 60 Hz)
Frequency Tolerance		± 5%
OUTPUT		
Voltage Range (Vdc)		400, 600 Vdc (Others on Request)
Voltage Regulation		± 1%
Output Currents (A)		40,125A (Others on Request)
Ripple		<1% (Without Battery)
Efficiency		Up to 90%
GENERAL		
Control		Microprocessor Controlled
Protections		Short Circuit, Over Current, Over Temperature, Output Voltage Low/High, Input voltage Low/High
Battery Charge Mode		Float Charge
Display		128x64 Graphic LCD, 4 Buttons, 6 pcs LED
Isolation		Input-Output: 2000 V, Input/Output to Ground: 1000V
ENVIRONMENTAL		
Operating Temperature		0 ~+40 °C
Storage Temperature		-20 ~+70 °C
Relative Humidty		% 0-95 (Non-condensing)
Cooling		Forced Cooling with Fan
Protection Level		IP20, IP43 (Others on Request)
Acoustic Noise		60 dBA
PHYSICAL		
Dimensions (HxWxD) mm.	Up to 24 kW	1300x800x590
	Up to 50 kW	1546 x 800 x 738
	Others	Ask for Other Models
STANDARDS		
Harmonized Standards		EN62040-1, EN 61204 (LVD), EN61204-3 (EMC)

BATTERY CHARGING RECTIFIERS

POYRAZ series Battery Chargers are designed by using today's technology for charging batteries of electric vehicles and DC energy necessity of the equipment's which are supplied with the very sensitive direct current. To provide the minimum ripples, Battery Charger uses DSP Controlled IGBT technology and advanced filters at the input and output.

GENERAL FEATURES

- Ideal Charger for Electric Vehicle Battery
- IGBT Rectifier
- Voltage and Current Controlled Automatic Charge
- Low Ripple Value
- High Efficiency and Reliability
- Electronic Protections
- Microprocessor Controlled
- CANBUS Communication for Smart Battery Charging
- User Friendly LCD Panel
- Easy to Use

POYRAZ											
V \ A	30	40	50	60	100	150	200	250	300	400	600
400	400-30	400-40	400-50	400-60	400-100	400-150	400-200	400-250	400-300	400-400	600-400
600	600-30	600-40	600-50	600-60	600-100	600-150	600-200	600-250	600-300	600-400	600-600

* Other models are available per request.

INVERTERS

The inverter by its own cannot produce electric, but just converts the existing DC voltage (direct current) into AC (alternating current). Inverter converting the DC voltage into AC voltage is a device designed to satisfy the energy requirements of instruments where there is no mains. In other words, the inverter can be described as a device that converter 12, 24, 48 and 110 VDC battery voltage into 220 VAC, 50/60 Hz voltage. Inverters are manufactured mainly in 3 types as Square wave inverters, sinusoidal analogy output inverters and Modified Sine wave inverters. Today, Grid Connected inverters have been developed having high DC voltage input range for renewable energy applications. There are two types Inverter as On-Grid and Off-Grid. Ongrid Inverters can feed the grid while Off-Grid inverters work independent from grid and feed its own loads.

ELIT G Series

ELIT G Series On-Grid String Inverters
20-30 kW (HF) On-Grid Inverters

ELIT C Series

ELIT C Series
110-500 kW (HF) On-Grid Central Inverters

Inverters are usually used in various places for different applications as wind and solar energy applications, sea and land transport vehicles, the GSM network and other communication areas, in zones in where no mains, applications need to store energy (backed up energy) etc. Recently, solar charger, wind charger, solar and wind inverter&battery charging rectifier in solar and wind energy applications.

ELIT K Series

ELIT K Series
3-20 kW (LF) Off-Grid Inverters

ELIT M Series

ELIT M Series
1-6 kW (LF) Off-Grid Inverter with Charger

ELIT G Series

ELIT G Series On-Grid Inverter Technical Specifications

20-30 kW Three Phase String PV Inverter

Bottom View

MODEL	ELIT-G 3020	ELIT-G 3030
DC DATA		
Recommended PV Power (kW)	24	32
MPPT Voltage Range	580-850 Vdc	
Max. DC Voltage	1000 Vdc	
Max. DC Current	42	63
MPP Tracking	1x Fast Precise MPP Tracking	
Number of DC Connections	6	
AC DATA		
Max AC Power (kW)	20	30
AC Grid Connection	L1, L2, L3, N, PE	
AC Rated Voltage	400 Vac +%10 - %20	
Frequency Range	50, 60 / 45 ... 65 Hz	
CosØ	0,9i…0,9c	
Max. AC Current	28,9	43,4
THDi	< 3%	
Max. Efficiency	98,10%	
EU Efficiency	97,50%	
CEC Efficiency	97,70%	
PROTECTIONS		
Overvoltage Category (AC/DC)	Type II	
AC Short Circuit	Electronic Protection	
Grid High / Low Voltage	Yes	
ENVIRONMENTAL		
Ambient Temperature	-10 ~ +50 °C	
Altitude	<2000 m	
Acoustic Noise (1 m.)	<50 dBA	
Protection Type	IP65	
COMMUNICATION		
Interface	RS485, MODBUS	
PHYSICAL		
Dimensions (WxDxH) mm.	480x325x705	700x325x705
Weight (kg)	45	50
STANDARDS		
EMC	EN 61000-6-2, EN 61000-6-4	
LVD	DIN EN 62109-1 , DIN EN 62109-2	
Grid Protection	VDE 0126-1-1	
Environmental Classes	DIN IEC 721-3-3	
Certificate	CE	

