



## **UPS 1000iZ SERIES MULTI MODULE SYSTEMS**

250 kVA / 225 kW, 50 Hz  
500 kVA / 450 kW, 50 Hz  
750 kVA / 675 kW, 50 Hz  
1000 kVA / 900 kW, 50 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 lifecycle cost
- Harmonic cancellation
- Transient protection
- High-speed voltage regulation
- Power factor correction
- Low input current distortion
- Top and bottom cable entry
- 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 1000iZ Series operates seamlessly with generator sets to provide a higher total electrical load capacity without oversizing the generator set. The 1000iZ 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 LED's)
Local Emergency Power Off (EPO)	Remote EPO
Remote notification and monitoring via Ethernet and e-mail	Remote SNMP/MODBUS monitoring
RS232 or RS485 serial connection	Ability to parallel up to 7 systems
UPS View– advanced real-time monitoring software	Redundant flywheel and UPS
10" color touch-screen operator interface	External Synchronization input
Programmable input and output contacts	Separate Bypass Input
Redundant cooling fans	Field Expandable
Voltage regulation and Power Factor Correction	External Maintenance Bypass Control
Back feed protection	60 Hz configuration
Harmonic cancellation	
Monitoring and alarms for all critical components with intelligent self-diagnostics	
Top/Bottom cable entry	
Redundant Control Power	
Static Bypass Switch	
Superior Power Conditioning	
High Overload Capacity	

**SPECIFICATIONS**

INPUT		OUTPUT	
Voltage	380/400/415 VAC 3-phase, 4 wire plus ground from ground	Voltage	380/400/415 VAC 3-phase, 4 wire + ground
Voltage Range	+10% / -15% (programmable) +/-10% at 380 VAC	Voltage Regulation	
Frequency	50 Hz (+/-10% max.-programmable)	Steady-state	+/-1% of nominal for +/-10% input
Power Factor	0.99 at rated load and nominal voltage	Transient	+/-1% within 50 milliseconds for 100% load step
Harmonic Current Distortion		Flywheel mode	+/-1% steady state
Linear Load	<3% at 100% load	Voltage distortion	<3% linear loads and <5% 100% non-linear loads
Non-linear load <sup>(1)</sup>	<8% with 100% non-linear load	Frequency	50 Hz (mains synchronized) normal operation +/- .2% free running
Surge Withstand	Meets IEEE 587/ANSI C62.41	Slew Rate	Adjustable from 0.2 Hz/second to 3.0 Hz/second
Walk-in	1 to 15 seconds (programmable)	Overload Capability (normal operation)	
Bypass Source	Same as input source- Synchronized frequency, phase and voltage	Continuous	Up to 105%
		10 Minutes	125%
		2 Minutes	150%
		30 Seconds	200%
		10 milliseconds	>200%

**TECHNICAL DATA**

	UPS 250iZ	UPS 500iZ	UPS 750iZ	UPS 1000iZ	
Maximum kVA	250	500	750	1000	
Maximum kW	225	450	675	900	
Input Voltage (nominal)	380/400/415 VAC, 3 phase, 4-wire plus ground				
Output Voltage (nominal)	Same as input				
Input Current (amps)					
Nominal (380 VAC)	355	709	1,064	1,419	
Nominal (400 VAC)	327	674	1,011	1,348	
Nominal (415 VAC)	325	650	975	1,299	
Maximum Continuous	400	800	1200	1600	
Maximum Non-Continuous	420	840	1260	1680	
Output Current					
Nominal (380 VAC)	380	761	1,141	1,521	
Nominal (400 VAC)	361	723	1,084	1,445	
Nominal (415 VAC)	348	696	1,045	1,393	
System Efficiency	97%	98%			
Surge Withstand	Meets IEEE 587 / ANSI 62.41				
Heat Rejection	BTU/Hr	19,946	39,893	59,839	79,786
	kW	5.8	11.7	17.5	23.4

**DIMENSIONS & WEIGHTS**

UPS 250iZ		
Depth	865 mm	34.0 in
Width	3,226 mm	127.0 in
Height	1,981 mm	80.0 in
Weight	3,365 kg	7,418 lbs
UPS 500iZ		
Depth	865 mm	34.0 in
Width	4,318 mm	170.0 in
Height	1,981 mm	80.0 in
Weight	5,435 kg	11,982 lbs
UPS 750iZ		
Depth	865 mm	34.0 in
Width	5,410 mm	213.0 in
Height	1,981 mm	80.0 in
Weight	7,475 kg	16,479 lbs
UPS 1000iZ		
Depth	865 mm	34.0 in
Width	6,502 mm	256.0 in
Height	1,981 mm	80.0 in
Weight	9,520 kg	20,988 lbs

**ENVIRONMENTAL**

	250iZ	500iZ	750iZ	1000iZ
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 3,280 feet Up to 1000 meters			

