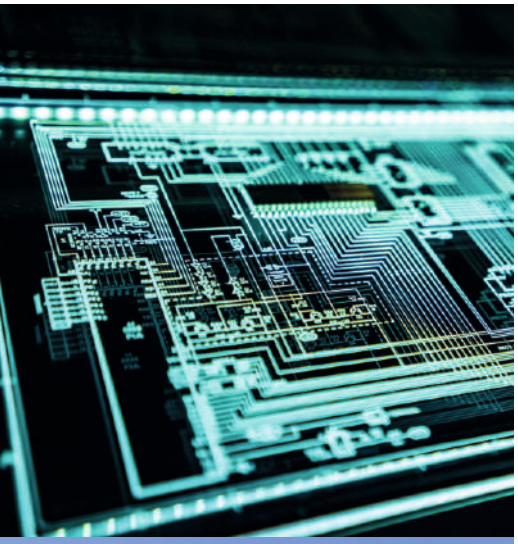
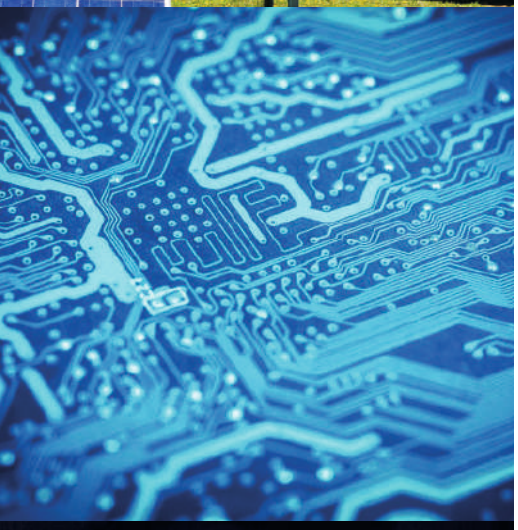
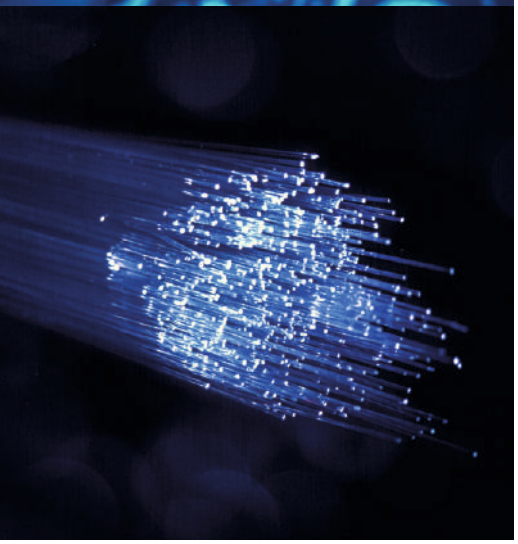
Elsist
UPS - POWER SUPPLY







INDEX

COMPANY PROFILE

Naicon

Naicon was born from a long industrial experience that since 1978 has developed in the production of energy conversion systems and which today has materialized in a leadership position.

An ambitious challenge, that of its founder, inspired by the intuition that an era was changing in Italy.

After a long and painful season of political and social crisis, the Italian industrial fabric was regaining vigor, encouraging the most courageous to embark on new entrepreneurial challenges, and Ennio Clusaz was one of them, motivated by a vision projected towards the future:

“WHEN YOU CHALLENGE BIG PLAYERS, YOU MUST NEVER GIVE UP”

COMPANY MISSION

Naicon

To produce and promote, through specialized units, electronic, IT, and hydro-thermo-sanitary solutions, to simplify people's private and professional lives and to improve the quality of residential and working environments.

Diloc
SISTEMI PER
LA CLIMATIZZAZIONE

Elsist
GRUPPI DI CONTINUITÀ

ONE FOR ALL

Naicon carries out its activities as a Holding with the aim of providing high-quality services and products with competence, professionalism, and innovation. Recognized on a European level for the reliability and safety of its products, Naicon S.r.l. is a vibrant and eclectic commercial reality thanks to the two brands it presents to the market: Elsist and Diloc.

MULTI-SECTOR INNOVATION

Through its two main divisions, Elsist and Diloc, Naicon operates in the market sectors of IT distribution, electrical material, and hydro-thermo-sanitary, providing major players in telecommunications, the public sector, hospital, military, and other areas. Naicon's capitalization allows it to penetrate and develop operations in new and emerging markets, offering solutions tailored to customer needs, thanks to its intense research for innovative solutions.

Diloc
SISTEMI PER LA CLIMATIZZAZIONE

The well-being of home. And beyond. Diloc offers air conditioning solutions for residential, commercial, and tertiary environments, with technology for high-efficiency DC inverters and ecological refrigerants. From Mono and Multi Split to portable air conditioners and air barriers, Diloc has the right answer to ensure maximum comfort with reduced consumption.

1978 – Foundation year

1980 – Start of production and sale of UPS of our own design

1981 – Purchase of the first factory in Milan

1995 – Purchase of the second factory of 2000sqm in the province of Milan

1996 – ISO9001 certification

2000 – Start of production of Elsist three-phase UPS

SOMEONE TO RELY ON

Organization, speed, efficiency.
Naicon benefits from a central warehouse and a Logistic Center coordinated directly from headquarters for the management of goods. This allows for quick order processing and timely deliveries, even in less than 24 hours with the TAX service.
The widespread presence of our Service Centers throughout the country also allows us to offer immediate post-sales support for any need. Count on us.

OUR VIEW OF THE WORLD

As a holding company, Naicon provides financial support for the development of divisions in national and international markets, leveraging valuable networks of alliances and distribution agreements, state-of-the-art production processes, a particular focus on technological innovation in the industry, and attention to commercial sector trends.
Naicon prides itself on offering customized solutions tailored to customer needs, constantly improving through ongoing research and development activities, always ready to meet the challenges of the global market.

Elsist
GRUPPI DI CONTINUITÀ

Protect your devices. The continuous development of Elsist UPS production ensures reliability and safety for the power line. A catalog designed to meet all needs offers ranges up to 800KVA with customizable products, low distortion technology, high inverter efficiency, and 24/7 maintenance and monitoring services.

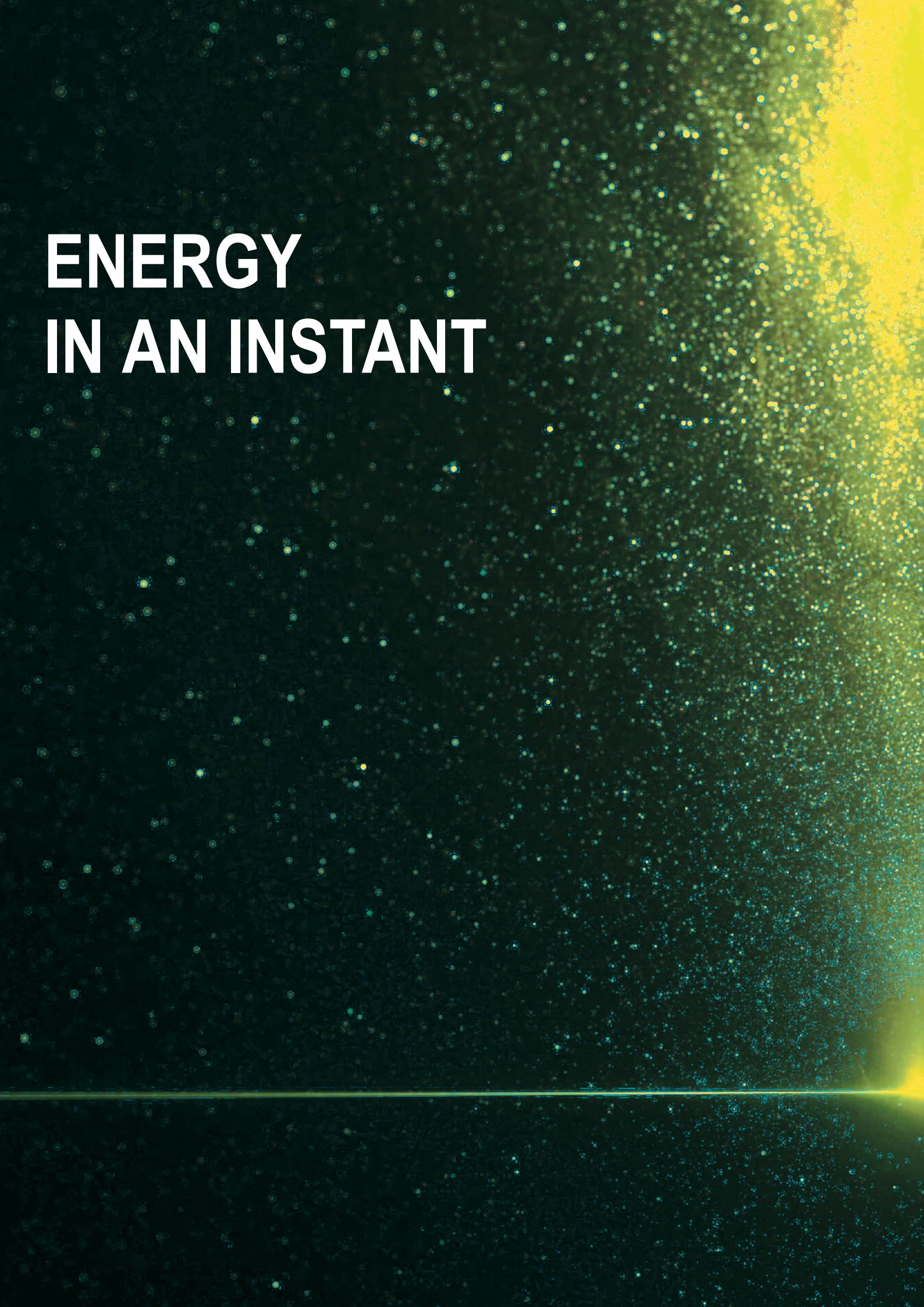
2002
Establishment of the holding company Naicon S.r.l.

2004
Creation of the new division Diloc - Air Conditioning Systems

2007
Subsidiary incorporation of Dinergi S.r.l.

2009
Corporate acquisition and establishment of the 4x-e division

2023
New brand identity


ENERGY
IN AN INSTANT

Elsist designs and develops high technology products for power electronics market since **1978** and has been a leader for years in the field of uninterruptible power supplies (UPS). Elsist offers a wide range of products, both single-phase and three-phase, based on state-of-art technologies. The main configuration of the systems is based on the control of input sinusoidal waveform, either point-by-point or sinewave absorption. This allows for the reduction of input harmonic distortion (THDi) below 3%, with an efficiency higher than 95% in normal operation and higher than 98% in Power-Save condition. Elsist also develops custom solutions suitable for special applications.

ELSIST DESIGNS AND DEVELOPS

WHAT IS AN UPS

The whole world, and mainly our industrial societies, today depend on energy sources and base their development on availability of electricity to ensure the functioning of industrial equipment, public or private infrastructures, street lighting, offices, hospitals, houses and so on.
Unfortunately, even today, the quality and stability of the power networks are a problem. Voltage interruptions and various disturbances – such as short and long-term interruptions, voltage dips, fluctuations in the effective value of the voltage, deviation of the frequency with respect to its nominal value, dissimilarity of the three-phase voltage, overvoltages and transient phenomena, harmonic distortion and inter-harmonic – may happen very often and can create significant problems, both to the equipment supplied by electricity distribution networks, and to lost time and to service interruptions caused by such disturbances, with the additional risk of data and important files losses.
Today more than ever, the speed of transmission and availability of data and services are fundamental resources.
The suspension of work or service because of these drawbacks involves a very high cost, and the return to normal operations must be reduced to a minimum time, or even to zero.
Important equipment such as IT systems, data centres, servers, corporate networks, production chains, storage systems, industrial automation, video surveillance and security in general, hospital equipment, railway or airline networks, etc., if not adequately protected, can often be affected by disturbances that impair proper functioning.
Providing these critical utilities with adequate means of protection not only protects goods and services, but also avoids monetary costs, ensures quality of work and continuous data availability.

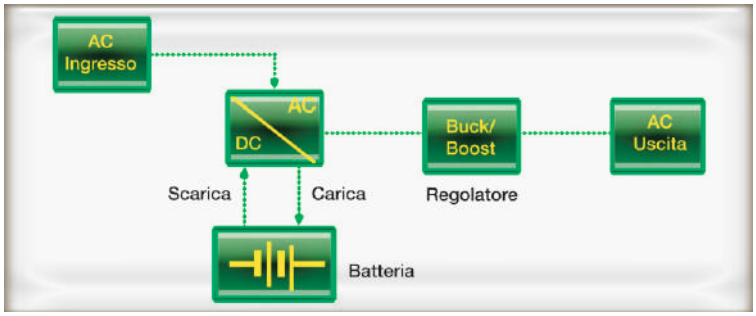
MAIN CIRCUITS OF AN UNINTERRUPTIBLE POWER SUPPLY

RECTIFIER
Transforms AC (input) voltage into DC (output) voltage and charges the batteries.
INVERTER
Converts DC voltage into perfectly stabilized and filtered AC voltage.
BATTERY SET
Stores energy and provides it instantly as needed for a specified period.

Technical term	Symbol	Description
Volt	V	Voltage
Ampere	A	Current
Power factor	Cos φ	Phase shift angle between power and current
Watt	W	Real Power(Volt x Ampere x Cos φ)
Voltampere	VA	Apparent Power (Volt x Ampere if single-phase/Volt x Ampere x √3 if three-phase)
Frequency	Hz	Number of cycles per second
Crest Factor	CF	Ratio between peak current and effective current (Ipk/Ieff)
Autonomy Time	minute	UPS runtime when supplied by the battery

HOW IT WORKS

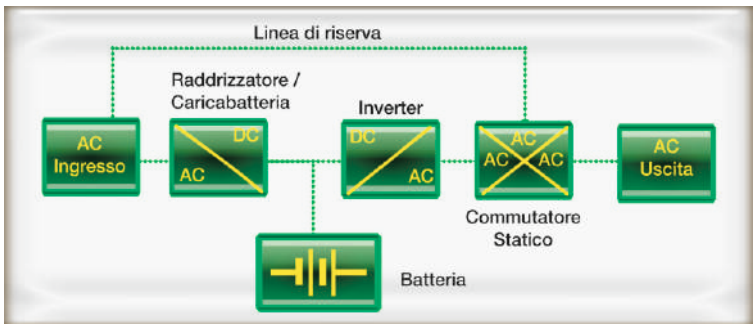
LINE INTERACTIVE SERIES



Our UPS Line Interactive range assures safe and cost-effective reliability. We are pleased to recommend you Line Interactive series for all Small Office and Home users, because they represent the best price / quality ratio. Elsist take care of this product range giving great importance to design , simple appearance, user friendly interface, ease of installation for perfect integration into any type of environment. In normal operation, the load is fed by the network through an Automatic Voltage regulator (AVR).
This circuit corrects network variations, stabilizing them within certain values. When such variations exceed AVR circuit regulation capability, battery is activated to ensure continuity of proper operation.

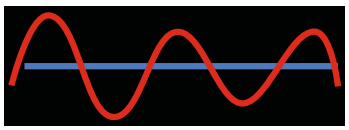
ON-LINE DOUBLE CONVERSION SERIES

Elsist UPS with on-line technology are characterized by zero time intervention, which means the load protection without interruption of the supply and with the same waveform (perfectly sinusoidal), as well as with network operation and with battery operation. In fact, a fully sine-wave voltage is perfectly reconstructed over all time. On-Line Technology models are suitable for protecting Servers, Data Center, Storage Systems, Automation, Video Surveillance, Security systems and others.
ON-LINE technology can provide total protection not only for black-out but also for all the variations in voltage and frequency that silently attack our users every day.
Since 1978, Elsist has largely devoted his production to this UPS technology with expandable autonomies, hence with over-sized integrated rectifiers, in order to support additional battery modules (for business continuity). These series are also dedicated to manufacturing plant, electro-medical devices and general safety.

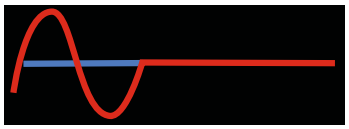


Elsist ON-LINE series offer also integrated shutdown software, targeted for more critical computing applications such as Servers and Data Networks. The reliability of these series is the feature on which Elsist keep focus: the total protection of applications in order to forget the risk of electrical power inconveniences.

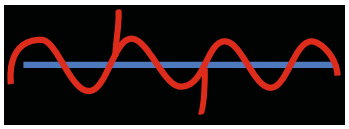
Sometimes we experience electrical disturbances on the mains such as voltage fluctuations, spikes, flickering, blackouts that can disturb the correct operation of our systems or even cause them damages. There are various kind of electrical disturbances. Hereafter, we're listing the most common ones:



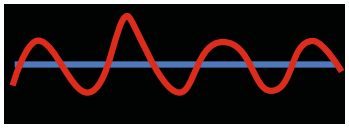
SAGS a sudden decrease of input voltage for a short time.
BROWNOUTS are steady decrease of input voltage for a long time.
The load is still supplied but at a voltage below its tolerances.



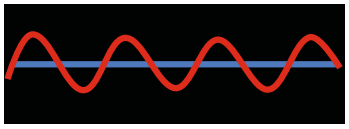
BLACKOUTS no power at all, in this condition the load is not supplied.



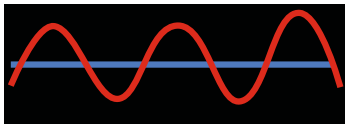
SPIKES a sudden and very large increase in the voltage level. Quite dangerous for the load.



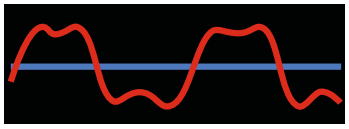
SURGES a sudden increase in the voltage level above the normal level, usually more than 20ms.



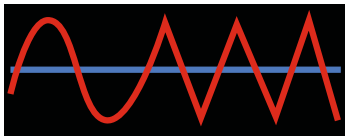
NOISE voltage disturbances generated by magnetic field interference (EMI) or by radio frequency interference (RFI).



OVER VOLTAGE an increase of input voltage for a long period of time. The load is still supplied with a voltage above its tolerances. A dangerous condition for the load.



HARMONICS a distortion of the voltage waveform.



FREQUENCY FLUCTUATION a frequency variation.

ELECTRICAL DISTURBANCES

APPLICATIONS

MARKET SECTORS

Elsist products are used in various critical applications with full customers satisfaction.

Security

TLC

IT

Petroleum

Photovoltaic

Power Plants

Transport

Hospital

Automation

ELSIST PROVIDES A 360° SERVICE

Elsist provides its customers with a complete technical assistance and a preventive maintenance support. Different types of Service contract are available, to allow customers to select the most suitable one for their applications. Today Elsist may offer a 24 hours a day monitoring system, handled by its service center in Milan. With this particular service contract, named "Safety", we provide a full time control of the device, by checking its operation in real time and set-up onsite intervention for problem solving whenever necessary.
After sales service of Elsist is granted by a team of top trained technicians to ensure the best support for your installations. The area of operations stretches accross the country. Elsist prides itself on being able to guarantee activity by specialized technicians supplied with spare parts, who are able to intervene within 4 hours of the call.

TECHNICAL SUPPORT

Consultation on equipment installation

Special selling conditions on spare parts and batteries

Checking of the environment for Standard&Norms compliance

Customized Service contract, also multi-brand

Fast support within 24 hours

Pre-sale support

«Safety Intelligent» contract for a 24 hours a day support

Special prices on labor cost

«Full» contract allows a free-of-charge replacement.

SINGLE-PHASE RANGE

Single-phase UPS, with high efficiency and fast response, are ideal for homes, offices, and small businesses. Easy to install, these devices provide stabilized and always reliable power at low costs. Moreover, they allow for minimal energy consumption thanks to the Elsist-branded clean energy model.

