•INDUSTRY• •MEDICAL• •DATA CENTER• •TRANSPORT• •MALLS•

DS POWER X

UNINTERRUPTIBLE POWER SUPPLIES

100-300kVA

3 PHASE IN / 3 PHASE OUT

- IGBT RECTIFIER / INVERTER
- 3-LEVEL TECHNOLOGY
- DSP CONTROL

TOWER | POWER FACTOR | UPS ONLINE | SERVICE / TECH. SUPPORT | ECO FRIENDLY

DS Power X Online UPS uses the latest DSP technology, which can be programmed to suit a wide variety of electrical environments without impending its performance. It stands out with its stylish design, high power density (250KVA in less than 0.5m2 area) and less noisy operation than its counterparts.As a state-of-the-art product, the input and output side have been designed as 3-Level to maximize efficiency, reliability and functionality. This technology not only creates a significant increase in MTBF, but the DSP's ability to accurately process signals at very high speed allows all UPS subsystems to be controlled with greatly increased precision.

GENERAL SPECIFICATIONS

- kVA = kW (Output PF = 1.0)
- Transformerless ups technology
- 3 DSP controlled modular structure
- High power density
- Separate main control board program for rectifier and inverter
- 3-Level rectifier, inverter technology and fully digital structure
- Less electronic components and SMD technology
- Low input current total harmonic distortion (THDi)
- High input power factor
- High efficiency up to 96.0%
- Selectable input/output voltage/frequency/range
- Static and maintenance by-pass switch
- High charge current capacity
- Ecomode operation (optional)
- Split by-pass input (dual input)
- Advanced TFT front panel
- Optional 0.8 and 0.9 output power factor (PF) option
- Cold start function
- EMI/RFI input and output filter
- ISO9001, ISO14001 compliant production
- Advanced diagnostics for the input
- 3 level battery protection
- Temperature compensated charge system
- Output current limitation
- Output DC leakage protection
- Output short circuit and overload protection
- External REPO input
- 512 events memory (46.000 alarm)
- Clock and calender (battery supported)
- Automatic battery test, remaining battery time indicator
- Static and maintenance by-pass switch
- 2 RS232 serial ports and 4 programmable dry contact outputs
- Optional 12 dry contact outputs
- Optional SNMP, MODBUS and Remote Monitoring Panel
- View device operating parameters
- Advanced remote control features
- 2 years warranty

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PERFECT CONTROL WITH TRIPLE DSP ARCHITECTURE

In DS Power X series UPS systems, the triple independent DSP architecture ensures that each core function of the system is managed by a dedicated processor.Thanks to this structure, the rectifier, inverter, and communication units operate in full synchronization, minimizing the risk of failure. Unlike conventional single-processor UPS systems, each module operates independently, resulting in faster response times, more precise voltage regulation, and a more stable output performance.

Additionally, this architecture provides operators with advanced diagnostic capabilities during maintenance and fault detection, enhancing overall system reliability.

As a result, DS Power X is not merely a power source — it is an intelligent energy management solution controlled entirely by digital precision.

- Mechanical Protections
- Advanced Communication
- Dry Contact Card
- RS232 Port
- Parallel Socket
- Internal SNMP Slot
- Internal MODBUS Adapter (Optional)

COMPACT DESIGN, HIGH POWER DENSITY

The DS Power X series UPS delivers the highest power density in its class within a remarkably compact design. Thanks to advanced 3-level IGBT technology and an optimized cooling architecture, the system provides maximum power in minimum space.

Compared to conventional UPS systems, DS Power X occupies up to 30% less floor area, offering easier installation and simplified cabling.

Its silent operation and high efficiency also reduce both energy consumption and operational costs.

As a result, DS Power X perfectly balances maximum performance with minimum space usage, making it ideal for data centers, industrial control rooms, and energy-intensive facilities.

HIGH EFFICIENCY (UP TO 96%)

The DS Power X series UPS achieves up to 96% efficiency, maximizing energy savings and minimizing operational costs.

Its advanced 3-level IGBT topology, reduced switching losses, and optimized power electronics design allow the system to generate less heat and consume less energy.

As a result, operational expenses are reduced while supporting environmental sustainability goals.

High efficiency also translates into lower cooling requirements, longer component life, and a reduced carbon footprint.

DS Power X is a new-generation UPS solution that delivers maximum efficiency without compromising on power quality.

