**Power Quality Solutions** 

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· 240 VAC

# Eaton 9145 UPS

Reliable High Performance Power Protection for Critical Applications

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## Eaton 9145 UPS

#### **Product Snapshot**

Power Rating	:	1 kVA - 3 kVA at 0.8pf 6 kVA - 20 kVA at 0.9pf
Configuration	:	Tower
Voltage	:	220V
Frequency	:	50/60 Hz (auto-sensing)
Technology	:	High-frequency, double conversion

#### Advanced power protection for:

- IT and networking environments
- Small data centres
- Wiring closets
- Enterprise server applications
- Industrial applications
- Medical applications

The Eaton 9145 is a double-conversion online UPS that affordably protects mission-critical applications from downtime, data loss and corruption. Its design fits perfectly to any environment where uninterrupted power feed is required to secure critical equipment's continuous operation. The double-conversion architecture incorporates rectifier and inverter stages to completely isolate the output power from all input anomalies – solving power quality problems such as surges, spikes, voltage fluctuations, harmonic distortion, clutter interference and frequency fluctuations. By adapting to a wide range of input voltages, the Eaton 9145 UPS avoids battery usage during minor power fluctuations, saving its capacity for times when utility power is completely lost.

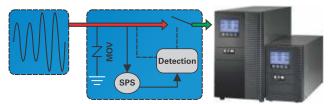
#### **Features**

- Robust design and on-line double conversion topology assures maximum reliability
- Wide input-voltage range appropriate for the harshest electrical environments
- 0.9 output power factor on 6 20 kVA models
- Automatic bypass for fault-tolerance
- Cold start on battery power enables portability
- XL models for long runtime performance
- Adjustable battery quantity optimises sizing
- Intuitive front-panel LCD user interface for consistent status indication
- Inbuilt RS-232, USB & Intelligent Slot communication ports
- WINPOWER software suite bundled

### Robust design – ideal for harsh electrical environments

The Eaton 9145's robust design enables it to operate in harsh physical and electrical environments. Its input is optimised to operate with very wide input-voltage range, reducing the number of transfers to battery power and is perfectly compatible with engine generator sets.

#### Internal OVCD (Over Voltage Cutout Device)



#### Protects input components from damage due to high voltage

The internal OVCD is a system designed to protect the input components from high voltage surges. It monitors the power supply to the UPS. Whenever the input voltage crosses set limits, it cuts the power supply to the UPS, thereby protecting components from damage. It resumes power supply once the voltage drops to acceptable figures.

#### Smart thermal management

The 9145 features smart thermal management which allows it to operate in high temperature environments up to  $45^{\circ}$  C.

#### **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.

#### **Easy manageability**

A user-friendly graphic LCD provides convenient access to UPS parameters, operating information and user settings.



#### Advanced communications

Multiple communication ports, including RS232, USB and Emergency Power Off enable easy interfacing to IT, monitoring and safety systems. An intelligent slot adds further communications capability via Ethernet, RS485 or dry contacts through the use of optional communications cards.

#### WINPOWER Software

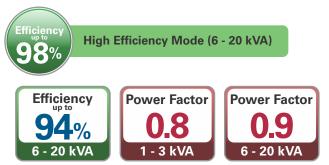
More than ten parameters can be set through WINPOWER monitoring software, such as alerting users of a power event or pre-specified condition; automatic shut down of servers and remote supervision and control of UPS solutions.





#### High performance and reliability

The 9145 uses high frequency technology to bring its users a compact UPS that delivers perfect sine wave output. Multi power strategies are available to suit varying applications and requirements: ECO mode to reduce energy consumption, converter mode to supply stable output and online mode to ensure highest system availability. Class leading energy efficiency of up to 98% in ECO mode and 94% in online mode reduces consumption and heat dissipation. An output power factor of up to 0.9 on 6 - 20 kVA models provides 28% more power than competitive products.



#### What efficiency means to our customers

Model 9145	6 kVA	10 kVA	15 kVA	20 kVA	
Load in %	100%	100%	100%	100%	
Load in kW	5.4	9	13.5	18	
9145 Efficiency	93.6%	94%	93.8%	93.7%	
Typical UPS Efficiency	90%	90%	91%	91%	
<b>Energy Saving</b> (kWh/year)	1702	3154	3347	4289	

#### **High availability**

Intelligent dynamic paralleling technology in the 6 - 20 kVA systems provides flexibility and enhanced reliability by enabling parallel connection of systems for increased capacity or redundancy.