GENERAL FEATURES

- 3 Phase Grid Connection
- Built-in MPPT
- IGBT Based PWM Technology
- High Efficiency
- DSP Controlled
- User Friendly LCD Panel
- Event History
- Adjustable Power Factor
- Optional Remote Management
- Easy to Use
- CE Certificate

ON-GRID SOLAR INVERTER

ELIT G solar inverter gets the energy from the PV panel and injects it to the grid. ELIT G has three levels IGBT technology inside therefore its efficiency is very high with respect to conventional solar inverters. Not only is nominal power, even if low power, its efficiency is very high. Beside the three levels technology, it has DSP (digital signal processor) technology. Thanks to DSP all the controls of the inverter are made by software. On the other hand, inverter has graphic LCD at front panel to display all the necessary information to the user including current, voltage, etc. Because of MPPT feature of the inverters, the maximum powers of the PV panels are tracked in every condition.

ELIT C Series

ELIT C Series Ongrid Inverter Technical Specifications

110-500 kW 3 Phase On-Grid Central Inverter

MODEL	ELIT G 3110	ELIT G 3150	ELIT G 3250	ELIT G 3500
DC DATA				
Recommended PV Power (kW)	110	160	260	520
MPPT Voltage Range	580-850 Vdc			
Max. DC Voltage	1000 Vdc			
Max. DC Current	198A	270A	450A	900A
MPP Tracking	1		1 (on request 2)	
Number of DC Connections	4-8	4-8	4-10	4-15
DC Protection	Yes			
AC DATA				
Max AC Power (kW)	110	150	250	500
AC Grid Connection	L1, L2, L3, N, PE			
AC Rated Voltage	400 Vac +%10 - %20			
Frequency Range	50, 60 / 45 ... 65 Hz			
CosØ	0,9i…0,9c			
Max. AC Current	160A	217A	362A	724A
THDi	< 3%			
Max. Efficiency	98,80%			
EU Efficiency	98,00%			
CEC Efficiency	98,50%			
PROTECTIONS				
Over Voltage Category (AC/DC)	Type II			
AC Short Circuit	Electronic Protection			
Grid High / Low Voltage	Yes			
ENVIRONMENTAL				
Operating Temperature	-10 ~ +50 °C			
Cooling	Fan			
Altitude	<2000 m			
Acoustic Noise (from 1m.)	<70 dBA			
Protection Class	IP20, IP43			
COMMUNICATION				
Interface	RS485, MODBUS			
PHYSICAL				
Dimensions (WxDxH) mm.	840x680x1670		1000x868x1800	
Weight (kg)	290	315	540	685
STANDARDS				
EMC	EN 61000-6-2, EN 61000-6-4			
LVD	DIN EN 62109-1 , DIN EN 62109-2			
Grid Protection	VDE 0126-1-1			
Enviromental Class	DIN IEC 721-3-3			

ELIT C110

ELIT C500

ONGRID SOLAR INVERTER

ELIT C Ongrid Solar Inverter converts DC energy coming from PV Panels to AC Voltage and transfer it Interconnected Grid System. It uses built in MPPT algorithm and transfer maximum power to mains. User can track all electrical values of Inverter and produced power statistics by means of Advanced LCD Panel

GENERAL FEATURES

- 3 Phase Grid Connection
- Built-in MPPT
- IGBT Based PWM Technology
- High Efficiency
- DSP Controlled
- User Friendly LCD Panel
- Event History
- Adjustable Power Factor
- Optional Remote Management
- Easy to Use

ELIT K Series

ELIT K Series Off-Grid Inverter Technical Specifications

3-20 kVA LF Off-Grid Inverter

MODEL	3048	5048	7548	10048	3060	5060	7560	10060	3110	5110	8110	10110	12110	15110	20110
Apparent Power (kVA)*	3	5	7,5	10	3	5	7,5	10	3	5	8	10	12	15	20
Active Power (kW)*	2,4	4	6	8	2,4	4	6	8	2,4	4	6,4	8	9,6	12	16
INPUT															
Voltage	48 Vdc				60 Vdc				110 Vdc						
Voltage Tolerance	± 10%														
Ripple	<3%														
Low Input Level	40 Vdc				54 Vdc				88 Vdc						
High Input Level	60 Vdc				72 Vdc				137 Vdc						
Bypass Voltage	220 (Optional 230/240) Vac														
OUTPUT															
Voltage	220 Vac (Optional 230/240 Vac)														
Voltage Tolerance	± %2														
Frequency	50/60/83/400 Hz														
Frequency Tolerance	<± 0.4%														
Waveform	Pure Sine Wave														
THDv	< % 6														
Crest Ratio	3:1														
Overload	60 sec for %150 load@50 Hz														
GENERAL															
Display	Graphic LCD														
Alarm Contacts	Available														
Ouput GND Isolation	2000 V														
Input Output Isolation	500 V														
Protections	Soft Start,Over Temperature,High/Low Input Voltage,High/Low Output Voltage,Overload,Short Circuit														
ENVIRONMENTAL															
Operating Temperature	0 ~ 40 °C														
Stroge Temperature	-40 ~ +70 °C														
Relative Humidity	% 0-95 (Non-condensing)														
Altitude	<2000 m														
Cooling	Forced Air Cooling														
Protection Level	IP20														
PHYSICAL															
Dimensions (HxWxD) mm.	Up to 5 kVA 315x535x435:5-10 kVA:460x600x550 15-20 kVA:439x623x1186														
STANDARDS															
Harmonized Standards	EN 620400-1 (LVD), EN 62040-2 (EMC)														

