

**NRG**  
VALUE NET *plus*

**VALUENET PLUS 33**  
**160-500kW**

Unmatched  
Power  
Performance

Standalone  
Three-phase  
UPS system



## VALUENET plus 33 - the powerhouse.

New standards are set in the field of uninterruptible-power-supply solutions. The latest generation of VALUENET plus 33 is the continuation of renowned tradition of developing state-of-the-art UPS systems, focusing on delivering the best combination of energy-efficiency and overall power performance in the industry. Offering maximum power protection, the VALUENET plus 33 helps you to use less energy and takes up less space, resulting in significant cost savings.



VALUENET plus has an exceptional design that meets all modern requirements of building and operating energy-efficient and environmentally friendly data centres. The VALUENET plus employs transformerless double conversion UPS topology and is available from 160 to 500 kVA. The VALUENET plus 33 boasts features and options that cater to customers' needs, including the flexibility to accommodate an increase in power requirements and to provide n+1 parallel redundancy. Easy installation and maintenance form the basis of the core design for this standalone UPS system with front access electrical connections and fully serviceable components.



**96%**

AC-AC Efficiency

**1.0**

Output Power Factor

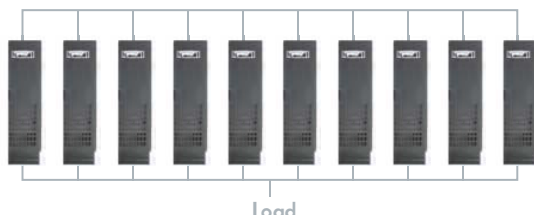
Fully scalable

up to 5 MW

### Further highlights:

- Up to 96% efficiency in double conversion mode minimises running costs
- Maximised output active power (kVA = kW)
- Excellent input performance minimises installation costs
- Power density up to 363 kW/m<sup>2</sup> minimises space requirements
- Full front access maximises system serviceability

### Parallel configuration for power extension or redundancy



Maximum power capacity of up to 5000 kVA (10 UPS in parallel)

### Advanced scalable architecture.

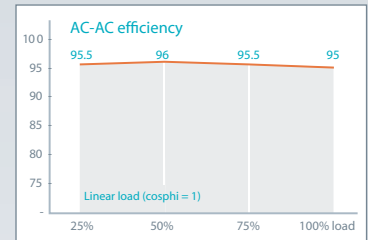
If additional capacity or redundancy is needed, up to 10 independent UPS units can operate in parallel configuration, achieving a total power capacity of up to 5000 kVA. In all parallel configurations, each unit operates independently but is securely synchronised with the others using the Newave DPA (Decentralised Parallel Architecture). This scalable architecture keeps the purchasing and operating costs of your power protection solutions exceptionally low. As your power requirements grow, the UPS system grows with them - thanks to its flexible scalability - even in the most confined spaces.

## High efficiency and lowest total cost of ownership.

Power performance, which is measured by system-efficiency, input THDi and input and output power factor is the foundation of VALUENET plus. In the normal online double conversion mode, VALUENET plus delivers class efficiency up to 96%.

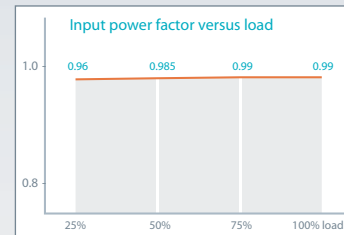
### Efficiency

With a transformerless design and Energy Saving Inverter Switching (ESIS) technology, VALUENET plus 33 delivers high efficiency at partial and full load (up to 96% in double conversion online mode). This level of efficiency dramatically reduces the total cost of ownership of the UPS system during its life cycle. In addition to lower operating costs, the VALUENET plus 33 extends the service life of components, thereby greatly increasing overall power performance.



