

UNINTERRUPTIBLE POWER SUPPLY • 75 kVA / 60 kW • 112.5 kVA / 90 kW

# CYBERWAVE UPS



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**CyberWave UPS**, the world's first digitally controlled UPS for custom industrial applications, combines Cyberex's hallmark rugged electrical design with the versatility of digital signal processors, field-programmable gate arrays and EPROM's to set a new standard in UPS performance and reliability. CyberWave UPS has standard features no other UPS manufacturer can match, including modbus Communications and advanced battery management capabilities and the world's first VGA, fullcolor touch-screen 8"x11" control panel (PowerPad). In addition, every CyberWave UPS incorporates Cyberex's patented Digital Static Transfer Switch design for increased system redundancy and reliability.

## FEATURES

- IGBT-Based PWM Inverter
- Digital Signal Processing (DSP)
- Fiber Optic Datapaths
- Full Color Touch Screen Monitor Panel
- Full Isolation – Input/Output Transformers
- Industrial Grade Frame / Cabinet
- Fully Rated Static Switch
- Maintenance Bypass Switch
- Modbus Communications
- RS-232 Communications Port
- In Accordance with NEMA / UL-1778

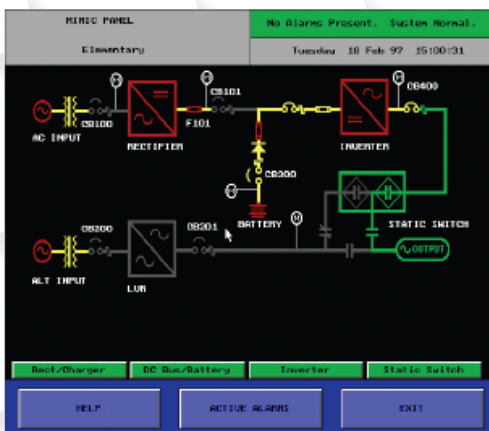


*Inverter*

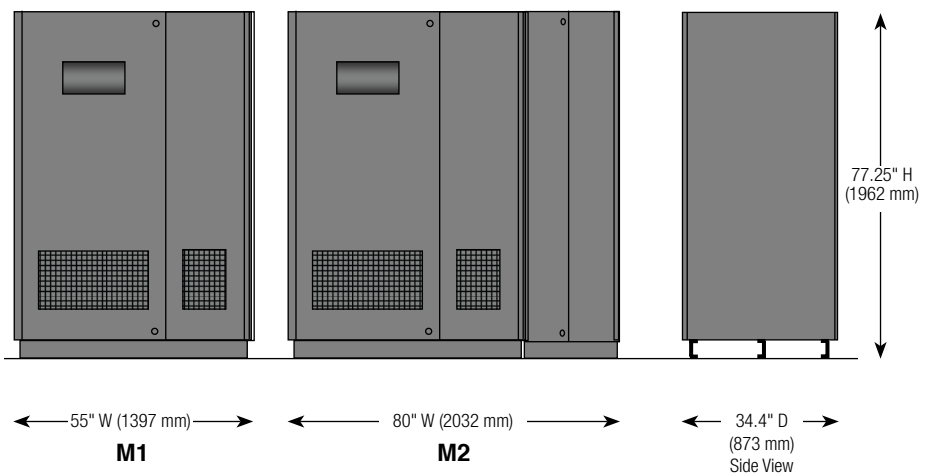


*Isolation Transformer*

## MIMIC DISPLAY



## UPS MODULE

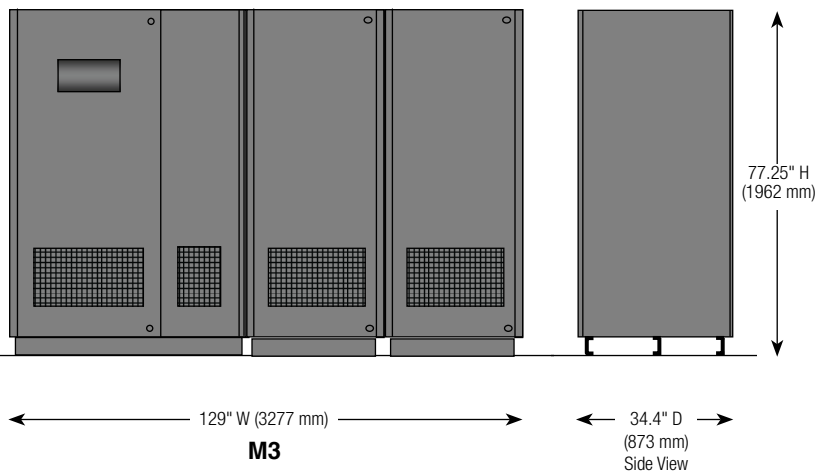
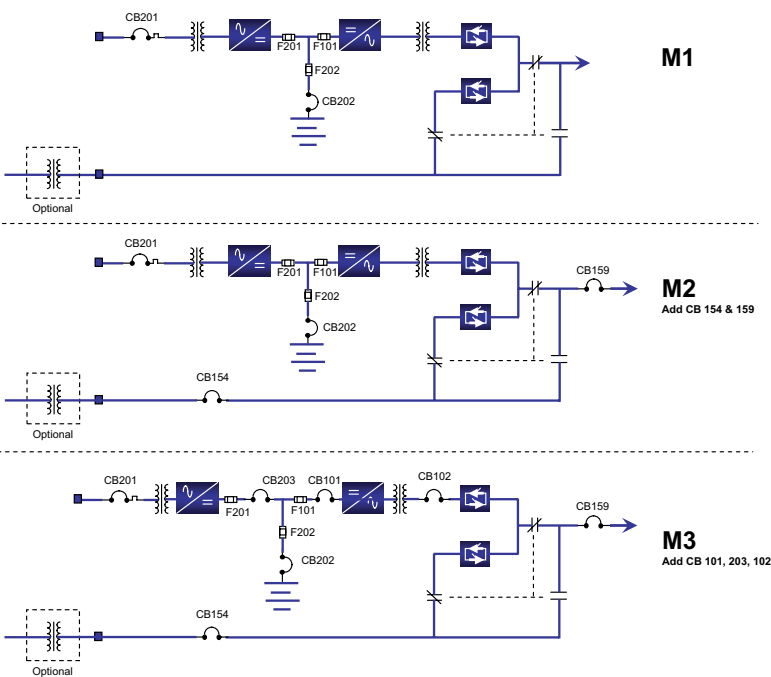