*Other powers can be manufactured per request

OFFGRID SINE WAVE INVERTER

The ELIT K series inverters produced in ESIS facilities with the latest technology are power supplies providing the same voltage form as the grid. They have advanced technology of DSP (Digital Signal Processors) to convert 48V, 60V and 110V DC voltages into AC Voltage at desired frequency.. These inverters can be utilized for the supplying of all electrical equipment without any trouble because of the pure sine wave at the output. Since the energy source is a DC voltage when there is no grid source, they can provide long-life energy in land, marine vehicles, industrial institutions, railways, military applications, telecommunication switchboards, energy production centers. Thanks to the DSP technology, frequencies are available to be formed sensitively, with a little change in software; they can be reassigned as 60Hz, 83Hz and 400Hz. These inverters are available for all kinds of applications due to the wide input voltages, standard power options between 3kVA to 20 kVA, silent performance, high efficiency, and pure sine wave.

ELIT M Series

ELIT M Series
1-6 kW (LF) Inverter with Charger

MODEL	1012M / 1024M	2012M / 2024M	3012M / 3024M	4024M / 4048M	5024M / 5048M	6024M / 6048M
INVERTER OUPUT						
Continuous Output Power	1000W	2000W	3000W	4000W	5000W	6000W
Surge Rating(20s)	3000W	6000W	9000W	12000W	15000W	18000W
Output Waveform	Pure Sine Wave/Same as input(Bypass mode)					
Nominal Efficiency	>88%(Peak)					
Line Mode Efficiency	>95%					
Power Factor	0.9-1.0					
Nominal Output Voltage RMS	230Vac					
Output Voltage Regulation	±10% RMS					
Output Frequency	50/60Hz ± 0.3Hz					
Short Circuit Protection	Yes, Current Limit Function (Fault after 1 sec.)					
Typical Transfer Time	10 ms.					
THDi	< 3%					
DC INPUT						
Nominal Input Voltage	12.0Vdc (*2 for 24Vdc, *4 for 48Vdc)					
Minimum Start Voltage	10.0 Vdc					
Low Battery Alarm	10.5/11.0 Vdc					
Low Battery Trip	10.0/10.5 Vdc					
High Voltage Alarm & Fault	16.0Vdc					
Idle Consumption-Search Mode	< 25 W when Power Saver On					
CHARGER						
Input Voltage Range	Narrow : 194~243Vac; Wide : 164~243Vac					
Output Voltage	Depends on Battery Type					
Charger Breaker Rating	10		20		30	
Max Charge Rate (±5A)	15A ... 85A +/-5A					
Over Charge Protection Shutdown	15.7V for 12Vdc, 31.4V for 24Vdc, 62.8V for 48Vdc					
BYPASS & PROTECTION						
Input Voltage Waveform	Sine Wave (Grid or Generator)					
Nominal Voltage	230Vac					
Low Voltage Trip	184Vac/154Vac±4%					
Low Voltage re Engage	194Vac/164Vac±4%					
High Voltage Trip	253Vac±4%					
High Voltage re Engage	243Vac±4%					
Max Input AC Voltage	270Vac					
Nominal Input Frequency	50Hz or 60Hz (Auto detect)					
Low Freq Trip	47±0.3Hz for 50Hz, 57±0.3Hz for 60Hz					
High Freq Trip	55±0.3Hz for 50Hz, 65±0.3Hz for 60Hz					
Output Short Circuit Protection	Circuit Breaker					
Max Bypass Current	30 A			40 A		
MECHANICAL SPECIFICATIONS						
Mounting	Wall mount					
Dimensions (DxWxH) mm	382x218x179	442x218x179		598x218x179		
Weight (Net/Gross) kg.	18/21	20/23	24/27	35/39	45/49	45/49
Display	Status LED's					
STANDARDS						
Standards	EN 60950-1; EN61000-3-2; EN61000-3-3:2005, EN55024:2003					

HIGH FREQUENCY INVERTER

ELIT M Series inverters are devices forming line voltage from 12V, 24V and 48V battery voltages used in daily life and business life. Thanks to practical uses, output isolation transformer structures and charging facilities, these units are used safely in land and sea vehicles and open spaces. Because generates output voltage in the form of Sinusoidal, they offer trouble-free solution to all kinds of loads such as computer, TV, refrigerator, lighting, engine load and so on.