ON-LINE TRUE DOUBLE CONVERSION

DS Power X is an On-line UPS with True-Double Conversion technology. It is based on the principle of converting AC voltage to DC energy by eliminating all anomalies such as sudden increases and distortion, keeping the DC voltage stable by storing and supply load with pure and safe energy with converted energy. While energy is stored in the DC Bus capacitors, it also keeps the batteries at the float charge voltage. In case of any interruption in the AC input voltage or if it goes out the tolerance limits, the continuity of your loads is ensured by transferring the load to the inverter through the batteries without interruption.

LOW INPUT HARMONIC DISTORTION (≤ 3%)

Thanks to its advanced rectifier design, the DS Power X series UPS applies minimal harmonic distortion to the mains (THDi ≤ 3%).

This low harmonic level prevents overheating of cables, fuses, and transformers in the power infrastructure, while ensuring stable operation of generators and other connected equipment.

In conventional UPS systems, high harmonic currents can cause energy losses and inefficiencies; however, the DS Power X's active PFC (Power Factor Correction) control eliminates these effects.

As a result, the overall power quality of the electrical network is preserved, and energy efficiency across the facility is improved.

A low THDi value is a key advantage that reduces long-term operating costs and extends the lifespan of the entire power distribution system.

SPLIT BYPASS INPUT (DUAL INPUT SYSTEM)

The DS Power X series UPS features a split bypass (dual input) design that allows independent management of the main and bypass power sources.

This configuration enables the rectifier (main input) and bypass line to be supplied from separate sources, significantly enhancing overall system reliability.

For example, when the main input is powered by the utility grid and the bypass input by a generator, the UPS automatically synchronizes both sources and ensures seamless transfer without any interruption.

The split bypass architecture provides continuous power availability and maximum operational safety, making it ideal for critical environments such as industrial facilities, data centers, and healthcare applications.

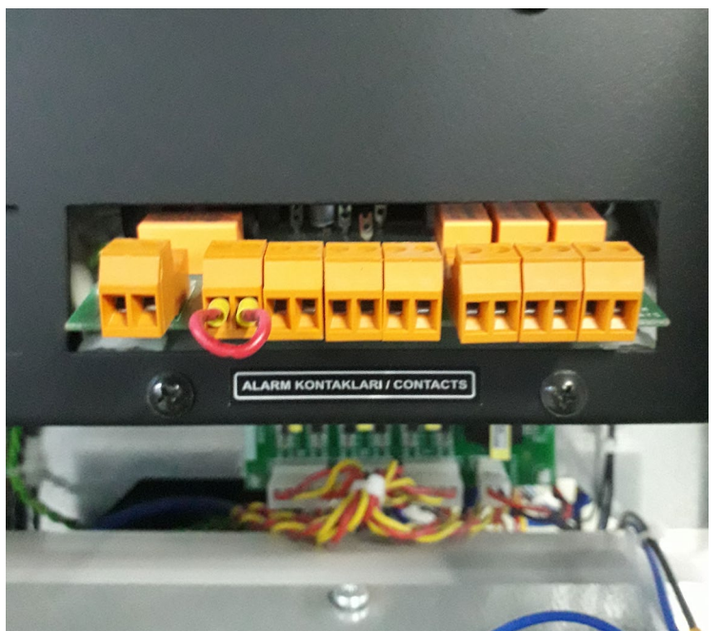
Through this feature, DS Power X offers users flexible power management and complete operational redundancy.

ACTIVE POWER FACTOR CORRECTION IN EACH PHASE

Thanks to the high power factor correction, the input power factor gets closer to 1 (>99%) and the reactive power cost is eliminated. At high power, the amount of savings is at the highest level. In addition, with active power factor correction, do not need any compensation regarding UPS operation.

POWER WALK-IN FEATURE

Thanks to IGBT and DSP controlled rectifier, input and output contactor structure and start delay function, energy is transferred gradually and proceeds on the device step by step. Thanks to the soft start feature, the necessary controls can be made in low voltage operation in case of a possible malfunction, thus protecting itself when necessary, thus preventing high breakdown costs.



ADVANCED COMMUNICATION

It offers a significant advantage with two standard RS232 serial communication port and 4 programmable dry contact cards. If desired, the number of dry contact outputs can be increased up to 12 with the optional dry contact card.

It also offers flexible usage with SNMP/MODBUS (RTU-TCP) protocol compatibility. Thanks to the built-in SNMP option, the flexibility of use for a different application can be provided by not using the RS232 port.

It provides ease of service thanks to real-time 512 (46000 alarm) event log records and advanced diagnostic coding.

