## E Series DX Uninterruptible Power System





#### Product snapshot

Power Rating: 1 kVA-20 kVA

**Voltage:** 60 to 138 VAC (low voltage)

80 to 300 VAC (high voltage)

Frequency: 50/60 Hz (auto-sensing)

**Technology:** High-frequency double-conversion

online

### Reliable Power Protection for Today's Computing Environments

#### **Introducing the E Series DX UPS**

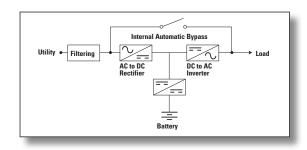
The E Series DX UPS double-conversion online UPS from Eaton® affordably protects mission-critical applications from downtime, data loss and corruption. The double-conversion architecture incorporates rectifier and inverter stages to completely isolate the output power from all input anomalies. By adapting to a wide range of input voltages, the E Series DX avoids battery usage during minor power fluctuations, saving its capacity for times when utility power is completely lost.

#### **Features**

- · Online double-conversion topology assures maximum reliability
- Wide input voltage range appropriate for the harshest electrical environments
- · Standard models for fixed run-time performance
- · Tested for generator compatibility
- · Automatic bypass for fault tolerance
- Optional SNMP communications provide remote network-based monitoring
- XL models for customized, long run time applications, with fast recharging
- · Cold start-on-battery power allows portable power
- · WINPOWER software monitors power conditions
- · Intuitive front-panel user interface for consistent status indication







# Input voltage Output voltage

#### Online double-conversion topology

This topology guarantees a consistently high level of power quality. Any disturbances on the distribution waveform are regenerated via the AC to DC then DC to AC conversion process. The battery is used only as a backup source.

#### High performance and reliability

DX uses High Frequency technology to bring its users a compact. UPS that delivers perfect sine wave output.

#### Wide input voltage range

DX UPS have a very wide input voltage range of up to 120-300V, optimized to improve compatibility with engine generator sets and reduce the numbers of transfer to battery power. The batteries are used only for the most serious incidents, maximizing available back-up time and extending battery life.

#### **Automatic bypass**

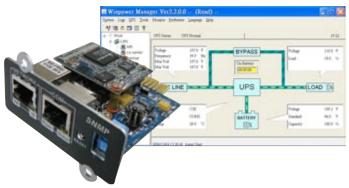
In case of overload or UPS fault, the DX UPS automatically transfers the load to utility AC power.

#### **Advanced communications**

An RS232 port is available for easy connection of the UPS to the server. It may be used for local monitoring. An optional SNMP card is also available for network administration.

WINPOWER monitoring software can be used to:

- Alert users of a power event or pre-specified condition
- · Automatically shut down your servers
- · Remotely supervise and control UPS solutions



#### **High-performance battery charger**

The DX battery charger:

- · Reduces battery recharge time
- Protects the battery against damage caused by deep discharge
- Prevents disturbances on the distribution system by correcting the power factor
- Avoids propagating faults on the distribution system (back-feed protection)

#### **Cold start-on-battery power**

This function ensures trouble-free start-up of your applications even during a utility power outage.

#### Backup times from five minutes to several hours

DX UPS offers a standard backup time of five to eight minutes on full load to protect the applications. XL models allow users to reach several hours of runtime using external batteries.

#### **E SERIES DX BATTERY RUNTIME CHART**

LV Model	1000	1500	3000	6000	10000 1:1	10000 3:1	15000 3:1	20000 3:1				
Battery Runtime 1/2 load	14min	14min	17.5min	23min	12min	External bat	External bat	External bat				
Battery Runtime Full load	5min	5min	5min	8min	5min	External bat	External bat	External bat				
HV Model	1000	2000	3000	6000	10000 1:1	10000 3:1	15000 3:1	20000 3:1				
Battery Runtime 1/2 load	14min	31min	16min	20min	16min	External bat	External bat	External bat				
Battery Runtime Full load	7min	11min	>5min	8min	>5min	External bat	External bat	External bat				

- 1. Output Receptacles
- 2. Input/Output Terminal Block
- 3. AC Input
- 4. Modem Surge Protection
- 5. Standard RS232 Communication Port
- 6. Optional SNMP Communication Port
- 7. Extended Battery Connector (XL models only)

