

# centiel

*continuous power availability*



## PremiumTower™

Class leading availability  
Three-phase UPS 10-250 KW

**LITHIUM  
READY**



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## Maximized Flexibility

### Integrated autonomies and matching battery cabinets

Up to 160 battery blocks can be fitted in the PremiumTower 10 to 60 kW, reducing the total footprint and optimizing costs. For higher ratings and extended runtime, matching battery cabinets are available.

### Flexible battery blocks

The flexibility in the number of battery blocks (20 to 50), eliminates the need to oversize the batteries and allows system designers to optimize cost versus autonomy time.

### Compatible with different battery technologies

Lead acid, Gel, NiCd, Flywheels, Lithium and other types of energy accumulators can be used with PremiumTower™.

### Dual or single input feed

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

20 to 50 **Flexible Battery Blocks**

### Unbeatable Efficiency 96.6%

Increased nominal rating  
(kW = KVA)

Near unit input power factor  
at full or partial loads

Compact mechanics with  
only 0.36 m<sup>2</sup> for 120 kW

Ease of service with front  
access only

500% higher charging  
current than typical  
standalone UPS

Power density  
Up to **415 kW/m<sup>2</sup>**





## Scalable and Robust Design

From 10 to 250 kW, **PremiumTower™** is a Swiss made three-phase, online double-conversion Uninterruptible Power Supply. Configurable as a standalone UPS or as a parallel multi-cabinet system, PremiumTower provides the ultimate flexibility for future growth.

PremiumTower offers scalability of up to 7.5 MW, delivering the best power protection for data centers, comms rooms, IT networks, manufacturing and any mission-critical applications demanding high availability.

## Advanced Performance

### High reliability by design

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

### Market leading charging current

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

### Outstanding overload capacity

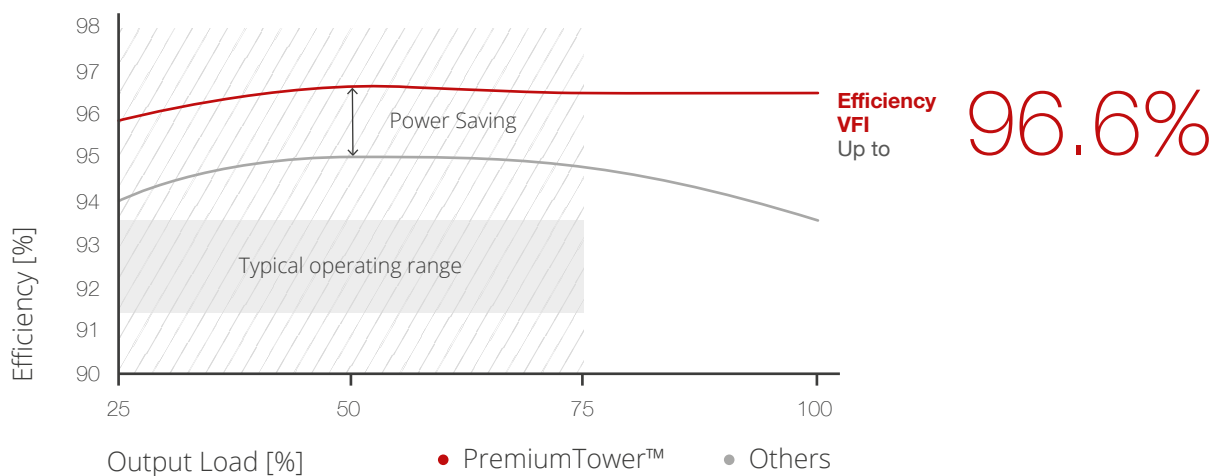
With a 120% continuous operation in overload condition, mission-critical applications can be safe in the event of unexpected load demands.

### Short circuit capability

With a Short Circuit capability of 3 times nominal current ( $3 \times I_n$ ), PremiumTower is able to clear output circuit protection in milliseconds.

## Lowest Total Cost of Ownership

**PremiumTower™** delivers unbeatable energy efficiency in a robust and compact design.



### High efficiencies in VFI and ECO mode

PremiumTower provides optimized partial and full load efficiencies of up to 96.6% in online double-conversion mode.

