

# **UPS & Generator**



CE

Leading The Future of Electrification

• A Global Heritage Brand with 130 Years of Product Innovation

• Perfect Products, Creative Services, and Competitive Price

Since 1886, Westinghouse Has Brought The Best To Life.

Westinghouse remains a trusted name globally in consumer and industrial products. Built on a heritage of innovation and entrepreneurial spirit, Westinghouse products were the first to supply the United States with AC electric power, transmit a commercial radio broadcast and capture man's first step on the moon. Today, Westinghouse continues to grow its diverse portfolio with a wide range of product categories that include home appliances, consumer electronics, lighting and power generation.

SERIES **10-1000** kVA 3:3 **10-30** kVA 3:1 ONLINE UPS

PHASE

PHASE

**UPower UPS** 







#### HIGHLIGHTS

- True Three Level Rectifier and **Inverter Technology**
- Ultra High Energy Efficiency
- Full Rated Power Factor kW=kVA

### Innovative 3 Level Technology

- UPower UPS Series with Innovative 3 Level Technology is a true on-line double conversion, three-phase UPS system that provides one of the highest level energy efficiencies in the industry.
- Three level inverter & rectifier design UPower UPS Series brings the newest power conversion technology and delivers efficiency up to 96% at 50-75% load operation which is the most common operating range.

#### CERTIFICATES





The UPower UPS Series is attested by Bureau Veritas with regard performance (EN 62040-3)

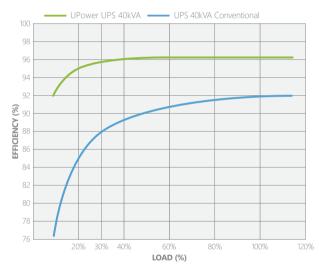


#### 12 UPS



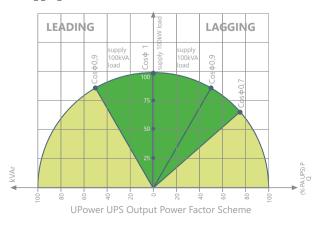
## High Efficiency & Low Total Cost of Ownership

- Less energy consumption to supply the loads thanks to high efficiency up to 96%.
- Reduced energy loss.
- Reduced electricity usage and air conditioning requirements.
- Reduction in operating cost of UPS.
- IGBT based power factor correction technology provides input power factor close to 1 (≥ 0,99). The high input power leads to reduced electricity pay-out, minimizes cable, switchboard, fuse and generator requirements, thus reducing investment cost.
- Low input current total harmonic distortion (THDi) less than 3% helps to avoid the disturbance and expensive harmonic filters.
- Small footprint and easy maintenance.



#### High Output Power Factor 1

- Output power factor of 1 (kVA=kW) rate provides up to 25% more active power than a traditional UPS.
- Suitable for modern power supply application with unit or capacitive power factor (e.g. new servers generation).
- No reduction in active power from 0,9 leading to 0,9 lagging.



#### Maximum Availability

- Parallel configuration up to 8 units per redundancy (N+1) and power increase.
- Loop connection helps the UPS system to continue the operation when the connection cable is inturrupted.

#### Standard Electrical Features

- Parallel-Redundant (N+X) Systems
- Co-Aging
- Dual Input
- Common Battery
- Backfeed Protection
- Cold Start (Optional)
- Advanced Battery Management
- Short Circuit and Overload Protection
- Parallel Ready
- Redundant Power Supply
- Power Walk-in for Progressive Rectifier Start-up when the Mains is Restored
- Battery Temperature Sensor
- Static and Manual Bypass Operation

#### Advanced Communication Features

- 1500 Real Time Event Log with Detailed Parameters
- User Friendly Multilingual 320x240 Graphic Display Provides Operation Information
- Monitoring and Shutdown Software
- RS232 Serial and RS485 Ports
- 2 Communication Slots
- ModBUS RTU / ModBUS TCP (Optional)
- Remote Emergency Power Off (Optional)
- Remote Display Panel (Optional)
- Dry Contact (Optional)
- SNMP (Optional)
- ProfiBUS (Optional)