CUSTOMIZED PRODUCTS BY ESISPOWER

Customized Power Supplies;

Up to its establishment since 2000, ESISPOWER has been manufacturing customized power supplies to the customer specifications. Nowadays, It's extensively needed non-standard and easy-inaccessible AC and DC power supplies especially in defense industry and electricity generation facilities where auxiliary power sources needed. These electronic power supplies of which specifications prepared by our customers entirely including their own unique demands, are projected being carefully examined by ESIS R&D Department and resulted in a design-to-one matching to the specifications. The production department of ESIS manufactures and presents these designs to the customer's use by the latest technology complying with the requirements of ISO 9001 quality management system. ESIS service technicians taking the necessary training in the post-production services, fulfill the most secure after sales service to customers whenever needed.

All type of power electronics technologies available in the world, are easily used in our company and not hold back executing and implementing the newest technologies in need. In this context, the designs and the devices by ESISPOWER include: Inverters, Rectifiers, Static Frequency Converters and UPS's for the requirements of Land Forces, Naval Forces and Air Forces in Turkish Armed Forces, Battery Charging Rectifiers for power plants and electricity distribution companies, Inverters for the State Railways and wide variety of products for different projects such as these.

28 Vdc-2000 A Helistart Rectifier

This rectifier is designed for Turkish Army Forces and can be used as fixed or portable. This device can supply up to 2000 A Direct Current which is startup DC energy of helicopter for at least 20 seconds at 28 Vdc.

Submarine Frequency Converter

This converter is produced according to the Military standards and provides different AC Output Voltages at different frequencies in only one cabinet. Converter can resist against to the very high shock and vibration values which are usual for Navy due to very rugged and strong chassis

800 kVA Mobile UPS

This unit was designed according to Military Standards for Military Purposes. It includes Industrial Air Conditioning System. This system can be used as fixed or mobile.

RUGGED TRUCK MOUNTED MILITARY SHELTER WITH 300 KVA UPS

ESISPOWER Mobile Uninterruptible Power Supply is designed and manufactured according to military standards and is used to supply high power systems working at field. It is composed 300 kVA UPS, Industrial Air Condition System, Cabin and Semi-Trailer. It can work in hard environmental conditions. System is equipped with air conditioning to work at temperature between -25°C and +45°C. Cabin carried by the trailer can be used as mobile or fixed unit by placed in the platform. The system can be carried on 30% gradient asphalt and stabilize road and safety brakes can fix the whole system on %30 gradient.

ATLAS 5300 MODEL UPS	
Apparent Power	300 kVA
Active Power	240 kW
Input Voltage	380 Vac ±%20 3 (P+N+PE)
Input Frequency	47 - 53 Hz
Output Voltage	380 Vac ± %1 (Online Mod)
Output Frequency	50 Hz
Efficiency	93%
Battery Quantity	180
Backup Time	10 min.
Communication	Modem, SNMP (Optional)
Technology	Online, Double Conversion, Transformerless, High Frequency PWM
Standards	EN62040-1, EN62040-2, EN62040-3

CABINET	
Material	3 mm. Steel (EN 10130 Compliant)
Protection Class	IP55
Protection	Surge, Vibration, Rain, Corrosion
Internal Lightning	400 Lux
Color	Olive Green
Dimensions (mm)	2450 x 7280 x 2400
Weight (kg)	Empty : 3500, Full : 9100

SEMI TRAILER	
Material	ST-52 Steel
Max. Carrying Capacity	18 ton
Suspension System	Air Type
Braking System	Air Type
Max. Speed (Secured)	60 km/h
Color	Olive Green
Dimensions (mm)	2500 x 7280 x 1600
Weight (kg)	4400

INDUSTRIAL AIR CONDITION SYSTEM	
Total Capacity	26.6 kW
SHR	0.89
EHR	3.41
Compressor Quantity	1
Fan Quantity	1
Air Circulation	5750 m3/h
Max. ESP	270/270 Pa
Acoustic Noise	54.4 dBA