High Voltage 6000 VA High Voltage 10000 VA High Voltage 15 kVA/20 kVA

High Voltage 2000 VA 3000 VA

High Voltage 3000 VA

4 2 2 2 7



**Low Voltage** 

10000 VA

Low Voltage

6000 VA

E SERIES DX UPS TEC								
Model Numbers/Watts	E Series DX 1000/700	E Series DX 1500 LV/1050 E Series DX 2000 HV/1400	E Series DX 3000/2100	E Series DX 6000/4200	E Series DX 10000 1:1/7000	E Series DX 10000 3:1/7000	E Series DX 15000 3:1/10500	E Series DX 20000 3:1/1400
Low Volt - Standard Version	EDX1000L	EDX1500L	EDX3000L	EDX6000L	EDX10KL	N/A		
Low Volt - XL Version External Battery	EDX1000LXL	EDX1500L XL	EDX3000L XL	EDX6000LXL	EDX10KLXL	N/A		
High Volt - Standard Version	EDX1000H	EDX2000H	EDX3000H	EDX6000H	EDX10KH	N/A		
High Volt - XL Version External Battery	EDX1000HXL	EDX2000HXL	EDX3000HXL	EDX6000HXL	EDX10KHXL	EDX10KHXL31	EDX15KHXL31	EDX20KHXL31
Technology '			'			1		
			Online double	e-conversion IGBT	with micro-controller			
nput / Output						1		
Nominal Input Voltage	115V (Low-Voltage Models) 220V (High Voltage Models)				All Models)	380 / 220 Vac three-phase		
nput Voltage Window	6	60V to 138V (Low Voltage Mode 122V to 300V (High Volt)	122 to 300V (H	266 +/- 3% (Low Volt) igh Voltage Models)	20% / -25%			
Nominal Output Voltage		115V (Low-Voltage Models) 220V (High Voltage Models)	240V / 120V (Low Voltage Models) 220V (High Voltage Models)					
Output Voltage on Battery	115V (Low-Voltage Models) 240V / 120V (Low Voltage Models) 220V (High Voltage Models) 220V							
requency				50/60Hz, auto-de	etection			
Oata Line Protection	· ·	/ output jacks included for tele		ernet line surge p	rotection		N/A	
Output Receptacles (High Volt)	4 IE	C style (two output cables inclu				Hardwired		
Output Receptacles (Low Volt)	4 N	IEMA 5-15 style	6 NEMA 5-15 style	Hardwired				
nput Connection High Volt Models)		EC 10A style, n computer power cable	IEC 16A (IEC 16A cable included)	Hardwired				
nput Connection Low Volt Models)		EC 10A style, n computer power cable	Standard Model: Attached L5-30 input plug (cable included) XL Model: Hardwired	Hardwired				
Battery								
Battery Quantity Standard Model Only)	3	4 (1500 Low voltage) 8 20 User-Supplied Exte				-Supplied External	Battery	
Charge Capacity Standard Model Only)	Five hours to 0.0% / I/V 1K 2K etd. \ / 7 Hrs to 0.0% / I/V 6K etd. \ /						-Supplied External	Battery
Battery Monitoring Standard Model Only)						-Supplied External	Battery	
Start-On-Battery Standard Model Only)	Unit can be st	tarted without being connected	ble power source	ower source User-Supplied External Battery				
Jser Interface								
isual		Opera	tion on mains, batte	ry, inverter, bypas	s and load/battery-cha	arging levels		
larm and Controls								
audible and Visual Alarms		Bati	tery Operation Mode	, Low Battery, Ge	neral Fault, Overload,	On Bypass		
Control			Two but	tons for On/Off ar	nd Alarm Silence			
ommunications / Managemo	ent							
ower Management Software			WINPOWER pow		software, included on	CD		
onnection Type	Standard RS232							
NMP Interface				Optional SNMF	card			
nvironment								
perating Temperature				0°C ~ 40°	<u>U</u>			
umidity	I	4E4D /IV/ 4IZ 4 EIZ) / EQ.ID / -!	<95%					
loise Level	<45dB (LV 1K-1.5K) / <50dB (others) <55dB <60dB							
tandards			OF 111."	a\/alt 41/ 2	V 1.1 100 0004			
ertification			CE, UL (L	ow Voltage: 1K-3	k only), ISO 9001			
imensions and weights W		145,,200,405	100 040 400			200 717 572		
imensions (High Volt Models)	145x200x400	145x200x465	192 x 340 x 460	000		260 x 717 x 570	NI/A	NI/A
Dimensions (Low Volt Models)	145x200x400	145x200x465	192 x 340 x 460	300 x	830 x 655	N/A	N/A	N/A

UNITED STATES 8609 Six Forks Road Raleigh, NC 27615 U.S.A. Toll Free: 1.800.356.5794

Weight (High Volt Models) Kg

Weight (Low Volt Models) Kg

14 (XL: 7)

14 (XL: 7)

www.eaton.com/eseries www.eaton.com/dxups



CANADA Ontario: 416.798.0112 Toll free: 1.800.461.9166

32 (XL: 15)

18.7 (XL: 9)

35.5 (XL: 16)

35.5 (XL: 16)

LATIN AMERICA South Cone: 54.11.4124.4000 Brazil: 55.11.3616.8500 Andean & Caribbean: 1.949.452.9610 Mexico & Central America: 52.55.9000.5252 EUROPE/MIDDLE EAST/AFRICA Denmark: 45.3686.7910 Finland: 358.94.52.661 France: 33.1.6012.7400 Germany: 49.0.7841.604.0 Italy: 39.02.66.04.05.40 Norway: 47.23.03.65.50 Portugal: 55.11.3616.8500 Sweden: 46.8.598.940.00 United Kingdom: 44.1753.608.700

93 (XL: 38)

153 (XL: 98)

(XL: 39)

N/A

84 (XL: 35)

132 (XL: 85)

ASIA PACIFIC Australia: 61.2.9693.9366 New Zealand: 64.0.3.343.3314 China: 86.21.6361.5599 HK/Korea/Taiwan: 852.2745.6682 India: 91.11.4223.2300 Singapore/SEA: 65.6825.1668

N/A

 ${\bf Eaton\ is\ a\ trademark\ of\ Eaton\ Corporation}.$ 

(XL: 55)

N/A

©2009 Eaton Corporation All Rights Reserved Printed in USA DX01FXA January 2010