

DX Series

1-1 Phase & 3-1 Phase UPS
6KVA-10KVA (1:1)
10KVA-30KVA(3:1)



About the DX Series

Perpetual Power proudly presents the DX Series Online UPS-a high-performance, fully digital uninterruptible power supply designed for critical power protection. Engineered with advanced DSP (Digital Signal Processor) control technology, the DX Series delivers precise and intelligent power management. The system features a robust online double conversion topology, ensuring continuous and clean power delivery without interruption. Its DC/AC inverter utilizes cutting-edge SPWM (Sinusoidal Pulse Width Modulation) technology, integrated IGBT power modules, and an output isolation transformer to ensure high efficiency, superior waveform quality, and complete electrical isolation for sensitive equipment.

DX Series Online UPS – Advanced Features & Benefits

The DX Series by Perpetual Power is a robust, intelligent, and high-performance online UPS solution designed to deliver continuous, clean, and efficient power for critical applications. Below are the advanced features that make it stand out:

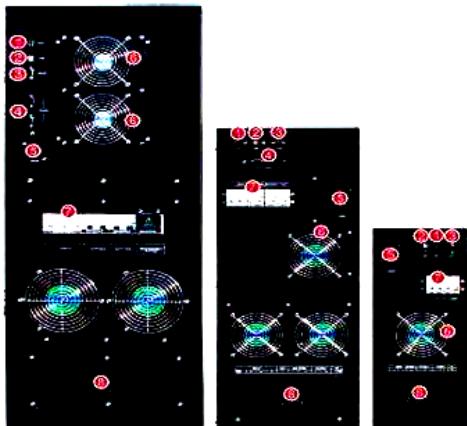
- High frequency on-line double conversion technology
- Advanced DSP and 3-level technology
- Output power factor - 0.9/1.0
- Active power factor correction(APFC)
- High efficiency 95% (up to 98% in ECO mode)
- Advanced digital parallel technology
- Wide input voltage range (110~300VAC)
- Frequency range (40~70Hz)
- 50/60Hz frequency auto sensing
- Two modes of frequency conversion Flexible battery configuration (settable 10-20 Pcs batteries)
- Digitally controlled charger
- High charging current available (Max.12A)
- Charging voltage and current configured by demands
- Lines are rating in low voltage input reducing battery discharging times, extending the service life of battery.

Intelligent battery management, automatic floating /equalizing charge control, charger dormancy control, increasing battery life by 50%

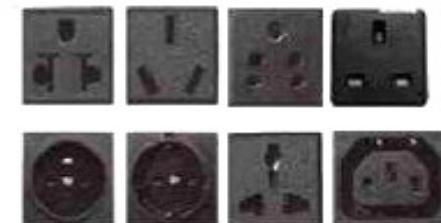
- Ability to switch on the UPS with batteries
- Set table delayed start time when mains power is reducing the impact on power grid or generator
- Fan speed varies intelligently with temperature, reducing noise and extending its service life
- Equipped with self-aging function
- Compact internal layout, miniaturized the complete unit for small foot print
- LCD display, multi-functional keys operation, friendly human-machine interface
- Powerful background software for parameters configuration
- Advanced multi-platform communications: RS232, USB, RS485, SNMP communication interfaces
- Effective software and hardware protection function, self-diagnostic function, and abundant event log for check

Rear View

- EPO
- USB
- RS232
- Parallel port (optional)
- SNMP (optional)
- Fan
- Breaker
- Terminal



