

Eaton E Series DX 1Ph/1Ph 1-3kVA UPS Technical Specification

CONSTRUCTION						
Model	EDX1000H	EDX1000HXL	EDX2000H	EDX2000HXL	EDX3000H	EDX3000HXL
Rating	1000VA / 700W		2000VA / 1400W		3000VA / 2100W	
Technology	VFI, on-line double conversion					
Dimensions: W x D*x H (mm) *Allow 150mm rear clearance for connections & air flow	145 x 400 x 220		192 x 460 x 340		192 x 460 x 340	
Weight (kg)	14kg	7kg	34.5kg	15kg	35.5kg	16kg
ENVIRONMENTAL & SAFETY						
Ambient storage temperature	0°C to +40°C					
Ambient service temperature	Power electronics part: 0 to 40°C, Battery part: 5 to 25°C without reducing battery life					
Maximum service altitude	1000m above sea level					
Relative humidity	5 to 95%, no condensation allowed					
Degree of protection	IP21 (EN60529)					
Acoustic Noise	<50 dBA @ 1m, Normal mode, typical load, battery fully charged					
Safety Markings	CE					
Electromagnetic Compatibility	IEC/EN 62040-2 Category C3					
POWER CONNECTIONS						
Input	C14 10 Amp		C14 10 Amp		C20 16 Amp	
Output	(4) C13 10A		(6) C13 10A		(4) C13 10A & Hardwired, 2mm ² maximum cable size (stranded cable)	
USER INTERFACE						
Display	LED mimic diagram with 4 x LEDs for Utility, Bypass, Inverter & Battery Status, 5 LED Bar Graph for Load and Battery Capacity, Fault LED					
Communication Ports	1 off Intelligent-Slot (Empty), 1 x RS232 DB9 Serial Port					
Optional	Intelligent Slot cards; AS400 Relay, Web/SNMP, Modbus					
ELECTRICAL CHARACTERISTICS – INPUT						
Rated input voltage and voltage tolerance	Rectifier : 230V nominal (208, 220, 240V Selectable) Tolerance: 160±5V – 296±5V at >80% load, 140±5V – 296±5V at 70-80% load, 120±5V – 296±5V at 60-70% load, 110±5V – 296±5V at <60% load Bypass tolerance: 80 – 286V (Default 180-264V, user software adjustable)					
Operating Frequency	50/60Hz; Tolerance (46/56 ±0.5) Hz Low, (54/64±0.5) Hz High					
Input current distortion	<30% THDi					
Input power factor	> 0.95pf					
Input Current (at rated load with fully charged battery)	3.7A		7.5A		11.3A	
Input protection rating	10A		10A		15A	
ELECTRICAL OUTPUT CHARACTERISTICS – NORMAL MODE						
Rated apparent/active power	1000VA / 700W		2000VA / 1400W		3000VA / 2100W	
Transfer-normal to stored energy	No break					
Rated output voltage	230V (208, 220, 240V Selectable)					
Output voltage variation	±2%					
Crest factor	3:1					
Rated output frequency	50Hz (default) or 60Hz					
Output frequency regulation	On Line Mode: Follows bypass frequency					
Total output voltage distortion	≤3% Linear Load, ≤7% Non Linear Load					
Frequency Slew Rate	1Hz/sec					
Load power factor range	0.7 – 1.0 within VA and W rating					
Number of output phases	1 Phase					
Overload (Normal Mode)	108% ±5% to 150% ±5% for 30 secs					
Output voltage variation – dynamic load	±6% max from 20%-100%-20% load step or vice versa Recovery to nominal voltage within 60ms					

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ELECTRICAL OUTPUT CHARACTERISTICS – STORED ENERGY

Rated apparent/active power	1000VA / 700W	2000VA / 1400W	3000VA / 2100W
Waveform	Sine Wave		
Rated output voltage	230V (208, 220, 240V Selectable)		
Output voltage variation	±2%		
Crest factor	3:1		
Rated output frequency	50Hz (default) or 60Hz		
Output frequency regulation	±0.05Hz		
Total output voltage distortion	≤3% Linear Load, ≤7% Non Linear Load		
Load power factor range	0.7 – 1.0 within VA and W rating		
Number of output phases	1 Phase		
Output Overload (Battery Mode)	112% ±5% to 150% ±5% for 30 secs		

EFFICIENCY (Input/Output)

Efficiency at 100% load	>85%		
Heat dissipation, normal mode	124W at Full Load, Batteries Charged	247W at Full Load, Batteries Charged	371W at Full Load, Batteries Charged

BATTERY

Internal Battery Type	Valve Regulated Lead Acid, AGM, 3-5 year design life at 25°C					
Charging voltage	2.275V/Cell ± 1%					
Initial Charging current *Adjustable by hardware jumper. Requires increased supply rating.	1.0A	4.0±0.5A or 8.0±1.0A*	1.0A	4.0±0.5A or 8.0±1.0A*	1.0A	4.0±0.5A or 8.0±1.0A*
Battery cut-off voltage	1.67VDC per cell					
Internal Battery Re-charge time	Internal Battery: < 5 hours to recover 90 percent of nominal backup					
Battery Nominal Voltage	36V (18 Cells)		96V (48 Cells)		96V (48 Cells)	
UPS Internal Battery Configuration	3 x 12V 7.2Ah	No Internal batteries	8 x 12V 7.2Ah	No Internal batteries	8 x 12V 7.2Ah	No Internal batteries
External Battery Circuit Protection Rating	N/A	40A	N/A	30A	N/A	40A

Battery Run Times

Internal battery: Full Load / Half Load	5 / 14 mins	N/A	9 / 21 mins	N/A	5 / 15 mins	N/A
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NOTE: Loads at 0.7pf. Battery times are approximate and vary depending on age, temperature and load configuration.

BYPASS CHARACTERISTICS

Type of bypass	In-Built Automatic Relay Bypass
Transfer Time	Online mode: <4ms