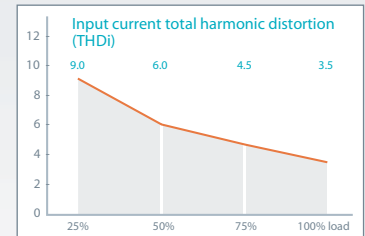
### Low input current total harmonic distortion (THDi)

The PowerWave 33 actively manages the input current total harmonic distortion (THDi) at a low level (3.5% at 100% load). Its unique technology neutralises the emission of harmonics at the input of the UPS system, providing greater reliability of operations for circuit breakers and extending the overall service life of the equipment. Low harmonic distortion saves unnecessary oversizing of gensets, cabling and circuit breakers, avoids extra heating of input transformers and extends the overall service life of all upstream components.



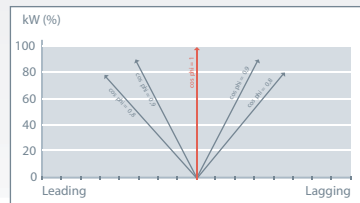
### Near-to-unity input power factor

Thanks to the near-to-unity input power factor of 0.99, even with partial loads, the VALUENET plus 33 reduces the input installation costs by enabling the use of smaller cables. Furthermore it avoids the unnecessary use of additional phase compensating devices, which consequently keeps the overall UPS efficiency high.



### Fully rated output power




VALUENET plus can supply loads from 0.9 leading to 0.9 lagging without derating.



## Solution flexibility

### VALUENET plus 33 - product range.

To accommodate the batteries for VALUENET plus 33 units ranging from 160 to 500kVA, external battery enclosures are required.

Product types	160-200 kVA	250-300 kVA	400-500 kVA
			
Included battery enclosure	No	No	No
Dimensions W x H x D (mm)	850 x 1820 x 750	1100 x 1920 x 750	1650 x 1994 x 850

## Technical specifications.

GENERAL DATA	160 kVA	200 kVA	250 kVA	300 kVA	400 kVA	500 kVA
Output power max.	160 kW	200 kW	250 kW	300 kW	400 kW	500 kW
Output power factor	1.0					
Topology	True online double conversion					
Parallel configuration	Up to 10 units					
UPS type	Standalone					
Cable entry	Front access					
Inbuilt batteries	-					
INPUT						
Nominal input voltage	3 x 380/220 V + N, 3 x 400/230 V + N, 3 x 415/240 V + N					
Voltage tolerance (Ref. to 3 x 400/230 V)	For loads <100% (-23%, +15%), <80% (-30%, +15%), <60% (-40%, +15%)					
Input distortion THDi	< 3.5% at 100%					
Frequency	35-70 Hz					
Power factor	0.99 at 100% load					
OUTPUT						
Rated output voltage	3 x 380/220 V + N, 3 x 400/230 V + N, 3 x 415/240 V + N					
Voltage distortion	< 2%					
Frequency	50 or 60 Hz					
Overload capability	10 min.: up to 125% or 1 min.: up to 150%					
Unbalanced load	100% possible					
Crest factor	3 : 1					
EFFICIENCY						
Overall efficiency	Up to 96%					
In eco-mode configuration	98%					
ENVIRONMENT						
Storage temperature	-25-70 °C					
Operating temperature	0-40 °C					
Altitude configuration	1000 m without derating					
BATTERY						
Battery type	Sealed, lead-acid, maintenance-free or NiCd					
COMMUNICATIONS						
LCD display	Yes					
LEDs	LED for notification and alarm					
Communication ports	USB, RS-232, potential-free contacts					
STANDARDS						
Safety	IEC/EN 62040-1-1, IEC/EN 60950-1					
Electromagnetic compatibility (EMC)	IEC/EN 62040-2, IEC/EN 61000-3-2 IEC/EN 61000-3-3, IEC/EN 61000-6-2					
Performance	IEC/EN 62040-3					
Product certification	CE					
Protection rating	IP 20					
Manufacturing	ISO 9001:2008, ISO 14001:2004					
WEIGHT, DIMENSIONS						
Weight (without batteries)	290 kg	310 kg	390 kg	410 kg	950 kg	1000 kg
Dimensions W x H x D (mm)	850 x 1820 x 75		1100 x 1920 x 750		1650 x 1994 x 850	