#### Flexibility

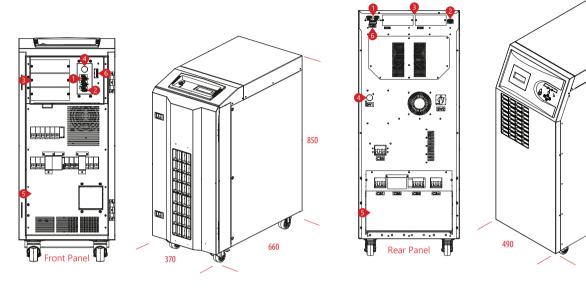
- Temperature sensor for external battery cabinets for extended runtimes.
- External battery cabinets for different sizes of batteries to provide extended runtimes.
- Different sizes of 10-40kVA cabinets for larger capacity of internal batteries when long autonomy times are required.
- 3/1 Phase version is available for 10-30kVA power ratings
- Frequency converter mode.
- Isolation transformers to vary neutral connectivity in the event of separate power sources or for galvanic isolation between input and output.
- Compatible version with EN 50171 for supplying power to emergency lighting systems.

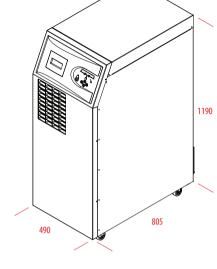


#### DETAILS

MiniUPower UPS SERIES 10-15-20 kVA

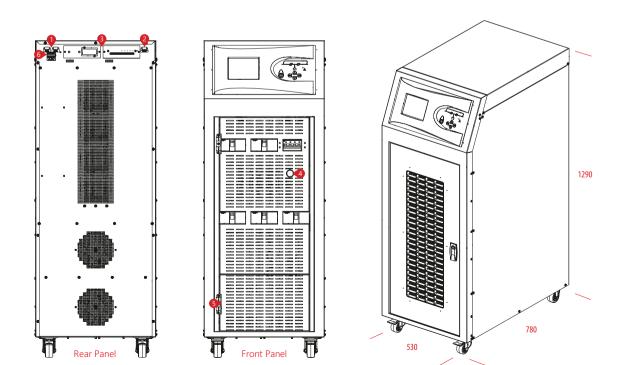
#### UPower UPS SERIES 10-15-20-30-40-60 kVA





- 1. Parallel Port Terminal
- 2. RS232 Terminal
- 3. Optional Card Slots 4. DC Bus Ramping Up Button
- 5. Connection Terminal
- 6. External Battery Temperature Sensor Terminal

#### UPower UPS SERIES 80-100-120 kVA

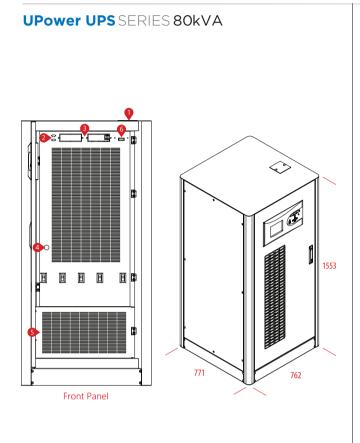




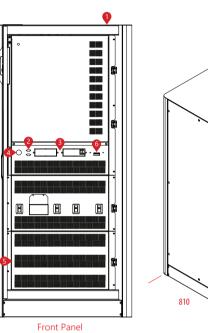
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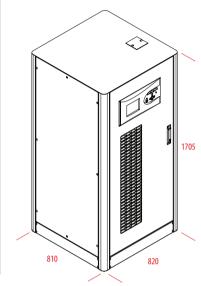
UPS