FN 3000 Series

Frequency Converters Technical Specifications

10-300 kVA 3 Phase Input - 3 Phase Output (HF) 400 Hz

MODEL	3010	3015	3020	3030	3040	3060	3080	3100	3120	3160	3200	3250	3300
Apparent Power(kVA)	10	15	20	30	40	60	80	100	120	160	200	250	300
Active Power (kW)	8	12	16	24	32	48	64	80	96	128	160	200	240
INPUT													
Voltage	115/200 Vac, 220/380 Vac, 254/440 Vac (3P+N+PE) or Optional Special Design W/O Neutral												
Voltage Tolerance	± %5…%20 (Adjustable with %1 step)												
Frequency	50 Hz (On request 60 Hz)												
Frequency Tolerance	%5												
THDi	<5%												
Power Factor	0.99												
OUTPUT													
Voltage	115/200 Vac, 220/380 Vac, 254/440 Vac (3P+N+PE) or Optional Special Design W/O Neutral												
Voltage Regulation	<±1%												
Frequency	400 Hz ±0.5%												
Crest Ratio	3:1												
Efficiency	>89%					>90%							
Power Factor	0,8												
THDv	<3% Linear Load, <5% Non-Linear Load												
Overload	%100<Load<%125 for 10 min., %125<Load<%150 for 1 min.,Load>150 :Shut down												
Short Circuit Protection	Electronic Protection, Fuse												
GENERAL FEATURES													
Working Type	Static, Online, DSP Controlled												
Topology	High Frequency PWM , IGBT Technology												
Display	128x64 Graphic LCD												
LED	6 pcs for Line, Charge, Battery, Inverter, Overload, Failure												
Event Logs	Up to 500 Logged Event History												
ENVIRONMENTAL													
Operating Temperature	0 ~ 40 °C												
Storage Temperature	-25 ~ +55 °C												
Relative Humidity	% 0-95 (Non-condensing)												
Altide (without derating)	<1000 m												
Cooling	Forced Air Cooling												
Protection Level	IP20 (Others on request)												
Acoustic Noise	<55 dBA			<60 dBA			<65 dBA			<70 dBA			
PHYSICAL													
Dimensions (WxDxH) mm.	350x795x1110			500x806x1213			550x800x1335			680x1007x1747	780x1260x1900	1600x868x1800	
Weight (kg)	112	115	119	160	165	172	290	315	490	540	870	1300	
OPTIONS													
Functions	Parallel Operation, EPO Emergency Stop, Heater												
Battery	60x12 Vdc Maintenance Free Dry Type												
Isolation Transformer	Input and/or Output												
Communication	Dry Contacts, SNMP, Modem, RS232, RS485												
STANDARDS													
Harmonized Standards	EN 62040-1(LVD), EN 62040-2(EMC), EN 62040-3, EN 55011, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-2-2, MIL-STD-461, MIL-STD-1310G												

GENERAL SPECIFICATIONS

- IGBT Rectifier and Inverter
- Input Current Harmonic < %5
- Silent Performance
- DSP Controlled
- Up to 0.99 Input Power Factor Correction
- Advanced LCD Panel
- Up to 500 Event History
- CE Certificate

FREQUENCY CONVERTER

Static frequency converters are used with the devices which cannot adapt to line frequency. Static converters are more economic and more technological solution than the conventional motor generator (Dynamic Converter) for these problems. Their efficiency is higher, but operation costs are lower. Frequency converter's dynamic response is very short, because of working with static components. They are DSP controlled and they can be developed according to customer needs. Battery can be added to system and converter can continue to work even in line failures.FN3000 Series converts 50/60 Hz Input Frequency to 400 Hz Output Frequency at desired voltage and are used for mostly military systems.

FN 5000 Series

Frequency Converters Technical Specifications

10-800 kVA 3 Phase Input - 3 Phase Output (HF)

MODEL	5010	5015	5020	5030	5040	5060	5080
Apparent Power(kVA)	10	15	20	30	40	60	80
Active Power (kW)	8	12	16	24	32	48	64
INPUT							
Voltage	115/200 Vac, 220/380 Vac, 254/440 Vac (3P+N+PE) or Optional Special Design W/O Neutral						
Voltage Tolerance	± %5…%20 (Adjustable with %1 step)						
Frequency	50 or 60 Hz						
Frequency Tolerance	%5						
THDi	<5%						
Power Factor	0.99						
OUTPUT							
Voltage	115/200 Vac, 220/380 Vac, 254/440 Vac (3P+N+PE) or Optional Special Design W/O Neutral						
Voltage Regulation	<±1%						
Frequency	60 or 50 Hz±0.5%						
Crest Ratio	3:1						
Efficiency	>89%				>90%		
Power Factor	0,8						
THDv	<3% Linear Load, <5% Non-Linear Load						
Overload	%100<Load<%125 for 10 min., %125<Load<%150 for 1 min., Load>150 :Shut down						
Short Circuit Protection	Electronic Protection, Fuse						
GENERAL FEATURES							
Working Type	Static, Online, DSP Controlled						
Topology	High Frequency PWM , IGBT Technology						
Display	128x64 Graphic LCD						
LED	6 pcs for Line, Charge, Battery, Inverter, Overload, Failure						
Event Logs	Up to 500 Logged Event History						
ENVIRONMENTAL							
Operating Temperature	0 ~ 40 °C						
Storage Temperature	-25 ~ +55 °C						
Relative Humidity	% 0-95 (Non-condensing)						
Altitude (without derating)	<1000 m						
Cooling	Forced Air Cooling						
Protection Level	IP20 (Others on request)						
Acoustic Noise	<55 dBA				<60dBA		
PHYSICAL							
Dimensions (WxDxH)mm.	350x795x1110			500x806x1213			
Weight (kg)	112	115	119	160	165	172	
OPTIONS							
Functions	Parallel Operation, EPO Emergency Stop, Heater						
Battery	60x12 Vdc Maintenance Free Dry Type						
Isolation Transformer	Input and/or Output						
Communication	Dry Contacts, SNMP, Modem, RS232, RS485						
STANDARDS							
Harmonized Standards	EN 62040-1 (LVD), EN 62040-2 (EMC), EN 62040-3						

GENERAL SPECIFICATIONS

- IGBT Rectifier and Inverter
- Input Current Harmonic < %5
- Silent Performance
- DSP Controlled
- Up to 0.99 Input Power Factor Correction
- Advanced LCD Panel
- Up to 500 Event History

FREQUENCY CONVERTER

Static frequency converters are used with the devices which cannot adapt to line frequency. Static converters are more economic and more technological solution than the conventional motor generator (Dynamic Converter) for these problems. Their efficiency is higher, but operation costs are lower. Frequency converter's dynamic response is very short, because of working with static components. They are DSP controlled and they can be developed according to customer needs. Battery can be added to system and converter can continue to work even in line failures. FN5000 Series converts 50/60 Hz Input Frequency to 60/50 Hz Output Frequency at desired voltage.

