



**ИБП Newave Powervalue 11 и Powervalue 31 - брошюра на продукцию. Юниджет**

Постоянная ссылка на страницу: <https://www.uni-jet.com/catalog/ibp/on-line-ibp/abb-powervalue-11-31/>





# POWERVALUE™

Compact protection for power supply  
For Continous Power Protection Availability



# Technical specifications PowerValue™ 11 and 31

| GENERAL DATA                            |     | 1-phase in/output (11)   |       |               | 3-phase input/1-phase output (31)           |               |       |       |
|---|-----|--|-------|---------------|---|---------------|-------|-------|
| Output Rated Power                      | kVA | 7.5  | 10    | 12            | 7.5   | 10            | 15    | 20    |
| Output Power Factor                     |     | 0.7  |       |               |   |               |       |       |
| Topology                                |     | Double conversion (on-line)  |       |               |   |               |       |       |
| Construction                            |     | Standalone   |       |               |   |               |       |       |
| Static and Maintenance Bypass           |     | Standard   |       |               |   |               |       |       |
| Cable entry                             |     | Cabinet A from rear, cabinet B and C from front  |       |               |   |               |       |       |
| Audible Noise With 100%/50% load        | dBA | 50/48  | 50/48 | 50/48         | 50/48                                       | 50/48         | 53/49 | 53/49 |
| Inbuilt Batteries                       |     | Yes  |       |               |   |               |       |       |
| INPUT                                   |     |  |       |               |   |               |       |       |
| Voltage                                 | V   | 1 x 220/230/240+N  |       |               | 3 x 380/220+N, 3 x 400/230+N, 3 x 415/240+N |               |       |       |
| Voltage Tolerance (Ref. to 3x400/230 V) |     | For loads <100% (-23%, +15%), <80% (-30%, +15%), <60% (-40%, +15%)   |       |               |   |               |       |       |
| Current Form THDi                       | %   | THDi=7-9%  |       |               | THDi <25% standard (THDi=12-14% optional)   |               |       |       |
| Frequency                               | Hz  | 35-70  |       |               |   |               |       |       |
| Power Factor (electrically regulated)   |     | 0.98   |       |               | 0.95 standard (0.98 optional)               |               |       |       |
| Current Distortion                      | %   | sinewave   |       |               |   |               |       |       |
| Inrush Current                          |     | Soft start   |       |               |   |               |       |       |
| Cabling                                 |     | Hardwired  |       |               |   |               |       |       |
| OUTPUT                                  |     |  |       |               |   |               |       |       |
| Voltage                                 | V   | 1 x 220/230/240+N  |       |               |   |               |       |       |
| Voltage Tolerance (Ref. to 3x400/230V)  |     | 1% (linear load), 4% (non-linear load)   |       |               |   |               |       |       |
| Voltage Distortion                      | %   | <2% linear load, <4% non-linear load (IEC/EN62040-3)   |       |               |   |               |       |       |
| Frequency                               | Hz  | 50 or 60   |       |               |   |               |       |       |
| Frequency Tolerance                     | Hz  | ±0.1 (free-running), ±2 or ±4 (with mains, adjustable)   |       |               |   |               |       |       |
| Overloading capability                  | %   | 125% / 10 min., 150% / 60 s  |       |               |   |               |       |       |
| Crest Factor                            |     | 3 : 1  |       |               |   |               |       |       |
| EFFICIENCY                              |     |  |       |               |   |               |       |       |
| Load 100/75/50/25%                      | %   | Up to 94.5/94.5/93/91, AC-AC on-line mode  |       |               |   |               |       |       |
| Eco-Mode at 100% Load                   | %   | 98   |       |               |   |               |       |       |
| ENVIRONMENT                             |     |  |       |               |   |               |       |       |
| Storage Temperature                     | °C  | -25...+70  |       |               |   |               |       |       |
| Operating Temperature                   | °C  | 0...+40  |       |               |   |               |       |       |
| Maximum Altitude                        | m   | Up to 1000m without derating, max. 3000m   |       |               |   |               |       |       |
| COMMUNICATIONS                          |     |  |       |               |   |               |       |       |
| Interfaces                              |     | LC-Display (PDM), 1x RS232<br>1 x RS232 (SMART PORTS), customer input interfaces (Remote shutdown, GENSET-ON),<br>customer output interfaces (Dry Ports)   |       |               |   |               |       |       |
| Options                                 |     | Additional COM-Cards   |       |               |   |               |       |       |
| STANDARDS                               |     |  |       |               |   |               |       |       |
| Safety                                  |     | IEC/EN 62040-1-1, IEC/EN 60950-1   |       |               |   |               |       |       |
| Electromagnetic Comp. (EMC)             |     | IEC/EN 61000-6-4 (product standard IEC/EN 62040-2 limit A (C2 UPS))<br>IEC/EN 61000-6-2 (product standard IEC/EN 62040-2 Criterion A (C2 UPS))<br>IEC/EN 61000-4-2, IEC/EN 61000-4-3, IEC/EN 61000-4-4, IEC/EN 61000-4-5, IEC/EN 61000-4-6 |       |               |   |               |       |       |
| Performance                             |     | IEC/EN 62040-3   |       |               |   |               |       |       |
| Product Certification                   |     | CE, GOST by TÜV  |       |               |   |               |       |       |
| Enclosure                               |     | IP 20  |       |               |   |               |       |       |
| Manufacturing                           |     | ISO 9001:2000, ISO 14001:2004  |       |               |   |               |       |       |
| Country of origin                       |     | Italy  |       |               |   |               |       |       |
| WEIGHT, DIMENSIONS                      |     | Cabinet Type   |       |               |   |               |       |       |
|   |     | A (7.5–15kVA)  |       | B (7.5–20kVA) |   | C (7.5–20kVA) |       |       |
| Weight                                  | kg  | 75   |       | 154           |   | 204           |       |       |
| Dimensions (WxHxD)                      | mm  | 340x820x800  |       | 450x1250x860  |   | 550x1650x890  |       |       |

