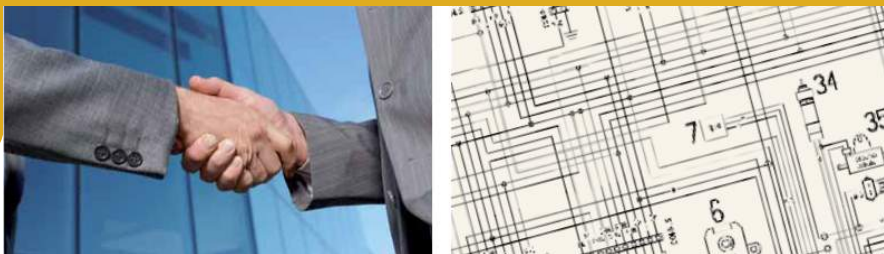




Online Double Conversion UPS System DS Series

10 KVA – 200 KVA 3:3 Phase



USA . ITALY . UAE . INDIA

www.elsy-is.com



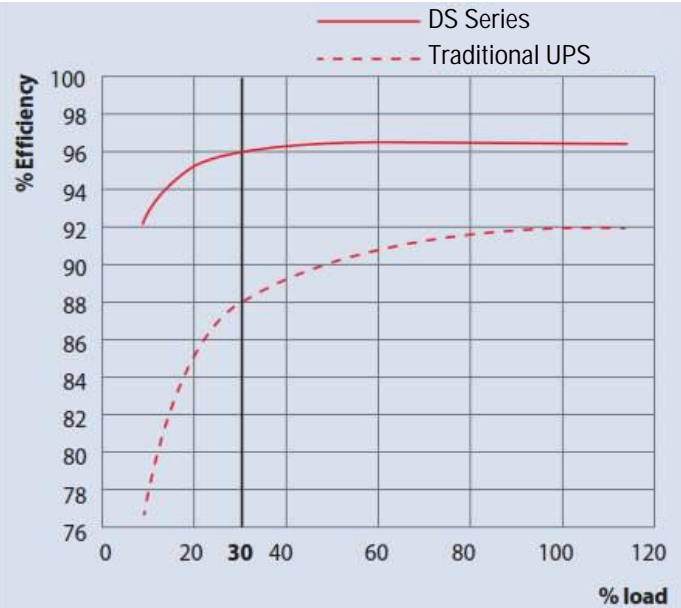
ELSY[®]

ADVANCED ENERGY SOLUTIONS & BATTERIES

ENERGY SOLUTIONS

Features

- True Online Double Conversion
- Transformerless UPS technology
- Small & Compact foot print
- Three DSP controlled modular structure
- Static and maintenance bypass switch
- Output short circuit and overload protection
- External REPO switch input
- Regenerative backfeed function
- Two RS232 ports and 12 dry contacts output
- SNMP and Modbus cards (Optional)
- Touch Screen Panel (Optional)
- Low input current harmonics (THDi)
- High input power factor
- High efficiency upto 94%
- Cold start function
- 192 events memory & 4500 alarms
- Automatic battery test function
- Remaining autonomy time indication
- Temperature compensated charging
- Output DC leakage protection
- Three level battery protection
- High charging current capacity
- Separate DSP for inverter control
- Separate DSP for PFC
- Output current limiting
- SNMP Remote Management (option)

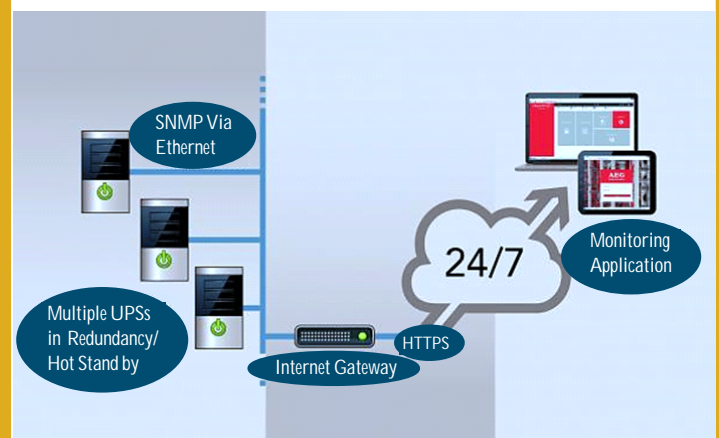
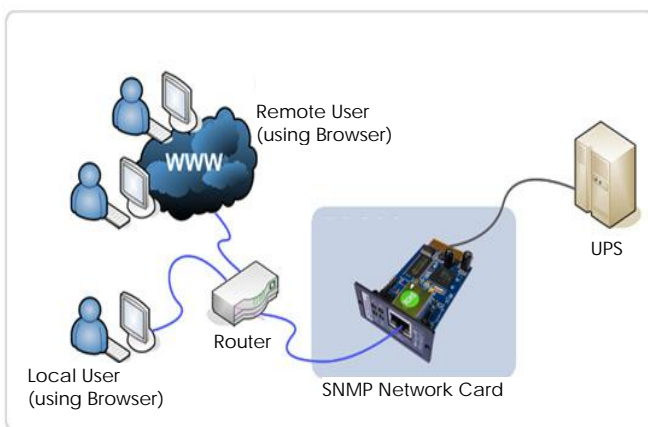