FN 5000 Series

Frequency Converters Technical Specifications

10-800 kVA 3 Phase Input - 3 Phase Output (HF)

MODEL	5100	5120	5160	5200	5250	5300	5400	5500	5600	5800
Apparent Power(kVA)	100	120	160	200	250	300	400	500	600	800
Active Power (kW)	80	96	128	160	200	240	320	400	480	640
INPUT										
Voltage	115/200 Vac, 220/380 Vac, 254/440 Vac (3P+N+PE) or Optional Special Design W/O Neutral									
Voltage Tolerance	± %5…%20 (Adjustable with %1 step)									
Frequency	50 or 60 Hz									
Frequency Tolerance	%5									
THDi	<5%									
Power Factor	0.99									
OUTPUT										
Voltage	115/200 Vac, 220/380 Vac, 254/440 Vac (3P+N+PE) or Optional Special Design W/O Neutral									
Voltage Regulation	<±1%									
Frequency	60 or 50 Hz ±0.5%									
Crest Ratio	3:1									
Efficiency	>89%						>90%			
Power Factor	0,8									
THDv	<3% Linear Load, <5% Non-Linear Load									
Overload	%100<Load<%125 for 10 min., %125<Load<%150 for 1 min., Load>150 :Shut down									
Short Circuit Protection	Electronic Protection, Fuse									
GENERAL FEATURES										
Working Type	Static, Online, DSP Controlled									
Topology	High Frequency PWM , IGBT Technology									
Display	128x64 Graphic LCD									
LED	6 pcs for Line, Charge, Battery, Inverter, Overload, Failure									
Event Logs	Up to 500 Logged Event History									
ENVIRONMENTAL										
Operating Temperature	0 ~ 40 °C									
Storage Temperature	-25 ~ +55 °C									
Relative Humidity	% 0-95 (Non-condensing)									
Altitude (without derating)	<1000 m									
Cooling	Forced Air Cooling									
Protection Level	IP20 (Others on request)									
Acoustic Noise	<65 dBA		<70 dBA		<74dBA		<75dBA			
PHYSICAL										
Dimesions (WxDxH)mm.	550X800X1335		68X1007X1747		780X1260 X1900	1600X868X1800		2190X801 X2029	3216X868X1800	
Weight (kg)	290	315	490	540	870	1300	1370	1480	1690	1750
OPTIONS										
Functions	Parallel Operation, EPO Emergency Stop, Heater									
Battery	60x12 Vdc Maintenance Free Dry Type									
Isolation Transformer	Input and/or Output									
Communication	Dry Contacts, SNMP, Modem, RS232, RS485									
STANDARDS										
Harmonized Standards	EN 62040-1 (LVD), EN 62040-2 (EMC), EN 62040-3									

GENERAL SPECIFICATIONS

- IGBT Rectifier and Inverter
- Input Current Harmonic < %5
- Silent Performance
- DSP Controlled
- Up to 0.99 Input Power Factor Correction
- Advanced LCD Panel
- Up to 500 Event History

FREQUENCY CONVERTER

Static frequency converters are used with the devices which cannot adapt to line frequency. Static converters are more economic and more technological solution than the conventional motor generator (Dynamic Converter) for these problems. Their efficiency is higher, but operation costs are lower. Frequency converter's dynamic response is very short, because of working with static components. They are DSP controlled and they can be developed according to customer needs. Battery can be added to system and converter can continue to work even in line failures. FN5000 Series converts 50/60 Hz Input Frequency to 60/50 Hz Output Frequency at desired voltage.