SINGLE-PHASE RANGE FEATURES

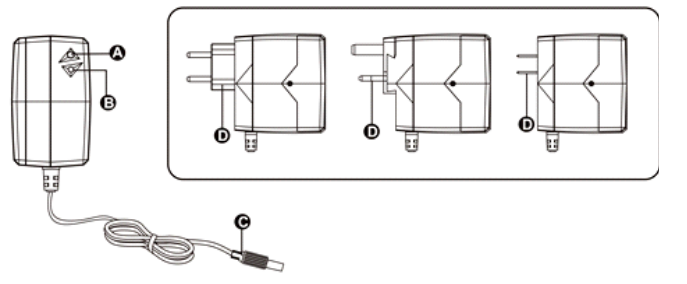
- Voltage stability +/-20%
- Battery status control and verification
- Function as a frequency converter
- Remote supervision system with SNMP network card
- Contact card, 4 volt-free contacts for remote machine status control
- CEI016 compliance option
- EN50171 compliance option

UPSMODEM

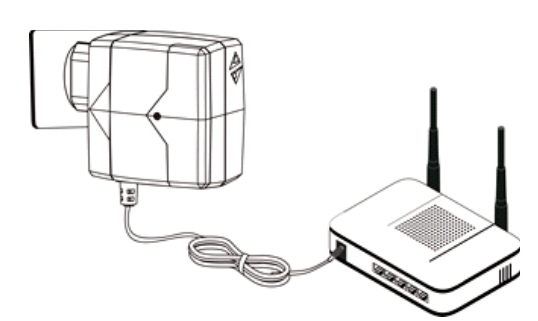
DC UPS

UPSMODEM

UPS Modem is an uninterruptible power supply unit designed for the protection of 12VDC devices, such as VoIP phones, IP cameras, modems, decoders & smart home, routers & switch, signal amplifiers and repeaters, POE systems, access point and security systems.
Thanks to its lithium batteries, UPSModem can provide power for hours during a blackout, compared to traditional uninterruptible power supplies. The unique design, with extremely compact dimensions (like a power adapter), allows for direct connection to the power outlet without connecting cables.



A)ON/OFF Button
B)LED Indicator
C)DC Output Connector
D)AC Input



Usage Note
Product suitable for Modem/Router/Cameras/DVR

Load Connection
Connect the load to the DC output connector (C) of the UPS.
Now the connected device is protected by the UPS unit.

		UPSMODEM
AC INPUT		
Voltage range		90 VAC ~ 264 VAC
Frequency		50 o 60 Hz
DC OUTPUT		
Voltage		12Vdc ± 5%
Max Power		25W (2.1A)
BATTERY		
Type		Lithium-ion battery
Rated voltage		3.7 Vdc
Capacity		2600 mAh
Typical recharge time		3 hours recover at 90% capacity
MECHANICAL CHARACTERISTICS		
Input Plug		Italian
Output cable		1m Length (DC Male Jack)
Installation type		horizontal / vertical
Dimension		42x74x68 mm
Net weight	mm	280 g
AUTONOMY	kg	min 30' - max 3h

MULTISTATION

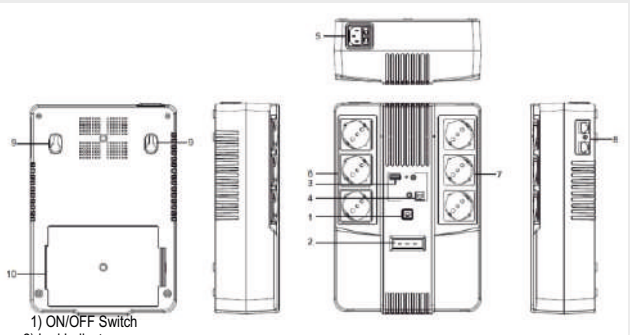
Line Interactive Single Phase UPS (800VA - 1000VA)

MULTISTATION

MULTISTATION is a device with Line-interactive technology, featuring a pseudo-sinusoidal waveform and a short transfer time. Thanks to its compact design, this equipment is mainly designed for home multimedia applications or small offices. It provides complete surge protection for critical loads, which are directly connected to the UPS's protected outlets.

MAIN FEATURES

- Microprocessor control for greater reliability.
- AVR function (automatic voltage regulation).
- Green Power function for energy saving.
- Battery start (cold start).
- Automatic restart function upon power return.
- Lightweight and compact.
- 3 Schuko outlets protected against power interruptions + 3 filtered Schuko outlets.
- Overload protection.



1) ON/OFF Switch
2) Led Indicator
a. Green led on normal functioning – mains present
b. Flashing yellow led battery functioning
c. RED led on error present – failure
3) USB charging port
4) USB port
5) AC outlet
6) Output sockets – bypass operation
7) Output sockets – UPS operation
8) RJ45 telephone sockets
9) Wall mounting
10) Battery compartment

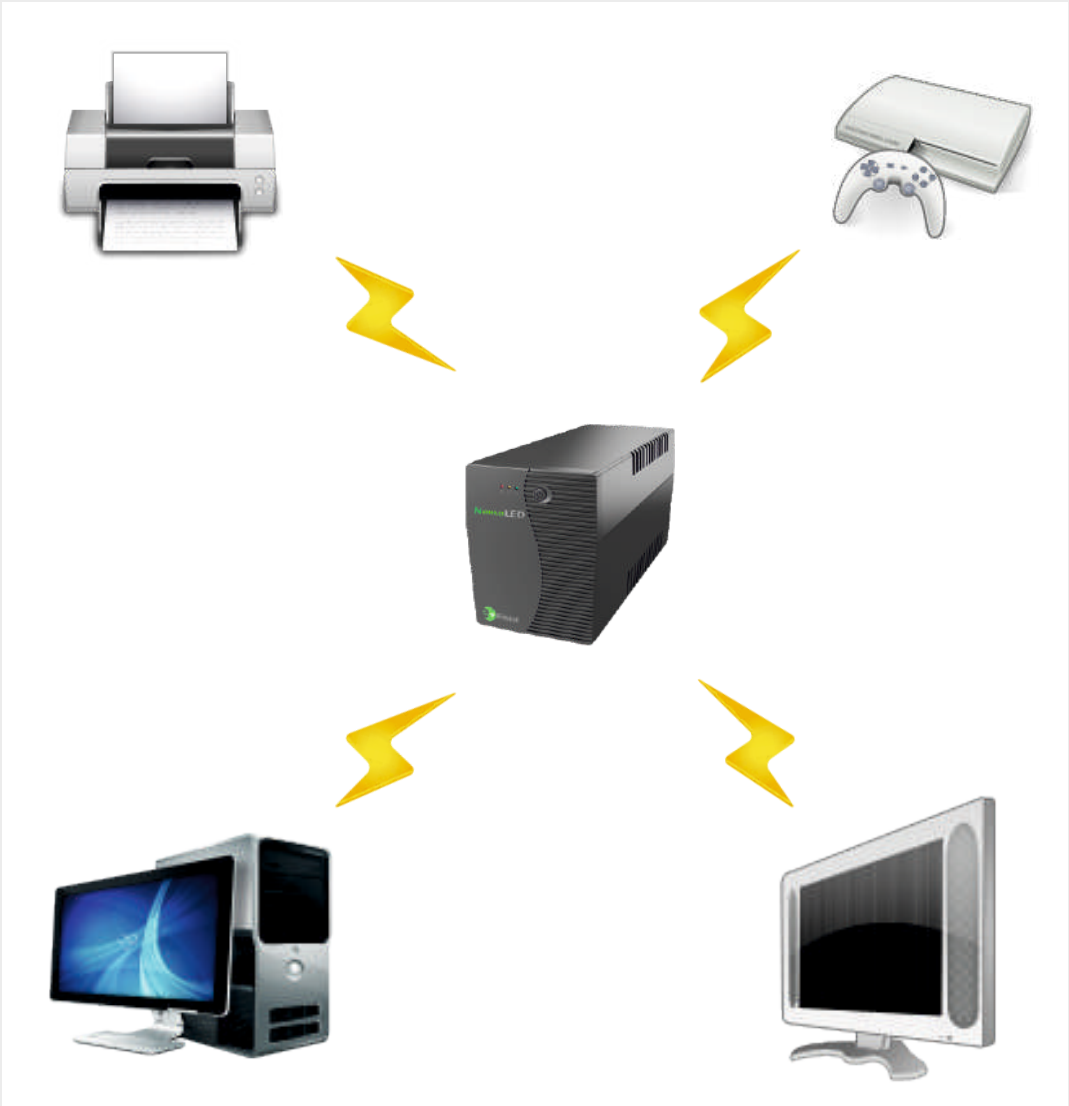
	MULTISTATION800	MULTISTATION1000
Power Rating	800VA / 480W	1000VA / 600W
Input Voltage	230 Vac ± 27%	
Input Frequency	50/60 Hz ± 5%	
Output Voltage	230 Vac (±10% network failure)	
Output frequency	50/60 Hz ± 1%	
Backup Time	10'	
Battery Type	sealed Pb maintenance free	
Input Outlet Type	IEC	
Output Outlet Type	3 under UPS - 3 filtering and protection against power surge SHUKO	
Modem/T port (10BaseT/100BaseT)	RJ11 (2 wires single line) or RJ45 (network compatible)	
USB charger	USB charging port	
Visual indicators	LED	
Installation Type	horizontal / vertical	
Support Type	feet	
Dimensions and Weight		
Dimensions (LxAxP) mm	202x91x290	
UPS standard weight with batteries kg	5,4	

NEMOLED

Line Interactive Single-Phase Uninterruptible Power Supplies (650VA - 2000VA)

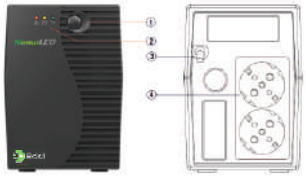
NEMOLED

NEMOLED is a Line-interactive uninterruptible power supply (UPS) with modified sine wave output. It is an effective and economical choice for protecting critical loads in a home or small office environment, such as PCs, monitors, faxes, decoders, modems, and so on.



MAIN FEATURES

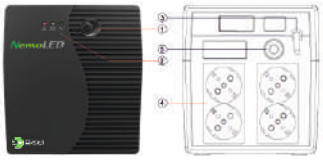
- Microprocessor control for high reliability.
- Complete power protection.
- Green Power function for energy saving.
- Battery startup (Cold start).
- Automatic restart function upon return of power.
- Lightweight and compact size.
- Overload protection.



Front view
NEMOLED 65-80-120

Rear view
NEMOLED 65-80-120

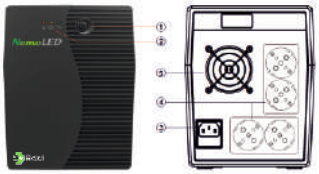
1. Power On/Off Button
2. LED Indicators
3. Power Cord
4. Output Sockets



Front view
NEMOLED 160

Rear view
NEMOLED 160

1. Power On/Off Button
2. LED Indicators
3. Power Cord
4. Output Sockets
5. Fuse



Front view
NEMOLED 200

Rear view
NEMOLED 200

1. Power On/Off Button
2. LED Indicators
3. Power Cord
4. Output Sockets
5. Fan

		NEMOLED 65	NEMOLED 80	NEMOLED 120	NEMOLED 160	NEMOLED 200
Power		650VA/240W	800VA/360W	1200VA/480W	1600VA/600W	2000VA/900W
Input Voltage		230 Vac ± 27%				
Input Frequency		50/60 Hz ± 5%				
Output Voltage		230 Vac ±10% (±5% network failure)				
Output frequency		50/60 Hz ± 1%				
Backup Time		10'				
Batteries		Maintenance-free hermetic Pb				
Input Connection Type		Cable				IEC
Output Connection Type		2 SCHUKO			4 SCHUKO	
Installation Type		vertical				
Support Type		feet				
Dimensions and Weight						
Dimensions (LxAxP)	mm		101x142x282		149x162x350	158x198x380
UPS weight with batteries	kg	3,5	3,5	4,3	7,5	10

NEMOLCD

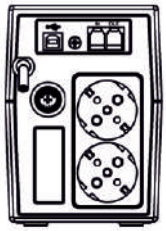
Line Interactive Single Phase Uninterruptible Power Supplies (650VA - 4000VA)

NEMOLCD

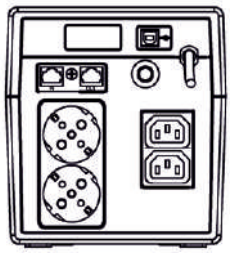
NEMOLCD is a line-interactive UPS with simulated sine wave output.
It protects against network surges, overvoltage, undervoltage, and power interruptions. It's a reliable safeguard against data loss for printers, workstations, PCs, and other IT applications.

MAIN FEATURES

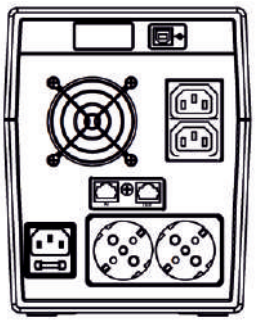
- **Total power protection:** electric noise filter, surge and overvoltage suppression.
- **Cold start function (DC Start):** all NEMOLCD series UPSs feature the cold start function, meaning that even in the absence of mains power, the UPS can be activated simply by pressing the ON/OFF switch.
- **Autorestart:** upon the return of mains power, the UPS automatically restarts. Overload protection: whenever the UPS is operating normally or in emergency mode, the microprocessor continuously monitors the load conditions. In the event of overload or short circuit, your UPS will sound an audible alarm or automatically shut down to save the load and prevent unwanted damage.
- **Modem connection and protection:** 2 special RJ45/RJ11 telephone connectors allow you to protect your modem or 10Base-T LAN network from unwanted line disturbances.
- **Power Management software:** NEMOLCD series UPSs include KPower software that enables communication between the UPS and the PC. By connecting the UPS's USB port to a corresponding port on the PC, you can control or perform the following:
  a) Check the UPS and battery status.
  b) Save vital files during an unwanted shutdown.
  c) Schedule UPS shutdown and startup to save energy.
  d) View UPS activity over time through a Log.
- All controls are performed and guaranteed by a highly reliable Microprocessor.
- **"Green Power" function** for energy saving.



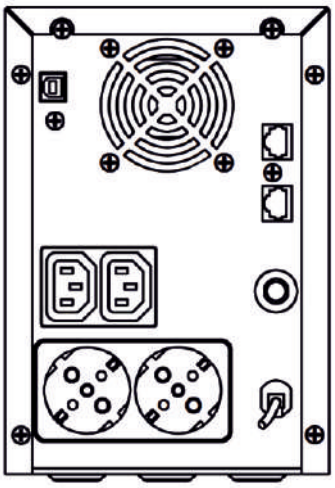
Rear view
NEMOLCD 65/80/120



Front view
NEMOLCD 160



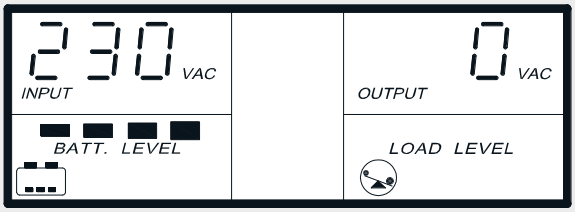
Rear view
NEMOLCD 200/300



Front view
NEMOLCD 400

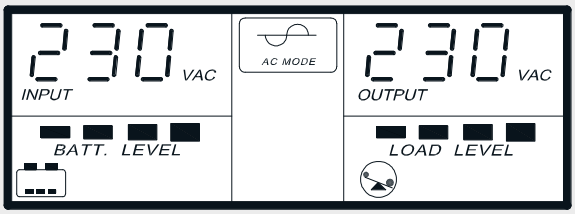
1. Connection ON - Ups OFF

Situation that occurs when the UPS is connected to the electrical network but is not turned on. The LCD display shows information but is not backlit. In this situation, the batteries are in charging mode.



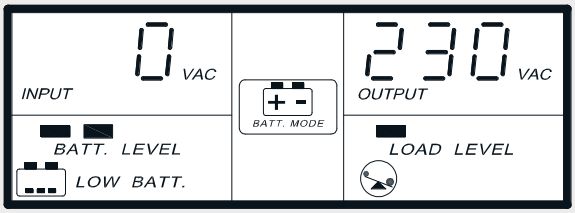
2. Connection ON - Ups ON

Situation that occurs when the UPS is connected to the electrical network and is turned on via the button on the front panel. After the beep ends, the LCD display lights up and the symbol "3" appears to indicate that the electrical network is functioning. The UPS is in normal mode, the load is protected, and the batteries are charging.



3. Connection OFF - Ups ON (Power failure/Battery Test)

Situation that occurs when the UPS is on and there is a power failure (or it is simulated to perform the battery test). The symbol "4" lights up to indicate battery operation. The batteries continue to power the load and are discharging. A beep signals the remaining battery life, the closer the beep intervals, the less remaining battery life. When the battery reaches the end of its charge, the symbol "6" will also start flashing.



Technical characteristics		NEMOLCD 65	NEMOLCD 80	NEMOLCD 120	NEMOLCD 160	NEMOLCD 200	NEMOLCD 300	NEMOLCD 400
Power		650VA/240W	800VA/360W	1200VA/480W	1600VA/600W	2000VA/900W	3000VA/1200W	4000VA/1800W
Input Voltage		230 Vac ± 27%						
Input Frequency		50/60 Hz ± 5%						
Output Voltage		230 Vac ±10% (±5% network failure)						
Output frequency		50/60 Hz ± 1%						
Backup Time		10'						
Batteries		Maintenance-free hermetic Pb						
Input Connection Type		cavo				IEC		cavo
Output Connection Type		2SCHUKO				2IEC,2SCHUKO		
Installation Type		vertical						
Support Type		feet						
Modem/T port (10BaseT/100BaseT)		RJ11 (2-wire single line) or RJ45 (network compatible)						
USB interface		standard						
LCD display		yes						
Dimensions and Weight								
Dimensions (LxAxP)	mm	101x142x282	101x142x282	101x142x282	149x162x350	158x198x380	158x198x380	145x213x436
UPS weight with batteries	kg	3,9	4,4	4,7	8,4	10	10,5	23

MISSION

UPS On-line Double Conversion Single-Phase (1KVA - 10KVA)

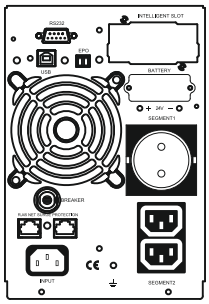
MISSION UPS

Mission is an On-line double conversion Uninterruptible Power Supply (UPS) with DSP (Digital Signal Processor) technology. It provides total protection from all electrical network issues. The online UPS supplies the equipment with continuous and high-quality AC power, with no interruptions during the switch to battery, and it protects the equipment from almost all power disturbances caused by blackouts, brownouts, voltage sags, surges, or interferences.

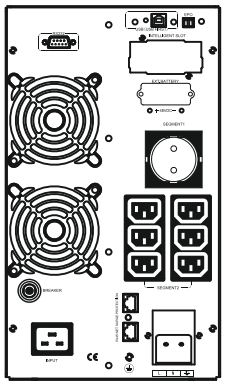
Mission UPS units feature maintenance control systems, voltage monitoring, battery status monitoring, automatic shutdown (programmed Power Off), etc. The Mission series is specifically designed for professional applications: Industrial Applications, Data Processing Centers (DPC), Cloud Computing, High-Power Applications, Financial Services, Medical Centers, Critical Applications, etc.

