

Uninterruptible Power Supply (UPS)



UPS 1000iZ SERIES FLYWHEEL MULTI MODULE SYSTEM

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
- High power density
- Modular, scalable and redundant architecture
- Minimal service and maintenance requirements
- Low total cost of ownership
- 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

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.

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STANDARD EQUIPMENT

- Flywheel energy storage
- IGBT based Bi-directional converter
- Integral modem – remote communication
- Local Emergency Power Off (EPO)
- Remote notification and monitoring via Ethernet and e-mail
- RS232 or RS485 serial connection
- UPS View-real time monitoring software
- 10" color touch-screen operator interface
- Programmable input and output contacts
- Redundant cooling fans
- Top/bottom cable entry
- Redundant Control Power
- Back feed protection
- Static bypass switch

OPTIONAL EQUIPMENT

- 24-volt DC, genset start module
- Remote SNMP/MODBUS communication
- 4-wire input and output
- Remote status panel (8 status LED's)
- Remote Emergency Power Off (REPO)
- External Maintenance Bypass Control
- External source synchronization
- Parallel controls – for up to 7 Z-series systems of any size
- 60 Hz operation
- Field expandable
- Separate bypass input

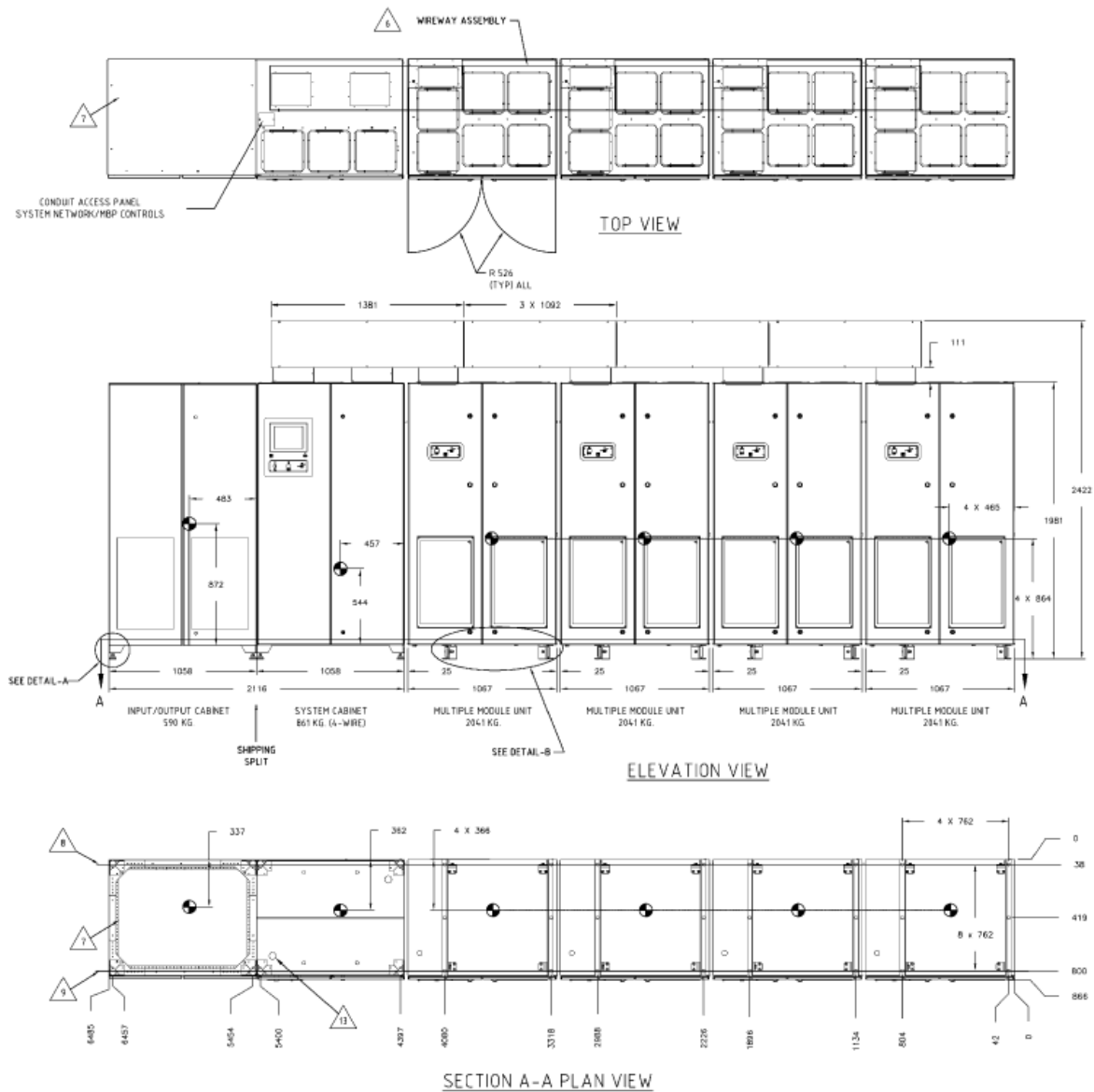
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TECHNICAL DATA

