



PowerWave 33 60 – 500 kW

Standalone
Three-phase
UPS system

➤ Unmatched
power
performance.



continuous power
protection availability



PowerWave 33 – the powerhouse.



Newave has always set global standards in uninterruptible-power-supply solutions. The latest generation of PowerWave 33 is the continuation of Newave's 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 PowerWave 33 helps you to use less energy and takes up less space, resulting in significant cost savings.

The PowerWave 33's exceptional design meets all modern requirements of building and operating energy-efficient and environmentally friendly data centres. The PowerWave 33 employs transformerless double conversion UPS topology and is available from 60 to 500 kVA.

The PowerWave 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 stand-alone UPS system with front access electrical connections and fully serviceable components.



96%
AC-AC Efficiency

10
Output Power Factor

**Fully scalable
up to 5 MW**

Further highlights:

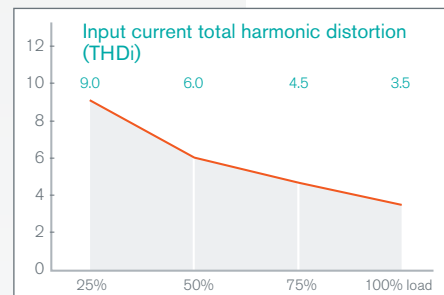
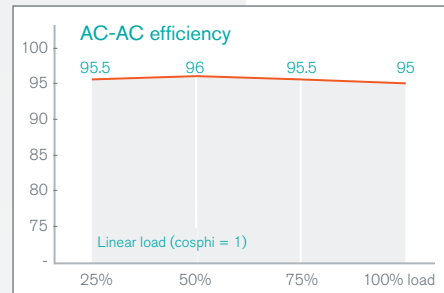
- Up to 96% efficiency in double conversion mode minimises running costs
- Maximised output active power (kVA = kW)
- Excellent input performance minimises installation costs
- Power density up to 363 kW/m² minimises space requirements
- Full front access maximises system serviceability

High efficiency and lowest total cost of ownership.

Power performance, which is measured by system-efficiency, input THDi and input power factor is the foundation of the PowerWave 33. In the normal online double conversion mode, the PowerWave 33 delivers class-leading efficiency of up to 96%.

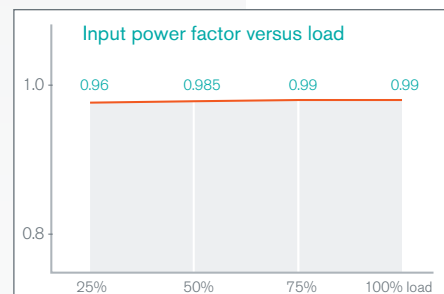
Efficiency

With a transformerless design and Energy Saving Inverter Switching (ESIS) technology, the PowerWave 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 PowerWave 33 extends the service life of components, thereby greatly increasing overall power performance.



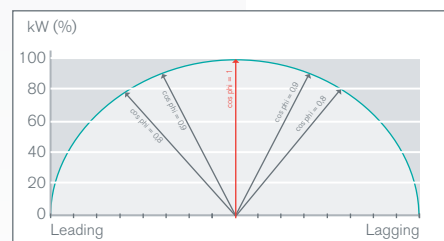
Low input current total harmonic distortion (THDi)

The PowerWave 33 actively manages the input current total harmonic distortion (THDi) at a low level (3.5% at 100% load). Newave's 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 PowerWave 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






The PowerWave 33 can supply loads from 0.9 leading to 0.9 lagging without derating.

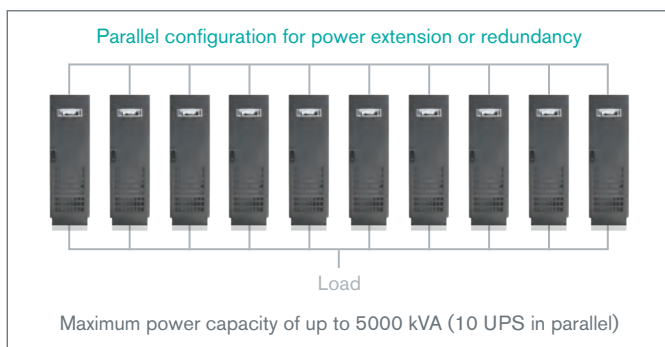


Solution flexibility.

PowerWave 33 – product range.

The PowerWave 33 is available in various configurations. The smaller units (60, 80 and 100 kVA) are available with integrated enclosures to accommodate batteries. Front access facilitates installation and servicing of the batteries. To accommodate the batteries for PowerWave 33 units ranging from 120 to 500 kVA, external battery enclosures are required.

Product types	60–100 kVA	60–100 kVA	120–200 kVA	250–300 kVA	400–500 kVA
					
Included battery enclosure	No	Yes, battery enclosure type A or B	No	No	No
Dimensions W x H x D (mm)	550 x 1820 x 750	970 x 1820 x 750 or 1180 x 1820 x 750	850 x 1820 x 750	1100 x 1920 x 750	1650 x 1994 x 850



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 PowerWave 33 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.