Digital Signal Processing - DSP Technology

The new DS series UPS uses the latest DSP technology which has been programmed to suit a wide variety of electrical environments without impeding its performance. With DS series, efficiency and reliability are enhanced to levels unattainable by the old analogue technology. Thanks to the DSP technology, the MTBF is increased by a significant level and signal processing is done fast and with increased precision *2

Standards

- IEC EN 62040, EN60950 • EMC (2004/108/EC)
- LVD (2006/95/EC)
- ISO 9001
- CE conformity
- GOST conformity!





Electric Cabins & Substations



Emergency Lighting & Energy Stations



Telecommunications & UPS's



Platforms & PV Installations

The DS Series is ideal for protecting data centre and telecommunications systems, IT networks and critical systems where poor power quality can lead to a loss of operations and service.

The DS Series UPS is available in 10-15-20-30- 40-60- 80-100-120-160-200kVA models with three phase input and output with On-line double conversion technology

DS Series is designed and built using state of the art technology and components, and controlled by the DSP (Digital Signal Processor) microprocessor, to provide maximum protection to the powered loads with no impact on downstream systems and optimise energy savings.

High output

Using state-of-the-art technologies three-level NPC inverters have been designed which ensure a high output of up to 94%. These technology solutions allow for a saving of more than 50% of the energy dissipated in a year, compared to a similar product on the market with 92% output.

UNINTERRUPTED POWER

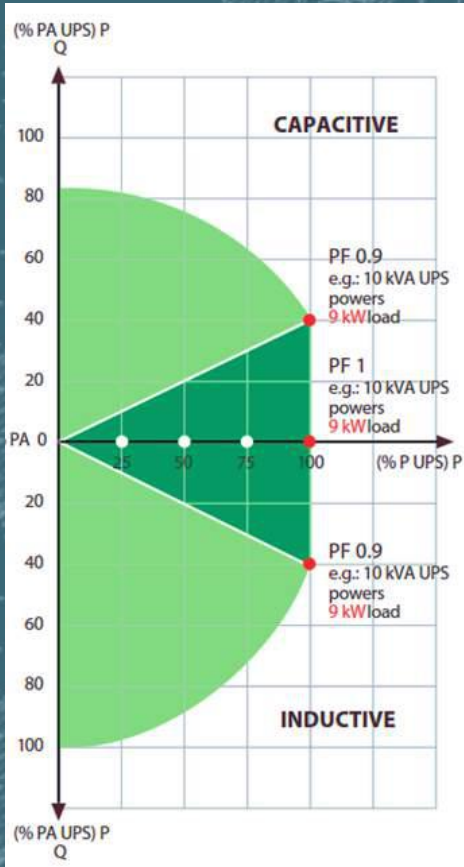
CONTINUOUS LIFE

Maximum reliability and availability

Connect up to 6 units in redundant (N+1) or parallel configuration. The UPS continues to operate in parallel even in the event of an interruption in the connection cable (closed loop).

Battery care system

Proper battery care is critical to ensuring the correct operation of a UPS in emergency conditions. The DS UPS Battery Care System consists of a series of features and capabilities that allow for battery management in order to obtain the best performance possible and extend their operating life. Thanks to a high frequency battery charger, DS UPS reduces this value to negligible levels, prolonging battery life and maintaining high performance over a long period of time.



APPLICATIONS:

industrial plants
hotels
convention centers
building industry
schools
cinemas
hospitals
theaters

shopping centers
disco's
highways
switchboards
banks
airports
trade fairs and Exhibitions

AN ORGANIZATION WITH ALWAYS PRESENT, PERFORMING AND EFFICIENT SALES AND SERVICE DEPARTMENT

Thanks to its incomparable experience, the efficient commercial setup as well as a high manufacturing capacity and its technical support, Elsy is fully capable of responding professionally and on schedule to any demand of its customers, of which the most important, are: Telespazio, Telecom, Omnitel, Enel, Snam, Gruppo Fiat, Pirelli, Philips, Sony, Danieli, Aeroporti Fiumicino-Malpensa-Linate, Aeronautica Militare, Marina Militare, Enea, Istituto Fisica Nucleare Padova, Mercegalia, Autogrill, Autostrade, Abb, Sniafibre, FS, ASL, Banca Nazionale del Lavoro, Istituto San Paolo Torino, Politecnico Milano, Coop, UPS, etc.



ELSY ENERGY SOLUTIONS

Elsy was founded in 1990 as a family-company and is one of the major Italian producers for mains power conversion and protection systems for industrial applications and applications in the public service and other specific sectors. It has 20 years of experience in projecting and production of emergency power supply systems matured in cooperation with the major Italian UPS manufacturing and engineering groups as well as sales and support of lead-acid (flooded, gel and AGM) and Ni-Cad-batteries.