Technical specifications PowerValue™ 33

| GENERAL DATA                            |     | 3-phase input/3-phase output (33)  |       |               |       |               |       |
|---|-----|--|-------|---------------|-------|---------------|-------|
| Output Rated Power                      | kVA | 7.5  | 10    | 15            | 20    | 30            | 40    |
| Output Power Factor                     |     | 0.8  |       |               |       |               |       |
| Topology                                |     | Double conversion (on-line)  |       |               |       |               |       |
| Construction                            |     | Standalone   |       |               |       |               |       |
| Static and Maintenance Bypass           |     | Standard   |       |               |       |               |       |
| Cable entry                             |     | Cabinet A from rear, Cabinet B and C from front  |       |               |       |               |       |
| Audible Noise with 100% / 50% load      | dBA | 50/48  | 50/48 | 43/49         | 53/49 | 59/51         | 63/53 |
| Inbuilt Batteries                       |     | Yes  |       |               |       |               |       |
| INPUT                                   |     |  |       |               |       |               |       |
| Voltage                                 | V   | 3 x 380/220+N, 3 x 400/230+N, 3 x 415/240+N  |       |               |       |               |       |
| Voltage Tolerance (Ref. to 3x400/230 V) |     | For loads <100% (-23%, +15%), <80% (-30%, +15%), <60% (-40%, +15%)   |       |               |       |               |       |
| Current Form THDi                       | %   | THDi < 25% Standard (THDi=12-14% optional)   |       |               |       |               |       |
| Frequency                               | Hz  | 35-70  |       |               |       |               |       |
| Power Factor (electrically regulated)   |     | 0.95 Standard (0.98 optional)  |       |               |       |               |       |
| Current Distortion                      | %   | sinewave   |       |               |       |               |       |
| Inrush Current                          |     | Soft start   |       |               |       |               |       |
| Cabling                                 |     | Hardwired  |       |               |       |               |       |
| OUTPUT                                  |     |  |       |               |       |               |       |
| Voltage                                 | V   | 3 x 380/220+N, 3 x 400/230+N, 3 x 415/240+N  |       |               |       |               |       |
| Voltage Tolerance (Ref. to 3x400/230 V) |     | ±1% (linear load), ±3 (non-linear load)  |       |               |       |               |       |
| Voltage Distortion                      | %   | <2% linear load, <4% non-linear load (IEC/EN62040-3)   |       |               |       |               |       |
| Frequency                               | Hz  | 50 or 60   |       |               |       |               |       |
| Frequency Tolerance                     | Hz  | ±0.1 (free-running), ±2 or ±4 (with mains, adjustable)   |       |               |       |               |       |
| Overloading capability                  | %   | 125%/10 min., 150%/60 s  |       |               |       |               |       |
| Permissible Unbalanced Load             | %   | 100% (all 3 phases regulated independently)  |       |               |       |               |       |
| Crest Factor                            |     | 3 : 1  |       |               |       |               |       |
| EFFICIENCY                              |     |  |       |               |       |               |       |
| Load 100/75/50/25%                      | %   | Up to 95/95/93.5/92, AC-AC online mode   |       |               |       |               |       |
| Eco-Mode at 100% Load                   | %   | 98   |       |               |       |               |       |
