

# Uninterruptible Power Supply (UPS)



## UPS 300 SERIES FLYWHEEL SINGLE MODULE SYSTEM

300 kVA / 240 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
- 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

#### RELIABLE POWER PROTECTION FOR CRITICAL APPLICATIONS

Cat<sup>®</sup> 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 300 Series operates seamlessly with generator sets to provide a higher total electrical load capacity without oversizing the generator set. The 300 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
- Back feed protection
- Static bypass switch

## OPTIONAL EQUIPMENT

- 24-volt DC, genset start module
- SNMP/MODBUS communications
- Remote status panel (8 status LED's)
- 4-wire input and output
- Remote Emergency Power Off (REPO)
- Internal Maintenance Bypass

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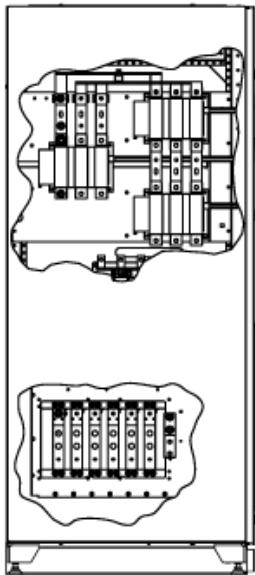
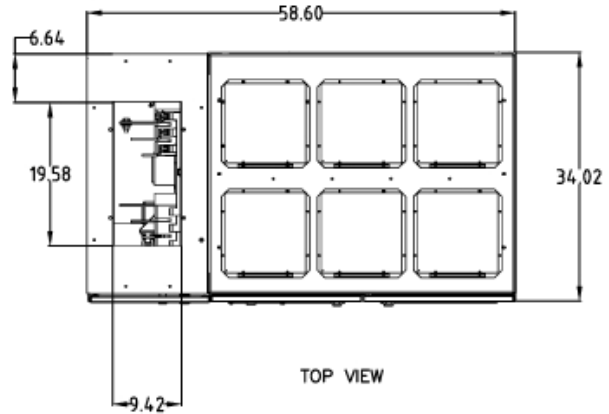
## TECHNICAL DATA

<b>Normal AC Input</b>	
Maximum kVA (kW)	300 (240)
Input Voltage	480 VAC 3-Phase, 3 wire plus ground (4-wire optional)
Input Voltage Range	+10% / -15% (programmable)
Frequency	60 Hz (+/- 10% max - programmable)
Input Power Factor	0.99 at rated load and nominal voltage
Input Current at 480 VAC (amps)	299
Maximum Continuous Input Current (amps)	400
Maximum Non-Continuous Input Current (amps)	420
<b>Harmonic Current Distortion</b>	
Linear load	<3% at 100% resistive load
Non-linear load	<8% with 100% load
Walk-in	1 to 15 seconds (programmable)
<b>Output</b>	
Output Voltage	480 VAC 3-Phase, 3 wire plus ground
Output Current at 480 VAC (amps)	361
Voltage Regulation (Steady-state)	+/- 1% of nominal for +/- 10% input
Voltage Regulation (Transient)	+/- 1% within 50 milliseconds for 100% load step
Frequency	50/60 Hz (mains synchronized) normal operation
Voltage Distortion (THD)	<3% linear loads and <5% 100% non-linear loads
Flywheel Mode	+/- 1% steady state
Slew Rate	Adjustable from 0.2 Hz/second to 3.0 Hz/second
<b>Overload Capability (normal operation)</b>	
Continuous	Up to 105%
10 minutes	125%
2 minutes	150%
30 seconds	200%
10 milliseconds	>200%
<b>Overall Efficiency</b>	
System Efficiency	98%
<b>Environmental Conditions</b>	
Acoustical Noise	<70 dBA at 1 meter
Operating Temperature	0 to 40° C      32 to 104° F
Storage Temperature	-25 to 70° C      -13 to 158° F
Operating Humidity	5-95% non-condensing
Operating Altitude	Up to 914 meters      Up to 3,000 feet
Heat Rejection BTU/Hr (kW)	20992 (6.2)
<b>Standards and Approvals</b>	
Certifications	UL 1778 listed, EN62040-3, CUL CAN/CSA 22.2
Surge Withstand	Meets IEEE 578 / ANSI C62.41
<b>Dimensions and Weights</b>	
Physical Depth	865 mm      34.0 in
Physical Width	1488 mm      58.6 in
Physical Height	1981 mm      78.0 in
Physical Weight	2495 kg      5500 lbs
<b>Ride Through Time (Seconds)</b>	
25% Load	52
50% Load	28
75% Load	19
100% Load	14

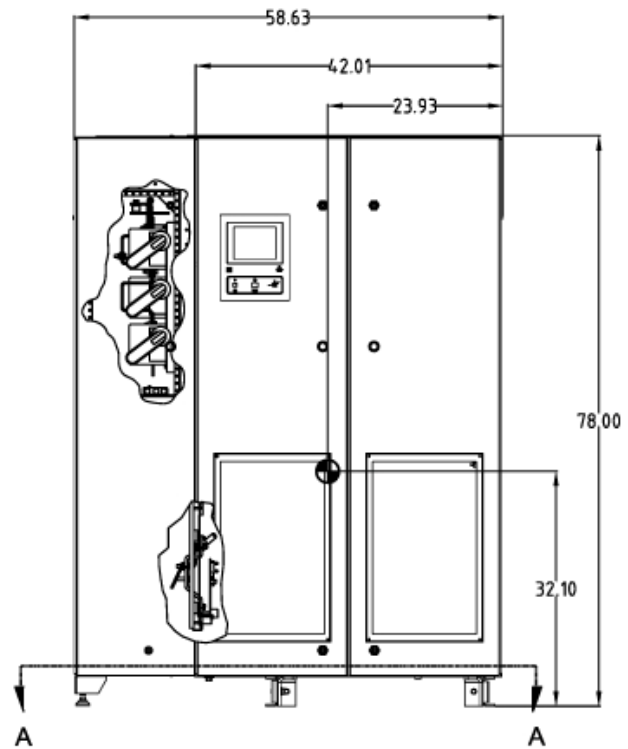
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3 WIRE



SIDE VIEW



FRONT VIEW

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