



## Cat® UPS 1200Z Series Multi Module Systems

300 kVA/240 kW, 60 Hz  
600 kVA/480 kW, 60 Hz  
900 kVA/720 kW, 60 Hz  
1200 kVA/960 kW, 60 Hz

Caterpillar is leading the power generation marketplace with power quality solutions engineered to deliver unmatched flexibility, expandability, reliability, and cost effectiveness.

## Features

### Product Features

- Smallest available footprint
- 98% total system efficiency
- Simple cost-effective installation
- Modular, scalable, and redundant architecture
- Low service and maintenance
- Cost-effective life cycle cost
- Harmonic cancellation
- Transient protection
- High-speed voltage regulation
- Power factor correction
- Low input current distortion
- Top and bottom cable entry system
- 40°C rating on entire system
- Rapid recharge time
- Utilizes flywheel energy storage technology
- Color touch-screen operator interface
- Optional generator set start module
- Optional paralleling capability

### Reliable Power Protection for Critical Applications

Cat® UPS systems provide constant power protection against surges, sags, and power interruptions that can disrupt operations or cause loss of valuable data or system capacity. Additionally, the use of the optional generator set start module can dramatically increase generator set starting reliability in a continuous power configuration.

### Superior Design

Superior system design and the use of robust digital components throughout the system yield the most reliable and trouble-free UPS system on the market. Protection is delivered in the industry's smallest package with the highest efficiency and superior performance.

### Lower Total Cost

The high operating efficiency means yearly savings versus traditional battery UPS products. In addition, lower Cat UPS heat rejection reduces up-front HVAC costs and electrical consumption over the life of the product.

### Generator Set Integration

By cancelling harmonic distortion, the 1200Z series operates seamlessly with generator sets to provide a higher total electrical load capacity without over sizing the generator set. The 1200Z series effectively insulates the generator set from block loads and transient, and can improve its fault clearing capabilities. Programmable integration with standby generator sets assures greater system reliability and improves the total system operation.

### Worldwide Product Support

- Parts distribution centers are located worldwide with available service support through Caterpillar and the Cat dealer network.
- Factory-certified service technicians are trained to support every aspect of your Cat UPS system.

## Factory-installed Standard and Optional Equipment

Standard Features	Optional Features
Battery free, flywheel energy storage	24-volt DC, generator set starting power
IGBT based bi-directional converter	4 wire input and output
Integral modem – remote communication	Remote status panel (8 status LEDs)
Local Emergency Power Off (EPO)	Remote EPO
Remote notification and monitoring via ethernet and e-mail	Remote SNMP monitoring
Remote MODBUS monitoring	Ability to parallel up to 7 systems UPS
RS232 or RS485 serial connection	Redundant flywheel and UPS
UPS View – advanced real-time monitoring software	External synchronization input
10" color touch-screen operator interface	Separate bypass input
Programmable input and output contacts	External maintenance bypass control
Top/bottom cable entry	Field expandable
Back feed protection	
Redundant control power	
Monitoring and alarms for all critical components w/self-diagnostics	
Voltage regulation and power factor correction	
Harmonic cancellation	
Static bypass switch	
High overload capacity	
Superior power conditioning	
Redundant cooling fans	

## Specifications

Input	
Voltage	480 VAC 3-phase, 3-wire plus ground from grounded wye source (4-wire – optional)
Voltage Range	+10%/-15% (programmable)
Frequency	60 Hz (±10% max – programmable)
Power Factor	0.99 at rated load and nominal voltage
Harmonic Current Distortion	
Linear Load	<3% at 100% resistive load
Non-linear Load <sup>(1)</sup>	<8% with 100% non-linear load
Surge Withstand	Meets IEEE 587/ANSI C62.41
Walk-in	1 to 15 sec (programmable)
Bypass Source	Same as input source – synchronized frequency, phase and voltage