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

The Eaton 9145 UPS is available with standard backup times of five to eight minutes on full load to protect applications. XL models allow users to reach several hours of runtime using external batteries.

#### Cold start on battery power

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

### Eaton 9145 UPS Technical Specifications

Model Numbers: Watts/VA	800W/1000VA	1600W/2000VA	2400W/3000VA	5400W/6000VA	9kW/10kVA	9kW/10kVA	13.5kW/15kVA	18kW/20kV/		
Standard Model (Internal Battery)	9145 1000in	9145 2000in	9145 3000in	9145 6Kin	9145 10Kin					
XL Model (Large Charger+ External Battery)	9145 1000in XL	9145 2000in XL	9145 3000in XL	9145 6Kin XL	9145 10Kin XL	9145 10KXL 31	9145 15KXL 31	9145 20KXL 3		
Input/Output							1			
Nominal Input Voltage	2	208/220/230/240VAC			208VAC/220VAC/230VAC/240VAC					
Input Voltage Window		110~300VAC			110VAC~276VAC					
OVCD		Inbuilt		-						
Input Power Factor		0.99		0.99						
Frequency Range		45-55Hz / 54-66H	z	45-55Hz / 54-66Hz						
Phase	Single Phase with Ground			Single phase with Ground Three phase with Ground (Combo)						
THDI	< 5% with full load			< 5% with R full load						
Power Factor	0.8			0.9						
Voltage		220/230/240VAC		208VAC/220VAC/240VAC						
Voltage Regulation		<2%				< 1%				
Frequency										
(Synchronized Range)		45-55Hz/54-66Hz		45-55Hz/54-66Hz						
Frequency(BAT Mode)		50/60Hz±0.05Hz		50/60Hz±0.05Hz						
Current Crest Ratio		3:1		3:1						
Harmonic Distortion	<	3% THD (Linear Lo	ad)	2% @Linear Load						
Harmonic Distortion	<5%	THD (Non-Linear I	_oad)	5% @Non-Linear Load						
Output Waveform	Pure Sine Wave			Pure Sine Wave						
Overload Capacity	1min @105%~110% load 30s @110%~125% load			2min @105%~125% 5min @100%~110% 30s @125%~150% 1min @110%~130%						
Input Connection	C14 10A	Hardy	wired			Hardwired				
Output Connection	(2)IEC C13 10A (4)IEC C13 10A (4)IEC C13 10A			Hardwired						
Parallel				Yes, Upto 4 Units						
Battery										
Number of Batteries	3	8	8	20	20					
Battery Quantity/Type (Standard)	3x12V(7Ah)	8x12V(7Ah)	8x12V(7Ah)	20x12V(7Ah)	20x12V(9Ah)					
Battery Quantity XL	3x12V	8x12V	8x12V	20x12V	20x12V	24x12V	24x12V	24x12V		
Backup Time	>5 minutes	>5 minutes	>5 minutes	>5 minutes	>5 minutes					
Recharge Time to 90% Capacity	5 hours									
Charging Current	8A 4A									
User Interface										
Visual		LCD Dis		ments(Input/Output/Byp nd level indicator,Load%			acity,			
Control	4 buttons for 1-3kVA (on/off,select,enter,mute)			4 buttons for 6-20kVA (esc,up,down,enter)						
Communications / Management										
Power Management Software	Winpower Power Management Software, included in CD									
Connection Type	USB			USB+Dry Contactor USB+Standard RS232+2 Slots						
SNMP Interface/ AS 400 Card	Intelligent slot for optional SNMP Card/AS400/Modbus Card									
Environment										
Operating Temperature		0-45° C				0-40° C				
Humidity	0 ~ 90% (Non condensing)			0~95% (Non condensing)						
voise Level	<50dB @ Front 1 meter			<50dB @ Front 1 meter <555dB @ Front 1 meter						
Standards	ROHS									
Safety				IEC 62040-	1					
Dimensions & Weights	1									
Dimension – Standard/XL Models (WxHxD mm)	145 x 220 x 400	192 x 3	47 x 460	260 x 708 x 550 350 x 650 x 890						
Weight – Standard Models (Kgs)	13	31	31	80	84					

In the interest of continuous product improvement, all specifications are subject to change without notice. \*Runtimes are approximate and may vary with equipment, configuration, battery, age, temperature etc.



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