

# centiel

*continuous power availability*



## PremiumTower™

Class leading availability  
Three-phase UPS 10-60 KW



[www.centiel.com](http://www.centiel.com)



## PremiumTower™

**PremiumTower™** is a Swiss made 3-phase, online double-conversion Uninterruptible Power Supply.

From 10 to 60kW, PremiumTower™ provides the best solution for small and medium data centers, comms rooms, IT networks and any mission critical application demanding high availability and unbeatable energy efficiency.

**PremiumTower™** offers built-in internal batteries from 10 to 60kW minimizing the footprint utilization, eliminating extra costs for external battery frames and avoiding complex installation.

The flexibility in the number of battery blocks (30 to 50) allows the system designer to optimize costs vs autonomy time.

At the same time, the high efficiency of 96.6% in double conversion (VFI) and 99.4% in Ultra-safe ECO mode guarantees maximum energy savings and the lowest Total Cost of Ownership.

### Proven Reliability

30 years of experience

### Advanced Performance

Cost Savings

### Unbeatable efficiency 96.6%

VFI

### Unity Power Factor

kVA = kW

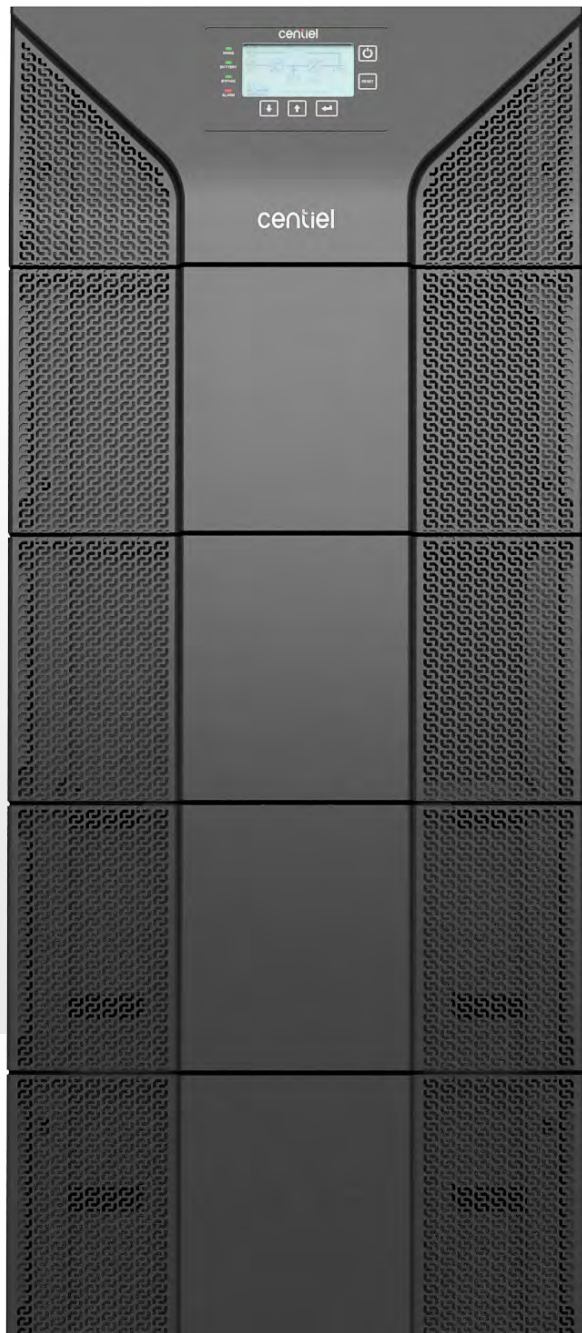
### Outstanding Overload Capability

### Ease of Service

Direct Component Access

### Flexibility

Wide Range of Options



**+96.6%** Efficiency  
VFI



## Advanced Performance

### Unity Power Factor (kVA = kW)

PremiumTower™ provides unity power factor which avoids the need for system over size to support today's power factor corrected loads.

### High Efficiency 96.6% (VFI)

With a best in class efficiency of 96.6% in double conversion mode (VFI), PremiumTower™ provides the lowest Total Cost of Ownership.

### High Battery Charging current

With the ability to provide up to 5 times more charging current than typical standalone ups, PremiumTower™ reduces the total system cost by eliminating the need for external battery chargers.

### Outstanding Overload Capability

With a 124% continuous operation in overload condition, mission critical applications can be safe on the event of unexpected load demands.

### Ultra-Safe Eco mode

With a 99.4% efficiency in Eco mode operation and an ultra fast reaction time of <1.9 ms, Ultra-Safe Eco mode enables an excellent trade-off between power quality and energy efficiency.

### Exceptional Short Circuit Capability

With a Short Circuit Capability of 3 times nominal current (3 x In), PremiumTower™ is able to clear output circuit protection in milliseconds.

## Flexibility and Cost of Ownership

### Internal Isolation Transformer

If galvanic isolation, voltage step-up or voltage step-down is required, PremiumTower™ can integrate the transformer within the same UPS increasing the flexibility on system development.

### Minimized Footprint

With only 0.29 m2 for 10 /20 kW and 0.44 m2 for 30/40/60 kW, PremiumTower™ optimizes valuable floor space, eliminates the cost of the battery cabinet, and simplify the installation.

### Ease of Service

Direct access to components and plug-and-play internal modules minimize mean time to repair (MTTR) and simplifies routine maintenance.