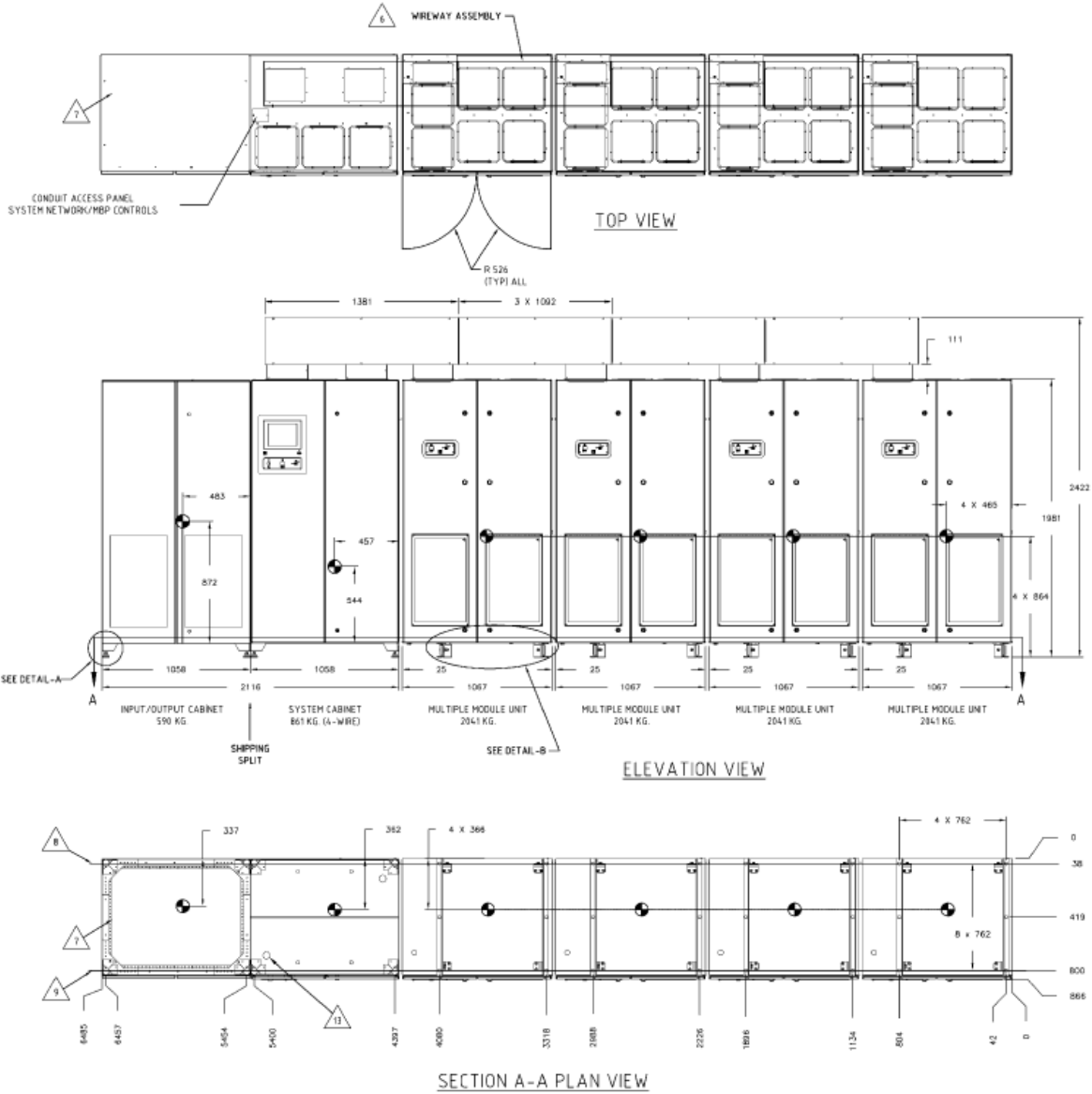
**RIDE THROUGH TIME (SEC)**

Model	100% Load	75% Load	50% Load	25% Load
UPS 250iZ	14	19	28	52
UPS 500iZ				
UPS 750iZ				
UPS 1000iZ				

**CERTIFICATIONS**

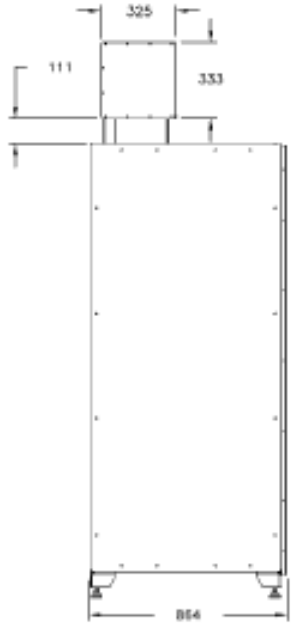
EN50091-1-1
CE Mark

# UNINTERRUPTIBLE POWER SUPPLY (UPS)

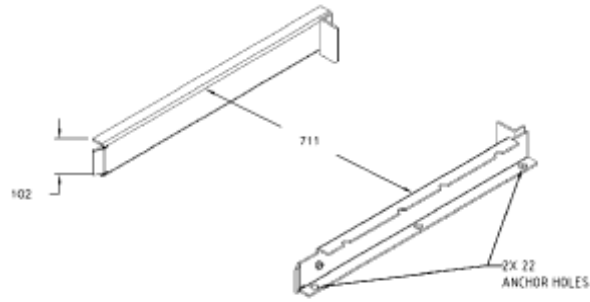


- △ 6 THE WIREWAY IS SHIPPED SEPARATE FROM THE CABINETS.
- △ 7 REAR ANCHOR BOLT REFERENCE LINE PER SHT. 3.
- △ 8 FRONT ANCHOR BOLT REFERENCE LINE PER SHT. 3.
- △ 9 ANCHOR BOLT HOLES MUST BE AT LEAST 305 mm FROM THE EDGE OF THE SLAB.

# UNINTERRUPTIBLE POWER SUPPLY (UPS)



LEFT SIDE VIEW



DETAIL -B  
CLEAT ANCHOR HOLES

[www.Cat-ElectricPower.com](http://www.Cat-ElectricPower.com)

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