In Ultra-Safe ECO mode the UPS provides an excellent power quality with 99.4% efficiency.

### Minimized footprint (save of valuable floor space)

From 0.29 m<sup>2</sup> (for 10 - 60 kW) to 0.6 m<sup>2</sup> (for 250 kW), PremiumTower optimizes valuable floor space, eliminates the cost of the battery cabinet, and simplifies the installation.



## Easy to service

Minimized maintenance and repair time contribute to keeping the systems' high availability.

### Front access

Front access for service and maintenance removes the need for unnecessary movement and relocation of the UPS.

### Swappable plug and play internal components

Critical components are easily swappable, reducing repair time and costs.

### User-friendly display

The display and LED interface (optional touchscreen) give immediate visibility to the status of the UPS.

### Always connected

Real-time remote monitoring allows for close control of the UPS parameters, preventing downtime and allowing for proactive maintenance.

## Communication

### Remote monitoring

Graphical display

### Generator operation mode

Auxiliary contacts

### Output general alarms

Dry contacts

### Programmable input and output

Dry contacts

### Compensated battery charging

Temperature probe

### SNMP, Modbus, ModBus over IP

Slide-in adaptors

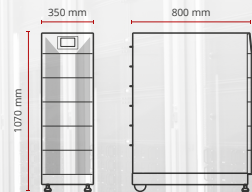
### Simplified service

RS232 and Bluetooth app

## PremiumTower™ 3:1

From 10 to 30 kW

Tower D



kW	Battery
10	80
20	80
30	80

Model	PT010-31-I080-D0	PT020-31-I080-D0	PT030-31-I080-D0
Max Power [kVA/kW]	10/10	20/20	30/25
Footprint	0.28 m <sup>2</sup>	0.28 m <sup>2</sup>	0.28 m <sup>2</sup>

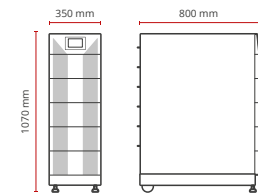


# PremiumTower™ 3:3

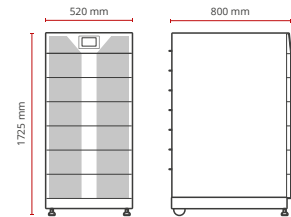
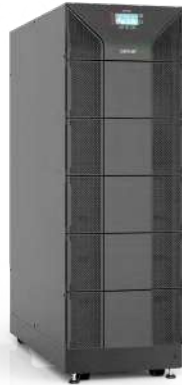
From 10 to 250 kW

## Tower E

## Tower D



kW	Battery
10	80
20	80
30	-
40	-
60	-



kW	Battery
30	160
40	160
60	160

Model	PT010-I080-D0	PT020-I080-D0	PT030-E-D0 PT030-I160-E0	PT040-E-D0 PT040-I160-E0	PT060-E-D0 PT060-I160-E0
Max Power [kVA/kW]	10/10	20/20	30/30	40/40	60/60
Footprint	D 0.29 m <sup>2</sup>	D 0.29 m <sup>2</sup>	D 0.29 m <sup>2</sup> E 0.44 m <sup>2</sup>	D 0.29 m <sup>2</sup> E 0.44 m <sup>2</sup>	D 0.29 m <sup>2</sup> E 0.44 m <sup>2</sup>

## Tower F

## Tower G

## Tower H



Model	UPS-PT080-E30-F0 UPS-PT080-E40-F0	UPS-PT100-E30-F0 UPS-PT100-E40-F0	UPS-PT120-E30-G0 UPS-PT120-E40-F0	UPS-PT160-E30-G0 UPS-PT160-E40-G0	UPS-PT200-E30-H0 UPS-PT200-E40-H0	UPS-PT250-E40-H0
Max Power [kVA/kW]	80/80	100/100	120/120	160/160	200/200	250/250
Footprint	F 0.36 m <sup>2</sup>	F 0.36 m <sup>2</sup>	F 0.36 m <sup>2</sup> G 0.44m <sup>2</sup>	G 0.44m <sup>2</sup>	H 0.60 m <sup>2</sup>	H 0.60m <sup>2</sup>