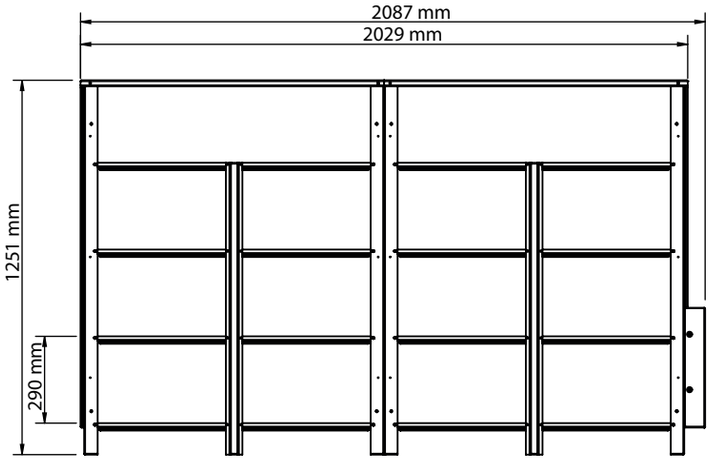
HIGH RELIABILITY AND REDUNDANCY

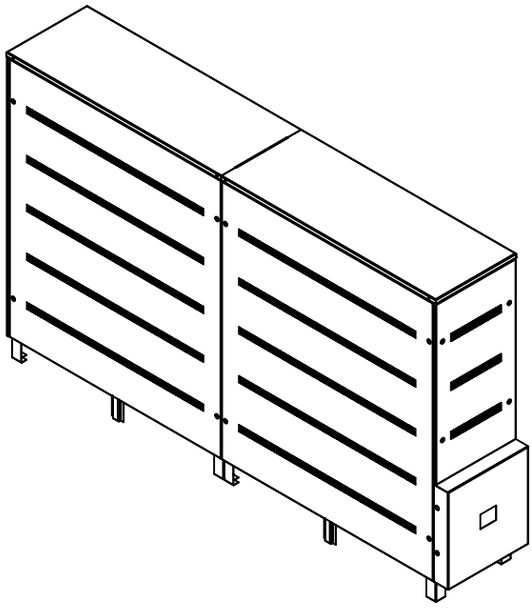
DS Power series has been designed to guarantee maximum security with its input / output contactor structure, suitable fuses, and gradual mechanical protection function, as well as superior software protections.

DS Power series can work in parallel with up to 8 units with power increasing and N+1 or N+X redundant operating modes. By allowing the parallel system to work with a common battery group, your ownership (TCO) and maintenance costs are reduced.

COMPATIBLE BATTERY CABINETS

TBC_6445N





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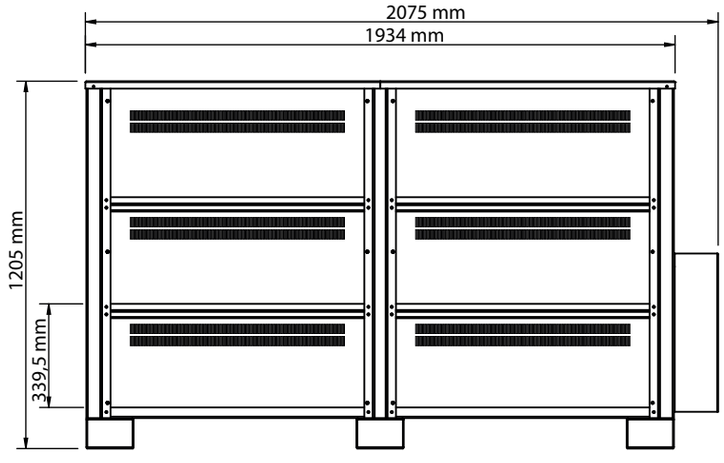