#### DETAILS

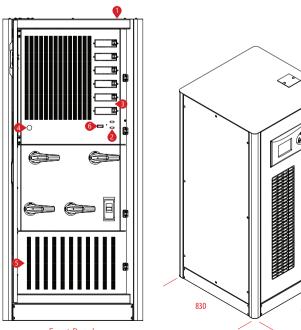


#### UPower UPS SERIES 100-120 kVA





#### UPower UPS SERIES 160-200-250kVA



Front Panel

- 1. Parallel Port Terminal
- 2. RS232 Terminal
- 3. Optional Card Slots

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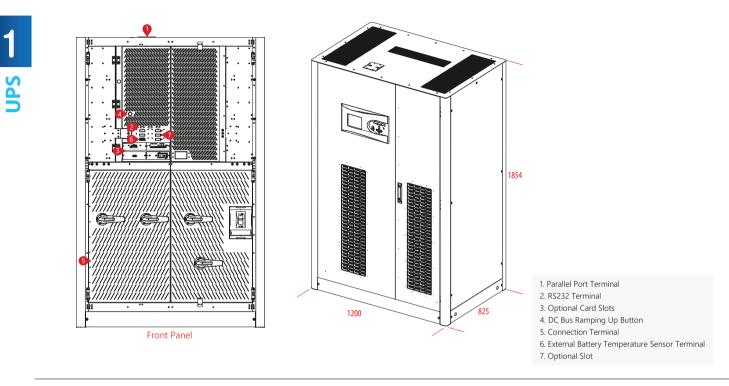
850

- DC Bus Ramping Up Button
  Connection Terminal
- 6. External Battery Temperature Sensor Terminal