MODEL	UPS-PT010-I080-D0	UPS-PT020-I080-D0	UPS-PT030-E-D0 UPS-PT030-I160-E0	UPS-PT040-E-D0 UPS-PT040-I160-E0	UPS-PT060-E-D0 UPS-PT060-I160-E0
<b>GENERAL DATA</b>					
Product name	PremiumTower™ UPS				
Topology/Technology	Online double conversion				
Max Power [kVA/kW]	10	20	30	40	60
<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 non-linear 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 ± 2/4% (selectable)				
<b>BATTERY</b>					
Type	Lead-Acid/NiCad/Lithium				
Rated Voltage	360-480 Vdc (the number of batteries can be selected )				
Internal Batteries (7/9Ah)	I080 80	I080 80	E External   I160 160	E External   I160 160	E External   I160 160
Blocks [LA]/Cells[NiCad]	Flexible: 30...50				
Charger (Amp)	20	20	40	40	40
<b>OUTPUT</b>					
<b>INVERTER</b>					
Nominal Power [kW]	10	20	30	40	60
Output Wiring	3Ph+N+PE				
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	Inverter < 120% continuous; ≥ 125% for 10 min; ≥ 150% for 1 min   Bypass 135% for long term; <1000% for 100ms				
Short circuit capability	3 x I <sub>N</sub>				
<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]	D0 1,075 x 350 x 850   E0 1,725 x 520 x 850				
Weight [Kg] without batteries	D0 80   E0 105				
Colour / Protection Level	RAL 9017 (traffic black) / IP20				
Certifications	EN/IEC 62040-1   EN/IEC 62040-2   EN/IEC 62040-3   CE   RoHS				
Communications	Std 1 x RS232, 2 x Dry In, 1 x Dry Out, 2x Expansion slots, Bluetooth Option 5 x Dry Output contacts, 4 x Dry Input contacts, SNMP Slot				

MODEL	UPS-PT080-E30-F0 UPS-PT080-E40-F0	UPS-PT100-E30-F0 UPS-PT100-E40-F0	UPS-PT120-E30-F0 UPS-PT120-E40-G0	UPS-PT160-E30-G0 UPS-PT160-E40-G0	UPS-PT200-E30-H0 UPS-PT200-E40-H0	UPS-PT250-E40-H0
<b>GENERAL DATA</b>						
Product name	PremiumTower™ UPS					
Topology/Technology	Online double conversion					
Max Power [kVA/kW]	80	100	120	160	200	250
<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 non-linear 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 ± 2/4% (selectable)					
<b>BATTERY</b>						
Type	Lead-Acid / NiCad / Lithium					
Rated Voltage	360 - 480 Vdc (the number of batteries can be selected)					
Blocks [LA] /Cells[NiCad]	E30 flexible from 20 to 50   E40 flexible from 24 to 50					
Charger (Amp)	64	80	96	120	160	160
<b>OUTPUT</b>						
<b>INVERTER</b>						
Nominal Power [kW]	80	100	120	160	200	250
Output Wiring	3Ph+N+PE					
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	Inverter < 120% continuous; ≥ 125% for 10 min; ≥ 150% for 1 min   Bypass 135% for long term; <1000% for 100ms					
Short circuit capability	3 x I <sub>N</sub>					
<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	< 71 dB					
<b>OTHERS</b>						
Dimensions (H x W x D) [mm]	F0 1,985 x 600 x 600   G0 1,985 x 730 x 600   H0 1,985 x 860 x 700					
Colour / Protection Level	RAL 9017 (traffic black) / IP20					
Certifications	EN/IEC 62040-1   EN/IEC 62040-2   EN/IEC 62040-3   CE   RoHS					
Communications	Standard 1 x RS232, 1x RS485, 5 x Dry output contacts, 4 x Dry input contacts, Bluetooth, SNMP slot					

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