Elsy successfully applies, according to the principle of the new industrial philosophy of this century, the innovative concept of establishing an integrated supplier-customer relation. In cooperation with the customer-partner, in fact, aiming to more appropriate and reliable service as well as assuring higher and certified quality standards, new products are developed and existing products improved.

RELY ON US, WHEREVER YOU ARE

WITH AN EFFICIENT COMMERCIAL SERVICE & ASSISTANCE STRUCTURE, WE ARE THERE WHERE WE ARE REQUIRED WITH PROFESSIONALISM, ALWAYS.

With a solid expertise, an efficient commercial organization as well as a large manufacturing capacity and technical assistance, but mainly flexibility, Elsy S.r.l., is fully capable of professionally responding, on schedule, to any demand of its customers operating in the following markets: Telecommunications, Space Industries, Electricity Producers, Airport Authorities, Military and Civil Navy, Research and Nuclear Physics Institutes, Metal Industry, Hotel & Restaurants, Catering Systems, Highways, Underground Systems, Department Stores and Supermarkets, Malls, University Institutes, Hospitals, Banks and last but not least the most important worldwide UPS manufacturers for the electrical protection systems from a small company PC to companies' communications networks, from telecommunications Data Centres to large technological structures.



ELSY®

ADVANCED ENERGY SOLUTIONS & BATTERIES

ENERGY SOLUTIONS

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TECHNICAL DATA

Model (DS)	DS310	DS315	DS320	DS330	DS340	DS360	DS380	DS3100	DS3120	DS3160	DS3200	
Power (kVA)	10	15	20	30	40	60	80	100	120	160	200	
INPUT												
Wiring	3 Ph + N + PE											
Voltage (V)	380 / 400 VAC \pm 20%											
Frequency (Hz)	50 Hz / 60 HZ \pm 5% (50 / 60 Selectable)											
Power factor	> 0.98											
Protection	Fuses, Voltage tolerance limit, Frequency tolerance limit, Input power limit, Input PFC											
BYPASS												
Wiring	3 Ph + N + PE											
Voltage (V)	380 / 400 VAC \pm 10%											
Frequency (Hz)	50 Hz / 60 HZ \pm 5% (50 / 60 Selectable)											
Protection	Short circuit, Voltage tolerance limit, frequency tolerance limit, VAT transfer											
BATTERY												
DC Nominal Voltage (V)	\pm 360V DC (2 x 360V DC)											
Float / End Voltage (V)	\pm 405V DC / \pm 300V DC											
Battery type	VRLA-AGM (30 + 30 Nos, 12V Blocks), VRLA-Gel (30 + 30 Nos, 12V Blocks)											
Protection	3 level alarm, Fuses, Charging current limit, temperature compensated charging, 72 hours automatic battery test (adjustable)											
OUTPUT												
Wiring	3 Ph + N + PE											
Voltage (V)	380 / 400 VAC \pm 1%											
Frequency (Hz)	50 Hz / 60 Hz (Auto selection from input)											
Frequency totelance	\pm 2% (Line synchronised) / \pm 0.1% (Free running, adjustable)											
THD	<3% (100% Linear Load)											
Crest Factor	3 : 1											
Transfer time	0 msec (Mains to Inverter) / 0 msec (Inverter to synchronised mains) / 4 msec (Inverter to non-synchronised mains)											
Overload tolerance	10 Minutes (100% to 125%) / 1 minute (126% to 150%) / Transfer to bypass (>150%)											
GENERAL												
HMI	Alphanumeric LCD, Mimic LED, 5 Vector Buttons, Buzzer											
Communication	2 x RS232 ports and 4 dry contact ports											
Alarm logging	192 events with date and time											
Protections	Power module over temperature, Over current, High temperature alarm											
Operating Ambient	-10 deg C to +40 deg C, <90% R.H, <1000 m altitude											
Storage Ambient	-40 deg C to +85 deg C, <95% R.H, <2000 m altitude											
Cooling	Forced Air, Smart Fan System											
Ingress Protection	IP20 Standard											
International Standards	IEC-EN 60950-1 (Safety) IEC-EN 62040-1, IEC-EN-62040-2, EMC(2004/108/EC), LVD(2006/95/EC)											
Colour	RAL 7016 Black											
Dimension HxWxD (mm)	1035 x 400 x 810				1440 x 515 x 850				1650 x 1150 x 810			
Weight (kg)	87	87	91	100	173	180	194	797	897	1120	1150	
Noise (dBA)	\leq 57 dBA		\leq 62 dBA		\leq 64 dBA		\leq 68 dBA		\leq 70 dBA			
OPTIONS												
Ingress Protection	IP21, IP31, IP41											
Transformer	Galvanic isolation transformer at input or output											
HMI	Graphical Touch Screen											
Alarm logging	512 events with date and time											
Paralleling	Paralleling card for paralleling of upto 8 UPS											
Communication	Additional 8 dry contact ports, Modbus card, SNMP card, Remote monitoring panel											
Extended Warranty	1 Year Additional Product Warranty											
Customised System	Customised system in accordance with client specifications, size limitations and operating ambient											