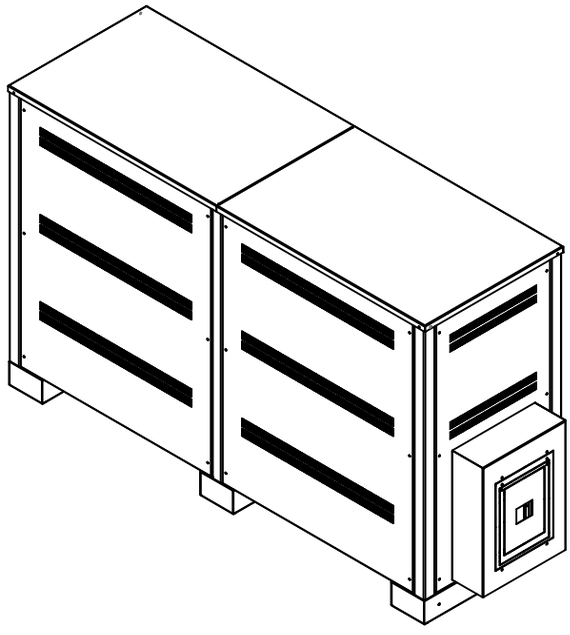

COMPATIBLE BATTERY CABINETS

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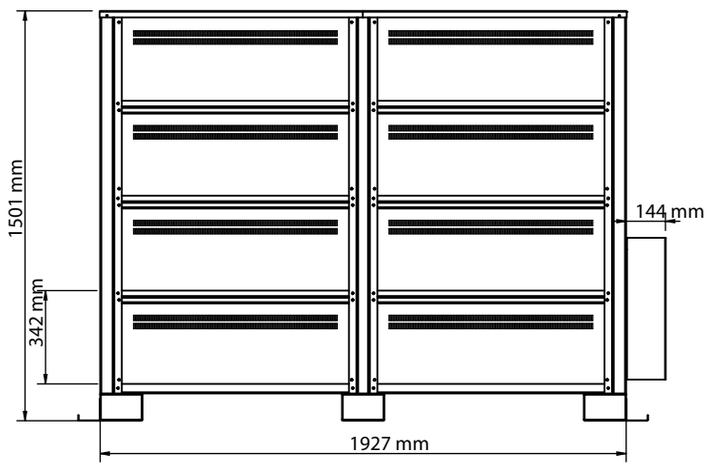

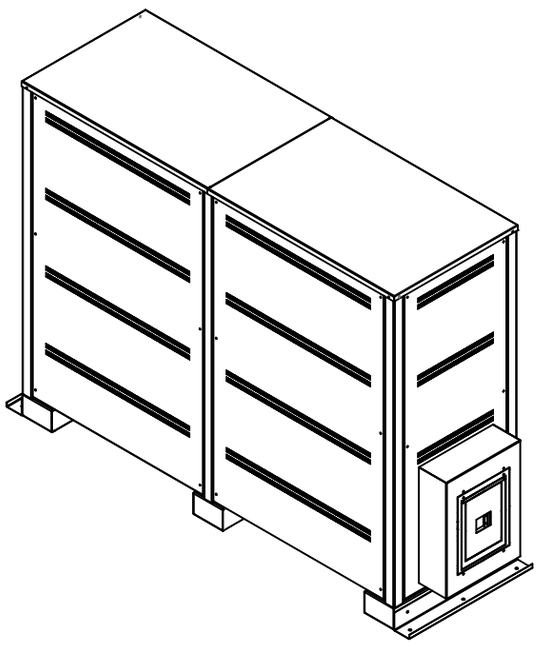

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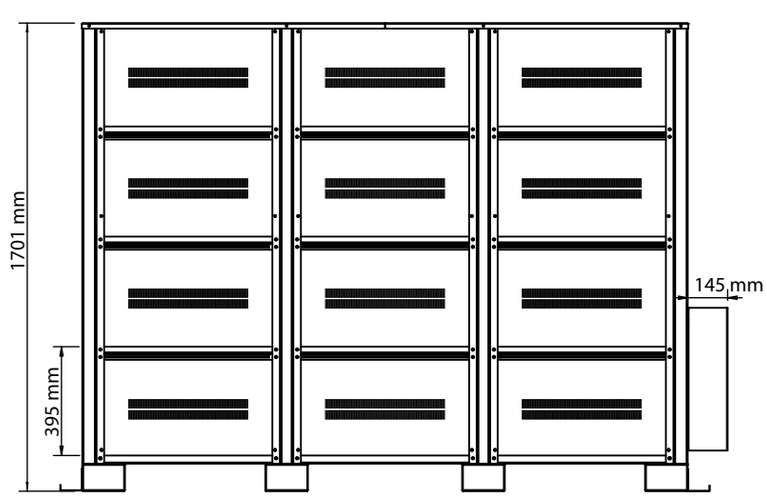