	UPS 250iZ	UPS 500iZ	UPS 750iZ	UPS 1000iZ
Normal AC Input				
Maximum kVA (kW)	250 (225)	500 (450)	750 (675)	1000 (900)
Input Voltage (Nominal)	380/400/415 VAC 3-Phase, 4 wire plus ground			
Input Voltage Range	+10% / -15% (programmable), +/-10% at 380 VAC			
Frequency	50 Hz +/- 10% max (programmable)			
Input Power Factor	0.99 at rated load and nominal voltage			
Input Current (amps)				
Nominal (380 VAC)	355	709	1064	1419
Nominal (400 VAC)	337	674	1011	1348
Nominal (415 VAC)	325	650	975	1299
Maximum Continuous	400	800	1200	1600
Maximum Non-Continuous	420	840	1260	1680
Harmonic Current Distortion				
Linear load	<3% at 100% load			
Non-linear load	<8% with 100% load			
Walk-in	1 to 15 seconds (programmable)			
Bypass Source	Same as input source - Synchronized frequency, Phase, and Voltage			
Output Current (amps)				
Nominal Output Voltage	380/400/415 VAC 3-Phase, 4 wire plus ground			
Nominal (380 VAC)	380	761	1141	1521
Nominal (400 VAC)	361	723	1084	1445
Nominal (415 VAC)	348	696	1045	1393
Voltage Regulation (Steady-state)	+/- 1% of nominal for +/- 10% input			
Voltage Regulation (Transient)	+/- 1% within 50 milliseconds for 100% load step			
Voltage Regulation (Flywheel mode)	+/- 1% steady state			
Frequency	50 Hz (mains synchronized) normal operation +/- .2% free running			
Voltage Distortion (THD)	<3% linear loads and <5% 100% non-linear loads			
Slew Rate	adjustable from 0.2 Hz/second to 3.0 Hz/second			
Heat Rejection (BTU/Hr)	19,946	39,893	59,839	79,786
Heat Rejection (kW)	5.8	11.7	17.5	23.4
Overload Capability (normal operation)				
Continuous	Up to 105%			
10 minutes	125%			
2 minutes	150%			
30 seconds	200%			
10 milliseconds	>200%			
Overall Efficiency				
System Efficiency	97%	98%	98%	98%
Environmental Conditions				
Acoustical Noise	<72 dBA at 1 meter		<75 dBA at 1 meter	
Operating Temperature	32 to 104° F, 0 to 40° C			
Storage Temperature	-13 to 158° F, -25 to 70° C			
Operating Humidity	5-95% non-condensing			
Operating Altitude	Up to 3,280 feet, Up to 1000 meters			
Standards and Approvals				
Certifications	EN50091-1-1			
Approvals	CE Mark			
Surge Withstand	Meets IEEE 578/ANSI C62.41			
Dimensions and Weights				
Physical Depth	865mm, 34in			
Physical Height	1981mm, 80in			
Physical Width	3226mm, 127in	4318mm, 170in	5410mm, 213in	6502mm, 256in
Physical Weight	3365kg, 7418lbs	5435kg, 11982lbs	7475kg, 16479lbs	9520kg, 20988lbs
Ride Through Time				
25% Load	60			
50% Load	30			
75% Load	20			
100% Load	15			

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