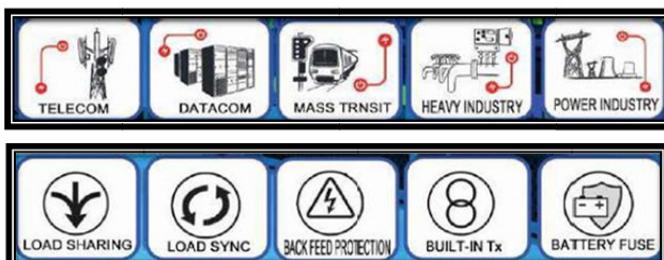
Optional Outlets



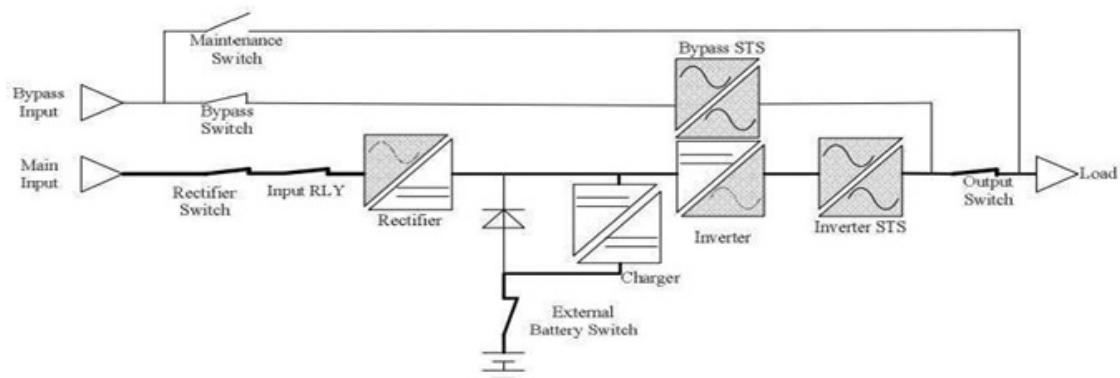
Standard config with Output Isolation Transformer: Optional



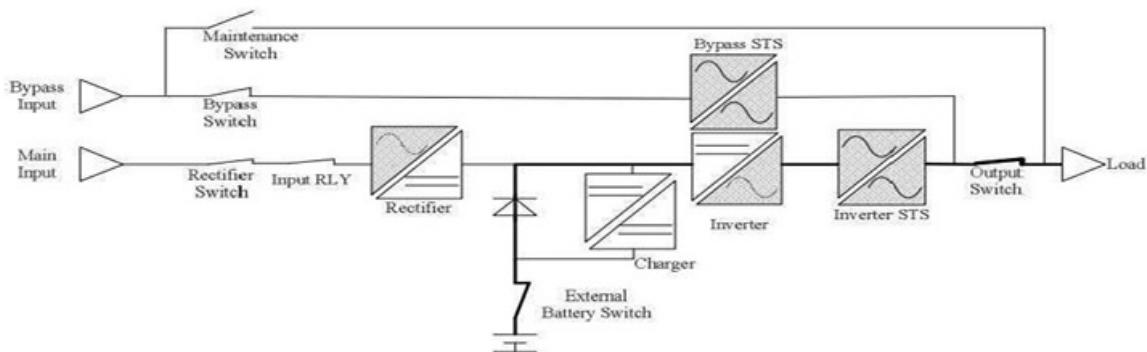
Application



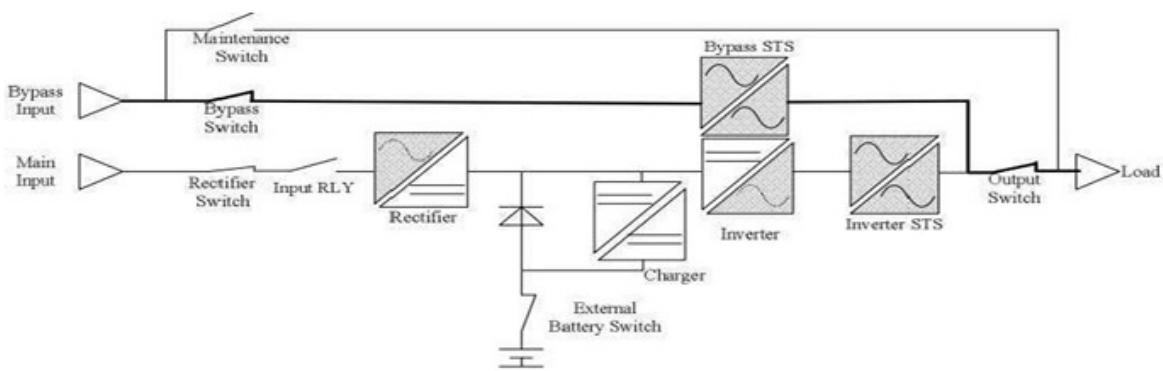
DX Series - Operation Mode feature-Schematic Diagram.