MADRA Series

Static Voltage Stabilizers Technical Specfications

7,5-2000 kVA 1 Phase Input - 1 Phase Output / 3 Phase Input - 3 Phase Output

MODEL	1075	1015	1030	3030	3060	3100	3250	3500	31000	31500	32000
Power (kVA)*	7,5	15	30	30	360	100	250	500	1000	1500	2000
INPUT											
Voltage	220 Vac (230/240 Optional) (1Ph+N+GND)			380 Vac (400/415 Vac Optional) (3P+N+GND)							
Voltage Tolerance	175-260 Vac			300-450 Vac							
Frequency	50 Hz										
Frequency Tolerance	±5%										
Current (A)	45	90	180	60	120	100	475	950	1900	2850	3800
OUTPUT											
Voltage	220 Vac (1P+N+GND)			380 Vac (3P+N+GND)							
Voltage Tolerance	± 2%										
Correction Speed	5000 V/sn.										
Response Time	20 ms.										
Current (A)	35	68	135	45	90	150	380	750	1500	2250	3000
Efficiency (100% load)	>97%										
THDv	<3%										
LCD CONTROL PANEL											
Type	2x16 / 4x20 Alpha Numeric LCD Panel										
Measurement	Input, Output and Status Information										
Warnings	High Input, Low Input, Error										
PROTECTIONS											
Output Voltage	±%8 (Adjustable)										
Over Load	1 min. for %150										
Thyristor Error	System do not work										
Over Temperature	Yes										
Noise Filter	EMI/RFI Filter										
Bypass	Manuel										
ENVIRONMENTAL											
Operating Temp.	-15 ~ +50 °C										
Humidity	%95 (Non Condensing)										
Cooling	Fan										
Protection Class	IP20										
Acoustic Noise	<55 dBA										
PHYSICAL											
Dimensions (WxDxH) cm.	27x47x48	27x47x48	40x47x70	40x80x70	70x70x110	70x70x120	140x70x135	180x95x160	240x100x210	270x110x210	270x110x210
Weight (kg)	25	55	95	90	125	185	900	1900	2900	3650	4000
STANDARDS											
Standards	EN50091-1/EN62040-1(LVD) EN50091-2/EN62040-2 (EMC)										

*Other Powers are available per request.

FEATURES

- Digital Microprocessor Control
- 20 ms Response Time
- Zero Transfer Time
- Low/High Voltage Protection,
- Over Temp. Protection
- EMI/RFI Filter
- LCD Panel

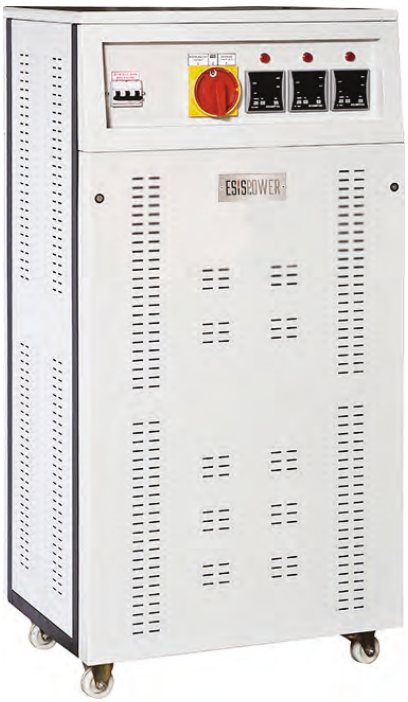
STATIC VOLTAGE STABILIZERS

MADRA Series Automatic Voltage Regulator is a static voltage regulator and do not include any moving parts. Voltage regulation is realized by microprocessor control via digital technology within milliseconds. It has not any corroding part where as servo regulator have these parts. MADRA Series protects itself and your critical loads at low/high voltage levels. There are RFI and EMI filters at all power levels. ESISPOWER Static Voltage Regulators are used at Industrial machines, Radio and TV transmitters GSM Base stations, Communication Systems, Hospitals, Studios, etc.

TOROS Series

Servo Voltage Stabilizers Technical Specifications

1-3250 kVA 1 Phase Input / 1 Phase Output - 3 Phase Input / 3 Phase Output



MODEL (See Below Table)	1 PHASE	3 PHASE
Power Range	1-1000 kVA	3-3250 kVA
Input Voltage Range	150-250 Vac*	275-450 Vac*
Min. Input Range (Optional)	120-230 Vac	210-400 Vac
Output Voltage	220 Vac (Optional 230-240Vac)	380 Vac (Optional 400-415 Vac)
Output Voltage Tolerance	±2%	
Frequency	50 Hz (On Request 60 Hz)	
Correction Speed	150 V/sn.	
Control Method	Microprocessor Controlled	
Display	Input / Output Voltage and Currents	
Efficiency	>%95	
Conductor Type	Aluminium (On Request Copper)	
High Voltage Protection	Optional	
Phase Protection Unit	Optional	
Over Temperature Protection	Optional	
Over Current Protection	Optional	
Short Circuit Protection Unit	Optional	
Operating Temperature	-10 ~ +40ºC	
Storage Temperature	-25 ~ +60ºC	
Altitude	<3000 m.	
Protection Class	IP 20 (21,22,31,44,31,44,54 Optional)	
Acoustic Noise	<60 dBA (from 1 m.)	
Standards	TS EN 61000, EN 55011:2009, EN 1558-1	

* Other Voltage ranges can be manufactured per request

SINGLE PHASE MODELS		THREE PHASE MODELS			
MODEL NO	POWER	MODEL NO	POWER	MODEL NO	POWER
TOROS 1001	1 kVA	TOROS 30003	3 kVA	TOROS 30250	250 kVA
TOROS 1002	2 kVA	TOROS 30006	6 kVA	TOROS 30300	300 kVA
TOROS 1004	3,5 kVA	TOROS 30010	10,5 kVA	TOROS 30400	400 kVA
TOROS 1005	5 kVA	TOROS 30015	15 kVA	TOROS 30500	500 kVA
TOROS 1008	7,5 kVA	TOROS 30023	22,5 kVA	TOROS 30600	600 kVA
TOROS 1010	10 kVA	TOROS 30030	30 kVA	TOROS 30800	800 kVA
TOROS 1015	15 kVA	TOROS 30045	45 kVA	TOROS 31000	1000 kVA
TOROS 1020	20 kVA	TOROS 30060	60 kVA	TOROS 31200	1200 kVA
TOROS 1025	25 kVA	TOROS 30075	75 kVA	TOROS 31600	1600 kVA
TOROS 1030	30 kVA	TOROS 30100	100 kVA	TOROS 32000	2000 kVA
TOROS 1040	40 kVA	TOROS 30150	150 kVA	TOROS 32500	2500 kVA
TOROS 1050	50 kVA	TOROS 30200	200 kVA	TOROS 33250	3250 kVA