MAIN FEATURES

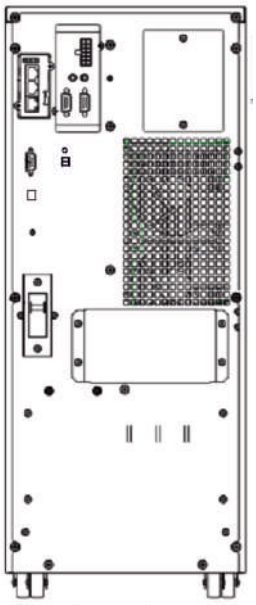
- High Input and Output PF
- Wide input voltage range (energy saving)
- Eco mode (economic operating mode)
- Back-feed protection
- Surge protection
- Auto self-test
- Cold start
- Additional battery
- USB
- EPO (Emergency Power Off)
- Power factor 0.9 (Cosfi)
- Software included
- Intelligent slot SNMP card (optional)
- Dry contact (optional)
- Tropicalization (optional)



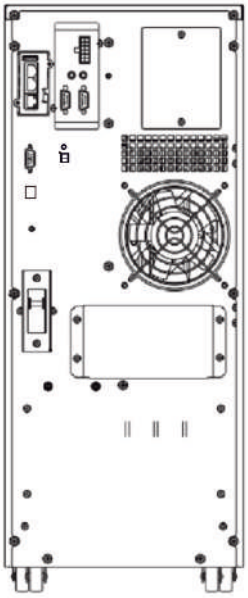
Rear View
MISSION1000



Rear View
MISSION2000
MISSION3000



Rear View
MISSION6000



Rear View
MISSION10000

		MISSION 1KVA	MISSION 2KVA	MISSION 3KVA	MISSION 6KVA	MISSION 10KVA
Input						
Power		1KVA/0,9KW	2KVA/1,8KW	3KVA/2,7KW	6KVA/5,4KW	10KVA/9KW
Input type		Single-phase grounded				
Connection type		IEC			terminal	
Rated voltage		208/220/2023/240 VAC			220VAC/230VAC/240 VAC	
Input frequency		45-55Hz @ 50/55Hz 65Hz @ 60Hz			50/60 Hz autoselect	
Power factor		≥ 0.98			≥ 0.80 (input THDV ≤1%)	
Output						
Output type		Single-phase grounded				
Connection type		1 SCHUKO / 2 IEC(10A)	1 SCHUKO / 6 IEC(10A) / terminal		terminal	
Rated voltage		220/230/240VAC selectable				
Output frequency		50/60 Hz				
Power factor		0.9				
Voltage accuracy		±1%			±1%	
Switching time		Network-- Battery = 0ms				
Output voltage distorsion		≤ 3% (100% linear load)			≤ 2% (100% linear load)	
Batteries						
Q.ty internal batteries		2	4	6	16/18/20 configurable monoblocks	
Internal battery type		Maintenance-free hermetic Pb				
Backup Time		10’				
Physical Characteristics						
Dimensions (WxHxD)	mm	144x209x293	191x337x460	191x337x460	250x616x502	250x616x502
Standard weight with batteries	kg	9,1	19,5	24,5	62	64
Display		LCD+LED				
Color		black				
Installation type		vertical			vertical	
Support type		feet			wheels	

MISSION MSS

Single-phase CPSS for Centralized Emergency Supplies EN50171 (1KVA - 10KVA)

MISSION MSS - EN50171

Single-phase CPSS for Centralized Emergency Power Supplies EN50171

The Mission MSS series is designed in compliance with the current EN50171 regulations. Mission MSS is primarily used for:

-Centralized emergency lighting systems
-Fire prevention systems.
-Smoke extraction equipment.
-Security systems.

Our "Elsist Battery Control" system ensures operations in case of current interruptions, checking the conditions of each monoblock. The battery charger is designed to recharge the batteries at 80% of total capacity in less than 8 hours. Autonomy times may be 1, 2 or 3 hours at nominal load, according to the condition specified by EN50171 standard.

MAIN FEATURES

- High overload capability
- Reverse voltage battery protection
- High recharging current
- 10 years battery lifetime
- RS232-RS485 interfaces
- Relay card with clean contacts for remote alarms
- Tropicalization (optional)

Input		MISSION MSS 1KVA	MISSION MSS 2KVA	MISSION MSS 3KVA	MISSION MSS 6KVA	MISSION MSS 10KVA
Power		1KVA/0,9KW	2KVA/1,8KW	3KVA/2,7KW	6KVA/5,4KW	10KVA/9KW
Power according EN50171		0,75KVA/0,675KW	1,5KVA/1,35KW	2,25KVA/2,025KW	4,5KVA/4,05KW	7,5KVA/6,75KW
Input type		Single-phase grounded				
Connection type		IEC			Terminal	
Rated voltage		208/220/230/240 VAC			220/230/240 VAC	
Input frequency		45-55Hz @ 50/55Hz 65Hz @ 60Hz			50/60 Hz auto select	
Power factor		≥ 0.98			≥ 0.80 (inputTHDV ≤1%)	
Output						
Output type		Single-phase grounded				
Connection type		1 SCHUKO / 2 IEC(10A)	1 SCHUKO / 6 IEC(10A) / terminal		terminal	
Rated voltage		220/230/240VAC selectable				
Output frequency		50/60 Hz				
Power factor		0.9				
Voltage accuracy		±1%			±2%	
Switching time		Network-- Batteries = 0ms				
Output voltage distorsion		≤ 3% (100% linear load)			≤ 2% (100% linear load)	
Batteries						
Internal battery type		Maintenance-free hermetic Pb				
Backup Time		60' - 90' - 120'				
Physical Characteristics						
Dimensions (WxHxD)	mm	144x209x293	191x337x460	191x337x460	250x616x502	250x616x502
Standard weight with batteries	kg	9,1	19,5	24,5	62	64
Display		LCD+LED				
Color		black				
Installation type		vertical			vertical	
Support type		feet			wheels	
Standards		EN/IEC 60950-1 EN/IEC 62040-1 EN/IEC 62040-2 EN/IEC 62040-3 EN 50171				

MISSION MT

Single-phase CPSS compliant with CEI 0-16 - CEI 0-21 standards (1KVA - 3KVA)

MISSION MT - CEI 0-16 / CEI 0-21

Single-phase CPSS compliant with CEI 0-16 - CEI 0-21 standards

The range of MISSION MT CPSS is specifically designed to ensure power supply to all the ancillary circuits in the Medium Voltage cabinet for at least 60 minutes, and to maintain an energy storage in case of long out of order due to maintenance or severe failures on the mains.

MAIN FEATURES

- ON-LINE Double conversion technology
- Sinusoidal waveform
- UPS on Battery Signal
- Energy storage
- Tropicalization (optional)
- Possibility of higher powers upon request

		MISSION MT 1KVA	MISSION MT 2KVA	MISSION MT 3KVA
Input				
Power		1KVA/0,9KW	2KVA/1,8KW	3KVA/2,7KW
Input type			Single-phase grounded	
Connection type			IEC	
Rated voltage			208/220/230/240 Vac	
Input frequency			45-55Hz @ 50/55Hz 65Hz @ 60Hz	
Power factor			≥ 0.98	
Output				
Output type			Single-phase grounded	
Connection type		1 SCHUKO / 2 IEC(10A)	1 SCHUKO / 6 IEC(10A) / terminal block	
Output voltage			220/230/240VAC selectable	
Output frequency			50/60 Hz	
Power factor			0.9	
Voltage accuracy			±1%	
Switching time			Network -- Battery = 0ms	
Output voltage distorsion			≤ 3% (100% linear load)	
Batteries				
Internal battery type			Maintenance-free hermetic lead	
Autonomy according to IEC 016		60 min.50W	60 min.100W	60 min.150W
Physical Characteristics				
Dimensions (WxHxD)	mm	144x209x293	191x337x460	191x337x460
Standard weight with batteries	kg	9,1	19,5	24,5
Display			LCD+LED	
Color			black	
Installation type			vertical	
Support type			feet	
Regulations			CEI016	

MISSION CF

Single-phase Frequency Converters (1KVA - 10KVA)

MISSION CF

Single-phase Frequency Converters 1K-10K

50/60Hz frequency converters from 1KVA to 10KVA with independent voltage and frequency sinusoidal waveform.
Frequency converters supply a linear current and a complete protection to sensitive devices such as:
- PC/Data Network
- Data centers
- Servers
- Telecommunication systems
- Hospital equipment
- Industrial equipment

The Frequency converter provides an output at 50Hz or 60Hz which is independent from input frequency.
The Power Factor Correction (PFC) improves the quality of absorbed input current, thus increasing the efficiency and saving energy.

MAIN FEATURES

- High PF at input and at output
- Wide input range (energy saving)
- Monitoring and self-diagnoses at each switching on
- USB port
- EPO contact
- Software included
- Tropicalization (optional)

		MISSION CF 1KVA	MISSION CF 2KVA	MISSION CF 3KVA	MISSION CF 6KVA	MISSION CF 10KVA
Input						
Power		1KVA/0,9KW	2KVA/1,8KW	3KVA/2,7KW	6KVA/5,4KW	10KVA/9KW
Input type		Single-phase grounded				
Connection type		IEC			Terminal block	
Rated voltage		208/220/230/240 VAC			220/230/240 VAC	
Input frequency		45-55Hz @ 50/55Hz 65Hz @ 60Hz			50/60 Hz seleziona automatica	
Power factor		≥ 0.98			≥ 0.80 (ingresso THDV ≤1%)	
Output						
Output type		Single-phase grounded				
Connection type		1 SCHUKO / 2 IEC(10A)	1 SCHUKO / 6 IEC(10A)/terminal block		terminal block	
Output voltage		220/230/240VAC selectable				
Output frequency		50/60 Hz				
Power factor		0.9				
Voltage accuracy		±1%				
Output voltage distorsion		≤ 3% (100% linear load)			≤ 2% (100% linear load)	
Physical Characteristics						
Dimensions (WxHxD)	mm	144x209x293	191x337x460	191x337x460	250x616x502	250x616x502
Weight	kg	4,5	10,3	10,7	30	32
Display		LCD+LED				
Color		black				
Installation type		vertical			vertical	
Support type		feet			wheels	

MISSION TRP

Single Phase Double Conversion Online UPS (1KVA - 3KVA) Tropicalized

The MISSION 1K-2K-3K TRP series is produced with a component special protection; this process is called "tropicalization" and ensures complete isolation from aggressive weather. Through a special finish applied to electronic boards and delicate components, the UPS is protected from oxidation, temperature and humidity variations, which are the most common causes of premature equipment failures. The TRP product is recommended for installations in environments where operating conditions are critical, such as medium voltage cabins, places near the sea, high-altitude installations, very dusty, moist and hot rooms.

MAIN FEATURES

- High Input and output PF
- Wide range of input voltages (energy saving)
- Eco Mode (economical operating mode)
- Back-feed protection
- Protection from network impulses
- Battery start (Cold start)
- Parallel operation
- Additional battery
- USB
- EPO (Emergency Power Off)
- Software included
- Intelligent slot SNMP board (optional)
- Dry contacts (optional)
- Tropicalization

		MISSION TRP 1KVA	MISSION TRP 2KVA	MISSION TRP 3KVA
Input				
Power		1KVA/0,9KW	2KVA/1,8KW	3KVA/2,7KW
Input type			Single-phase grounded	
Connection type			IEC	
Rated voltage			208/220/2023/240 VAC	
Input frequency			45-55Hz @ 50/55Hz 65Hz @ 60Hz	
Power factor			≥ 0.98	
Output				
Output type			Single-phase grounded	
Connection type		1 SCHUKO / 2 IEC(10A)	1 SCHUKO / 6 IEC(10A) / terminal block	
Output voltage			220/230/240VAC selectable	
Output frequency			50/60 Hz	
Power factor			0.9	
Voltage accuracy			±1%	
Switching time			Network -- Battery = 0ms	
Output voltage distorsion			≤ 3% (100% linear load)	
Batteries				
Q.ty internal batteries		2	4	6
Internal battery type			Maintenance-free hermetic lead	
Backup Time			10’	
Physical Characteristics				
Dimensions (WxHxD)	mm	144x209x293	191x337x460	191x337x460
Standard weight with batteries	kg	9,1	19,5	24,5
Display			LCD+LED	
Color			black	
Installation type			vertical	
Support type			feet	

UPSERVER

Rack-Tower on-line Double Conversion Uninterruptible Power Supplies, (2KVA - 4KVA)

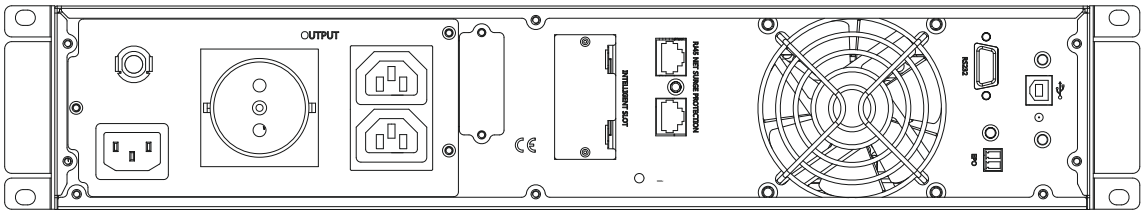
UPSERVER

The UPSERVER series is an online double conversion UPS designed to protect servers and data centers. It may be configured either in rack or tower versions.

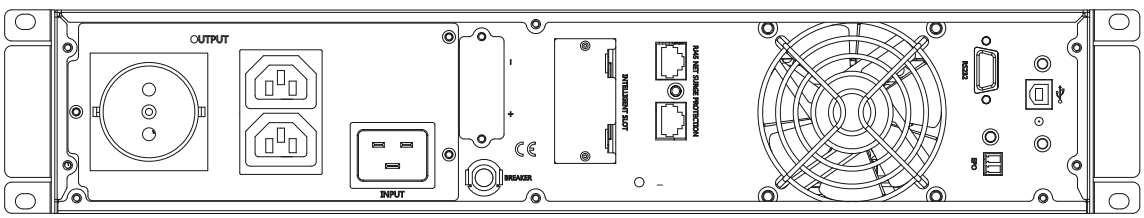
Equipped with online double conversion technology managed by a microprocessor, the UPSERVER range provides a fully protected and perfect sine wave current for all IT networks.

It is designed to easily adapt to different environments: it can be mounting horizontally, in a patch housing with mounting brackets (included), or vertically as a "tower" with the base (included).

Rear View UPSERVER2.0



Rear View UPSERVER4.0



MAIN FEATURES

- True on-line double conversion technology
- Utility frequency independent
- Three segment charging mode to increase battery lifetime
- Selectable High Efficiency mode of operation
- Cold Start
- Power Shedding function to increase back-up time
- Additional battery pack for longer autonomy
- USB and RS232 communication ports
- LCD display
- EPO port
- Rack/Tower convertible
- Hot swappable battery features on rack solution
- Intelligent Slot SNMP board (optional)
- Dry contact (optional)
- Tropicalization (optional)

		UPServer 2.0	UPServer 4.0
Input			
Power		2KVA/1,35KW	4KVA/2,70KW
Input type		Single-phase grounded	
Connection type		IEC	
Rated voltage		208/220/230/240 VAC	
Input frequency		40Hz - 70Hz automatic selection	
Power factor		0,99 @ 100% load (rated input voltage)	
Output			
Output type		Single-phase grounded	
Connection type		1 SHUKO / 2 IEC (10A)	
Outout voltage		200Vac - 240Vac (configurable)	
Output frequency		50Hz - 60Hz (network sync) VAC	
Power factor		0,7	
Voltage accuracy		1%	
Switching time		Network -- Battery = 0ms	
Output voltage distorsion		≤ 3% (100% linear load)	
Batteries			
Q.ty internal batteries		2	4
Internal battery type		12V 9Ah (standard)	
Backup Time		10' (possibility of expansion)	
Physical Characteristics			
Dimensions (WxHxD)	mm	440x86,5x325 (2U)	440x86.5x460 (2U)
Weight UPS	kg	11,3	21,2
Installation type		vertical / horizontal / rack	
Support type		feet (vertical) / base (horizontal) / railkit (optional) (rack)	
Display		LCD+LED	
Color		Black	

FLEXIBLE

Rack-Tower on-line, double conversion UPS (1KVA - 10KVA)

FLEXIBLE

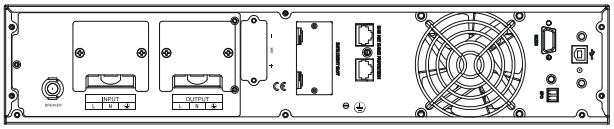
Flexible series is an On-line , double conversion UPS to protect server and data center.
It may be configured either in rack or tower version.
Among the plusses we can highlight the possibility of parallel management of up to 4 power units for the 6KVA and 10KVA models.

MAIN FEATURES

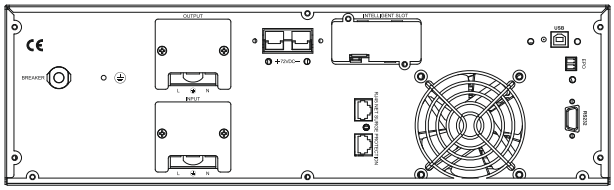
- True on-line double conversion technology
- Reduced depth
- High power factor
- Utility frequency independent
- Three-segment charging mode to increase battery lifetime
- Selectable high-efficiency mode of operation
- Cold start
- Power shedding function to increase back-up time
- USBand RS232 communication ports
- LCD display
- EPO port
- Rack/Tower Convertible
- Hot-swappable battery feature on rack solution
- Intelligent Slot SNMP board (optional)
- Dry contacts(optional)
- Parallel up to 4 units (only 6KVA, 10KVA models)
- Tropicalization (optional) backup time
- Additional battery for higher autonomy

		Flexible1000	Flexible1500	Flexible3000
Input				
Power		1KVA/0,9KW	1,5KVA/1,35KW	3KVA/2,7KW
Input type			Single-phase grounded	
Connection type			Terminal block	
Rated voltage			208/220/230/240 VAC	
Input frequency			50Hz - 60Hz +/- 10% (autodetect)	
Power factor			0,99 @ 100% load	
Output				
Output type			Single-phase grounded	
Connection type			208/220/230/240 VAC	
Outout voltage			Terminal block	
Output frequency			50Hz - 60Hz (network sync)	
Power factor		0,9	0,9	0,9
Voltage accuracy			1%	
Switching time			Network -- Battery = 0ms	
Output voltage distorsion			Thd < 3% with linear load	
Batteries				
Q.ty internal batteries		2	3	6
Internal battery type		12V 9Ah (standard)	12V 9Ah (standard)	12V 9Ah (standard)
Backup Time			10' (possibility of expansion)	
Physical Characteristics				
Dimensions (WxHxD)	mm	440x86,5x325 (2U)	440x86,5x460 (2U)	440x131x520 (3U)
Weight UPS	kg	11,3	16,5	26,2
Installation type			vertical / horizontal / rack	
Support type			feet (vertical) / base (horizontal) / railkit (optional) (rack)	
Display			LCD + LED	
Color			Black	