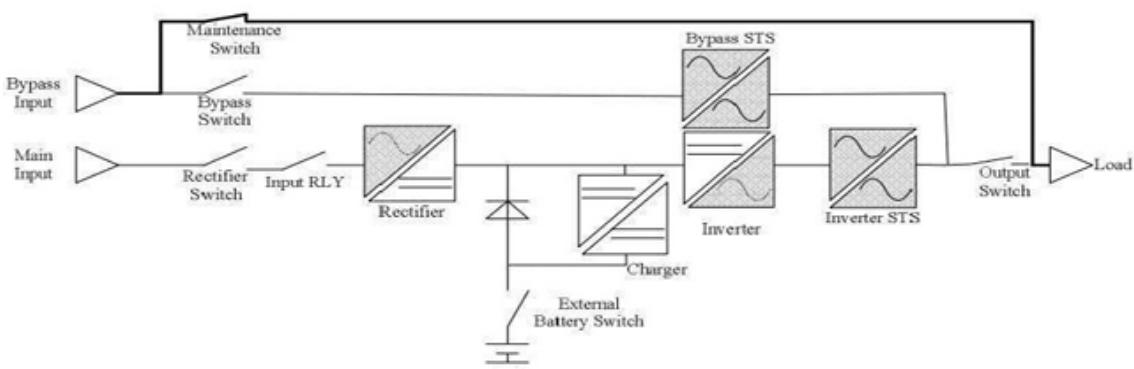
Mains Inverter Mode



Battery Mode



Bypass mode (the inverter has been shut down)



