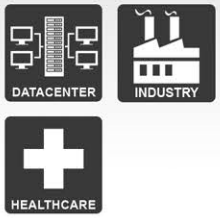
VisionMod Modular Series

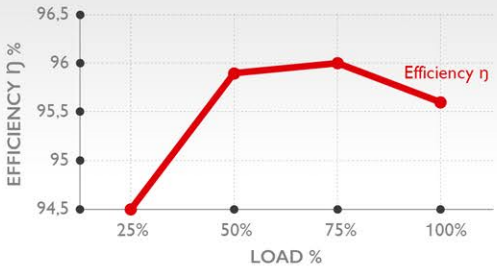
6-50kVA (1/1) (3/1) & 20-800kVA (3/3)

ON-LINE

Applications



Efficiency



Specifications

ECO Mode

- On-line "double conversion" technology (VFI)
- Input power factor up to 0.99
- Output power factor 1
- DSP (Digital Signal Processor) technology
- Internal static and manual bypass in each module (no centralized bypass required)
- Hot swappable power and battery modules
- Wide input voltage range (208-478Vac)(3/3)
- Adjustable battery voltage (384-480Vdc)(3/3)
- Only one battery string for N+1 application
- 6A charging current per module
- Adjustable charging current
- Automatic load sharing
- Genset compatibility
- Big touchscreen LCD display
- Various monitoring systems
- Additional bypass input
- Small footprint and very silent
- RS232/RS485 interface
- EPO (Emergency Power Off)
- Backfeed protection
- 2 years warranty

Options:

- SNMP card / relay card (dry contacts)

Graphical LCD/LED display

Hot swappable module

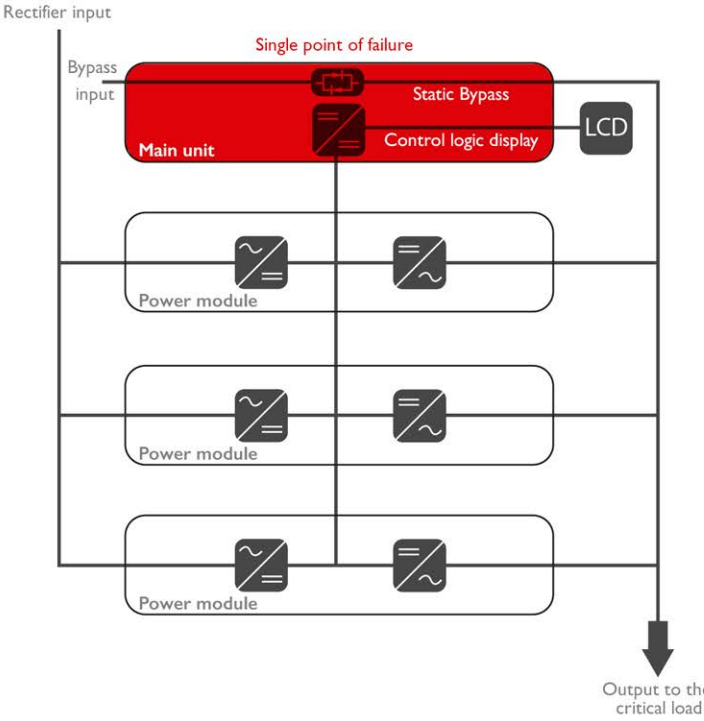
Battery module (hot swap)

VisionMod Modular Series

Decentralized Modular Technology

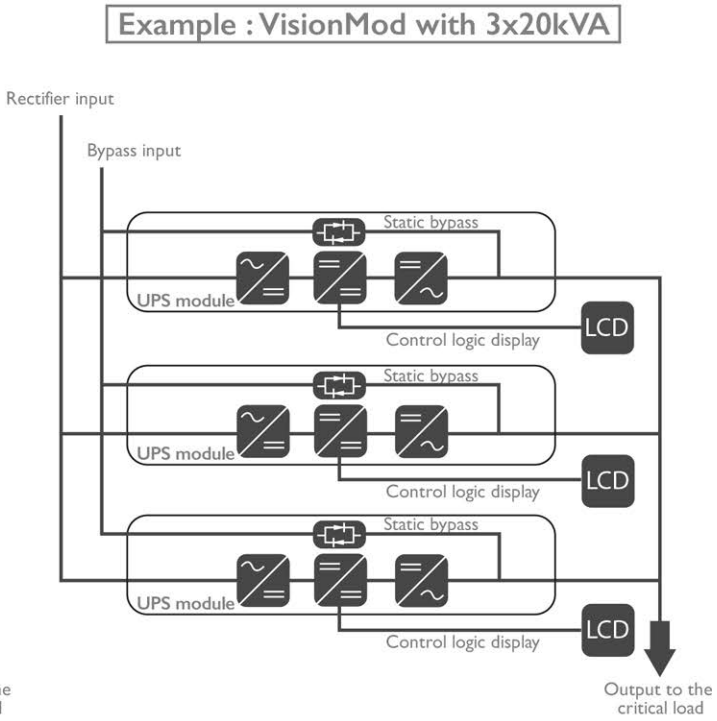
Vision Modular UPS with multiplied components also called decentralized technology is the only possibility to work without the risk of a "single point of failure". Each UPS module has all, - rectifier, inverter, static bypass switch, back-feed protection, battery fuse and control logic LCD display - to garranty autonomous operation.

