Power Quality Solutions

Eaton 9145 UPS

Reliable High Performance Power Protection for Critical Applications

EATON

Powering Business Worldwide

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.

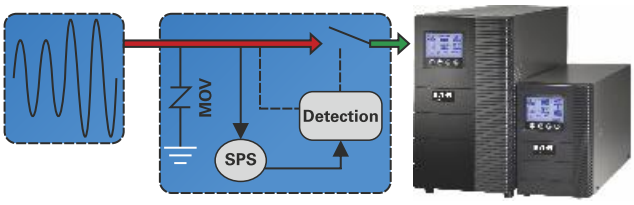
Features

- 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 optmised 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 limit, 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 upto 45^0 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

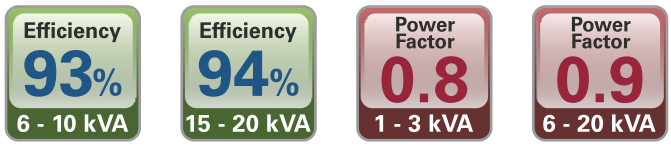
Multiple communication ports, including RS232, USB and Emergency Power Off enable easy interfacing to IT, monitoring and safety systems. An intelligent slot adds further communications capability via Ethernet, RS485 or dry contacts through the use of optional communications cards.

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%
Energy Saving (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/20kVA
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 31
Input/Output								
Nominal Input Voltage	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 / 54-66Hz			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/230VAC/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 Load)			2% @Linear Load				
	<5% THD (Non-Linear Load)			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% 30s @125%~150%			5min @100%~110% 1min @110%~130%	
Input Connection	C14 10A	C20 16A	C20 16A	Hardwired				
Output Connection	(4) IEC C13 10A	(6) IEC C13 10A	(6) IEC C13 10A	Hardwired				
Parallel				Yes, Upto 2 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 Display with measurements(Input/Output/Bypass V & Hz,battery Voltage & % capacity, remaining time and level indicator,Load% and level indicator,alram codes)							
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			Standard RS232+USB				
SNMP Interface/ AS 400 Card	Intelligent slot for optional SNMP Card/AS400/Modbus Card							
Environment								
Operating Temperature	0-45° C			0-40° C				
Humidity	20 ~ 90% (No condensing)			0 ~ 95% (No condensing)				
Noise Level	<50dB @ Front 1 meter			<50dB @ Front 1 meter	<55dB @ Front 1 meter			
Standards	ROHS							
Safety	IEC 62040-1							
Dimensions & Weights								
Dimension – Standard/XL Models (WxHxD mm)	145 x 220 x 400	192 x 347 x 460		260 x 708 x 550		350 x 650 x 890		
Weight – Standard Models (Kgs)	13	31	31	80	84			
Weight – XL Models (Kgs)	7	13	13	25.5	29.5	48.1	58.1	58.1

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.*