Output	
Voltage	480 VAC 3-phase, 3-wire plus ground
Voltage Regulation	
Steady-state	±1% of nominal for ±10% input
Transient	±1% within 50 milliseconds for 100% load step
Flywheel Mode	±1% steady state
Voltage Distortion <sup>(1)</sup>	<3% linear loads and <5% 100% non-linear loads
Frequency	60 Hz (mains synchronized) normal operation ±.2% free running
Slew Rate	Adjustable from 0.2 Hz/sec to 3.0 Hz/sec
Overload Capability (normal operation)	
Continuous	Up to 105%
10 Minutes	125%
2 Minutes	150%
30 Seconds	200%
10 Milliseconds	>200%

<sup>(1)</sup> In accordance with EN62040-3

## Technical Data

	UPS 300Z	UPS 600Z	UPS 900Z	UPS 1200Z
Maximum kVA	300	600	900	1200
Maximum kW	240	480	720	960
Input Voltage (nominal)	480 VAC, 3-phase, 3-wire plus ground			
Input Current (amps)				
Nominal	302	599	898	1198
Maximum Continuous	400	800	1200	1600
Maximum Non-Continuous	420	840	1260	1680
Output Voltage (nominal)	480 VAC, 3-phase, 3-wire plus ground			
Output Current	361	723	1084	1445
System Efficiency	97%	98%	98%	98%
Surge Withstand	Meets IEEE 587/ANSI C62.41			
Heat Rejection	Btu/hr	29,612	41,983	62,975
	kW	8.7	12.3	18.4

## Dimensions and Weights

UPS 300Z		
Depth	865 mm	34.0 in
Width	3226 mm	127.0 in
Height	2438 mm	96.0 in
Weight	3063 kg	6750 lb
UPS 600Z		
Depth	865 mm	34.0 in
Width	4318 mm	170.0 in
Height	2438 mm	96.0 in
Weight	5103 kg	11,250 lb
UPS 900Z		
Depth	865 mm	34.0 in
Width	5410 mm	213.0 in
Height	2438 mm	96.0 in
Weight	7144 kg	15,750 lb
UPS 1200Z		
Depth	865 mm	34.0 in
Width	6502 mm	256.0 in
Height	2438 mm	96.0 in
Weight	9185 kg	20,250 lb

## Environmental

	300Z	600Z	900Z	1200Z
Acoustical Noise	<72 dBA at 1 meter		<75 dBA at 1 meter	
Temperature				
Operating	32° to 104°F (0° to 40°C)			
Storage	-13° to 158°F (-25° to 70°C)			
Humidity	5% to 95% (non-condensing)			
Altitude	Up to 3,000 ft (914 meters)			