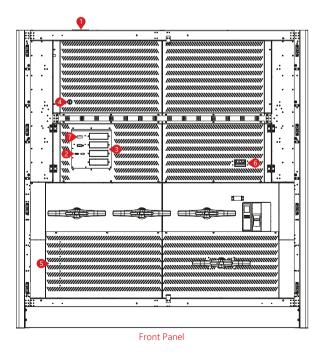


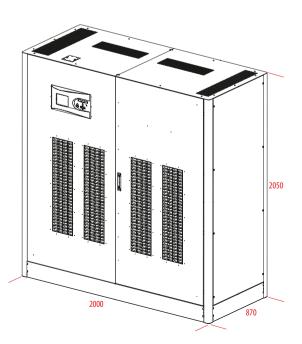
#### DETAILS

UPower UPS SERIES 300-400-500 kVA



UPower UPSSERIES 600-800-1000kVA





| MODEL                            |        | Mi  | iniUPowe   | er UPS |       |           |                |               |               |           |           |            |        |               |        |        |
|----------------------------------|--------|---|--|--------|-------|-----------|----------------|---------------|---------------|-----------|-----------|------------|--------|---------------|--------|--------|
| Capacity                         |        | <b>10</b> kVA   | 15kVA  | 20kVA  | 10kVA | 15kVA     | 20kVA          | <b>30</b> kVA | <b>40</b> kVA | 60kVA     | 80kVA     | 100kVA     | 120kVA | <b>80</b> kVA | 100kVA | 120kVA |
| Power Watt                       |        | <b>9</b> kW   | 13.5kW   | 18kW   | 9kW   | 13.5kW    | 18kW           | 27kW          | 36kW          | 54kW      | 72kW      | 90kW       | 108kW  | 72kW          | 90kW   | 108kW  |
| INPUT                            |        |   | 1  | I      |       |           |                |               |               | I         |           |            | 1      | 1             | 1      | 1      |
| Nominal Voltage                  |        |   |  |        | 380/4 | 100/415 V | /AC 3 P+       | N (Optio      | onal 220/.    | 380 VAC   | -37% +2   | 22% 3 P+   | N+PE)  |               |        |        |
| Voltage Tolerance                |        |   |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| Frequency Tolerance              |        | 50 / 60 Hz ±10% (Selectable)  |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| Power Factor                     |        | >0.99   |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| Total Harmonic Distortion (THDi) |        | <3%   |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| OUTPUT                           |        |   |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| Power Factor                     |        |   |  |        |       |           |                | 0.9           | (1 Optio      | nal)      |           |            |        |               |        |        |
| Nominal Voltage                  |        | 380/400/415 VAC 3 P+N   |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| Voltage Tolerance                |        | Statik ±1, Dynamic ±3   |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| Frequency Tolerance              |        | 50 / 60 Hz ±0,01% (Battery Mode)  |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| Output THD                       |        | Linear Load <1% / Non-Linear Load <3%   |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| Crest Factor                     |        |   |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| Overload Capacity*               |        |   |  |        |       |           | <u>Δ</u> † 125 | %   0 ad 1    |               | 150% 1 ~  | ad 1min   |            |        |               |        |        |
| Efficiency (Online Mo            |        | At 125% Load 10min, At 150% Load 1min   |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| Efficiency (Eco Mode)            |        |   |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| BYPASS                           | )      |   |  |        |       |           |                |               | 33%           |           |           |            |        |               |        |        |
| Nominal Voltage                  |        |   |  |        |       |           |                | 380/40        | 7//15 \/A     |           |           |            |        |               |        |        |
|                                  |        | 380/400/415 VAC 3 P+N<br>%15 (Configurable from 10% to 30%)                                   |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| Voltage Tolerance                |        |   |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| Frequency Tolerance              |        |   |  |        |       |           |                | ±3            | (Selectal     | ole)      |           |            |        |               |        |        |
| BATTERY                          |        |   |  |        |       |           |                |               |               | -1        |           |            |        |               |        |        |
| Туре                             |        |   |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| Quantity (12V DC VRLA)           |        |   |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| Charge Capacity                  |        | 12,5% of Active Power (Nominal 0,1 C10, Adjustable)   |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| Recharge Time                    |        | 6-8 hours   |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| Internal Battery                 |        | 62  | 62 x 7Ah or 9Ah 60 x 7Ah or 9Ah External Battery External Battery External Battery |        |       |           |                |               |               |           | tery      |            |        |               |        |        |
| ENVIRONMENTAL                    |        |   |  |        |       |           |                |               |               |           |           | -          |        |               |        |        |
| Operating Temperati              |        |   |  |        |       |           |                |               | C For Ba      | -         |           |            |        |               |        |        |
| Storage Temperature              | 5      | For UPS -15°C/+45°C For Battery 0°C/+30°C   |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| Protection Class                 |        | IP20  |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| Humidity                         |        | 0-95% (Without Condensation)  |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| Altitude                         |        | <1000m: Correction Factor 1, <2000m: Correction Factor >0.92, <3000m: Correction Factor >0.84 |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| Noise Level                      |        |   | <53dBA   |        | <53   | BdBA      | <55            | dBA           | <60           | dBA       |           | <65dBA     |        |               | <65dBA |        |
| COMMUNICATION                    |        |   |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| Communication Port               |        |   |  |        |       | RS        | 232 Stan       | dart, RS4     | 85 and S      | NMP Ad    | apter Op  | tion       |        |               |        |        |
| STANDARDS                        |        |   |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| Quality                          |        | ISO 9001, ISO 14001, ISO 45001, ISO 10002, CE, TSE, TSE-HYB                                   |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| Performance                      |        | EN62040-3 (VFI-SS-111, Bureau Veritas Certified)  |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| EMC/LVD                          |        |   |  |        | EN    | 162040-2  | , EN6204       | 0-1, TS E     | n ISO/IE0     | C 17025 A | Acredited | l Test Rep | oort   |               |        |        |
| DIMENSIONS & WEI                 | IGHT   |   |  |        |       |           |                |               |               |           |           |            |        |               |        |        |
| Cabinet<br>Dimensions (mm)       | Width  | 370   |  |        | 490   |           |                |               |               |           | 530       |            |        | 763           | 8      | 10     |
|                                  | Depth  | 660   |  |        | 805   |           |                |               |               | 780       |           | 771        | 82     | 20            |        |        |
|                                  | Height |   | 850  |        |       |           | 11             | 90            |               |           |           | 1290       |        | 1555          | 17     | 05     |
| Net Weight (kg)                  |        | 85  | 85   | 85     | 125   | 126       | 131            | 145           | 173           | 323       |           |            |        | 331           | 353    | 368    |
| Width                            |        |   | 500  |        |       |           | 6              | 00            |               | •         |           | 650        |        | 900           | 90     | 00     |
| Packaging<br>Dimensions (mm)     | Depth  |   | 760  |        |       | 900       |                |               |               |           |           | 900        |        |               | 97     | 70     |
|                                  | Height |   | 1000   |        |       |           | 14             | 00            |               |           |           | 1400       |        | 2040          | 20     | 40     |
| Gross Weight (kg)                |        | 105   | 105  | 105    | 145   | 146       | 151            | 166           | 193           | 353       |           |            |        | 361           | 383    | 398    |
|                                  |        |   | -  | -      | -     | -         | 1              | -             | · ·           | -         | 1         | 1          | 1      |               | -      | -      |