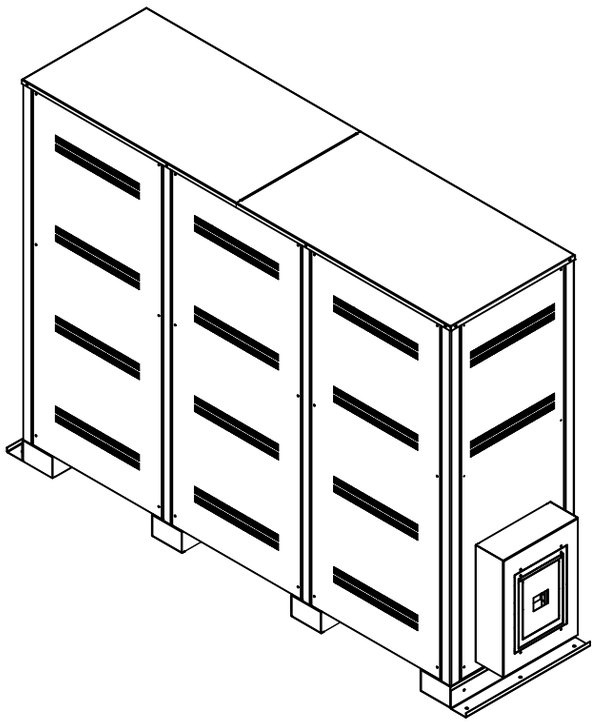

TECHNICAL SPECIFICATIONS

MODEL	DX3100	DX3120	DX3160	DX3200	DX3250	DX3300
Power (kVA)	100	120	160	200	250	300
INPUT						
Voltage	380/400 VAC 3P + N + G ± 20% (at 100% load) / - 40% (at 70% load)					
Frequency	50Hz / 60Hz, ± 10%					
Power factor (@ 100% load)	≥ 0.99					
THDI (*)	≤ 3%					
By-pass voltage	380/400 VAC 3 Phase + N, ± 10 (adjustable)					
Protection	Fuses, Voltage & Frequency tolerance, Input power limit, Phase sequency indicator					
OUTPUT						
Power (kW)	100	120	160	200	200	300
Power factor (**)	1.0				0.8	1.0
Voltage	380/400 VAC 3P + N, ± 1%					
Frequency	50Hz / 60Hz					
Frequency tolerance	Line synchronized: ± 2% (adjustable) / Free running: ± 0.1%					
Efficiency	up to 95.5% (Eco Mode ≥ 98%)		up to 96.0% (Eco Mode ≥ 98%)			
Crest factor	3:1					
Overload protection	100% - 125% load: 10 min, 125% - 150% load: 1 min, - > 150% load: by pass					
Other protections	Advanced short circuit, Voltage tolerance, DC balance, Regenerative load, Current limiting					
Voltage THD	≤ 2% (linear load), ≤ 5% (non-linear load)					
BATTERIES						
Type	VRLA AGM / GEL / NiCd					
Nominal voltage	± 360 VDC					
Float / End of discharge voltage	± 405 VDC / ± 300 VDC					
Battery cabinet	External					
Battery ambient temperature	25ºC					
Protections	3 level alarms, Battery fuses, Charging current limit, Temperature compensation (optional)					
Automatic testing	Standard every 72 hours (adjustable)					
GENERAL						
User interface	TFT touch panel, 5 vector buttons, Buzzer					
Indicators	P-N voltage, P-P voltage, Current, Power, Crest Factor, Frequency, PF, Service Time					
Advanced	Self diagnostics, 3 maintenance time indicators, Calibration over RS232, Operating hour meter					
Communication	2xRS232 serial ports, 4 standard and 8 optional DRY contact alarm relays					
Inputs	EPO input, Interactive battery panel input, Genset input					
Genset kit	Standard (programmable)					
Software	Standard T-Mon UPS Management Software (3 clients + 1 server management)					
Alarm logging	Standard: with time & date 512 events					
Protections	Power module over-temperature, Overcurrent, Temperature high alarm					
Temperature range	0ºC - 40ºC					
Protection degree	IP20					
Relative humidity	90% max. (non-condensing)					
Altitude	< 1000m above sea level					
Acoustic noise	< 62dBA		< 65 dBA			
Weight (kg)	210	220	262	270	295	580
Dimensions (mm) HxWxD	1440x475x890					1975x880x848
OPTIONS						
Different input / output voltage	Please ask					
Transformer	Galvanic isolation transformer at the input & output (external)					
Software	T-Mon Admin Multi UPS monitoring 10-50-100-200 clients, T-Mon Server 50-100-200 clients					
Adaptors	SNMP, RS485, Remote monitoring panel, MODBUS (RS485 or TCP/IP), TCP/IP, GSM/GPRS Modem, Comport multiplexer					
Parallel operation	up to 8					

(*) Depending on power and input/output conditions

(**) Please ask for PF 0.8 and 0.9

(***) Overload withstand times vary depending on the ambient temperature.