Maintenance Mode

Technical Specification - Transformer less UPS

MODEL	DX1 5E	DX1 6E	DX1 10E	DX31 10E	DX31 15E	DX31 20E	DX31 30E										
CAPACITY	5 KVA	6 KVA	10 KVA	10 KVA	15 KVA	20 KVA	30 KVA										
INPUT																	
Phase	Single Phase With Ground			Three Phases +N+PE													
Rated Voltage	208 / 220 / 230 / 240 VAC			380 / 400 / 415 VAC													
Voltage Range	165~275 VAC			285~499 VAC													
Frequency Rate	50Hz/60Hz																
Frequency Range	40Hz - 70Hz (Auto-Sensing)																
Power Factor	≥ 0.99 @ Nominal Voltage (100% load)																
THD I	± 5% Hz																
OUTPUT																	
Voltage Range	220 / 230 / 240 VAC(Single Phase+N+PE)																
Voltage Regulation	± 1%																
Frequency-Synchronized Range	45Hz--55Hz or 55Hz~65Hz																
Frequency-Online Mode	Mains Mode Track By Pass Input in the State Of Synchronization Battery Mode 50Hz / 60Hz ± 0.1 Hz																
Waveform	Sinusoidal																
Power Factor	0.9/1.0 (Optional)																
Total Harmonic Distortion (THDv)	≤1% (Linear Load), ≤3% (Non-Liner Load)																
Recovery Time Of Transient Voltage	<20 ms																
Crest Factor	3:1																
Overload	Load ≤105% Long Time Running , 105% < Load ≤ 125% For 10 Min 125% < Load ≤ 150% for 1 Min. 150% < Load ≤ 200% for 200ms ≤ 200% < Load for 100 ms																
BYPASS																	
Rated Voltage	220/230/240 VAC (Single Phase +N+PE)																
Overload	Load Current <150% Rated Current Long Time Running 150% ≤ Load Current <200% for 1 Min 200% Rated Current ≤ Load Current 200 ms																
BATTERIES																	
Features	External																
Type	VRLA AGM Sealed Lead Acid Maintenance Free Battery																
Capacity	Up to 200 AH																
Numbers	10 Pcs~20 Pcs Settable	16 Pcs~20 Pcs Settable															
Dc Voltage	120 VDC~240 VDC	192 VDC~240 VDC															
Charging Current	Default 8A (2A/4A/6A/8A/10A/12A Selectable) 14A/16A/18A/20A/22A/24A Selectable Options 10KVA~30KVA																
Charging Output VDC	13.5 ± 0.6 / Pcs																
EOD (End of Discharge)	10.5 VDC / Pcs																
Typical Recharge Time	Standard Model 90% Capacity Restored in 8 hours ; Long Run Model; Depend On the Capacity Of Battery																
SYSTEM																	
Efficiency	≥ 90% (Online Mode)																
Transfer time	0 ms																
EMC/Safety/Performance	EN62040-1,EN62040-2,EN61000-3-2,EN61000-3-3,IEC61000-4-2,IEC61000-4-3,IEC61000-4-4,IEC61000-4-5,IEC61000-4-6,IEC61000-4-8,IEC61000-4-11,IEC61000-2-2,IEC62040-2,IEC62040-1,IEC62040-3																
Quality/Security	ISO9001:2015, ISO14001:2015, ISO 27001:2013, ISO45001:2018. ROHS																
DISPLAY CONTROL																	
Display	LCD																
Set Table Via LCD	Output Voltage, EOD, Auto-Start, Bypass Mode, ECO Mode and Frequency Conversion Mode																
Control Technology	DSP (Digital Signal processors)																
MANAGEMENT CONTROL AND COMMUNICATION																	
Output Terminal	Indian Standard Type D (3pin) Grounded and (Type G.M.N.O. For International Market Standard)																
Protections	Short-Circuit, Overload, Over Temperature, Battery Discharge Protection and Fan Testing Protection ,Surge Protection (Network / Fax / Modem)																
SMART RS-232	Supports Windows 2000 / 2003 / XP / Vista / 2008, Windows 7 / 8 / 10, Linux and MAC																
USB/RS-485																	
Optional SNMP	Power Management from SNMP Manager and Web Browser																
Interface	Bit Rate: 2400 Bps / Byte : 8 bit / Completion Code : 1 Bit																
ENVIRONMENT																	
Operating Humidity	0~95% RH @ 0~45°C (Non-Condensing)																
Storage Temperature	-25°C ~ 55°C (Exclude Batteries)																
Operating Altitude	≤ 1000 m, Above 1000 m. Derated 1% for Each Rising 100 m																
Ingress Protection Rating	IP20 / IP21																
MTBF (Mean Time Between Failures)	MTBF > 20000h																
MTTR (Mean Time To Repair)	MTTR < 0.5H																
Noise Level at 1m	≤ 50 dB A (at 1M)																
PHYSICAL																	
Dimensions (mm) (WxDxH)	210 x 585 x 500			310 x 600 x 880	400 x 815 x 1100												
Packaged dimensions (mm) (WxDxH)	328 x 716 x 805			430 x 710 x 1080	525 x 925 x 1305												
Net weight (Kg)	14	14.5	18	18.5	26	26.5	40										
Gross weight (Kg)	16	16.5	20	20.5	30	35	50										

**Accuracy weight ± 200gm

**Accuracy Dimension ± 20mm

- Specifications are subject to change without notice.
- Due to regular upgrade on picture and actual product may vary
- Custom-made specifications are acceptable.

Our Clients



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