GENERAL SPECIFICATIONS

- Wide power range from 1kVA to 3250kVA
- Provides stable voltage to your critical loads like as industrial and military devices, CNC machine tools, elevators, medical system etc.
- Excellent Voltage Regulation.
- TOROS Series stabilizers quickly pay itself with his long-lasting and maintenance free structure.
- High speed correction by PWM control technology.

RITAR **RT RA** Series

RT-RA Series Technical Specifications

AGM VRLA Batteries

MODEL	Voltage	Ah(20Hours)	Width	Depth	Height	Weight
RT1213	12 Volt	1.3 Ah	43	97	52	0.60 kg
RT1223	12 Volt	2.3Ah	35	178	67	0.97 kg
RT1232	12 Volt	3.2 Ah	67	135	60	1.30 kg
RT1245	12 Volt	4.5 Ah	70	90	101	1.40 kg
RT1272	12 Volt	7.2 Ah	65	151	94	2.15 kg
RT1270	12 Volt	7 Ah	65	151	94	2.10 kg
RT1290	12 Volt	9 Ah	65	151	94	2.55 kg
RT12120	12 Volt	12 Ah	98	151	95	3.60 kg
RT12180	12 Volt	18 Ah	77	181	167	5.00 kg
RT12260	12 Volt	26 Ah	175	166	125	8.10 kg
RA 12-40	12 Volt	40 Ah	166	198	171	13.50 kg
RA 12-55	12 Volt	55 Ah	138	229	210	18 kg
RA 12-65	12 Volt	65 Ah	167	350	180	21kg
RA 12-70	12 Volt	70 Ah	167	350	180	23 kg
RA 12-80	12 Volt	80 Ah	167	350	180	24 kg
RA 12-90	12 Volt	90 Ah	169	307	229	28.5 kg
RA 12-100	12 Volt	100 Ah	172	328	222	30 kg
RA 12-120	12 Volt	120 Ah	177	407	225	35 kg
RA 12-150	12 Volt	150 Ah	170	483	240	45 kg
RA 12-200	12 Volt	200 Ah	240	522	240	60 kg

RT Series

RT series is the general purpose battery with 5 years design life for float service. It meets IEC and JIS standards. With up-dated AGM valve regulated technology and high purity raw materials, the RT series battery has reliable standby service life. It is suitable for UPS/EPS, medical equipment, emergency light and security systems applications.

Product Features

- Capacity Range: 0.8Ah-28Ah
- Voltage Class: 6 V/12 V
- Long Design Life (25°C):
  5 years; 10 years (L type)

RT GENERAL SPECIFICATIONS

- Low self-discharge rate ≤ 3% per month
- Good high rate discharge performance
- High sealed reaction efficiency: ≥ 99%
- Wide operation temperature range: -20°C- 60°C
- Structure: compact design, shorter internal connectors between cells, thus low internal resistance
- Plate: Pasted flat type, with patent formula of AM
- Terminal: two or more type's terminals are convenient for selection
- Separator: using improved AGM separator, makes lower resistance, higher assembling pressure to increase cycle life;
- Battery Case: made of high strength ABS (UL94-HB) and UL94-VO is optional;
- Terminal Sealing: double sealing technics

RA Series

RA Series is the general purpose battery with 10 years design life in float service. It meets IEC, JIS and BS standards. With up-dated AGM valve regulated technology and high purity raw materials, the RA series battery maintains high consistency for better performance and reliable standby service life. It is suitable for UPS/EPS, medical equipment, emergency light and security system applications.

Product Features

- Capacity Range: 33Ah-260Ah
- Voltage Class: 6V/12V
- Long design life (25°C): 10 years
- Low self-discharge rate: ≤ 3% / month

RA GENERAL SPECIFICATIONS

- Capacity Range: 33Ah-260Ah
- Voltage Class: 6V/12V
- Long design life (25°C): 10 years
- Low self-discharge rate ≤ 3% per month
- Good high rate discharge performance
- High sealed reaction efficiency: ≥ 99%
- Wide operation temperature range: -20°C - 60°C
- Structure: compact design, lower internal resistance
- Plate: Pasted flat type, with patent formula of AM
- Terminal: two or more type's terminals are convenient for selection
- Separator: using improved AGM separator, makes lower resistance, higher assembling pressure to increase deep cycle life;
- Battery Case: made of high strength ABS (UL94-HB) and UL94-VO is optional;
- Terminal Sealing: double sealing technics

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