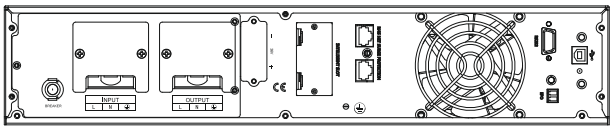
Rear View FLEXIBLE1000



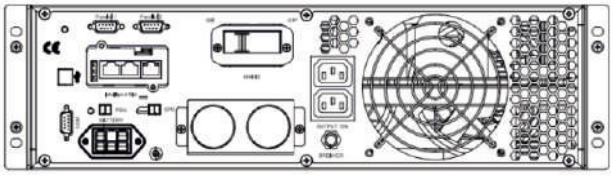
Rear View FLEXIBLE3000



Rear View FLEXIBLE1500



Rear View FLEXIBLE6000 FLEXIBLE10000



		Flexible6000	Flexible10000
Input			
Power		6KVA/5,4KW	10KVA/9KW
Input type		Single-phase grounded	
Connection type		Terminal block	
Rated voltage		208/220/230/240VAC (L+N+GND)	
Input frequency		45-55Hz / 54-66Hz ±0,5Hz	
Power factor		≥0.99	
Harmonic distortion THDi		≤3% (100% linear load)	
Output			
Output voltage		208/220/230/240VAC	
Connection type		Terminal block + 2 IEC	
Output frequency		50-60Hz (network sync)	
Power factor		0.9	
Voltage accuracy		±1%	
Switching time		Network -- Battery = 0ms	
Output voltage distorsion THDv		≤2% with linear load	
Waveform		sinusoidal	
Efficiency		>93,5%	
Batteries			
Battery voltage		±96/±108/±120Vdc	
Internal battery type		Lead-acid, maintenance-free hermetic	
Charging time (typ.)		6-8 hours	
Charging current		12A max	
Communication			
Communication interface		USB, RS232, parallel port, SNMP/relay card (option) 0 -	
General Features			
Operating temperature		40°C	
Altitude		<1500m	
Noise		<50dB at 1 m	
Physical Characteristics			
Composition		UPS + Battery Cabinet	
UPS Dimensions (WxHxD)	mm	440x131x450 (3U)	
Cabinet dimensions (WxHxD)	mm	440x131x520 (3U)	
Net weight	kg	15 (UPS) - 48.9 (Battery Cabinet)	
Safety Standards		IEC/EN62040-1 IEC/EN60950-1	
Installation type		vertical / horizontal / rack	
Support type		feet (vertical) / base (horizontal) / railkit (optional) (rack)	
EMC Standards		EN62040-2, IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC61000-4-6, IEC61000-4-8	

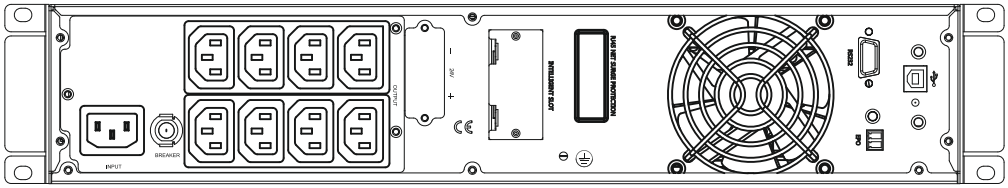
REVERSO

Rack - Tower, Online Double Conversion Uninterruptible Power Supplies (1KVA - 3KVA)

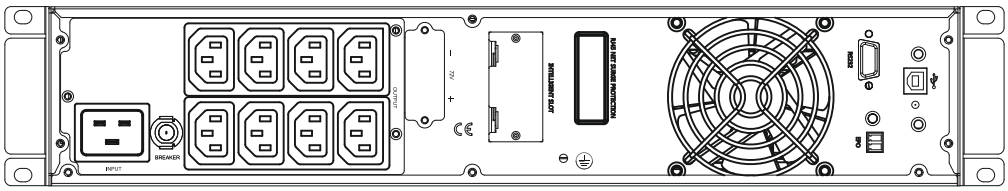
REVERSO

The REVERSO series is an online double conversion UPS with a power factor of 1.0, and a power range from 1 kVA to 3 kVA. The system can be configured as either a tower or a rack mount according to customer needs. When the UPS is in battery mode, it can turn off unnecessary loads to extend the backup time for critical loads

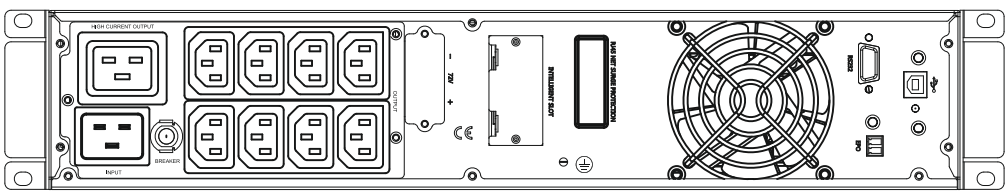
Rear View REVERSO1000



Rear View REVERSO2000



Rear View REVERSO3000



MAIN FEATURES

- True double conversion
- Rack-mounted tower and floor-mounted tower can be converted
- Patented Mimic LCD whose content can be rotated according to the type of use
- Digital control ensures high reliability
- Output socket control for non-critical load shedding capability
- ECO mode operation for energy saving
- Emergency shut down function (EPO)
- Compatible with generator
- Communications: RS-232,USB, SNMP board (optional), relay board (optional)
- By-pass can be used when the UPS is off (set on the LCD display)
- Cold start
- Tropicalization (optional)

		Reverso1000	Reverso2000	Reverso3000
Input				
Power		1KVA/1KW	2KVA/2KW	3KVA/3KW
Input type			Single-phase grounded	
Connection type			IEC	
Rated voltage			208/220/230/240 VAC	
Input frequency			40Hz - 70Hz	
Power factor			0,99 @ 100% load (rated input voltage)	
Output				
Output type			Single-phase grounded	
Connection type			208/220/230/240 VAC	
Outout voltage		8 IEC (10A)	8 IEC (10A)	8 IEC (10A) + 1 IEC (16A)
Output frequency			50Hz - 60Hz ± 0.1 Hz	
Power factor			1	
Voltage accuracy			±1%	
Switching time			Network -- Battery = 0ms	
Output voltage distorsion			Thd < 3% with linear load	
Batteries				
Q.ty internal batteries		2	6	6
Internal battery type			Maintenance-free hermetic lead	
Backup Time			10' (possibility of expansion)	
Physical Characteristics	mm		440x86,5x600 (2U)	
Dimensions (WxHxD)	kg	440x86,5x325 (2U)	25	440x86,5x600 (2U)
Weight UPS		11,3		26
Installation type			vertical / horizontal / rack	
Support type			feet (vertical) / base (horizontal) / railkit (optional) (rack)	
Display			LCD + LED with mechanical rotation	
Color			Black	

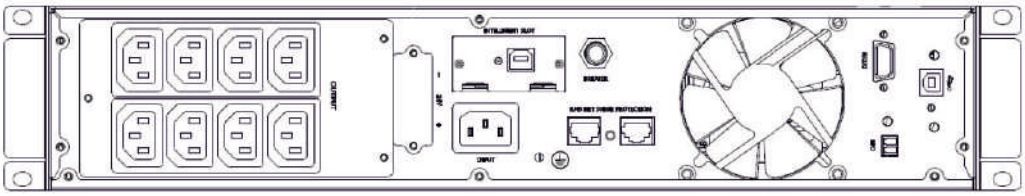
LION

Uninterruptible Power Supply with Li-Ion Battery (1KVA - 3KVA)

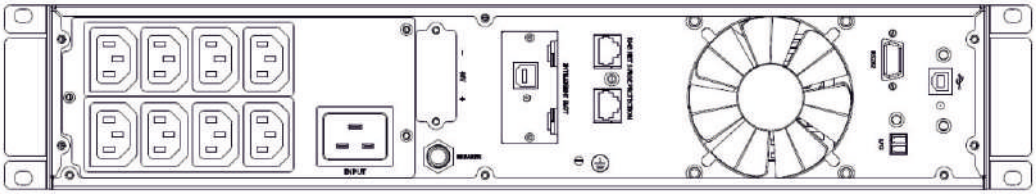
LION

It is the new generation of small-power, on-line double-conversion UPS with single-phase input and output power factor of 1. High-efficiency lithium-ion battery to save energy and reduce maintenance costs.

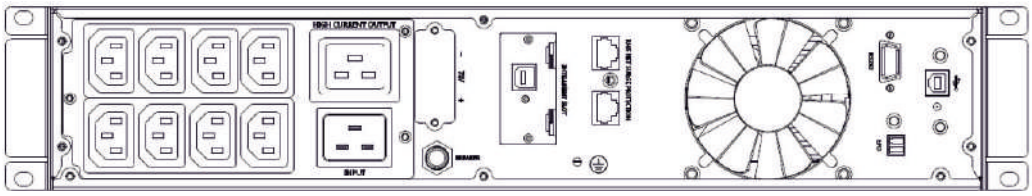
Rear View LION1000



Rear View LION2000



Rear View LION3000



MAIN FEATURES

- Online double conversion conversion
- Output power factor: 1
- Wide input voltage range (110 V-300 V approx.)
- Input power factor 0.99 (with PFC)
- Li-ion battery equipped
- Standard model: charging current 2A
- Intelligent charging mode for optimizing battery performance
- LCD display
- EPO function
- ECO mode operation for energy saving
- Genset compatible
- Intelligent management: RS232 + USB + SNMP
- Load shedding
- Tropicalization (optional)

		LION1000	LION2000	LION3000
Power		1000VA/1000W	2000VA/2000W	3000VA/3000W
Input				
Input type		Single-phase grounded		
Input voltage		220/230/240Vac		
Input frequency		40~70Hz		
Power factor		= 0.98 @ rated voltage (100% load)		
Connection type		IEC		
Generator set		supported		
Output				
Output type		Single-phase grounded		
Voltage		220/230/240Vac		
Power factor		1		
Voltage regulation		±1%		
Frequency		46~54Hz or 56~64Hz (synchronized range) - (50/60±0.1)Hz battery mode		
Harmonic Distortion (THDv)		≤3% THD (linear load); ≤5% THD (nonlinear load)		
Connection type		8 IEC (10A)	8 IEC (10A)	8 IEC (10A) / 1 IEC (16A)
Waveform		Pure Sinusoidal		
Transfer time		zero in AC mode <->Batt. mode; 4ms(Typical) in Inverter <-> Bypass mode		
Efficiency		90% (AC mode)	92% (AC mode)	92% (AC mode)
Battery				
Battery Type (Lithium)		25,6V 9Ah	76,8V 9Ah	76,8V 9Ah
Backup Time (full load)		~8min	~8min	~8min
Charging time		~ 4 hours up to 90%		
Charging current		1A o 2A		
Environment				
Communication interface		USB (or RS232), SNMP board (optional), Relay board (optional)		
Temperature of use		0~40°C		
Storage temperature		-25°C ~ 55°C		
Humidity range		0~95% (non-condensing)		
Altitude		<1500m		
Noise level		Less than 55dBA at 1 meter		
Physical Characteristics				
Dimensions (WxHxD)	mm	440x86,5x325 (2U)	440x86,5x500 (2U)	440x86,5x640 (2U)
Weight	kg	9,6	16,1	21
Installation type		Vertical / Horizontal / Rack		
Support type		Feet (Vertical) / Base (Horizontal) / Rail Kit (Rack)		
Compliance				
Security		IEC/EN62040-1,CE-LVD		
EMC		IEC/EN62040-2,IEC61000-4-2,IEC61000-4-3,IEC61000-4-4,IEC61000-4-5,IEC61000-4-6,IEC61000-4-8		

TRI-ONE

The Elsist catalog offers a series of efficient and versatile tri-mono UPS systems. The tri-mono uninterruptible power supply, with double conversion technology, three-phase input, and single-phase output, is ideal for centralized emergency lighting systems, fire protection systems, smoke extraction equipment, and security systems.

The tri-mono UPS systems ensure maximum power security 24/7, protecting devices from blackouts and all voltage and frequency variations. Energy consumption is minimized thanks to the clean energy model by Elsist. Additionally, with continuous monitoring, a comprehensive service of support and preventive maintenance is offered nationwide.

TRI-ONE SERIES ADVANTAGES

- Voltage stability +/-20%
- Battery status control and verification
- Functions as a frequency converter
- Remote supervision system with SNMP network card
- Contact board, 4 volt-free contacts for remote status control of the machine
- CEI016 certification capability
- EN50171 certification capability
- Can manage parallels up to 4 power units

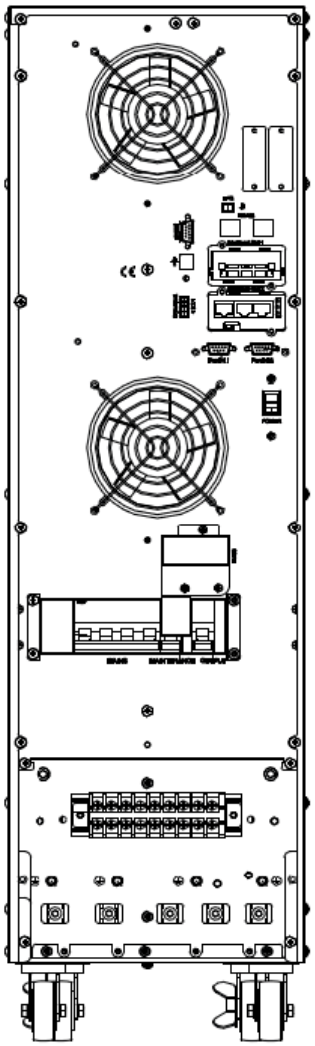
TRI-ONE

Three-Phase Input/Single-Phase Output Online UPS (10KVA - 20KVA)

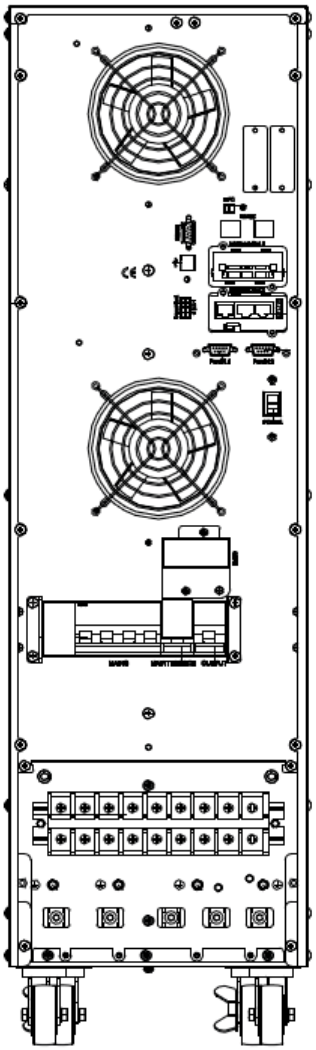
TRI-ONE UPS

Tri-One series is an input three-phase and output single-phase tower-mounted group adopting leading DSP online double conversion technology. Flexible battery configuration, flexible redundancy design, compatibility with the generator set greatly increase the UPS flexibility. This UPS series is widely used in small and medium IDC machine room, datacenter, control center, industry process control fields.
Among these advantages Tri-one can manage parallels up to 4 units.

Rear View TRI-ONE10



Rear View TRI-ONE15-20



MAIN FEATURES

- N + X parallel redundancy
- Online double conversion with DSP control
- Input current harmonics: <5%
- Battery group optimization, battery quantity: 16/18/20 pieces
- 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
- Parallel up to 4 units
- Tropicalization (optional)

	TRI-ONE 10	TRI-ONE 15	TRI-ONE 20
Power	10KVA/9KW	15KVA/13,5KW	20KVA/18KW
Input voltage		208 - 478 VAC	
Input frequency		40-70 Hz	
Phase		Three-phase	
Current THD		< 3% with linear load	
Power factor		≥ 0.99 with linear load	
Output voltage		220/230/240 VAC ±1%	
Output frequency		50/60 Hz	
Waveform		Sinusoidal THD <2%	
Frequency stability		±0.1Hz (in power failure)	
Intervention time during power failure		Network -- Battery = 0ms Network -- Bypass = 0ms	
Overload Capacity		125% for 10 sec. before switching to by-pass	
Efficiency		> 94,5%	
Batteries			
Type		Maintenance-free leaded	
Typical autonomy		10 minutes	
Cold start		Yes	
Voltage		192/216/240 VDC	
Charging time		4 - 6 hours at 90%	
General Features			
Noisiness		< 55 dB at 1 meter	
Operating temperature		0°C ~ 40°C electronics (batteries 18°C ~ 25°C)	
Humidity		up to 90% without condensation	
Altitude		< 1.500m	
Mechanical Characteristics			
External battery cabinet connection		Plug-in & Play	
Connection type		Terminal block	
Installation type		vertical	
Support type		wheels	
Protections			
Input		Magnetothermal	
Output		Electronic current limit	
Batteries		Fuse / Magnetothermal	
Overload By-pass		Magnetothermal	
Minimum battery voltage		Alarm sounds and then the inverter shuts down	
Dimensions and Weights			
Dimensions (WxHxD)		250x868x900	
Standard UPS weight without batteries	60,1	64,5	65,5
Safety Standards			
Regulations		EN62040-1 EN62040-2 EN62040-3 EN60950-1	

TRI-ONE TMSS

Three-Phase-Single-Phase Emergency CPSS for EN50171 Emergency Control Units (10KVA - 20KVA)

TRI-ONE TMSS - EN50171

The Tri-One TMSS series is designed to be compliant with the current EN50171 standards. Tri-One TMSS is mainly applied to:

- Centralized emergency lighting systems.
- Fire-fighting systems.
- Smoke extraction equipment.
- Safety installations.

Our “Elsist Battery Control” system allows the right operation in case of mains outages, checking the conditions of every battery pack. The battery charger is designed to recharge the batteries at 80% of total capacity in less than 8 hours.

Autonomy times may be 1, 2 or 3 hours at nominal load, according to the condition specified by EN50171 standard.

	TRI-ONE TMSS 10	TRI-ONE TMSS 15	TRI-ONE TMSS 20
Power	10KVA/9KW	15KVA/13,5KW	20KVA/18KW
Power according to EN50171	7,5KVA/6,75KW	11,3KVA/10,15KW	15KVA/13,5KW
Input Voltage	208 – 478 VAC		
Input frequency	40-70 Hz		
Phase	Three phase		
THD current	< 3% with linear load		
Power factor	≥ 0.99 with linear load		
Output voltage	220/230/240 VAC ±1%		
Output frequency	50/60 Hz		
Waveform	Sinusoidal THD <2%		
Frequency stability	±0.1Hz (in power failure)		
Mains failure tripping time	Network -- Battery = 0ms Network -- Bypass = 0ms		
Overload Capacity	125% per 10 sec. Prima di commutare in By-pass		
Efficiency	> 94,5%		
Battery			
Type	Maintenance-free leaded		
Typical autonomy	10 mini		
Cold start	yes		
Voltage	192/216/240 VDC		
Charging time	4-6 hours at 90%		
General Features			
Noisiness	<55 dB at 1 meter		
Operating temperature	0°C ~ 40°C electronics (batteries 18°C ~ 25°C)		
Humidity	up to 90% non-condensing		
Altitude	< 1.500m		
Mechanical Characteristics			
External battery cabinet connection	Plug-in & Play		
Connection type	Terminal block		
Installation type	vertical		
Support type	wheels		
Protections			
Input	Magnetothermal		
Output	Electronic current limit		
Batteries	Fuse/magnetic circuit breaker		
Overload By-pass	Magnetothermal		
Dimensions and Weights			
Dimensions (WxHxD)	250x868x900		
Standard UPS weight without batteries	60,1	64,5	65,5
Safety Standards			
Standards	EN62040-1 EN62040-2 EN62040-3 EN60950-1 EN50171		

TRI-ONE CF

Three-phase-Single-phase Frequency Converters (10KVA - 20KVA)

TRI-ONE CF

50/60Hz Frequency converters at 6kVA and 10kVA with VFI sinusoidal waveform (Voltage and Frequency Independent).
Frequency converters supply a linear current and a complete protection to:

- Data Network/PC
- Data centers
- Server
- Telecommunication systems
- Hospital equipment
- Industrial applications

The frequency converter provides an output at 50Hz or 60Hz, regardless of the input frequency.
The Power Factor Correction (PFC) circuit improves the quality of absorbed input current by increasing efficiency, resulting in energy savings.
The TRI-ONE series frequency converter is built with an LCD Display from which operating parameters (more than 50 items) can be viewed, and from where basic configurations can be set.

