



Efficiency matters.

Upgrade to Energy Saver System for the highest-efficiency power protection

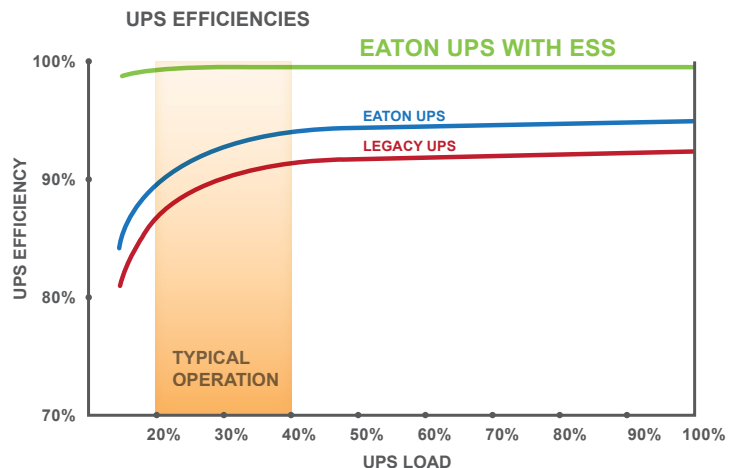
Get the best possible performance from your Eaton® 9390 or Power Xpert™ 9395 UPS with Eaton's exclusive Energy Saver System (ESS) upgrade, which can save you thousands on your utility and cooling bills. With 99 percent efficiency, ESS dramatically reduces energy consumption, environmental impacts and power costs.

Key advantages of ESS

- Premium power quality
- Highest efficiency at 99 percent across all load ranges
- User-configurable modes for maximum control
- Reduces energy costs by up to 7 percent
- Pays for the UPS in three to five years

To demonstrate the importance of total system efficiency in relation to load level, the graph to the right shows how efficiency usually dips as the load level decreases. In general, manufacturers list an optimal efficiency rating at full load.

In reality, however, most three-phase UPSs operate in the range of 20 to 40 percent load. As a result, it's extremely important to evaluate the efficiency of a UPS at lighter loads as this graph depicts. The optional ESS technology operates at 99 percent efficiency even at low load levels, providing you with real energy savings.



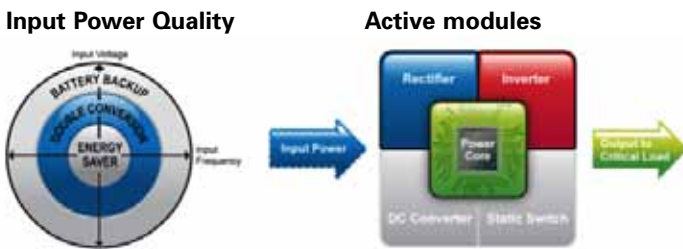
To learn how to upgrade to ESS, please visit Eaton.com/ESSUpgrade.

Consistent power quality guarantees protection

ESS uses an intelligent “power core” to adapt to incoming power conditions, delivering clean power to the load and maximizing efficiency. As shown, whenever the high-speed line-detection circuitry in the UPS senses a change in condition, the system automatically changes modes accordingly.

Normal mode

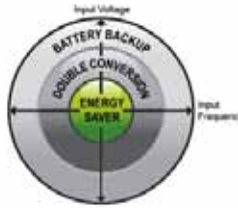
- UPS is in double-conversion mode with no input power problems
- Rectifier and inverter are active
- Load is secure
- 90 to 94 percent efficient (efficiency losses during rectifier/inverter conversions)



ESS mode

- UPS is in ESS mode with no input power problems
- Static switch is on (continuous current), inverter left on
- Load is secure and 99 percent efficient

Input Power Quality



Active modules



Transfer out of ESS mode

- When there are power problems, the UPS transfers to battery-backup mode (or double-conversion mode) from ESS mode in less than 2 milliseconds
- The load is secure and locks out of ESS mode based on input power conditions
- When quality input returns, ESS is active

Input Power Quality



Active modules



Eaton UPS efficiency calculator

Compare efficiency data and calculate your annual savings with the ESS upgrade using the new Eaton efficiency calculator. You'll also be able to view how Eaton UPSs perform with your load profile, financial and energy savings and annual costs compared to other UPSs.

Available online at Eaton.com/ESS



Eaton efficiency calculator

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