For more information go to [www.cyberex.com](http://www.cyberex.com)

**CIRCUIT BREAKERS/FUSE SIZES**

	75 kVA/60 kW	112.5 kVA/90 kW
<b>CB 201 – AF/AT</b>		
208V	600 AF/600 AT	1200 AF/900 AT
480V	250 AF/250 AT	400 AF/400 AT
<b>F 101, 201, 202 – Rating (A)</b>		
240 VDC	500 A	800 A
<b>CB 102, 154, 159 – Rating (AF)</b>		
120 VAC	800 A	1200 A
<b>CB 202, 203, 101 – Rating (AF)</b>		
240 VDC	400 A	600 A

**HARDWARE CONFIGURATION**



**AC Input**

Input Voltage	480 VAC, 3W+G 208 VAC, 3W+G
Max Input Current@ Rated Load (Nominal VAC)	160 A @ 480 VAC – 370 A @ 208 VAC (75 kVA / 60 kW) 239 A @ 480 VAC – 553 A @ 208 VAC (112.5 kVA / 90 kW)
Input Voltage Range	+10, -20% VAC from Nominal
Input Power Factor	0.75@ Full Load and Nominal
Current Walk-In	Up to Full Load in 15 Seconds
Surge Withstand	Meets IEEE 587/ANSI C62.41
Input Current THD%	30% Typical, 10% with Optional Input Filter

**DC Bus/Battery**

DC Voltage (Nominal)	240 VDC (120 Cells Nominal)
DC Range	105–140 VDC – 210–280 VDC
DC Regulation	± 0.25% from 0 to 100% Load
DC Ripple	< 2% RMS Ripple @ 100% Load with Battery Connected
DC-AC Efficiency	88% (Typical)
DC End Volts	1.75 V/Cell End Volts

**Environmental**

Acoustical Noise Level	< 60 dBA @ 3 Feet
Operating Temperature	0–40°C
Relative Humidity	0–95% Non-Condensing
Access	No Rear or Side Access Required for Operations or Maintenance
AC Efficiency	Typical 83% (kW out/kW in)
Cooling	Forced Air (In Front/Out Top)
Heat Rejection	(75 kVA / 60 kW) 12,050 Btu/Hr (112.5 kVA / 90 kW) 19,320 Btu/Hr
Operating Altitude	Up to 1000m w/o Derating Load

**AC Output**

Output Voltages	120V – (Other Voltages Available, Contact Factory)
Output Current (Nominal)	(75 kVA / 60 kW) 625 A @ 120 VAC (112.5 kVA / 90 kW) 933 A @ 120 VAC
Voltage Regulation	<± 0.5% Steady State for 0 to 100% Load Change
Transient Response	<± 5% for a 100% Load Step <± 1% for a Loss/Return AC Input Power <± 5% for Manual Transfer to Bypass and Back, 100% Load <± 5% for a 100% Load Step
Recovery	Return to Within ± 2.5% of Nominal Within 16 mSec
Voltage Distortion	Linear Loads: <± 3.5% @100% Load
Overload	Up to 150% for 15-Min
Overload Static Bypass	>1000% for 1 Cycle
Frequency	60Hz (50 Hz Optional)
Frequency Stability	± 0.1% Free Running
Frequency Slew Rate	1.0 Hz/Sec Maximum

Weight	75 kVA	112.5 kVA
M1	4,600 lbs (2,087 kg)	2,850 lbs (1,293 kg)
M2	5,100 lbs (2,313 kg)	7,710 lbs (3,497 kg)
M3	5,400 lbs (2,449 kg)	8,000 lbs (3,629 kg)

## 3 Options: PowerPad 1, PowerPad 2 and PowerPad 3 Metering Value (1% Accurate)

Metering Features	PowerPad 1	PowerPad 2	PowerPad 3	
<b>Rectifier</b>	Input Voltage (All Phase)	◆	◆	◆
	Input Current (All Phase)	◆	◆	◆
	Input Frequency		◆	◆
	Output Voltage (VDC)		◆	◆
	Output Current		◆	◆
<b>Battery</b>	Voltage (VDC)	◆	◆	◆
	Current	◆	◆	◆
	Runtime		◆	◆
	Time Remaining		◆	◆
	Power		◆	◆
	Cycles			◆
	Total Cycles			◆
	Test Cycles			◆
<b>Inverter</b>	Voltage (RMS)		◆	◆
	Current (RMS)		◆	◆
	Frequency		◆	◆
	Input Voltage (VDC)	Optional	Optional	Optional
<b>Output</b>	Voltage (RMS)	◆	◆	◆
	Current (RMS)	◆	◆	◆
	Frequency	◆	◆	◆
	Real Power (W)		◆	◆
	Apparent Power (VA)		◆	◆
	% Loading		◆	◆
	Crest Factor			◆
	Peak Current			◆
	Power Factor			◆
<b>Alternate Line</b>	Input Voltage	◆	◆	◆
	Input Frequency	◆	◆	◆

For more information go to [www.cyberex.com](http://www.cyberex.com)

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