MAIN FEATURES

- High PF in input and output
- Wide input tolerance range (energy saving)
- Flexibility and parallel possibilities
- Monitoring and Self-Test at switch-on
- USB port
- EPO contact
- Software included

	TRI-ONE CF 10	TRI-ONE CF 15	TRI-ONE CF 20
Power	10KVA/9KW	15KVA/13,5KW	20KVA/18KW
Input voltage		208 -478 VAC	
Input frequency		40 - 70 Hz	
Phase		Three-phase	
Current THD		< 3% with linear load	
Power factor		≥ 0.99 with linear load	
Output voltage		220/230/240 VAC ±1%	
Output frequency		50/60 Hz	
Waveform		Sinusoidal THD <2%	
Frequency stability		±0.1Hz (in power failure)	
Overload Capacity		125% for 10 sec. before turning off the output	
Efficiency		> 94,5%	
General Features			
Noisiness		<55 dB at 1 meter	
Operating temperature		0°C ~ 40°C electronics (batteries 18°C ~ 25°C)	
Humidity		up to 90% without condensation	
Altitude		< 1.500m	
Mechanical Characteristics			
Connection type		Terminal block	
Installation type		vertical	
Support type		wheels	
Protections			
Input		Magnetothermal	
Output		Electronic current limit	
Minimum battery voltage		Alarm sounds and then the inverter shuts down	
Dimensions and Weights			
Dimensions (WxHxD)		250x868x900	
Standard UPS weight	60,1	64,5	65,5
Safety Standards			
Standards		EN62040-1 EN62040-2 EN62040-3 EN60950-1	

THREE-PHASE RANGE

Naicon's three-phase UPS range, based on double conversion online technology, is available with single-phase or three-phase output, and with power ratings ranging from 10kVA up to 2.4MVA using modular and parallel architecture. The uninterruptible power supplies are available in tower or rack versions.

Three-phase UPS systems represent the most reliable solution for large loads with high security and continuity requirements. These devices ensure maximum power reliability 24/7, protecting device operations from blackouts and all voltage and frequency variations. This is achieved with minimal energy consumption, thanks to Elsist branded clean energy models.

THREE-PHASE SERIES ADVANTAGES

- Voltage stability +/-20%
- Battery status control and verification
- Functions as a frequency converter
- Remote supervision system with SNMP network card
- Contact board, 4 volt-free contacts for remote status control of the machine
- CEI016 compliance capability
- EN50171 compliance capability
- Possibility of managing parallels of up to 6 power units
- Tropicalization (optional)
- Seismic certification for earthquakes up to intensity level 9

POLARIS

On-Line Three-Phase Uninterruptible Power Supply

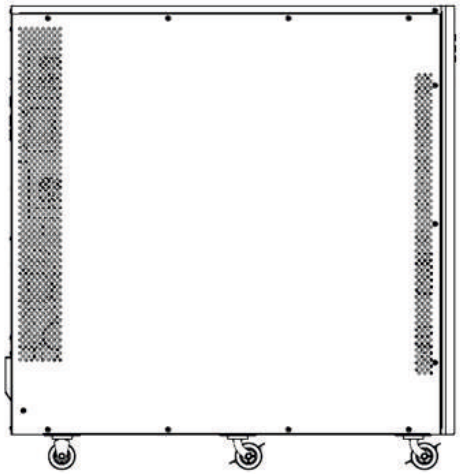
POLARIS

The Three-phase double-conversion POLARIS range is available in power ratings from 10KVA to 350KVA and provides grid stability of +/-20%, with a cosfi of 1 (KVA=KW). This series is to be considered a state-of-the-art system with high-frequency technology.With a system efficiency > 97.5%, and input harmonic distortion (THDI) < 2%, it is an equipment having very high technical performance in power electronics.

Among the pluses we can highlight the ability to manage parallels up to 4 units, the compact size, and possibility of autonomy expansion over 4 hours.

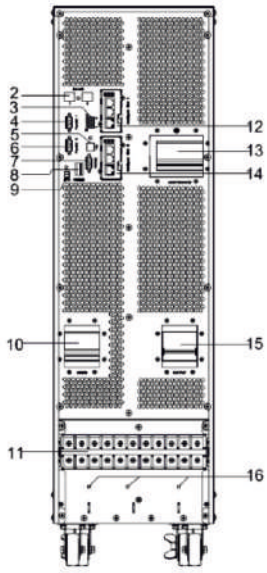
With the backlit color display, all operating parameters and battery status can be easily displayed

Front view



Lateral view

Rear view POLARIS 10/60 and parallels



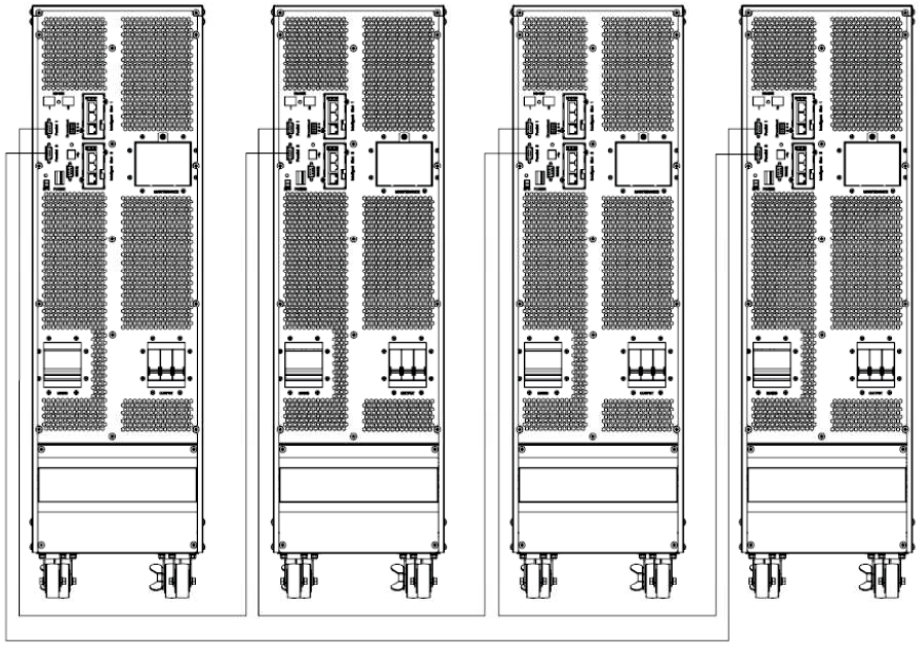
1- TFT LCD panel
2-RS485 Port
3- Dry contacts
4- Parallel port 1
5- USB Port
6- Parallel port 2
7- RS232 Port
8- Power Switch
9- REPO port
10- Input Switch
11- Input e Output terminal block and battery
12- Intelligent Slot 1 (SNMP Card/ relais Card)
13- Manual Bypass switch and cover
14- Intelligent Slot 2 (SNMP Card/ relais Card)
15- Output switch
16-Terminals for grounding

Rear view 10-20 KVA (Terminal block without cover)

80/100 rear view and parallels

MAIN FEATURES

- Input/output protection by automatic circuit breakers
- Input harmonic distortion (THDI) < 2%
- System efficiency > of 97.5%
- MODBUS RS485 interface, to centralize alarms remotely
- Voltage stabilization +/-20%
- Programmable battery control system
- Network machine status supervision system via SNMP card
- Support for operation with power generator
- Expected life of batteries 10/12 years
- Cosfi 1 (KVA=KW)
- Battery charging with thermal compensation, it is automatically set according to the battery capacity
- Reduced dimensions
- Dry contact board, 4 voltage-free contacts for remote control of machine status
- Parallel up to 4 units (all models)
- Parallel up to 6 units (only MOD60 KVA)
- Earthquake-resistant certification for earthquakes up to 9 intensity level.
- Tropicalization (optional)



MODULARIZED POWER TECHNOLOGY

The modularized power technology conveiced for the POLARIS series is designed by taking advantage of the "parallel" concept, integrating it into the hardware and software part of the UPS.
The POLARIS series is designed to intelligently detect an additional UPS and then autonomously set to with it. There is no need to plug in parallel boards or set special communications via software, the UPS exploits intelligent logic and by an auto self test resets the output power.

The parallel control cables supplied with the UPS are shielded and double-insulated, and must be interconnected in a ring configuration between the UPS units, as shown in the figure below.
The ring configuration ensures control with high reliability.

A group of UPS in parallel has the same functionality as a single big UPS but with it's more reliable. Please follow the below mentioned guidelines so that all UPS operates in the same way complying with wiring guidelines:
1) All UPSs must have the same power rating and be connected to the same bypass power line.
2) The outputs of all UPSs should be connected in parallel to the same point on the distribution board.
3) Electrical cables as well as bypass input cables and UPS output cables must have the same length and specifications. This facilitates load sharing when operating in bypass mode.

	POLARIS10	POLARIS15	POLARIS20	POLARIS30	POLARIS40
Power	10KVA/10KW	15KVA/15KW	20KVA/20KW	30KVA/30KW	40KVA/40KW
Input	3 FASI + N				
Voltage	380-400-415 VAC				
Frequency	50 - 60 Hz (auto sensing)				
Power factor	≥0,99				
THDi	< 2% linear load				
Output	3 PHASES + N				
Voltage	380-400-415 Vac				
Frequency	50 - 60 Hz (±0,1%)				
Power factor	1	1	1	1	1
THDv	< 1% (linear load) - <3% (nonlinear load)				
Efficiency	>96,5%	>97,5%	>97,5%	>97,5%	>97,5%
Battery	Dynamic 16pcs - 18pcs. - 20pcs. (configurable)				Dynamic 32/34/36/38/40 (conf.)
Backup Time	10' standard				
Switching time	Network -- Battery = 0ms			Network -- Bypass = 0ms	
Overload	Normal mode: 110% 60' - 125% 10' - 150% 1' - >150% transf. In bypass				
Self-diagnosis	Automatic self test at power on				
Display	LCD: IN/OUT voltage - IN/OUT frequency - Load - Battery voltage Operating temperature - Overload - Fault - Alarms				
Interface	USB - RS485 - DRY CONTACTS - SMART SLOT - MODBUS 485				
Communication	SNMP (optional) - RELAY CARD (optional)				
Connection type	Terminal block				
Operating temperature	0° + 40° / Storage: -25° + 55°				
Dimensions (WxHxD) mm	250x868x828	250x868x828	250x868x828	250x868x828	250x868x828
Weight (without batteries) kg	66	70	70	83	83
N. Units	1	1	1	1	1
Installation type	Vertical				
Support type	Wheels				
Standards	EN/IEC 60951 EN/IEC 62040-1 EN/IEC 62040-2 EN/IEC 62040-3				

	POLARIS60	POLARIS80	POLARIS100
Power	60KVA/60kW	80KVA/80KW	100KVA/100KW
Input	3 PHASES + N		
Voltage	380-400-415 VAC		
Frequency	50 - 60 Hz (auto sensing)		
Power factor	≥0,99		
THDi	< 2% linear load		
Output	3 PHASES + N		
Voltage	380-400-415 VAC		
Frequency	50 - 60 Hz (±0.1%)		
Power factor	1	1	1
THDv	< 1% (linear load) - <3% (nonlinear load)		
Efficiency	>94%	>94%	>94%
Battery	Dynamic 30pcs ~ 50pcs. (conf.)	Dynamic 32pcs ~ 40pcs. (conf.)	
Backup Time	10' standard		
Switching time	Network -- Battery = 0ms Network -- Bypass = 0ms		
Overload	Normal mode: 110% 60' - 125% 10' - 150% 1' - >150% transf. In bypass		
Self-diagnosis	Automatic self test at power on		
Display	LCD: IN/OUT voltage - IN/OUT frequency - Load - Battery voltage Operating temperature - Overload - Fault - Alarms		
Interface	USB - RS485 - DRY CONTACTS - SMART SLOT - MODBUS 485		
Communication	SNMP (optional) - RELAY CARD (optional)		
Connection type	Terminal block		
Operating temperature	0° + 40° / Storage: -25° + 55°		
Dimensions (WxHxD) mm	250x868x828	442x1200x850	442x1200x850
Weight (without batteries) kg	83	153	153
N. Units	1	1	1
Installation type	Vertical		
Support type	Wheels		
Standards	EN/IEC 60951 EN/IEC 62040-1 EN/IEC 62040-2 EN/IEC 62040-3		

	POLARIS120	POLARIS160	POLARIS180	POLARIS200
Power	120KVA/120KW	160KVA/160KW	180KVA/180KW	200KVA/200KW
Input	3 PHASES + N			
Voltage	380-400-415 VAC			
Frequency	50 - 60 Hz (auto sensing)			
Power factor	≥0,99			
THDi	< 2% linear load			
Output	3 PHASES + N			
Voltage	380-400-415 VAC			
Frequency	50 - 60 Hz (±0.1%)			
Power factor	1	1	1	1
THDv	< 1% (linear load) - <3% (nonlinear load)			
Efficiency	>94%	>94%	>94%	>94%
Battery	Dynamic 30~50pcs.(config)	Dynamic 32pcs ~ 40pcs (configurable)		
Backup Time	10' standard			
Switching time	Network -- Battery = 0ms Network -- Bypass = 0ms			
Overload	Normal mode: 110% 60' - 125% 10' - 150% 1' - >150% transf. In bypass			
Self-diagnosis	Automatic self test at power on			
Display	LCD: IN/OUT voltage - IN/OUT frequency - Load - Battery voltage			
	Operating temperature - Overload - Fault - Alarms			
Interface	USB - RS485 - DRY CONTACTS - SMART SLOT - MODBUS 485			
Communication	SNMP (optional) - RELAY CARD (optional)			
Connection type	Terminal block			
Operating temperature	0° + 40° / Storage: -25° + 55°			
Dimensions (WxHxD) mm	250x868x828	442x1200x850	442x1200x850	442x1200x850
Weight (without batteries) kg	83	153	153	153
N. Units	2	2	2	2
Installation type	Vertical			
Support type	Wheels			
Standards	EN/IEC 60951 EN/IEC 62040-1 EN/IEC 62040-2 EN/IEC 62040-3			

	POLARIS250	POLARIS300	POLARIS320	POLARIS350
Power	250KVA/250KW	300KVA/300KW	320KVA/320KW	350KVA/350KW
Input	3 PHASES + N			
Voltage	380-400-415 VAC			
Frequency	50 - 60 Hz (auto sensing)			
Power factor	≥0,99			
THDi	< 2% linear load			
Output	3 PHASES + N			
Voltage	380-400-415 VAC			
Frequency	50 - 60 Hz (±0.1%)			
Power factor	1	1	1	1
THDv	< 1% (linear load) - <3% (nonlinear load)			
Efficiency	>94%	>94%	>94%	>94%
Battery	Dynamic 32pcs ~ 40pcs (configurable)			
Backup Time	10' standard			
Switching time	Network -- Battery = 0ms Network -- Bypass = 0ms			
Overload	Normal mode: 110% 60' - 125% 10' - 150% 1' - >150% transf. In bypass			
Self-diagnosis	Automatic self test at power on			
Display	LCD: IN/OUT voltage - IN/OUT frequency - Load - Battery voltage			
	Operating temperature - Overload - Fault - Alarms			
Interface	USB - RS485 - DRY CONTACTS - SMART SLOT - MODBUS 485			
Communication	SNMP (optional) - RELAY CARD (optional)			
Connection type	Terminal block			
Operating temperature	0° + 40° / Storage: -25° + 55°			
Dimensions (WxHxD) mm	442x1200x850	442x1200x850	442x1200x850	442x1200x850
Weight (without batteries) kg	153	153	153	153
N. Units	3	4	4	4
Installation type	Vertical			
Support type	Wheels			
Standards	EN/IEC 60951 EN/IEC 62040-1 EN/IEC 62040-2 EN/IEC 62040-3			

POLARIS PSS

Three-phase rescuers for centralized emergency power supplies EN50171

	POLARIS10PSS	POLARIS15PSS	POLARIS20PSS	POLARIS30PSS	POLARIS40PSS
Power	10KVA/10KW	15KVA/15KW	20KVA/20KW	30KVA/30KW	40KVA/40KW
Power according to EN50171	7,5KVA/7,5KW	11,3KVA/11,3KW	15KVA/15KW	22,5KVA/22,5KW	30KVA/30KW
Input	3 PHASES + N				
Voltage	380-400-415 VAC				
Frequency	50-60 Hz (auto sensing)				
Power factor	≥0,99				
THDi	< 2% linear load				
Output	3 PHASES + N				
Voltage	380-400-415 VAC				
Frequency	50-60 Hz (± 0.1%)				
Power factor	1	1	1	1	1
THDv	< 1% (linear load) - <3% (nonlinear load)				
Efficiency	>96,5%	>97,5%	>97,5%	>97,5%	>97,5%
Backup Time	Dynamic 16pcs - 18pcs. - 20pcs. (config.)				Dynamic 32-34-36-38-40pcs. (config.)
Backup Time	60 / 120 /180 min				
Switching time	According to EN50171 standard				
Overload	Normal mode: 110% 60' - 125% 10' - 150% 1' - >150% transf. In bypass				
Display	LCD: IN/OUT voltage - IN/OUT frequency - Load - Battery voltage - Temp. - Overload - Fault - Alarms				
Interface	USB - RS485 - DRY CONTACTS - SMART SLOT - MODBUS 485				
Communication	SNMP (optional) - RELAY CARD (optional)				
Connection type	Terminal block				
Operating temperature	0° + 40° / Storage: -25° + 55°				
Dimensions (WxHxD) mm	250x868x828	250x868x828	250x868x828	250x868x828	250x868x828
Weight (without batteries) kg	66	70	70	83	83
N. Units	1	1	1	1	1
Installation type	Vertical				
Support type	Wheels				
Standards	EN/IEC 60951 EN/IEC 62040-1 EN/IEC 62040-2 EN/IEC 62040-3 EN50171				

	POLARIS60PSS	POLARIS80PSS	POLARIS100PSS
Power	60KVA/60kW	80KVA/80KW	100KVA/100KW
Power according to EN50171	45KVA/45KW	60KVA/60KW	75KVA/75KW
Input	3 PHASES + N		
Voltage	380-400-415 VAC		
Frequency	50-60 Hz (auto sensing)		
Power factor	≥0,99		
THDi	< 2% linear load		
Output	3 PHASES + N		
Voltage	380-400-415 VAC		
Frequency	50-60 Hz (± 0.1%)		
Power factor	1	1	1
THDv	< 1% (linear load) - <3% (nonlinear load)		
Efficiency	>94%	>94%	>94%
Battery	Dinamica 30 ~ 50 pcs. (conf.)	Dinamica 32~ 40pcs. (config.)	
Backup Time	60 / 120 /180 min		
Switching time	According to EN50171 standard		
Overload	Normal mode: 110% 60' - 125% 10' - 150% 1' - >150% transf. In bypass		
Display	LCD: IN/OUT voltage - IN/OUT frequency - Load - Battery voltage - Temp. - Overload - Fault - Alarms		
Interface	USB - RS485 - DRY CONTACTS - SMART SLOT - MODBUS 485		
Communication	SNMP (optional) - RELAY CARD (optional)		
Connection type	Terminal block		
Operating temperature	0° + 40° / Storage: -25° + 55°		
Dimensions (WxHxD) mm	250x868x828	442x1200x850	442x1200x850
Weight (without batteries) kg	83	153	153
N. Units	1	1	1
Installation type	Vertical		
Support type	Wheels		
Standards	EN/IEC 60951 EN/IEC 62040-1 EN/IEC 62040-2 EN/IEC 62040-3 EN50171		