Centralized UPS with common components



Single point of failure. One single static bypass and/or control logic can result in a total system blackout

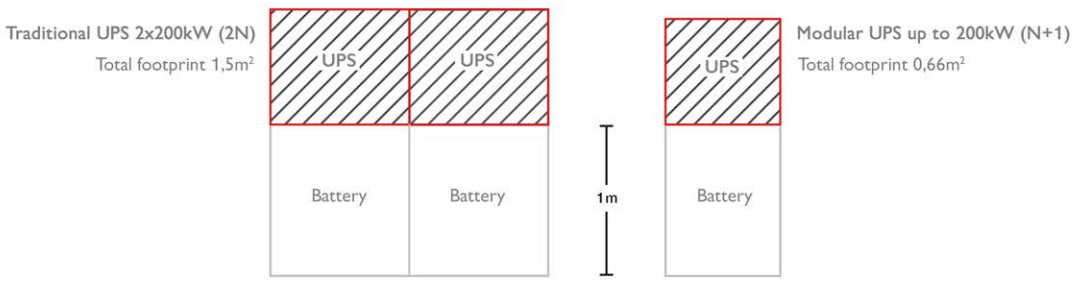
Decentralized UPS with multiplied components



No single point of failure. All components/parts are multiplied by the number X of used power modules

Reduce installation and maintenance costs

- The modular UPS reduces space requirements (in our example, 55% of space is saved)



- The maintenance and service parts costs are easy to calculate and extremely transparent: only one module !

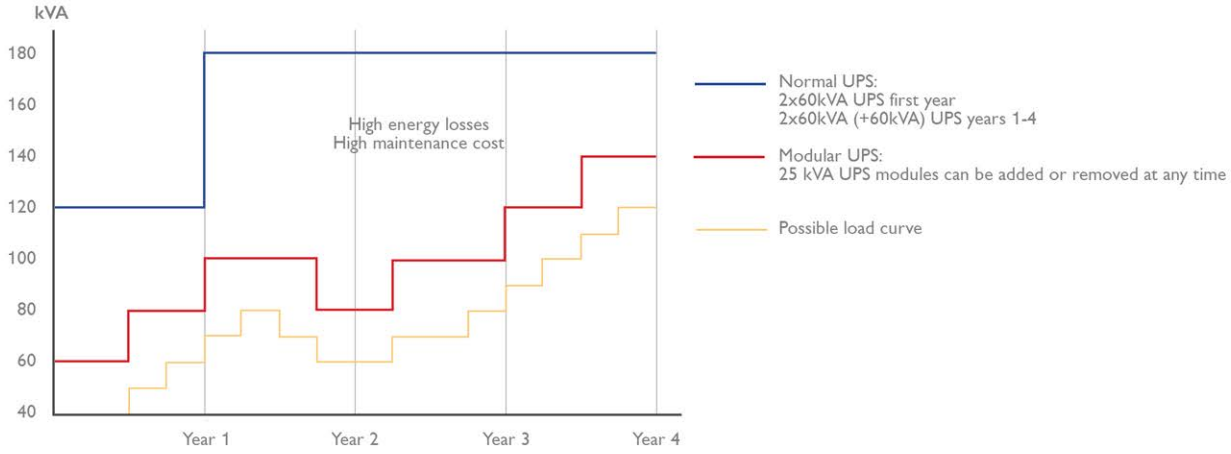
ON-LINE

VisionMod Modular Series

Optimize your investments

Power consumption and power requirements are constantly changing. With our Vision Modular you can simply increase or decrease the UPS power according to your needs. This is fast and cost effective when you increase the UPS by small steps. During a period of less requirements/power consumption, you simply remove UPS modules to save energy costs.

Example of a changing load up to 120kVA in 4 years.



Minimize downtime

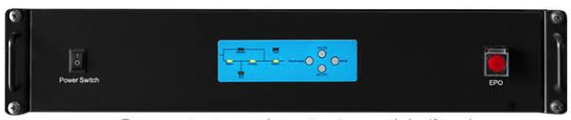
The best solution to optimize power availability is to increase MTBF and to decrease MTTR of the power protection system. With the modular UPS, the swap-in/out time is only 15-20 mins without switching off the load.