| ENVIRONMENT                             |     |  |       |               |       |               |       |
| Storage Temperature                     | °C  | -25...+70  |       |               |       |               |       |
| Operating Temperature                   | °C  | 0...+40  |       |               |       |               |       |
| Maximum Altitude                        | m   | Up to 1000m without derating, max. 3000m   |       |               |       |               |       |
| COMMUNICATIONS                          |     |  |       |               |       |               |       |
| Interfaces                              |     | LC-Display (PDM), 1x RS232<br>1 x RS232 (SMART PORTS), customer input interfaces (Remote shutdown, GENSET-ON),<br>customer output interfaces (Dry Ports)   |       |               |       |               |       |
| Options                                 |     | Additional COM-Cards   |       |               |       |               |       |
| STANDARDS                               |     |  |       |               |       |               |       |
| Safety                                  |     | IEC/EN 62040-1-1, IEC/EN 60950-1   |       |               |       |               |       |
| Electromagnetic Comp. (EMC)             |     | IEC/EN 61000-6-4 (product standard IEC/EN 62040-2 limit A (C2 UPS))<br>IEC/EN 61000-6-2 (product standard IEC/EN 62040-2 Criterion A (C2 UPS))<br>IEC/EN 61000-4-2, IEC/EN 61000-4-3, IEC/EN 61000-4-4, IEC/EN 61000-4-5, IEC/EN 61000-4-6 |       |               |       |               |       |
| Performance                             |     | IEC/EN 62040-3   |       |               |       |               |       |
| Product Certification                   |     | CE, GOST by TÜV  |       |               |       |               |       |
| Enclosure                               |     | IP 20  |       |               |       |               |       |
| Manufacturing                           |     | ISO 9001:2000, ISO 14001:2004  |       |               |       |               |       |
| Country of origin                       |     | Italy  |       |               |       |               |       |
| WEIGHT, DIMENSIONS                      |     | Cabinet Type   |       |               |       |               |       |
|   |     | A (7.5–40kVA)  |       | B (7.5–40kVA) |       | C (7.5–40kVA) |       |
| Weight                                  | kg  | 75   |       | 154           |       | 204           |       |
| Dimensions (WxHxD)                      | mm  | 340x820x800  |       | 450x1250x860  |       | 550x1650x890  |       |

Specifications are subject to change without notice.

## PowerValue™ – The Beauty of Power Protection Simplicity

PowerValue™ represents an accurately balanced combination of unmatched reliability, excellent electrical performance, exceptionally compact size and outstanding cost-efficiency housed in an attractive enclosure.



Cabinet A:  
Up to 15kVA with 10 min.



Cabinet B:  
Up to 40kVA with 10 min.



Cabinet C:  
Up to 40kVA with 20 min.

## Medium-sized power protection range with outstanding price/performance capability

PowerValue™ is a third-generation transformer-less double-conversion (VFI) power protection technology designed to protect a wide area of critical applications including server rooms, networks, telecommunication systems, industrial processes and medical equipment.

PowerValue™ addresses mid-sized server rooms, networks, telecommunication systems, industrial processes and medical equipment where the higher cost of parallelable or scalable power protection solutions are not justified. Furthermore, as PowerValue™ provides increased protection security and efficiency it can be used instead of multiple separate, smaller units spread throughout a facility.

The uniqueness of the PowerValue™ design lies in its technical simplicity which is based on Newave's transformerless, double-conversion (VFI = Voltage Frequency Independent) technology with unmatched reliability.