MAIN FEATURES

- Input/output protection with automatic circuit breakers
- Input harmonic distortion (THDI) < 2%
- System efficiency > of 97.5%
- MODBUS RS485, to centralize alarms remotely
- Voltage stabilization +/-20%
- Programmable battery control system
- Networked machine status supervision system via SNMP card
- Support for operation with generator set
- Expected life of batteries 10/12 years
- Cosfi 1 (KVA=KW)
- Parallel up to 4 units (all models)
- Parallel up to 6 units (only 60KVA model)
- Tropicalization (optional)
- Earthquake certification for earthquakes up to level 9 intensity

	POLARIS120PSS	**POLARIS160PSS**	**POLARIS180PSS**	**POLARIS200PSS**
Power	120KVA/120KW	160KVA/160KW	180KVA/180KW	200KVA/200KW
Power according to EN50171	90KVA/90KW	120KVA/120KW	135KVA/135KW	150KVA/150KW
Input	3 PHASES + N			
Voltage	380-400-415 VAC			
Frequency	40-70 Hz (auto sensing)			
Power factor	≥0,99			
THDi	< 2% linear load			
Output	3 PHASES + N			
Voltage	380-400-415 VAC			
Frequency	50-60 Hz (± 0.1%)			
Power factor	1	1	1	1
THDv	< 1% (linear load) - <3% (nonlinear load)			
Efficiency	>94%	>94%	>94%	>94%
Battery	Dinamica 30 ~ 50 pcs. (conf.)	Dinamica 32~ 40pcs. (config.)		
Backup Time	60 / 120 /180 min			
Switching time	According to EN50171 standard			
Overload	Normal mode: 110% 60' - 125% 10' - 150% 1' - >150% transf. In bypass			
Display	LCD: IN/OUT voltage - IN/OUT frequency - Load - Battery voltage - Temp. - Overload - Fault - Alarms			
Interface	USB - RS485 - DRY CONTACTS - SMART SLOT - MODBUS 485			
Communication	SNMP (optional) - RELAY CARD (optional)			
Connection type	Terminal block			
Operating temperature	0° + 40° / Storage: -25° + 55°			
Dimensions (WxHxD) mm	250x868x828	442x1200x850	442x1200x850	442x1200x850
Weight (without batteries) kg	83	153	153	153
N. Units	2	2	2	2
Installation type	Vertical			
Support type	Wheels			
Standards	EN/IEC 60951 EN/IEC 62040-1 EN/IEC 62040-2 EN/IEC 62040-3 EN50171			

	POLARIS250PSS	**POLARIS300PSS**	**POLARIS320PSS**	**POLARIS350PSS**
Power	250KVA/250KW	300KVA/300KW	320KVA/320KW	350KVA/350KW
Power according to EN50171	190KVA/190KW	225KVA/225KW	240KVA/240KW	260KVA/260KW
Input	3 PHASES + N			
Voltage	380-400-415 VAC			
Frequency	40-70 Hz (auto sensing)			
Power factor	≥0,99			
THDi	< 2% linear load			
Output	3 PHASES + N			
Voltage	380-400-415 VAC			
Frequency	50-60 Hz (± 0.1%)			
Power factor	1	1	1	1
THDv	< 1% (linear load) - <3% (nonlinear load)			
Efficiency	>94%	>94%	>94%	>94%
Battery	Dinamica 32~ 40pcs. (config.)			
Backup Time	60 / 120 /180 min			
Switching time	According to EN50171 standard			
Overload	Normal mode: 110% 60' - 125% 10' - 150% 1' - >150% transf. In bypass			
Display	LCD: IN/OUT voltage - IN/OUT frequency - Load - Battery voltage - Temp. - Overload - Fault - Alarms			
Interface	USB - RS485 - DRY CONTACTS - SMART SLOT - MODBUS 485			
Communication	SNMP (optional) - RELAY CARD (optional)			
Connection type	Terminal block			
Operating temperature	0° + 40° / Storage: -25° + 55°			
Dimensions (WxHxD) mm	442x1200x850	442x1200x850	442x1200x850	442x1200x850
Weight (without batteries) kg	153	153	153	153
N. Units	3	4	4	4
Installation type	Vertical			
Support type	Wheels			
Standards	EN/IEC 60951 EN/IEC 62040-1 EN/IEC 62040-2 EN/IEC 62040-3 EN50171			

POLARIS CF

50/60Hz Frequency converters

	POLARIS CF 10	POLARIS CF 15	POLARIS CF 20	POLARIS CF 30	POLARIS CF 40
Power	10KVA/10KW	15KVA/15KW	20KVA/20KW	30KVA/30KW	40KVA/40KW
Input	3 PHASES + N				
Voltage	380-400-415 VAC				
Frequency	50-60 Hz (auto sensing)				
Power factor	≥0,99				
THDi	< 2% (linear load)				
Output	3 PHASES + N				
Voltage	380-400-415 VAC				
Frequency	50-60 Hz (± 0.1%)				
Power factor	1	1	1	1	1
THDv	< 1% (linear load) - <3% (nonlinear load)				
Efficiency	>96,5%	>97,5%	> 97,5%	>97,5%	>97,5%
Overload	Normale mode: 110% 60' - 125% 10' - 150% 1' - >150% turns off output				
Self-diagnosis	Automatic self test at power on				
Display	LCD: IN/OUT voltage - IN/OUT frequency - Load - Battery voltage - Temp. - Overload - Fault - Alarms				
Interface	USB - RS485 - DRY CONTACTS - SMART SLOT - MODBUS 485				
Communication	SNMP (optional) - RELAY CARD (optional)				
Connection type	Terminal block				
Operating temperature	0° + 40° / Storage: -25° + 55°				
Dimensions (WxHxD) mm	250x868x828	250x868x828	250x868x828	250x868x828	250x868x828
Weight kg	66	70	70	83	83
N. Units	1	1	1	1	1
Installation type	Vertical				
Support type	Wheels				
Standards	EN/IEC 60951 EN/IEC 62040-1 EN/IEC 62040-2 EN/IEC 62040-3				

	POLARIS CF 60	POLARIS CF 80	POLARIS CF 100
Power	60KVA/60KW	80KVA/80KW	100KVA/100KW
Input	3 PHASES + N		
Voltage	380-400-415 VAC		
Frequency	50-60 Hz (auto sensing)		
Power factor	≥0,99		
THDi	< 2% (linear load)		
Output	3 PHASES + N		
Voltage	380-400-415 VAC		
Frequency	50-60 Hz (± 0.1%)		
Power factor	1	1	1
THDv	< 1% (linear load) - <3% (nonlinear load)		
Efficiency	>94%	> 94%	>94%
Overload	Normale mode: 110% 60' - 125% 10' - 150% 1' - >150% turns off output		
Self-diagnosis	Automatic self test at power on		
Display	LCD: IN/OUT voltage - IN/OUT frequency - Load - Battery voltage - Temp. - Overload - Fault - Alarms		
Interface	USB - RS485 - DRY CONTACTS - SMART SLOT - MODBUS 485		
Communication	SNMP (optional) - RELAY CARD (optional)		
Connection type	Terminal block		
Operating temperature	0° + 40° / Storage: -25° + 55°		
Dimensions (WxHxD) mm	250x868x828	442x1200x850	442x1200x850
Weight kg	83	153	153
N. Units	1	1	1
Installation type	Vertical		
Support type	Wheels		
Standards	EN/IEC 60951 EN/IEC 62040-1 EN/IEC 62040-2 EN/IEC 62040-3		

POLARIS CF

50/60Hz Frequency converters from 10KVA to 350KVA with VFI sinusoidal wave form (Voltage and Frequency Independent) Frequency converters supply a linear current and a complete protection to:

- Telecommunication system
- Data centers
- Server
- Data network / PC
- Hospital equipment
- Industrial equipments

The frequency converter provides an output at 50Hz or 60Hz output, which is indipendent from the input frequency. The power Factor Correction Circuit (PFC) improves the quality of absorbed current, thus increasing efficiency, and saving energy.

	POLARIS CF 120	POLARIS CF 160	POLARIS CF 180	POLARIS CF 200
Power	120KVA/120KW	160KVA/160KW	180KVA/180KW	200KVA/200KW
Input	3 PHASES + N			
Voltage	380-400-415 VAC			
Frequency	50-60 Hz (auto sensing)			
Power factor	≥0,99			
THDi	< 2% (linear load)			
Output	3 PHASES + N			
Voltage	380-400-415 VAC			
Frequency	50-60 Hz (± 0.1%)			
Power factor	1	1	1	1
THDv	< 1% (linear load) - <3% (nonlinear load)			
Efficiency	>94%	>94%	>94%	>94%
Overload	Normale mode: 110% 60' - 125% 10' - 150% 1' - >150% turns off output			
Self-diagnosis	Automatic self test at power on			
Display	LCD: IN/OUT voltage - IN/OUT frequency - Load - Battery voltage - Temp. - Overload - Fault - Alarms			
Interface	USB - RS485 - DRY CONTACTS - SMART SLOT - MODBUS 485			
Communication	SNMP (optional) - RELAY CARD (optional)			
Connection type	Terminal block			
Operating temperature	0° + 40° / Storage: -25° + 55°			
Dimensions (WxHxD) mm	250x868x828	442x1200x850	442x1200x850	442x1200x850
Weight kg	83	153	153	153
N. Units	2	2	2	2
Installation type	Vertical			
Support type	Wheels			
Standards	EN/IEC 60951 EN/IEC 62040-1 EN/IEC 62040-2 EN/IEC 62040-3			

	POLARIS CF 250	POLARIS CF 300	POLARIS CF 320	POLARIS CF 350
Power	250KVA/250KW	300KVA/300KW	320KVA/320KW	350KVA/350KW
Input	3 PHASES + N			
Voltage	380-400-415 VAC			
Frequency	50-60 Hz (auto sensing)			
Power factor	≥0,99			
THDi	< 2% (linear load)			
Output	3 PHASES + N			
Voltage	380-400-415 VAC			
Frequency	50-60 Hz (± 0.1%)			
Power factor	1	1	1	1
THDv	< 1% (linear load) - <3% (nonlinear load)			
Efficiency	>94%	>94%	>94%	>94%
Overload	Normale mode: 110% 60' - 125% 10' - 150% 1' - >150% turns off output			
Self-diagnosis	Automatic self test at power on			
Display	LCD: IN/OUT voltage - IN/OUT frequency - Load - Battery voltage - Temp. - Overload - Fault - Alarms			
Interface	USB - RS485 - DRY CONTACTS - SMART SLOT - MODBUS 485			
Communication	SNMP (optional) - RELAY CARD (optional)			
Connection type	Terminal block			
Operating temperature	0° + 40° / Storage: -25° + 55°			
Dimensions (WxHxD) mm	442x1200x850	442x1200x850	442x1200x850	442x1200x850
Weight kg	153	153	153	153
N. Units	3	4	4	4
Installation type	Vertical			
Support type	Wheels			
Standards	EN/IEC 60951 EN/IEC 62040-1 EN/IEC 62040-2 EN/IEC 62040-3			

NAUTILUS

Three-phase online double conversion modular UPS at 10KVA - 2.4MVA

NAUTILUS

Nautilus is a true modular system with online double-conversion technology and hot-swappable power modules to provide a highly reliable solution. It is available in a standard 19" modular rack architecture.

Nautilus series is the most effective solution for protecting data center, banks, hospitals, airports, industrial system, emergency lighting systems and other applications.
Among the plusses we can highlight the possibility of parallel management of up to 4 power units.

MAIN FEATURES

- High reliability
- Full digital control (DSP)
- Output power factor: 1.0
- High power density and energy saving design
- Strong loads capability, able to manage 100% unbalanced loads
- Parallel expansion cabinets up to 4 units
- Parallel redundancy N + X
- Redundant control system
- Distributed current parallel connected cabinets
- Battery sharing
- Battery voltage can be configured
- Intelligent charging mode
- The battery cabinet can be selected
- LCD display
- EPO function
- maintenance bypass
- Intelligent management: RS232 (USB) / RS485 communication ports and CAN interface
- All modules (power supply module and centralized monitor module) are hot-swappable
- SNMP card, relay card and Modbus (optional)
- Lithium-ion battery cabinet (optional)

NOTE: Expandability up to 2.4MVA

	NAUTILUS 10	NAUTILUS 15	NAUTILUS 20	NAUTILUS 30
Power	10KVA/10KW	15KVA/15KW	20KVA/20KW	30KVA/30KW
Input				
Number of steps	3F+ N			
Rated voltage	380/400/415			
Voltage range	208-478			
Frequency range	40-70Hz			
Power factor	≥0,99			
Harmonic distortion	<2%			
Output				
Number of steps	3F + N			
Rated voltage	380/400/415			
Power factor	1			
Voltage adjustment	(+/- 2%)			
Norm frequency	(+/-1/2/4/5/10%)			
Batt frequency	50-60+0,2Hz			
Crest factor	3 :1			
THD	<2%			
Waveform	Sinusoidal			
Physical Characteristics				
Dimensions (WxHxD) mm	600x1400x860	600x1400x860	600x1400x860	600x1400x860
Weights kg	123	126	127	156

	NAUTILUS 40	NAUTILUS 50	NAUTILUS 60	NAUTILUS 80
Power	40KVA/40KW	50KVA/50KW	60KVA/60KW	80KVA/80KW
Input				
Number of steps		3F+ N		
Rated voltage		380/400/415		
Voltage range		208-478		
Frequency range		40-70Hz		
Power factor		≥0,99		
Harmonic distortion		<2%		
Output				
Number of steps		3F + N		
Rated voltage		380/400/415		
Power factor		1		
Voltage adjustment		(+/- 2%)		
Norm frequency		(+/-1/2/4/5/10%)		
Batt frequency		50-60+0,2Hz		
Crest factor		3 :1		
THD		<2%		
Waveform		Sinusoidal		
Physical Characteristics				
Dimensions (WxHxD) mm	600x1400x860	600x1400x860	600x1400x860	600x2000x850
Weights kg	158	186	189	195

	NAUTILUS 100	NAUTILUS 120	NAUTILUS 160	NAUTILUS 200
Power	100KVA/100KW	120KVA/120KW	160KVA/160KW	200KVA/200KW
Input				
Number of steps		3F+ N		
Rated voltage		380/400/415		
Voltage range		208-478		
Frequency range		40-70Hz		
Power factor		≥0,99		
Harmonic distortion		<2%		
Output				
Number of steps		3F + N		
Rated voltage		380/400/415		
Power factor		1		
Voltage adjustment		(+/- 2%)		
Norm frequency		(+/-1/2/4/5/10%)		
Batt frequency		50-60+0,2Hz		
Crest factor		3 :1		
THD		<2%		
Waveform		Sinusoidal		
Physical Characteristics				
Dimensions (WxHxD) mm	600x2000x850	600x2000x850	600x2000x850	600x2000x850
Weights kg	286	316	350	380

	NAUTILUS 300	NAUTILUS 400	NAUTILUS 500
Power	300KVA/300KW	400KVA/400KW	500KVA/500KW
Input			
Number of steps		3F+ N	
Rated voltage		380/400/415	
Voltage range		208-478	
Frequency range		40-70Hz	
Power factor		≥0,99	
Harmonic distortion		<2%	
Output			
Number of steps		3F + N	
Rated voltage		380/400/415	
Power factor		1	
Voltage adjustment		(+/- 2%)	
Norm frequency		(+/-1/2/4/5/10%)	
Batt frequency		50-60+0,2Hz	
Crest factor		3 :1	
THD		<2%	
Waveform		Sinusoidal	
Physical Characteristics			
Dimensions (WxHxD) mm	600x2000x850	600x2000x850	1200x2000x850
Weights kg	600	815	860

BETA

Three-phase double conversion online uninterruptible power supplies

BETA

NEW THREE-PHASE INDUSTRIAL BETA RANGE

The new three-phase BETA range joins the existing Elsist ranges, with specific INDUSTRIAL features. Power range in standalone system from 200Kva to 1000Kva.

Possibility of parallel up to 8 units. Technical and structural strength and state-of-the-art 3-level technology. This range is recommended for power problems, such as micro-interruptions, grid failures and grid instability, with a correction of +/-20%. In large power installations, where power is supplied to the main production network or high-power power lines, so from 200 Kva to 1 Mega, equipment failures and production downtime can be avoided, with huge savings, as Industry 4.0.

MAIN FEATURES

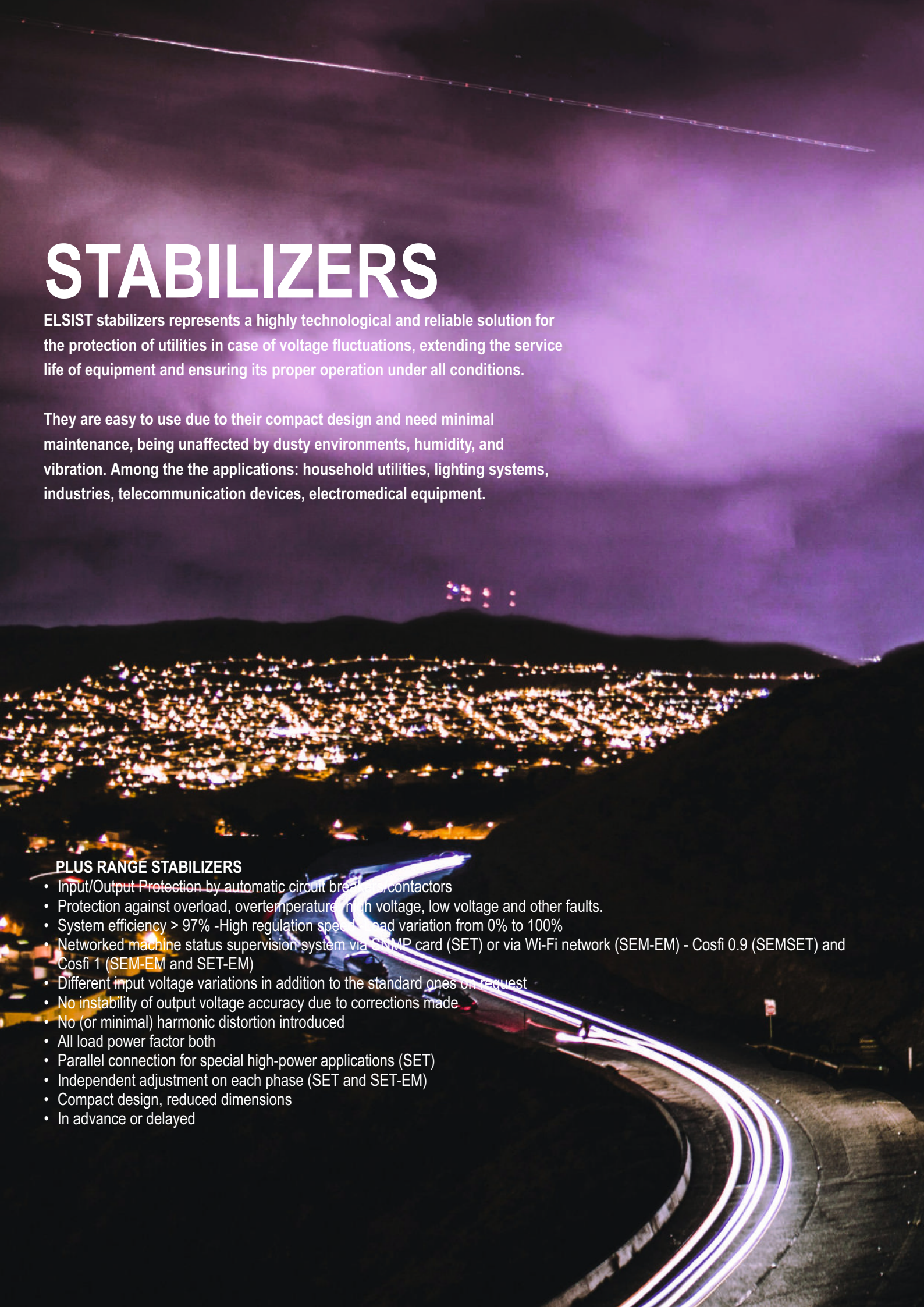
- Cosfi 1
- Input harmonic distortion ≤ 3%
- System efficiency up to 96%
- Dual power input
- Parallel up to 8 units
- Charging capacity from 80A to 340A
- Ability to supply inductive and capacitive loads with 100% unbalance
- Standard interfaces: RS232 and 485 MODBUS
- Back Feed is present

