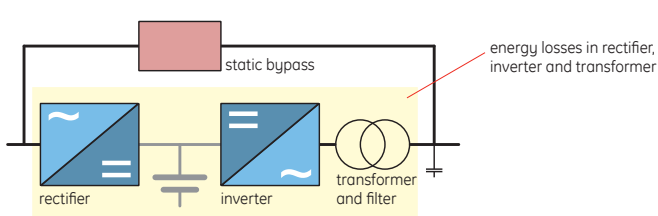
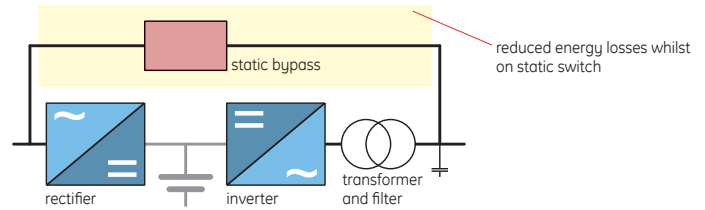


Super Eco Mode

For more than 100 years, GE has been committed to the highest standards of quality, innovative technology and customer satisfaction. As a leader in the field of power protection, GE offers power quality products and features that meet its customers' business needs, including the new Super Eco Mode (SEM) that is featured in the SitePro and SG Series product families. SEM drastically reduces the operating cost of a UPS by increasing the efficiency of the system up to 98%.



During **normal operation** the UPS runs in double conversion mode. (or VFI mode - Voltage & Frequency Independent). Both the rectifier and the inverter are continuously operating, to ensure a clean and reliable output voltage. In the two conversion processes (rectifier and inverter) and the transformer energy losses occur, depending on the load connected to the UPS.



During **Super ECO Mode** operation (scheduled by user) the load is supplied directly by mains, via the bypass circuit. This provides an efficiency up to 98%. In case the mains voltage is out of tolerance, the UPS will immediately transfer the load to inverter again, to ensure a stable and reliable power supply. During Super ECO Mode the rectifier maintains the batteries to provide back-up in case of a mains failure. The UPS output filter provides mains filtering and load power factor correction.

specifications

On all SitePro and SG Series products, 10-500 kVA / 400V standard, single operation

Transfer time	: <2ms (2-20ms, adjustable)
Input voltage range	: +/- 10% (adjustable)
Input frequency range	: +/- 2% (adjustable)
Efficiency	: up to 98%
Load PF Correction	: from 0.8 to 0.9, depending on load

SEM can be scheduled per hour on weekday basis.
For example: every working day from 8pm - 7am and weekends from Friday 8pm to Monday 7am

benefits

- High efficiency, up to 98%
- Reduced heat generation
- Indirect energy savings, (air conditioning)
- Extremely fast transfer time
- User Programmable Scheduling
- Reduced acoustic noise
- Mains filtering
- Load power factor correction

Digital Energy™ SEM

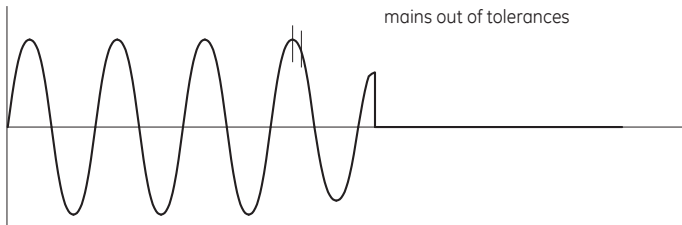
Super ECO Mode



GE imagination at work

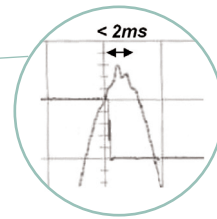
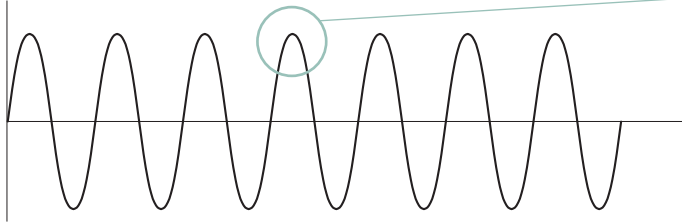
Please turn over
to calculate your
yearly savings

mains voltage



In case of a mains failure (voltage and/or frequency out of tolerances) the UPS will transfer the load immediately to inverter within 2ms, in order to ensure a safe and reliable power supply to the critical load.

UPS output voltage



Extremely fast transfer to inverter (< 2ms) in case of mains failure

Super ECO Mode

load on inverter

Super ECO Mode - savings

Calculate your yearly savings in 4 simple steps:

1. Select the UPS power rating
2. Select the load percentage (installed load as percentage of UPS rating)
3. Multiply the found number with your local cost per kWh
4. Multiply the result with percentage of time you will activate Super ECO Mode

Example

UPS: SitePro 300 kVA
 Load : 225 kVA (= 75%)
 Local cost per kWh: \$ 0.12
 SEM activated 100% of the time
Savings on yearly basis:
 $79.243 \times 0.12 \times 100\% = \$ 9.509$

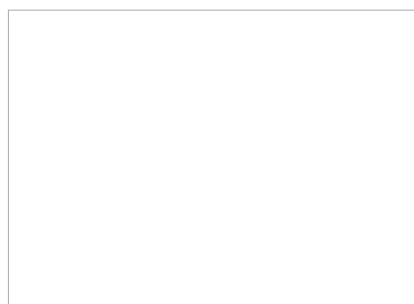
Super ECO Mode energy savings as function of load percentage at power factor 0.8 (in kWh per year)

UPS rating kVA)	load %				
	10%	25%	50%	75%	100%
10	2'846	2'980	3'616	4'703	6'270
15	4'732	5'232	5'424	7'151	9'535
20	5'439	5'468	6'356	8'251	11'002
30	7'747	7'484	8'251	10'493	13'991
40	9'175	8'490	9'327	12'756	17'008
60	12'420	13'285	13'248	19'134	25'512
80	15'320	15'711	17'664	25'512	34'016
100	19'503	20'996	24'565	28'835	38'446
120	22'979	22'226	24'042	34'602	46'136
150	28'024	26'126	21'635	39'622	63'779
200	37'366	34'834	28'847	52'829	85'039
250	46'707	43'543	36'059	66'036	106'299
300	56'049	52'251	43'271	79'243	127'559
400	87'222	79'456	65'634	84'174	157'030
500	109'027	99'320	82'042	105'218	196'287



GE imagination at work

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