PowerValue™ is available in a variety of models and input/output configurations:

- PowerValue™ (1phase input and 1phase output), 7.5, 10 and 12 kVA
- PowerValue™ (3phase input and 1phase output), 7.5, 10, 15 and 20 kVA
- PowerValue™ (3phase input and 3phase output), 7.5, 10, 15, 20, 30 and 40 kVA

Features and benefits

Provides more power protection value at a more affordable price

PowerValue™ has been designed to provide an optimised price/performance ratio. A number of exceptional features have been carefully selected and built into the PowerValue™ without a substantial increase of material contents in order to optimize both performance and cost benefits.

| Benefits                  | Features   |
|---------------------------|--|
| Continuous Uptime         | Highest reliability is provided through mature, on-line double conversion, transformerless technology. Built-in reliability with redundant power supply, reduced cable harness, improved cooling of critical components.   |
| Space Saving              | Smallest foot-print and weight:<br>15kVA (3/3) = 0.26 mm², weight w/o batteries = 75kg<br>40kVA (3/3) = 0.37 mm², weight w/o batteries = 204kg   |
| Cost Saving               | Outstanding power and back-up-time density.  |
| High Power Availability   | Wide input voltage window (up to 40% for loads less than 60%) and input frequency window (35–70 Hz) allows high power availability even in environments where input power supply is unstable and sub-standard. Battery usage is minimised.   |
| Low Cost of Ownership     | Thanks to Energy Saving Inverter Switching (ESIS) high double conversion efficiencies (up to 95%) are achieved.<br>PowerValue™ 11: PF = 0.98 and THDI = 7–9%<br>PowerValue™ 31: PF = 0.98 and THDI <25% standard (THDI = 12–14% optional)<br>PowerValue™ 33: PF = 0.98 and THDI <25% standard (THDI = 12–14% optional) |
| Low Audible Noise         | Variable load-dependent DC-fan-speed reduces the audible noise, so that the UPS can be operated in office environments.  |
| Integration in Networks   | PowerValue™ has advanced monitoring and communication capabilities to keep you in constant command of your critical power protection system.   |
| Protects Your Environment | PowerValue™ protects not only critical applications but also our environment. It is a true environmentally friendly UPS with limited hardware components (saving natural resources).   |

# Interfaces

User friendly, easy to install and easy to commission

PowerValue™ is a user-friendly UPS which is easy to install and commission. In the following pictures the various interfaces of the UPS are illustrated:

Interfaces for cabinet A, B and C



User friendly Control Panel is composed of:

- a. Mimic Diagram
- b. LC-Display
- c. Keyboard



Front View  
Cabinet A



Rear View  
Cabinet A

- SNMP-Slot
- Dry Port
- Smart Port RS 232
- Cooling Fans
- Input/battery/bypass fuses  
Manual bypass and  
Output breaker
- Input/Output Terminals
- Rollers/Castors



Front View  
Cabinet B\*

- SNMP-Slot
- Dry Port
- Smart Port RS 232
- Input/battery fuses
- Bypass fuses  
Manual bypass and  
Output breaker
- Input/Output Terminals

Rollers/Castors



Rear View  
Cabinet B\*

Cooling Fans

\*The position of the interfaces on the larger cabinet C are equivalent to cabinet B.






## Battery flexibility

Compact size with capability of supplying longer back-up times without extra battery cabinet

PowerValue™ is provided in three cabinet sizes in order to allow longer battery back-up times and therefore avoid the use of additional battery cabinets. All PowerValue™ are equipped with a 6 Amp ripple-free battery charger that protects batteries and delays their aging process. Optional temperature-dependent charging function is provided. The advanced Battery Monitoring and Management algorithm monitors the battery continuously and in the unlikely event of a battery fault an early warning will be triggered.