	BETA200	BETA250	BETA300	BETA400	BETA500	BETA600	BETA800	BETA1000
Power	200kVA/200KW	250KVA/250KW	300KVA/300KW	400KVA/400KW	500KVA/500KW	600KVA/600KW	800KVA/800KW	1000KVA/1000KW
Input								
Rated voltage	380/400/415 VAC, (3Ph+N+PE)							
Voltage range	138~305 VAC at 40% load; 305~485 VAC at 100% load							
Frequency Range	40 - 70 Hz							
Power Factor	≥0.99							
Harmonic distortion (THDi)	≤3% (100% linear load)							
Bypass Voltage Range	Max. voltage: 220V: + 25% (Optional + 10%, + 15%, + 20%)							
	230V: + 20% (Optional + 10%, + 15%)							
	240V: + 15% (Optional + 10%)							
	Min. voltage: + 45% (Optional + 10%, + 15%, + 20%, + 30%)							
Bypass Frequency Range	Frequency protection range: ±10%							
Generator Input	Supported							
Output								
Rated voltage	380/400/415 VAC, (3Ph+N+PE)							
Power Factor	1.0							
Voltage Adjustment	±1%							
Frequency Line Mode	Synchronizes with input, when input frequency > ±10% (±1%/±2%/±4%/±5% optional),							
	50/60 (±0.1Hz) output							
Frequency Battery Mode	(50/60±0.1%)Hz							
Ridge Factor	3:1							
Harmonic distortion (THDv)	≤1% with linear load; ≤3% with nonlinear load							
Efficiency	up to 96%							
Batteries								
Working voltage	Dynamic (30/32/34/36/38/40/42/44/46/48/50 pcs configurable)							
Charging current	80A (Max.)	100A (Max.)	100A (Max.)	140A (Max.)	180A (Max.)	200A (Max.)	280A (Max.)	340A (Max.)
System Features								
Switching time	Network-Battery: 0ms; Network-Bypass: 0ms							
Overload Mod. Inverter	≤110% 60min, ≤125% 10min, ≤150% 1min, > 150% 1.2s spegne l'inverter							
Overload Mod. Bypass	30°C : 135% for long term; 40°C : 125% for long term; >1000%, 100ms							
Overheating	Network Mode: Switches to Bypass; Battery Mode: Turns off the Ups immediately.							
Low battery voltage	Alarm and shutdown							
Self-diagnosis	When powering up and checking the software							
Backfeed protection	Supported							
EPO (Optional)	Turns off the UPS immediately							
Batteries	Battery Management							
Noise Suppression	Complies with EN62040-3							
Audible and visual alarms	Mains failure, Low battery, Overload, System failure							
LED & LCD Displays	Network mode, Bypass mode, Low battery, Battery failure, Overload and UPS failure							
Lettura sul display LCD	Ingresso, Uscita, Batteria, Comando, Impostazione, Manutenzione							
Communication Interface	RS232,RS485,Parallel,LBS,Dry contacts,Relay card (Optional),SNMP (Optional),Battery temp. sensor							
Environment								
Operating Temperature	0°C ~ 40°C							
Storage temperature	-25°C ~ 55°C							
Humidity Range	0 ~ 95% (Non-condensing)							
Altitude	< 1500m							
Noise	<65dB		<68dB		<70dB		<73dB	<75dB
Physical Characteristics								
Dimensions (W×D×H) mm	600x850x2000				1200x850x2000		2000x850x2000	
Net weight kg	360	400	480	530	800	890	1450	1600
Standard	IEC/EN 62040-1, IEC/EN 62477-1							
Safety	IEC/EN 62040-2 (IEC 61000-2-2, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5,							
EMC	IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11							

STABILIZERS

ELSIST stabilizers represents a highly technological and reliable solution for the protection of utilities in case of voltage fluctuations, extending the service life of equipment and ensuring its proper operation under all conditions.

They are easy to use due to their compact design and need minimal maintenance, being unaffected by dusty environments, humidity, and vibration. Among the the applications: household utilities, lighting systems, industries, telecommunication devices, electromedical equipment.



PLUS RANGE STABILIZERS

- Input/Output Protection by automatic circuit breakers/contactors
- Protection against overload, overtemperature, high voltage, low voltage and other faults.
- System efficiency > 97% -High regulation speed load variation from 0% to 100%
- Networked machine status supervision system via SNMP card (SET) or via Wi-Fi network (SEM-EM) - Cosfi 0.9 (SEMSET) and Cosfi 1 (SEM-EM and SET-EM)
- Different input voltage variations in addition to the standard ones on request
- No instability of output voltage accuracy due to corrections made
- No (or minimal) harmonic distortion introduced
- All load power factor both
- Parallel connection for special high-power applications (SET)
- Independent adjustment on each phase (SET and SET-EM)
- Compact design, reduced dimensions
- In advance or delayed

STABILIZERS

SEM / SEM-EM / SET / SET-EM STABILIZERS

STABILIZERS

ELSIST offers a well-assorted range of stabilizers available in 4 series:
SEM: Single-phase electronics stabilizers with powers from 1KVA to 3.5KVA cosfi 0.8 and 5KVA to 40KVA cosfi 1
SEM-EM: Single-phase electromechanical stabilizers with powers from 5KVA to 50KVA cosfi 1
SET: Three-phase electronics stabilizers with power ratings from 10KVA to 500KVA cosfi 1
SET-EM: Three-phase electromechanical stabilizers with power ratings from 10KVA to 150KVA cosfi 1

ELSIST stabilizers are a highly technological and reliable solution for the protection of utilities in case of voltage fluctuations, extending the service life of equipment and ensuring its proper operation under all conditions. They are easy to operate due to their compact design and require minimal maintenance, being unaffected by dusty environments, humidity, and vibration. Among the applications: household utilities, lighting systems, industries, telecommunication devices, electromedical equipment.
High regulation speed (500V/sec. SEM and SET, 90V/sec. SEM-EM and SET-EM), high efficiency (> 97%), permissible load variation from 0% to 100%, and excellent material quality enable ELSIST stabilizers to provide excellent performance, and ensure maximum reliability.

On request many other input voltage ranges than the standard ones are available also. Easy monitoring of all operating parameters are displayed. The appliances can be remote controlled by SNMP network card (SET) or via Wi-Fi network (SEM-EM).

MAIN FEATURES

- Input/output protection by automatic circuit breakers/contactors
- Protection against overload, overtemperature, high voltage, low voltage and other faults.
- System efficiency > 97%
- High adjustment speed
- Load variation from 0% to 100%
- The appliance can be monitored via SNMP (SET) card or Wi-Fi (SEM-EM)
- Cosfi 1 (SEM-SET) and Cosfi 1 (SEM-EM and SETEM)
- Different input voltage variations in addition to the standard ones on request
- No instability of output voltage accuracy due to corrections made
- No (or minimal) harmonic distortion introduced
- All load power factor both advanced or delayed
- Parallel connection for special high-power applications (SET)
- Independent adjustment on each phase (SET and SET-EM)
- Compact design, small size
- Easy to use
- Minimal, almost no maintenance
- SNMP card, relay board and Modbus (optional)

SET-EM

SEM 01-03

SEM-EM

SEM 05-12

ELECTRONIC SINGLE-PHASE SEM

SEM Single-phase Electronic Stabilizers

VOLTAGE STABILIZERS

SINGLE PHASE ELECTRONIC STABILIZERS SEM 1KVA - 40KVA

The SEM single-phase electronic stabilizers are designed for continuous service and utility protection, ensuring maximum reliability and excellent performance. They are very easy to operate due to their compact design, and maintenance is minimal (almost absent).
Applications: households, appliances, lighting systems, industries, telecommunication devices, electromedical equipment.

MAIN FEATURES

- High adjustment speed (500 V/ sec.)
- High Efficiency (>97%)
- No (or minimal) introduced harmonic distortion
- No accuracy instability of output voltage accuracy due to made corrections
- Load allowable change from 0% to 100%
- Whatever load power factor both anticipated and delayed
- Automatic disabling and manual bypass in case of failure
- On request input voltage 100-240 Vac (1KVA to 3.5KVA) and ± 15% / -35% + 15% / -50% + 15% (5KVA to 40KVA)

	SEM 01	SEM 02	SEM 03	SEM 05	SEM 06
Technical Characteristics					
Rated power (KVA)	1	2	3,5	5	7,5
Effective power (KW)	0,8	1,6	2,8	5	7,5
Power Factor	0,8			1	
Input voltage	230 VAC (135 - 260 VAC)			230 VAC (172-265 VAC)	
Input frequency Hz	47-65			50-60 ± 5%	
Output voltage	230 Vac single phase ± 2%			230 Vac single phase ± 2%	
Adjustment Speed	100 V / sec.			400-500 V / sec.	
Efficiency	98%			97%	
Waveform	sinusoidal				
Dimensions (WxDxH) cm	17x9x30	30x21x37		20x41x37	27x45x46
Weight kg	4	12	14	25	30

	SEM 07	SEM 08	SEM 09	SEM 11	SEM 12
Technical Characteristics					
Rated power (KVA)	10	15	20	30	40
Effective power (KW)	10	15	20	30	40
Power Factor	1				
Input voltage	230 VAC (172-265 VAC)				
Input frequency Hz	50-60 ± 5%				
Output voltage	230 Vac single phase ± 2%				
Adjustment Speed	400-500 V / sec.				
Efficiency	>97%				
Waveform	sinusoidal				
Dimensions (WxDxH) cm	27x45x46			31x52x52	
Weight kg	40	55	70	95	120

SINGLE-PHASE ELECTROMECHANICAL SEM-EM

Single-phase Electromechanical SEM-EM

VOLTAGE STABILIZERS

SEM-EM SINGLE-PHASE ELECTROMECHANICAL STABILIZERS 5KVA - 50KVA

SEM-EM single-phase electromechanical stabilizers are designed to supply constant voltage by correcting voltage grid or electrical system drops and voltage boots. Voltage regulation is done automatically, without any user intervention. Monitoring via Wi-Fi makes its use and control still easier.
Applications: household, appliances, lighting systems, industries, telecommunication devices, electromedical equipment.

MAIN FEATURES

- High adjustment speed
- High efficiency (min. 95%)
- Protection against long overload and instantaneous protection
- Very precise AC voltage balancing with extreme precision
- Allowable change in load from 0% to 100%
- Manual switching to bypass operation without adjustment
- Static, non-graded, dynamically corrected output voltage
- Monitoring via Wi-Fi
- The standard adjustment is ± 0.4% (229.08-230.92 Vac) stable when the input voltage is within the range
- On request input voltage 110-240 Vac and 180- 280 Vac

	SEM 05 EM	SEM 06 EM	SEM 07 EM	SEM 08 EM
Technical Specifications				
Rated power (KVA)	5	7.5	10	15
Actual power (KW)	5	7.5	10	15
Power factor Input	1.0			
Voltage Input frequency	230 Vac 1ph + N 172-264 Vac (-25%+15%)			
Hz	47 - 64			
Output voltage	230 Vac (adjustable 200-250V) ± 1%			
Tensione di uscita	80 V / sec.			
Adjustment speed	min. 95%			
Efficiency	sinusoidal			
Waveform	33x35x56		38x40x61	50x51x86
Dimensions (WxDxH) cm	35	38	50	55
Weight kg				

	SEM 09 EM	SEM 11 EM	SEM 12 EM	SEM 13 EM
Technical Specifications				
Rated power (KVA)	20	30	40	50
Actual power (KW)	20	30	40	50
Power factor Input	1.0			
Voltage Input frequency	230 Vac 1ph + N (160-260 Vac)			
Hz	47 - 64			
Output voltage	230 Vac (radjustable 200-240V) ± 1%			
Tensione di uscita	90 V / sec.			
Adjustment speed	min. 95%			
Efficiency	sinusoidal			
Waveform	50x51x86		50x61x86	60x124x115
Dimensions (WxDxH) cm	110	140	150	260
Weight kg				

ELECTRONIC THREE-PHASE SET

SET Three-Phase Electronic Stabilizers

VOLTAGE STABILIZERS

THREE-PHASE ELECTRONIC STABILIZERS SET 10KVA - 500KVA

SET three-phase electronic stabilizers are designed for continuous service and utility protection, ensuring maximum reliability and excellent performance. They are very easy to operate due to their compact design, and maintenance is minimal (almost absent).
Regulation is done independently on each phase; the system is also equipped with a bypass switch that allows the load to be supplied with line voltage in case of malfunction or need.
Applications: households, lighting systems, industries, telecommunication devices, electromedical equipment.

MAIN FEATURES

- High regulation speed (500 V/ sec.)
- High performance (min 97%)
- No (or minimal) harmonic distortion introduced
- No accuracy instability of output voltage due to adjustments
- Allowable change in load from 0% to 100%
- All load power factor both anticipated and delayed
- Parallel connection for special high-power applications
- Independent adjustment on each phase
- Optional possibility of remote management with SNMP network card and software
- On request input voltage ± 15% / -35% + 15% / -50% + 15% / - 65% / + 45%

	SET 04	SET 05	SET 06	SET08	SET 09	SET11	SET 12
Technical Characteristics							
Rated power (KVA)	10	15	22	30	45	60	75
Effective power (KW)	10	15	22	30	45	60	75
Power Factor	1						
Input voltage	400 Vac 3ph + N -25% + 15% (300 - 460 Vac)						
Input frequency Hz	50-60 ± 5%						
Output voltage	400 Vac ± 2%						
Adjustment Speed	500 V / sec.						
Efficiency	min. 97%						
Waveform	sinusoidal						
Dimensions (WxDxH) cm	35x79x80					60x70x170	
Weight kg	100	105	115	130	170	220	270

	SET 13	SET 14	SET 15	SET16	SET 17	SET18	SET 19
Technical Characteristics							
Rated power (KVA)	100	150	200	250	300	400	500
Effective power (KW)	100	150	200	250	300	400	500
Power Factor	1						
Input voltage	400 Vac 3ph + N -25% + 15% (300 - 460 Vac)						
Input frequency Hz	50-60 ± 5%						
Output voltage	400 Vac ± 2%						
Adjustment Speed	500 V / sec.						
Efficiency	min. 97%						
Waveform	sinusoidal						
Dimensions (WxDxH) cm	60x70x170	70x90x150	80x90x170	80x100x170		90x120x190	
Weight kg	300	550	750	820	900	1050	1200

ELECTROMECHANICAL THREE-PHASE SET-EM

Three-phase Electromechanical Stabilizers SET-EM

VOLTAGE STABILIZERS
THREE-PHASE ELECTROMECHANICAL STABILIZERS SET-EM 10KVA - 150KVA

SET-EM three-phase electromechanical stabilizers are designed to regulate voltage variations very quickly, thanks to the control system. Adjustment is done independently on each phase; the system is also equipped with a bypass switch that allows the load to be supplied with line voltage in case of malfunction or need.
Applications: households, lighting systems, industries, telecommunication devices, electromedical equipment.

MAIN FEATURES

- High adjustment speed
- High performance (min 97%)
- Long overload protection and sudden protection
- AC voltage balancing with extreme precision
- Independent adjustment on each phase
- Allowable change in load from 0% to 100%
- Manual switching to bypass operation without adjustment
- Static, non-graded, dynamically corrected output voltage
- The standard adjustment is ± 0.4% (379.87-382.6 Vac) stable when the input voltage is within the range
- On request input voltage 190-415 Vac and 310-485 Vac

	SET 04 EM	SET 05 EM	SET 06 EM	SET 08 EM	SET 09 EM
Technical Specifications					
Rated Power (KVA)	10	15	22	30	45
Actual Power (KW)	10	15	22	30	45
Power Factor	1				
Input voltage Input	400 Vac 3ph + N 300-460 Vac (-25%+15%)				
frequency Hz	47-64				
Output Voltage	400 Vac (adjustable 380-415V) ± 1%				
Adjustment Speed	90 V / sec.				
Efficiency	min. 97%				
Waveform	sinusoidal				
WF dimensions (WxDxH) cm	40x63x116		40x63x127		60x88x139
Weight kg	115	125	140	165	200

	SET 11 EM	SET 12 EM	SET 13 EM	SET 14 EM
Technical Specifications				
Rated Power (KVA)	60	75	100	150
Actual Power (KW)	60	75	100	150
Power Factor	1			
Input voltage Input	400 Vac 3ph + N 300-460 Vac (-25%+15%)			
frequency Hz	47-64			
Output Voltage	400 Vac (adjustable380-415V) ± 1%			
Adjustment Speed	90 V / sec.			
Efficiency	min. 97%			
Waveform	sinusoidal			
WF dimensions (WxDxH) cm	60x88x139		66x94x165	120x84x185
Weight kg	290	320	360	575

SPECIAL PRODUCTS

The line of Special Products is the result of Elsist's commitment to the creation of customized and innovative solutions. The Elsist Engineering department is specialized in the development and modification of products based on the technical characteristics provided by customers, ensuring unique solutions that are perfectly aligned with the particular needs of each project.

PLUS SPECIAL PRODUCTS

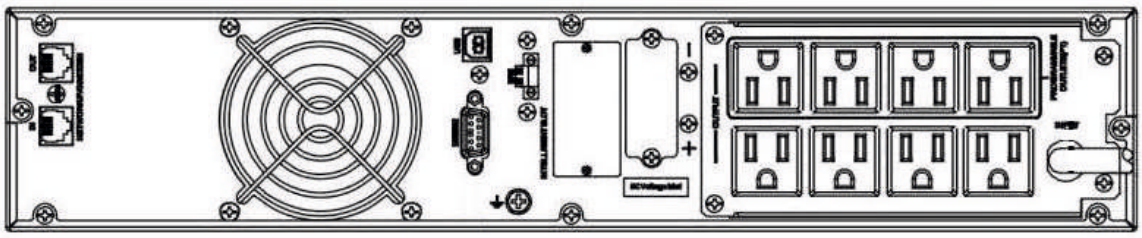
- High-frequency technology and online double conversion
- Microprocessor control
- RS232 communication with monitoring SW
- SNMP card slot (optional)
- Intelligent battery management
- Automatic battery charging in UPS off mode
- Lightning, overvoltage, short circuit and overload protection
- Automatic control of fan speed according to load
- Network/fax/modem surge protection
- Additional battery for longer range (optional)

SIRIUS

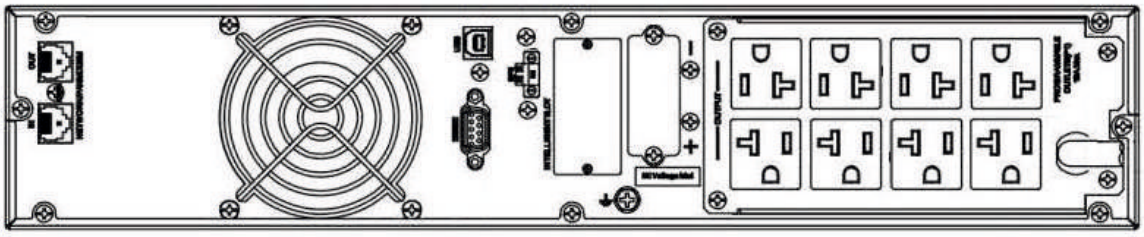
Rack-Tower uninterruptible power supplies, online double conversion 110Vac

SIRIUS

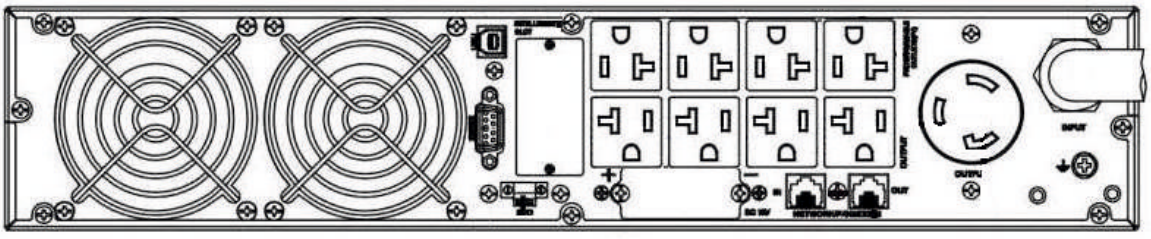
The Sirius series is a special product that operates with an input/output voltage of 110 Vac and is UL certified. It is a double-conversion on-line UPS that can be configured in rack or tower version.
The Sirius series is ideal for protecting critical loads that require continuous, high-quality power.