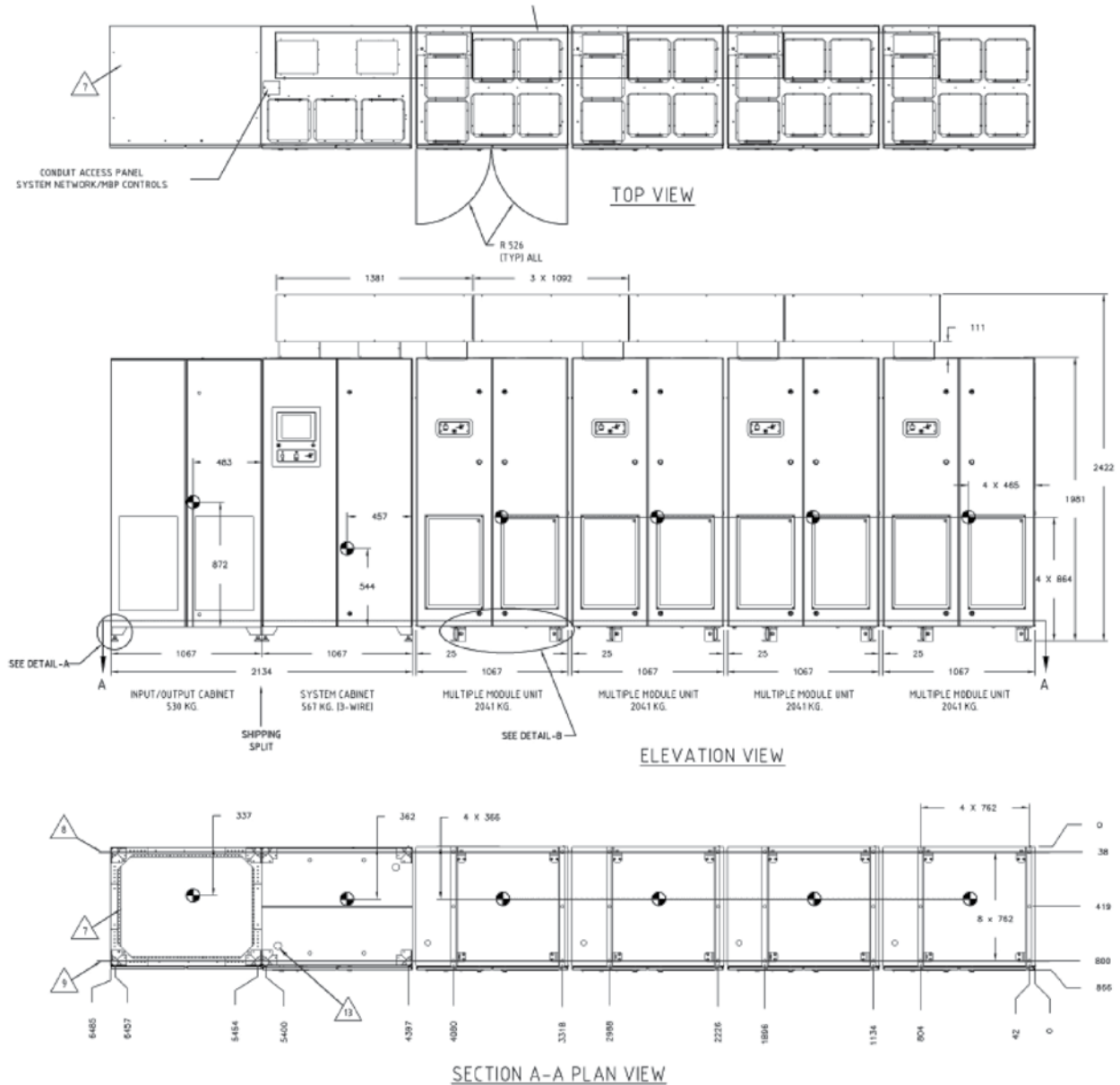
## Ride Through Time (sec)

Model	100% Load	75% Load	50% Load	25% Load
UPS 300Z UPS 600Z UPS 900Z UPS 1200Z	14	19	28	52

## Certifications

UL 1778 listed
CUL CAN/CSA 22.2 No. 107.1 listed
EN50091-1-1
CE Mark

## Dimensions

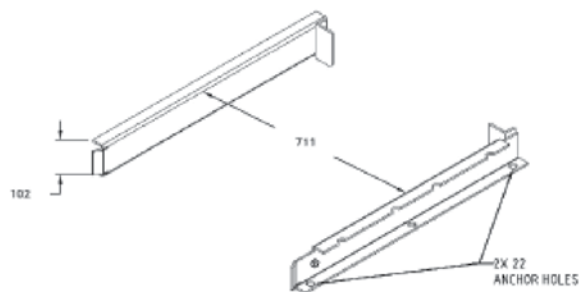


- |                                                                                     |                                                                                                                     |                                                                                                                                  |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
|  | THE WIREWAY IS SHIPPED SEPARATE FROM THE CABINETS.                                                                  |                                                                                                                                  |
|  | TOP AND BOTTOM CONDUIT ENTRY PANELS CAN ACCOMMODATE UP TO 18 - 127 mm. CONDUITS TOTAL 16 PER INPUT, BYPASS, OUTPUT. |                                                                                                                                  |
|  | REAR ANCHOR BOLT REFERENCE LINE PER SHT. 3.                                                                         |                                                                                                                                  |
|  | FRONT ANCHOR BOLT REFERENCE LINE PER SHT. 3.                                                                        |                                                                                                                                  |
|                                                                                     |                                                                                                                     |  CONDUIT ACCESS FOR REMOTE I/O CONTROL WIRING |

## Dimensions (continued)



LEFT SIDE VIEW



DETAIL -B  
CLEAT ANCHOR HOLES

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