## Battery configurations

| Cabinet type*   | Maximum Battery Configuration | Maximum Back-up (min.) with 100% load                                    |  | UPS Rating (kVA)            |
|---|-------------------------------|--|--|-----------------------------|
|    | 2 x 27 x 9Ah                  | 28 (PF=0.8)<br>20 (PF=0.8)<br>14 (PF=0.8)<br>12 (PF=0.8)                 | 33 (PF=0.7)<br>23 (PF=0.7)<br>18 (PF=0.7)<br>14 (PF=0.7)                 | 7.5<br>10<br>12<br>15       |
|  | 3 x 48 x 9Ah                  | 96 (PF=0.8)<br>66 (PF=0.8)<br>52 (PF=0.8)<br>40 (PF=0.8)<br>26 (PF=0.8)  | 110 (PF=0.7)<br>78 (PF=0.7)<br>62 (PF=0.7)<br>46 (PF=0.7)<br>30 (PF=0.7) | 7.5<br>10<br>12<br>15<br>20 |
|   |                               | 16 (PF=0.8)  |  | 30                          |
|   |                               | 11 (PF=0.8)  |  | 40                          |
|  | 2 x 40 x 28Ah                 | 130 (PF=0.8)<br>76 (PF=0.8)<br>60 (PF=0.8)<br>35 (PF=0.8)<br>28 (PF=0.8) |  | 10<br>15<br>20<br>30<br>40  |

\* Cabinet (WxHxD): A 335x809x767mm / B 450x1250x830mm / C 550x1600x830mm

## Options

Monitoring and control data are shown on an easy-to-understand front panel display featuring pushbutton controls, LCD readout for event logs and diagnostics and a mimic diagram for system status.

Wavemon shutdown and management software is compatible with all common operation systems.

The power protection system can be remotely monitored via RS232, volt-free relays or via SNMP Adapter.



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## References

ABB  
Acer  
AEG SVS  
American British Racing  
American Express  
Ansar Almojahedin  
ARGE NS Lötschberg  
AXA Insurance  
Bank Renaissance Moscow  
Bank Vontobel AG  
Barclays Bank  
Basijian Institute  
Basler Versicherung  
BBC (British Broadcasting Corp.)  
Belgorodenergo  
Betty Barclay  
Blaupunkt  
BLS Lötschbergbahn AG  
BNFL (British Nuclear Fuels Ltd.)  
Boehringer Ingelheim  
British Airport Authority (BAA)  
British Council  
British Telecom  
Bürgerspital St. Gallen  
Cable and Wireless  
Cambridge University  
Caterpillar  
Central Bank of Russian Federation  
Cepsa  
Coca Cola  
Core Telecom  
Correos de España  
Credit Suisse  
Dachser  
Daimler AG  
Danfoss  
Deutsche Post  
DNA  
EADS  
EDEKA  
EDP (Electricity of Portugal)  
Elisa  
Enfo  
Eterra  
Fujitsu  
Gestamp Corporation  
Glaxo Smith Kline  
Henkel  
Hilton  
Honeywell  
HSBC  
Hyatt  
IBERIA  
IBM  
Intel  
Interoute  
Iran Insurance  
Iran Telecom (TCI)  
IXEurope (Switzerland) AG  
Karafarin Bank  
Lekkerland  
Lloyds TSB  
Lonza AG  
LUKOIL  
Manor AG  
Mehiläinen  
Meridien  
Meteorological Office  
Metropolitano de Lisboa  
Migros Ostschweiz

Mobile TeleSystems (MTS)  
Mobistar  
Motorola  
NATs (National Air Traffic control)  
Nestlé  
Nokian Renkaat  
Novartis Consumer Health Schweiz AG  
Nuffield Hospitals  
O2  
Océ (Schweiz) AG  
Olvi  
Oracle Corporation  
OSCE Kosova  
Osuuspankkikeskus  
Outokumpu  
Oxford University  
Paulaner  
Portugal Telecom  
Procter & Gamble  
Rabo Bank  
Radio Televisión Española  
REFER (Portuguese Railways)  
REPSOL-YPF  
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Ritz  
Rohde & Schwarz  
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Royal Scandinavia  
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Swiss Reinsurance  
T-mobile  
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Technische Betriebe  
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Telekurs Services AG  
Tesco  
Thales  
Tiefbauamt Nidwalden  
Tool-Temp  
Unified Energy System of Russia  
United Bank of Switzerland (UBS)  
UPM-Kymmene  
Waitrose  
VAPO  
Veikkaus  
Williams  
Winterthur-Assurance p.a. wincasa  
Vneshtorgbank  
Vnukovo Airport Moscow  
Vodafone  
Wolseley  
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Ziegler Papier AG  
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## Newave Certifications & Recognitions