\* under certain conditions. 3 Phase in / 1 Phase Out Version is Available. (10 to 30kVA)

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| MODEL                            |   |   |             |             |                |                 |                |               |              |         |  |  |
|----------------------------------|---|---|-------------|-------------|----------------|-----------------|----------------|---------------|--------------|---------|--|--|
| Capacity                         |   | 160kVA  | 200kVA      | 250kVA      | 300kVA         | 400kVA          | 500kVA         | 600kVA        | 800kVA       | 1000kVA |  |  |
| Power Watt                       |   | 144kW   | 180kW       | 225kW       | 270kW          | 360kW           | 450kW          | 540kW         | 720kW        | 900kW   |  |  |
| INPUT                            |   |   |             |             |                |                 |                |               |              |         |  |  |
| Nominal Voltage                  |   |   |             | 380/400/415 | VAC 3 P+N (C   | ptional 220/38  | 0 VAC -37% +2  | 22% 3 P+N+PE  | i)           |         |  |  |
| Voltage Tolerance                |   | -20% +15%   |             |             |                |                 |                |               |              |         |  |  |
| Frequency Tolerance              |   | 50 / 60 Hz ±10% (Selectable)  |             |             |                |                 |                |               |              |         |  |  |
| Power Factor                     |   |   |             |             |                | >0.99           |                |               |              |         |  |  |
| Total Harmonic Distortion (THDi) |   |   | <3%         |             |                |                 |                |               |              |         |  |  |
| OUTPUT                           |   |   |             |             |                |                 |                |               |              |         |  |  |
| Power Factor                     |   | 0.9 (1 Optional)  |             |             |                |                 |                |               |              |         |  |  |
| Nominal Voltage                  |   |   |             |             |                |                 |                |               |              |         |  |  |
| Voltage Tolerance                |   | Statik ±1, Dynamic ±3   |             |             |                |                 |                |               |              |         |  |  |
| Frequency Tolerance              | <u>)</u>                                      | 50 / 60 Hz ±0,01% (Battery Mode)  |             |             |                |                 |                |               |              |         |  |  |
| Output THD                       |   | Linear Load <1% / Non-Linear Load <3%   |             |             |                |                 |                |               |              |         |  |  |
| Crest Factor                     |   |   |             |             |                | 3:1             |                |               |              |         |  |  |
| Overload Capacity*               |   |   |             |             | At 125% Loa    | ad 10min, At 15 | 0% Load 1min   |               |              |         |  |  |
| Efficiency (Online Mo            | ode)  | 96%   |             |             |                |                 |                |               |              |         |  |  |
| Efficiency (Eco Mode             |   | 99%   |             |             |                |                 |                |               |              |         |  |  |
| BYPASS                           | ,   |   |             |             |                | 2370            |                |               |              |         |  |  |
| Nominal Voltage                  |   |   |             |             | 380            | /400/415 VAC    | 3 P+N          |               |              |         |  |  |
| Voltage Tolerance                |   | 15% (Configurable from 10% to 30%)  |             |             |                |                 |                |               |              |         |  |  |
| Frequency Tolerance              | <u>ــــــــــــــــــــــــــــــــــــ</u>   | ±5 (Selectable)   |             |             |                |                 |                |               |              |         |  |  |
| BATTERY                          | <u>,                                     </u> |   |             |             |                | 10 (0010000000  | -)             |               |              |         |  |  |
| Type                             |   |   |             |             |                | VRLA / GEL      |                |               |              |         |  |  |
| Quantity (12V DC VRLA)           |   | 60  |             |             |                |                 |                |               |              |         |  |  |
| Charge Capacity                  |   | 12,5% of Active Power (Nominal 0,1 C10, Adjustable)   |             |             |                |                 |                |               |              |         |  |  |
| Recharge Time                    |   | 6-8 hours   |             |             |                |                 |                |               |              |         |  |  |