Sirius1000



Sirius2000



Sirius3000

MAIN FEATURES

- Convertible Rack or tower
- High-frequency technology and online double conversion
- Microprocessor control
- RS232 communication with monitoring SW
- Wide input voltage range
- SNMP card slot (optional)
- Self-test at startup
- Intelligent battery management
- Automatic battery charging in UPS off mode
- Lightning, overvoltage, short circuit and overload protection
- Automatic control of fan speed according to load
- Network/fax/modem surge protection
- LCD display
- Additional battery for longer range (optional)
- Tropicalization (optional)

	SIRIUS1000	SIRIUS2000	SIRIUS3000
Power	1KVA/1KW	2KVA/2KW	3KVA/3KW
Input			
Input type		Single-phase grounded	
Input type (cable)	Nema 5-15P	Nema 5-20P	Nema L5-30P
Input voltage		55 - 150 VAC	
Input frequency		40-70Hz	
Power Factor		≥0.99 full load	
Output			
Output voltage		100/110/115/120Vac	
Output frequency		In AC m de: the same as the grid; in Batt mode: 50/60Hz	
Power Factor		1	
Voltage adjustment		±1%	
Switching time		Network -- Battery = 0ms - Inverter -- Bypass < 4ms	
Output voltage distortion THDv		≤2% with linear load	
Waveform		pure sinusoidal	
Efficiency	≥89% AC mode; ≥88% Batt mode	≥91% AC mode; ≥90% Batt mode	
Output type	8x Nema 5-15R	8x Nema 5-20R	8x Nema 5-20R / 1x Nema L5-30R
Batteries			
Battery Voltage	24Vdc	48Vdc	72Vdc
Battery type	12V/9Ah	12V/9Ah	12V/9Ah
Number	2	4	6
Charging time (typ.)		3 hours at 95%	
Charging current		2A (Standard) - Max 8A (Selectable)	
Communication			
Communication interface		USB,RS232, SNMP (optional)	
General Features			
Operating temperature		0 - 40°C	
Humidity		20 ~ 95% non-condensing	
Altitude		<1500m	
Noise level		<50dB a 1m	
Physical characteristics			
Dimensions (WxHxD) mm	438x88x410 (2U)	438x88x510 (2U)	428x88x630 (2U)
Net weight (without batt.) kg	6,6	9,4	12,4
Installation Type		Vertical / Horizontal / Rack	
Support Type		Feet (Vertical) - Base (Horizontal) - Railkit (Rack)	

POLARIS SWB

Three-phase double conversion UPS for switchboard

POLARIS SWB

Special model of on-line double conversion system with high efficiency and three-phase input/output voltage. The series is high performance and high efficiency with PF 1.
Polaris SWB uses modular power technology and operates in N + x redundant mode.
This model can be used in industrial applications such as pharmaceutical, food and liquid applications, auto production lines, wastewater treatment plants, electron beam technology, steel production, mining and tunneling, and for all high-temperature, high-humidity and dust applications, in special cabinet/ IP54 stainless steel with air conditioning.
Can manage parallels up to 6 power units.

MAIN FEATURES

- Double inline conversion
- The output transfer time is 0ms
- PFC Technology
- Full digital control (DSP)
- Output power factor: 1.0
- Harmonic input current: <3%.
- Supports economic operating mode (ECO)
- Optimization battery group, the amount of battery
- Wide range of input voltages: 208~478Vac
- Wide input frequency range: 40~70Hz
- Cold start
- Communication port: USB, RS232, RS485, parallel port, dry contact
- Options: SNMP card/relay card and MODBUS
- Dual LCD / LED display
- Intelligent battery charge management
- EPO function
- The output can meet 100% unbalanced load
- Inverter stop contact
- Parallel up to 4 units (all models)
- Parallel up to 6 units (only mod 60KVA)
- Tropicalization (optional)

	SWB10KVA	SWB15KVA	SWB20KVA	SWB30KVA	SWB40KVA	SWB60KVA
Power	10KVA/10KW	15KVA/15KW	20KVA/20KW	30KVA/30KW	40KVA/40KW	60KVA/60KW
Input	3 PHASES + N					
Voltage	380-400-415 VAC					
Frequency	50 - 60 Hz (auto sensing)					
Power factor	≥0,99					
THDi	< 2% linear load					
Output	3 PHASES + N					
Voltage	380-400-415 VAC					
Frequency	50 - 60 Hz (±0,1%)					
Power factor	1					
THDv	< 1% (linear load) - <3% (nonlinear load)					
Efficiency	>96,5%	>97,5%	>97,5%	>97,5%	>97,5%	>94%
Battery (External)	Dynamic 16pcs - 18pcs. - 20pcs. (configurable)					Dynamics 30-50pcs. (config.)
Autonomy	10' standard					
Switching time	Network -- Battery = 0ms			Network -- Bypass = 0ms		
Overload	Normal mode: 110% 60' - 125% 10' - 150% 1' - >150% transf. In bypass					
Self-diagnosis	Automatic self test at power on					
Display	LCD: IN/OUT voltage - IN/OUT frequency - Load - Battery voltage					
	Operating temperature - Overload - Fault - Alarms					
Interface	USB - RS485 - DRY CONTACTS - SMART SLOT - MODBUS 485					
Communication	SNMP (optional) - RELAY CARD (optional)					
Connection type	Terminal block					
Operating temperature	0° + 40° / Storage: -25° + 55°					
Dimensions (WxHxD) mm	470x705x283	470x705x283	470x705x283	470x705x283	470x705x283	490x855x281
Weight (without batteries) kg	47	53	54	60	62	73
N. Units	1	1	1	1	1	1
Installation type	Vertical					
Support type	Wall					
Standards	EN/IEC 60951 EN/IEC 62040-1 EN/IEC 62040-2 EN/IEC 62040-3					

OPTIONAL ACCESSORIES

In Naicon's commitment to providing comprehensive and reliable solutions, we offer a range of accessories for our UPS systems, designed for optimal performance, safety and durability.

BATTERY CABINET

Metal cabinet for hermetic lead-acid batteries

BATTERY CABINET

Elsist provides metal cabinets for expansion autonomies built according to current European (CE) regulations and to EN60493-1 and EN62040-1 standards.
With different sizes they are suitable for hermetic lead-acid batteries according to EN50272-2.
Versions available are both tower and rack format.
Cabinets are compatible with all UPS systems of our production designed to be able to expand autonomy.
Cabinets with special sizes and dimensions are also available upon request.

BBR6U

BBR16U

BBT6U

BBT12U

BBT40U

BBT80U

Code	Dimensions (LxDxH) mm	Mounting type
BBT6U	145 x 390 x 210	Tower
BBT12U	190 x 460 x 330	Tower
BBT40U	250 x 600 x 615	Tower
BBT80U	250 x 830 x 865	Tower
BBR6U	440 x 430 x 86,5 (2U)	Tower / Rack
BBR16U	445 x 522 x 131 (3U)	Tower / Rack

BATTERIES

12V 5Ah - 200Ah Sealed Lead Acid Batteries

BATTERIES

Sealed, maintenance-free lead-acid batteries made by Elsist. Batteries are built to withstand long and deep discharges. Packaged in a box suitable for safe delivery.

MAIN FEATURES

- Hermetic, maintenance-free lead acid battery
- Compatible with most UPS systems
- Capacity from 5 Ah to 200 Ah
- Long life 10/12 years expected life

code	voltage	capacity	dimensions LxWxH	weight
E.BT005	12V	4,5Ah	90x70x101mm	1,66kg
E.BT007	12V	7Ah	151x65x95mm	2,26kg
E.BT009	12V	9Ah	151x65x95mm	2,51kg
E.BT012	12V	12Ah	151x65x95mm	3,56kg
E.BT018	12V	18Ah	181x77x167,5mm	5,35kg
E.BT024	12V	24Ah	165x125x175mm	8,5kg
E.BT027	12V	27Ah	165x125x175mm	9,3kg
E.BT035	12V	33Ah	195x130x164mm	10,5kg
E.BT040	12V	40Ah	197x165x170mm	12,2kg
E.BT055	12V	55Ah	239x132x205mm	15,3kg
E.BT065	12V	65Ah	348x167x178mm	20,2kg
E.BT070	12V	70Ah	348x167x178mm	21,6kg
E.BT080	12V	80Ah	260x170x211mm	23,6kg
E.BT0100	12V	100Ah	330x171x215mm	29,0kg
E.BT0120	12V	120Ah	410x176x224mm	33,5kg
E.BT0150	12V	150Ah	482x170x240mm	44,8kg
E.BT0200	12V	200Ah	522x238x223mm	59,1kg


Elsist
Sealed Rechargeable Battery
6-FM-9
(12V9AH/20HR)
Elsist

PDU

Manual bypass

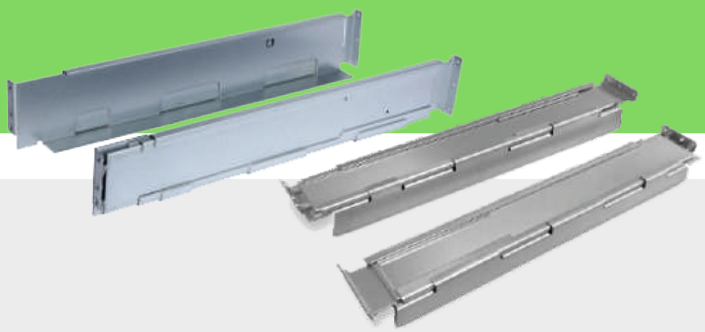
PDU16A

Specifically designed external bypass for UPS from 1KVA to 3 KVA.
In normal mode, the mains supply power to the UPS, which in turn supplies power to the output load. In Bypass mode, the output load is supplied directly from the mains and the UPS is completely isolated. In this mode, the Ups can also be removed from the electrical circuit for easy maintenance or even replacement.

	PDU16A
voltage	220/230/240 VAC
current	16 A Max
input	1× IEC320 type C20 (16A)
bypass output	1× IEC320 type C19 (16A)
bypass input	2× IEC320 type C14 (10A)
output	1× IEC320 type C19 (16A)
	6× IEC320 type C13 (10A)
dimensions	440 × 180 × 60 mm (1.4 U)
weight	2.15 kg

RAILKIT

Rack Mounting Brackets



The mounting kit einables an easy installation of UPS systems in 19" racks. It supports the mounting of UPS systems having 2U or 3U heights. Suitable for depths from 468.5mm to 1000mm. Fixed on the front and rear rails of 19" racks using cage nuts and screws.

SNMP CARD

BOARDS: SNMP (STANDARD) - SNMP1 (MINI)
Elsist's SNMP cards offer a range of advantages and important functionalities for remote monitoring and management of the UPS system. By inserting it into the rear panel, you can monitor the proper operation of the UPS.

Features:
- Full UPS management with flexible configuration via Web browser, NMS, Telnet, or SNMP.
- Supports advanced encryption: HTTPS, SSL, SSH, SNMPv3
- Event notification via Email, SMS, or Trap
- Multilingual user interface
- Real-time UPS monitoring
- Schedule periodic UPS self-tests
- Records event/data logs
- Gradual shutdown of multiple servers (Windows operating systems only)
- Battery test log

BOARDS: SNMP4 (STANDARD CS141) - SNMP5 (MINI CS141)
Elsist's SNMP cards offer a range of advantages and important functionalities for remote monitoring and management of the UPS system. By inserting them into the rear panel, you can monitor the proper operation of the UPS.
This model is equipped with all network functions for monitoring via SNMP, email traps, and can be implemented, fully automatically, in an emergency management system, even in highly complex networks or in the high-security sector.
Another key function is to provide real-time status information of the UPS, via a web-based interface.
It is a card capable of autonomously shutting down both Windows systems and VMWare virtualization-based systems.

Features:
- Full UPS management with flexible configuration via Web browser, NMS, Telnet, or SNMP.
- Supports advanced encryption: HTTPS, SSL, SSH, SNMPv3
- Event notification via Email, SMS, or Trap
- Multilingual user interface
- Real-time UPS monitoring
- Schedule periodic UPS self-tests
- Records event/data logs
- Gradual shutdown of multiple servers (Windows operating systems and VMWare virtualizations)
- Battery test log

UPSILON SOFTWARE

UPSILON2000

UPSilon 2000 is an intelligent UPS monitoring and control software. UPSilon displays UPS status (e.g., input and output voltage, line frequency, load, and battery capacity) in digital and graphical format, which can help users monitor power quality. In case of AC failure or low UPS battery, UPSilon 2000 will perform UPS monitoring. UPSilon 2000 can send warning messages via e-mail.

Supported operating system:

• Windows platform: All

• Linux platform: Supports all mainstream Linux systems

• Mac OS platform: Mac 10.15 (64 bit)

Can support V9.10, 11 but cannot work with ARM chip system

KPOWER SOFTWARE

K-POWER

KPower is a desktop computer software used to communicate with the USB HID module.
Through KPower software, dynamic data interaction with the UPS can be realized. It is plug and play and supports multiple operating system platforms.
The USB HID module is an interface module that is installed inside the UPS and communicates with the UPS host through the port and transfers collected data to it.
The software concentrates all functions in the same window, and the interface is simple and easy to use.
The program's main function pages include: alarms, equipment, scheduling tasks, UPS control, settings, and historical records.

Supported operating system:

• Windows platform:

Windows 7, Windows 8, Windows 10 (32/64 bit)

• Linux platform:

Ubuntu 14.04 Ubuntu 16.04 Ubuntu 18.02 Ubuntu 20.04(64 bit)

Fedora 32 (64bit)

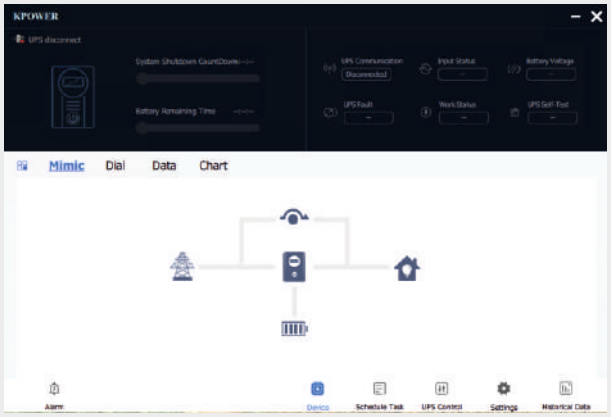
CentOS 7 CentOS 8 (64 bit)

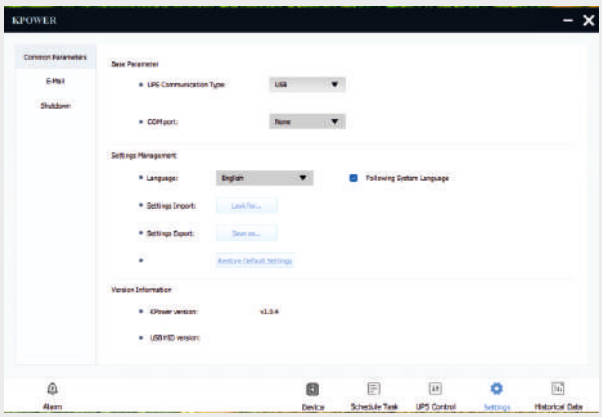
Deep 15 (64 bit)

OpenSUSE 15 (64bit)

• Mac OS platform:

Mac 10.15 (64 bit)





WARRANTY

Dear Customer

thank you for purchasing a NAICON product, we are sure you will be satisfied with it.
If the product requires warranty service, please contact the dealer where you purchased it or by calling +39 02 950031 or go to www.naicon.com/elsist . Before contacting your dealer or the authorized service network, we recommend that you carefully read the owner's manual.

Warranty 

extendable to 

Conventional 2-year warranty A/R transport paid for by NAICON.
5 years warranty, for the extension the customer must log on to www.naicon.com/elsist/garanzia and follow the procedure.

In the event of a fault

contact our service centre on +39 02 95 0031 and verify with the operator the actual malfunction of the UPS. In case of product return, if the product is found to be in working order or if the shipment is made without our authorisation or for articles out of warranty, they will be returned to the sender with a cash-on-delivery charge of 25.00euro + VAT.

Naicon

warrants the product against any defects in materials or workmanship for the duration of YEARS 2 f r om the original date of purchase. If defects in materials or workmanship are found during the warranty period, Authorized Service Centers or Authorized Dealers located in the EEC will repair or (at NAICON's sole discretion) replace the product or its defective components under the terms and conditions set forth below, without charge for labor or parts costs. NAICON reserves the right (at its sole discretion) to replace defective product components or low-cost products with assembled parts or new or reconditioned products.

Service Fee

During the two-year warranty period, should the customer require on-site service by qualified technical personnel, the cost is 200.00 euro + VAT.

Unless Authorized by the manufacturer

Reproduction of any part of this manual is prohibited. Our devices, manufactured with the utmost care and with selected components, are checked by NAICON Quality Services. However, if you detect any anomalies, please inform us by calling 02-950031 specifying the serial number and device model, which are printed on the name plate on the back.
NAICON Service Department is also at your disposal to collect inquiries, comments, suggestions.

1

This warranty shall be valid only if the defective product is presented together with the sales invoice. NAICON reserves the right to refuse the warranty work in the absence of the aforementioned documents or if the information contained therein is incomplete or illegible.

2

This warranty does not cover costs and/or any damage and/or defects as a result of modifications or adaptations made to the product, without prior written authorisation issued by NAICON, in order to comply with national or local national or local technical or safety standards in force in countries other than those for which for which the product was originally designed and manufactured.

3

This warranty shall be voided if the model or serial number on the product has been changed, deleted, removed or otherwise made illegible.

4

The following are excluded from the warranty
a. Periodic maintenance work and the repair or replacement of parts subject to normal wear and tear.
b. Any adaptation or modification made to the product without prior written authorisation from NAICON.
c. All costs of technical staff outgoing.
d. Misuse or use of the product for purposes other than those intended, or disregard of NAICON's instructions in the instruction manual.
e. installation or use of the product that does not comply with the technical or safety regulations in force in the country in which it is used.
f. Repair work by unauthorised personnel or by the Customer himself.
g. Accidental events, lightning, flooding, fire, incorrect ventilation or other causes not attributable to NAICON. h. Defects in the installations or equipment to which the to which the product was connected.

5

This warranty does not affect the purchaser's rights under applicable national applicable national laws, nor the customer's rights against the reseller arising from the sales contract.

NOTE

Naicon

UNIT

Diloc Elsist

Rivenditore Autorizzato Elsist

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