

Eaton Power Xpert 93E

60-80 KVA



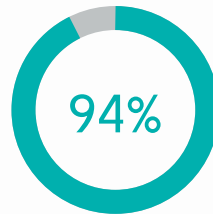
93E

Total capacity in parallel upto 320 kVA

Power factor 1

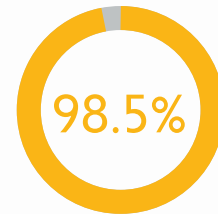
The Dashboard:

Best in Class Efficiency



Double conversion efficiency
40°C without de-rating

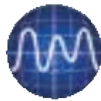
Best in Class Footprint



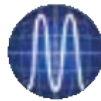
HE efficiency
2 Levels IGBT 4ms
MTTR<30min



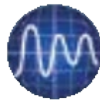
Power Failure



Power Sag



Power Surge



Under-Voltage



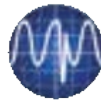
Over-voltage



Line Noise



Frequency variation



Switching Transient



Harmonic Distortion

Key Features:

- Active Power Factor Correction
- Transformer free Design
- Easy integration in the IT space
- Easy front access
- IT space options : Chimney for cooling
- WEB / SNMP / MODBUS communication
- EPO built in contact
- Available and compatible for regenerate load also

Key Patents:

HotSync® spofless technology

ECT Easy Capacity Test

ABM Advanced battery management

HE High efficiency mode



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Eaton 93E-60-80 kVA UPS Technical Specification

General

Ratings	60 KVA	80 KVA
Model(Platform/Power Rating)	93E -60KVA /54KW	93E -80KVA /72KW
UPS Topology	Double Conversion, IGBT Converters	
Performance classification	VFI-SS-111	
UPS Dimensions: WxDxH (mm)	600x800x1876	
Degree of protection	IP20, with front door mounted washable dust filter(IP 21 optional)	
Cabinet colour	Black, RAL 9005	
Cable entry	Bottom/Rear	
Weight (kg) without batteries	202	245

ELECTRICAL INPUT CHARACTERISTICS

Ratings	60 KVA	80 KVA
Power Distribution System compatibility	TN, TN-S, TN-C, TN-C-S, TT (Three-phase, four-wire + PE)	
Rated input voltage.	Rectifier: 230/400Vac nominal (220/380, 240/415 Selectable)	
Operating frequency / tolerance	50 or 60Hz; Tolerance 40-72Hz	
Input current distortion	<5% THDi (Linear Load Condition at rated input current)	
Input power factor	0.99pf at 100% load	
Number of input phases	3 phases + Neutral + PE (3 phase input)	
Rated rectifier input current (rms @ 400V)	92A	122A
Maximum rectifier input current (rms @ 400V)	98A	131A
Bypass input current (rms @ 400V) Recommended/Max	87/100A	115/133A

EFFICIENCY IN DOUBLE CONVERSION MODE & HEAT DISSIPATION UNDER LINEAR LOAD CONDITIONS

Ratings	60 KVA	80 KVA
Efficiency @ 100% Linear Load	90%	90%
Efficiency @ 75% Linear Load	92.5%	92.5%
Efficiency @ 50% Linear Load	94%	94%
Efficiency @ 25% Linear Load	94%	94%
Heat Dissipation @ 100% Linear Load	1000	2000
Heat Dissipation @ 75% Linear Load	2189	2919
Heat Dissipation @ 50% Linear Load	2589	3447
Heat Dissipation @ 25% Linear Load	3447	4596



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ENVIRONMENTAL PARAMETER

Ratings	60 KVA	80 KVA
Ambient storage temperature	Range of -15 to +55 Degree C in the protective package	
Ambient service temperature	UPS: 0 to +40 Degree C	
Maximum service altitude	1000m above sea level.	
Relative humidity	5 to 95%, no condensation allowed	
Acoustic noise at 1m (ISO7779)	<65dB @75%	

ELECTRICAL OUTPUT CHARACTERISTICS - NORMAL MODE

Ratings	60 KVA	80 KVA
Rated output voltage	230/400 Vac, three phase, (220/380, 240/415 selectable)	
Crest factor	3:1	
Rated output frequency	50 Hz (default) or 60 Hz	
Total voltage distortion	<2% with linear load, <5% with non-linear load defined according to EN62040-3	
Short circuit capability, <400ms	240A	360A
Overload capacity w/out bypass	102-110% load 60mins ; 111-125% load 10 minutes, 126-150% load 1 minute, >151% load 500ms @ 30°C	
Overload capacity with bypass	115% load continuous, 1000% for 20ms at 40°C and ≤1000m altitude Note: Selected external Bypass fuses or breaker may limit the overload capability	
Load power factor range	0.7 lagging to 0.9 leading without de-rating	
Range of frequency synchronisation with bypass	+/-3Hz/s default, up to 7Hz/s user settable for single UPS, up to 0.5 Hz/s for parallel UPS	

BYPASS CHARACTERISTICS

Ratings	60 KVA	80 KVA
Automatic bypass	Static bypass switch, continuously rated*, no break transfer *bypass capable of 115% continuous load	
Automatic bypass rating	80KVA	
Automatic bypass SCR i ^{tr} t value	145000A ² S	
Back-feed protection	Optional Internal back-feed contactor	
Separate bypass input feed	Optional	
Manual bypass switch (internal)	standard .	

BATTERY CHARACTERISTICS

Ratings	60 KVA	80 KVA
Battery nominal voltage	216 to 252 Cells, 240 Cells Default (Continual selectable)	
Float charge voltage	216/228/240 x 2.30V = 497/524/552V	
Maximum charge voltage	216/228/240 x 2.35V = 508/536/564V	
Battery cut off voltage	216 Cells = 1.85V/Cell, 228 Cells = 1.75V/Cell, 240 Cells = 1.67V/Cell	
Restored energy time to 90%	Maximum 10 hours recommended (dependant on battery size)	
Charging current (at full load)	16A	24A
Battery recharge profile	Advanced Battery Management (ABM [®]) = 90% resting, 10% floating/charging (typical)	