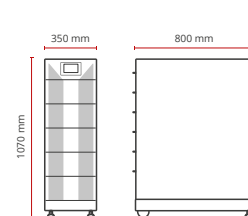
### Internal Batteries from 10kW to 60kW

Internal batteries are possible for the whole product range. Up to 150 battery blocks can be fitted in the PremiumTower™, reducing the total footprint and optimizing costs.

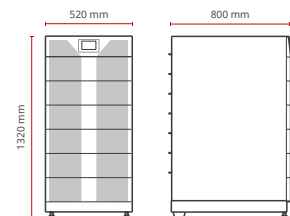
### Flexible Battery Range

With a wide and flexible battery range of 30 to 50 blocks, costs and autonomy time are optimized.

#### Tower D



#### Tower E



kVA/kW	Battery	kVA/kW	Battery
10	80	-	-
20	80	-	-
30	-	30	150
40	-	40	150
60	-	60	150

30 to 50 Flexible Battery Blocks





## Maximum Reliability and Availability

### Swiss Quality

Developed and manufactured in Switzerland, PremiumTower™ provides the highest standards of quality in components and manufacturing processes approved by the Swiss made label.

### Distributed Active-Redundant Parallel Architecture (DARA)

PremiumTower™ implements Centiel's DARA parallel architecture with unlimited number of parallel units to add redundancy and scalability to the system.

### Class Leading Availability

The combination of Swiss Quality and the lowest MTTR gives PremiumTower class leading availability.

### High Reliability by Design

Three independent power converters increase system reliability and provide power continuity even in cases of power component failure.

### Dual Input feed

PremiumTower™ can be supplied with two independent AC sources to further increase the power availability of the installation.

## Communication Features

RS232

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Generator Operation

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Output General Alarm

Dry contact

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2x Programmable Input

Dry contacts

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Temperature probe  
for external batteries

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5x Programmable Output

Dry contacts - optional

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SNMP, ModBus,  
Modbus over IP

Optional

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**kVA = kW** Unity Power Factor



MODEL	UPS-PT010-I080-D0	UPS-PT020-I080-D0	UPS-PT030-E-D0 UPS-PT030-I150-E0	UPS-PT040-E-D0 UPS-PT040-I150-E0	UPS-PT060-E-D0 UPS-PT060-I150-E0
<b>GENERAL DATA</b>					
Product name	PremiumTower™ UPS				
Topology/Technology	Online double conversion				
<b>INPUT</b>					
<b>MAINS</b>					
Input Wiring	3Ph+N+PE				
Rated Voltage	380/400/415Vac				
Voltage Range	For loads <100% (-25%, +20%)   <80% (-32.5%, +20%)   <60% (-35%, +20%)				
Input Frequency	40-70 Hz				
Total Harmonic Distortion	THDi<3% for linear load, THDi<5% for nonlinear load				
Input Power Factor	0,99				
<b>BYPASS</b>					
Input Wiring	3Ph+N+PE				
Rated Voltage	380/400/415 Vac				
Change over tolerance	±30...±10% (Voltage) (According to VFI-SS-111)				
Input Frequency	50/60 ±6 Hz (selectable)				
<b>BATTERY</b>					
Rated Voltage	360-480 Vdc (the number of batteries can be selected )				
Internal Batteries (7/9Ah)	<b>E</b> External I080: 80	<b>E</b> External I080: 80	<b>E</b> External I150: 150	<b>E</b> External I150: 150	<b>E</b> External I150: 150
Type	Lead-Acid/NiCad				
Blocks [LA]/Cells[NiCad]	Flexible: 30...50				
Charger (Amp)	<b>Std</b> 6   <b>Option</b> 10 / 20 / 30 / 40				
<b>OUTPUT</b>					
<b>INVERTER</b>					
Output Wiring	3Ph+N+PE				
Nominal Power [kVA]	10	20	30	40	60
Nominal Power [kW]	10	20	30	40	60
Voltage	380/400/415 Vac±1%				
Frequency	Tracking the bypass input (Online Mode); 50/60 Hz±0.1% (Battery Mode)				
Waveform	Sine wave (THDv < 2% for linear load; THDv<3% for non-linear load)				
Output Power Factor	1				
Efficiency	96,6%				
Overload Capacity	<b>Inverter</b> 124% unlimited; ≥ 126% for 10 min; ≥150% for 1 min   <b>Bypass</b> 135% for long term; <1000% for 100ms				
Short circuit capability	3 x IN				
<b>BYPASS</b>					
Efficiency	99,4%				
<b>ENVIRONMENT</b>					
Operating Temperature	0-40°C (No power derating)				
Storage Temperature	-40-70°C				
Relative Humidity	0%-95% (No condensing)				
Maximum Operating Altitude	1000 m. Above 1000 m, derating 1% for each additional 100 m				
Audible Noise	< 65dB				
<b>OTHERS</b>					
Dimensions (H x W x D) [mm]	<b>D0</b> 1,070 x 350 x 800   <b>E0</b> 1,320 x 520 x 800				
Weight [Kg] withouth batteries	<b>D</b> 80   <b>E</b> 105				
Colour / Protection Level	TBA / IP20				
Certifications	EN/IEC 62040-1   EN/IEC 62040-2   EN/IEC 62040-3   CE; RoHS				
Communications	<b>Std</b> 1 x RS232, 2 x Dry In, 1 x Dry Out, 2x Expansion slots. <b>Option</b> 6 x Dry Output contacts, 4 x Dry Input contacts, Bluetooth, SNMP Slot				

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## PremiumTower™



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