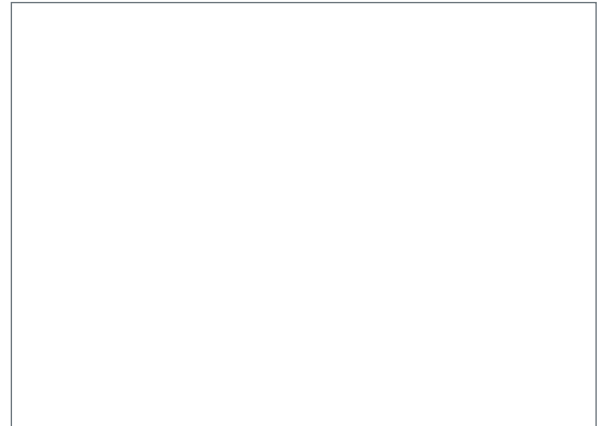
Technical specifications.

GENERAL DATA	60 kVA	80 kVA	100 kVA	120 kVA	160 kVA	200 kVA	250 kVA	300 kVA	400 kVA	500 kVA
Output power max.	60 kW	80 kW	100 kW	120 kW	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	Optional			-						
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)	230 kg	240 kg	245 kg	280 kg	290 kg	310 kg	390 kg	410 kg	950 kg	1000 kg
Dimensions W x H x D (mm)	550 x 1820 x 750			850 x 1820 x 750			1100 x 1920 x 750		1650 x 1994 x 850	
Dimensions with battery enclosures W x H x D (mm)	970 (or 1180) x 1820 x 750			-			-		-	



Head Office: Operations, Sales and Marketing

Newave SA
Via Luserte Sud 9
CH-6572 Quartino
T +41 (0) 91 850 29 29
F +41 (0) 91 840 12 54
info@newavenergy.com
www.newavenergy.com



Subsidiaries

Austria

Newave Österreich GmbH
Laxenburgerstrasse 252
AT-1230 Wien
T +43 (1) 710 96 70 0
F +43 (1) 710 96 70 12
info@newavenergy.at
www.newavenergy.at

Finland

Newave Finland OY
Niittyläntie 2
FI-00620 Helsinki
T +358 (0) 10 421 9400
info@newaveups.fi
www.newaveups.fi

Germany

Newave USV Systeme GmbH
Summerside Ave. C 207
Baden Airpark
DE-77836 Rheinmünster
T +49 (0) 7229 1866 0
F +49 (0) 7229 1866 33
zentrale@newavenergy.de
www.newavenergy.com

Italy

NEWAVE Italia
Via Vincenzo Ussani, 90
IT-00151 Roma
T +39 06 65 31 997
T +39 06 65 31 316
F +39 06 65 31 306
info@newavenergy.it
www.newavenergy.it

Spain

Newave España SA
Arturo Soria 329 1 D
ES-28033 Madrid
T +34 (91) 768 22 22
F +34 (91) 383 21 50
newave@newave.es
www.newavenergy.es

Switzerland

Newave Energy AG
Industriestrasse 5
CH-5432 Neuenhof
T +41 (0) 56 416 01 01
F +41 (0) 56 416 01 00
info@newavenergy.ch
www.newavenergy.ch

With a branch office in Biel:

Am Wald 36
CH-2504 Biel
T +41 (0) 32 366 60 30
F +41 (0) 32 366 60 35
info@newavenergy.ch
www.newavenergy.ch

The Netherlands

Newave UPS Systems BV
Stephensonweg 9
NL-4207 HA Gorinchem
T +31 (0) 183 64 6474
F +31 (0) 183 62 3540
info@newaveups.nl
www.newavenergy.nl

Hong Kong and China

Newave Energy Hong Kong Ltd
Room 2506, West Tower,
Shun Tak Centre
HK-168-200 Connaught Road
Central
T +31 642 215 512
sales-china@newave.com.cn
www.newavenergy.cn

With a branch office in China:

Newave Energy (Jiangmen) Limited
9/F Kawa House, 49 Jiangshe Road,
Jiangmen, Guangdong, China
Postal Code: 529000
T +86 750 368 0239
F +86 750 368 0229
sales-china@newave.com.cn
www.newavenergy.cn

India

Newave Energy India Pvt. Ltd.
818/819 Corporate Avenue,
Sonawala Road, Goregaon East,
IN-Mumbai 400 0063
T +91 (22) 4266 5151
F +91 (22) 4266 5141
info@newavenergy.in
www.newavenergy.com

Latin America

Newave South America LTDA
Rua Clodomiro Amazonas No. 1422
Suite 68
BR-04537-002 - São Paulo
T +55 (11) 3045 0809
F +55 (11) 3045 0764
info@newavesam.com
www.newavenergy.com