| Internal Battery                 |   | External Battery  |             |             |                |                 |                |               |              |         |  |  |
|                                  |   |   |             |             |                |                 | <u>y</u>       |               |              |         |  |  |
| Operating Temperat               |   |   |             |             | For LIPS 0°C/+ | 10°C For Batte  | n/ +15°C/+25°  | <u>с</u>      |              |         |  |  |
| Storage Temperatur               |   | For UPS 0°C/+40°C For Battery +15°C/+25°C<br>For UPS -15°C/+45°C For Battery 0°C/+30°C                              |             |             |                |                 |                |               |              |         |  |  |
| Protection Class                 |   | IP20  |             |             |                |                 |                |               |              |         |  |  |
|                                  |   | 0-95% (Without Condensation)  |             |             |                |                 |                |               |              |         |  |  |
| Humidity                         |   | <1000m: Correction Factor 1, <2000m: Correction Factor >0.92, <3000m: Correction Factor >0.84                       |             |             |                |                 |                |               |              |         |  |  |
| Altitude                         |   |   | < 1000m. CC |             | r I, <2000m.C  | orrection Facto | )r >0.92, <300 |               | Factor >0.84 |         |  |  |
| Noise Level                      |   |   |             | <72dBA      |                |                 |                | <74dBA        |              | <75dBA  |  |  |
|                                  | <u> </u>                                      |   |             | Di          | C222 Chamdart  |                 | AD Adapter On  | tion          |              |         |  |  |
| Communication Port               |   |   |             | K.          | SZSZ Stanuart, |                 | MP Adapter Op  | uon           |              |         |  |  |
| STANDARDS                        |   |   |             | 150.00      | 01 100 14001 1 |                 | 10002 CF TCF   |               |              |         |  |  |
| Quality                          |   | ISO 9001, ISO 14001, ISO 45001, ISO 10002, CE, TSE, TSE-HYB   |             |             |                |                 |                |               |              |         |  |  |
| Performance                      |   | EN62040-3 (VFI-SS-111, Bureau Veritas Certified)<br>EN62040-2, EN62040-1, TS EN ISO/IEC 17025 Acredited Test Report |             |             |                |                 |                |               |              |         |  |  |
| EMC/LVD                          |   |   |             | EIN62040-   | 2, EIN62040-1, | S EN ISO/IEC    | 7025 Acredited | i lest keport |              |         |  |  |
| DIMENSIONS & WEIGHT              |   |   |             |             |                |                 |                |               |              |         |  |  |
| Cabinet<br>Dimensions (mm)       | Width   |   | 830         |             |                | 1200            |                | 2000          |              |         |  |  |
|                                  | Depth   |   | 870         |             |                | 825             |                | 870           |              |         |  |  |
|                                  | Height  |   | 1800        |             |                | 1854            |                |               | 2050         |         |  |  |
| Net Weight (kg)                  |   | 475   | 490         | 553         | 830            | 840             | 850            | 1510          | 1510         | 1510    |  |  |
| Packaging                        | Width   |   | 900         |             |                | 1370            |                | 2100          |              |         |  |  |
| Dimensions (mm)                  | Depth   |   | 970         |             |                | 845             |                | 950           |              |         |  |  |
|                                  | Height  |   | 2040        |             |                | 2040            |                |               | 2250         |         |  |  |
| Gross Weight (kg)                |   | 505   | 520         | 583         | 870            | 880             | 890            | 1590          | 1590         | 1590    |  |  |

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# Westinghouse Commitment

Since 1886, Westinghouse has brought the best to life. Today, our legacy lives on with technology that is transforming the human experience, from smart appliances for the home to energy solutions that are cleanly and safety powering us into the next generation.

We build dependable, affordable products that help people lead richer, fuller lives, whether it's a TV that connects them to their world or simply a pouch light that welcomes them home on a cold winter's night.

For more than 130 years, people have counted on Westinghouse to always be there for them. you can sure that's where we'll stay.

# Leading The Future of Electrification





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