Mean time between failures (MTBF) , Mean time to repair/recover (MTTR)
Very high Very low

$$\text{Availability} = \frac{\text{MTBF}}{\text{MTBF} + \text{MTTR}}$$

Communication and monitoring module

The communication and monitoring module has no influence on the correct working of the UPS. You can switch it off at any time. This module collects all data parameters and transmits them to the large LCD display at the front door and to the different ports/slots for external communication. The communication and monitoring module is also "hot-swappable".



Communication and monitoring module (front)


Communication and monitoring module (back)


Module 6-10kVA (front)

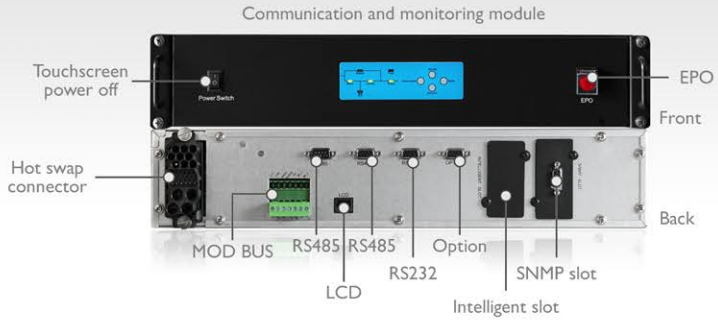

Module 6-10kVA (back)


Module 20kVA (front)


Module 20kVA (back)


Modular cabinet (back)

ON-LINE



Vision Mod	Model	
	1/1 - 3/1 phase	3/3 phase
Nominal capacity / Power per module	6kVA/4,8kW - 10kVA/8kW	20kVA/20kW - 30kVA/30kW
— Input		
Voltage	220/230Vac or 380/400Vac	380/400/415Vac
Voltage range	120-276Vac (1/1) or 208-478Vac (3/1)	208-478Vac
Frequency range	45-55Hz for 50Hz, 55-65Hz for 60Hz (auto-sensing)	
Input power factor	> 0.99	
Harmonic distortion (THDi)	<5% (at 100% non-linear load)	<3% (at 100% non-linear load)
— Output		
Voltage regulation	220/230Vac +/-2% at nominal voltage	380/400/415Vac +/-2% at nominal voltage
Frequency	50/60Hz +/- 0,2%	
Harmonic distortion (THD)	<2% (linear load) / <5% (non-linear load)	
Crest factor	3:1	
Efficiency	ECO mode >98% / Normal mode up to 96%	
— Battery		
Type	VRLA, AGM, Gel, OPZv	
Voltage	142-240V (16-20 batteries 12Vdc)	384-480V (32-40 batteries 12Vdc)
Maximum charging current	6A per module (can be set according to installed battery capacity)	
Backup time	Internal batteries for short backup time or external battery cabinet for long backup	
— Protection		
Input/output	Overvoltage, short-circuit, battery deep discharge, thermal protection	
Overload AC-Mode	≤110% - 60min / ≤125% - 10min / ≤150% - 1min	
Overload battery mode	≤110% - 30sec / ≤125% - 1sec / ≤150% - 200msec	
Overload bypass mode	Input breaker 40A(6kVA) & 60A(10kVA)	Input breaker 40A
— Alarms - informations		
Audible alarm	Line failure, battery low, bypass - overload status, fault status	
LED	Line-/backup-/ECO-/bypass-mode, battery low/bad/disconnected, overload, fault	
LCD	Big touchscreen display 5" front door + LCD on each power module	
— Bypass		
Type	Internal static (automatic) and manual bypass / External bypass optional	
Bypass voltage range	+15%(optional +5/10/25%) / -45%(optional -20/30%) / Frequency range: ±10%	
— Standards		
Certificates	CE, EN62040-1-1 (ESD), EN62040-2 (EMI), EN62040-03	
Protection class	IP20	
— Environment		
Temperature	0-40°C	
Humidity / Altitude	0-95% non-condensing / <1500m	
Audible noise at 1m	<60dB	
— Interface		
Communication module	RS232 / RS485 / 2 intelligent slots / dry contacts / EPO	
Optional	SNMP / relay card	
— Dimensions of internal module		
Dimensions WxDxH (power & batteries)	443x580x131mm (3U)	
Weight	Power: 31kg, battery : 2x70kg	
— Dimensions & max. power 1/1,3/1	for max. 5 modules (30kVA)	for max. 10 modules (50kVA)
Dimensions WxDxH of the cabinet	600x840x1400mm	600x840x2000mm
Weight of the cabinet	150kg	213kg
— Dimensions & max. power 3/3	for max. 5 modules (100-150kVA)	for max. 10 modules (200-300kVA)
Dimensions WxDxH of the cabinet	600x840x1400mm	600x840x2000mm
Weight of the cabinet	170kg	230kg