

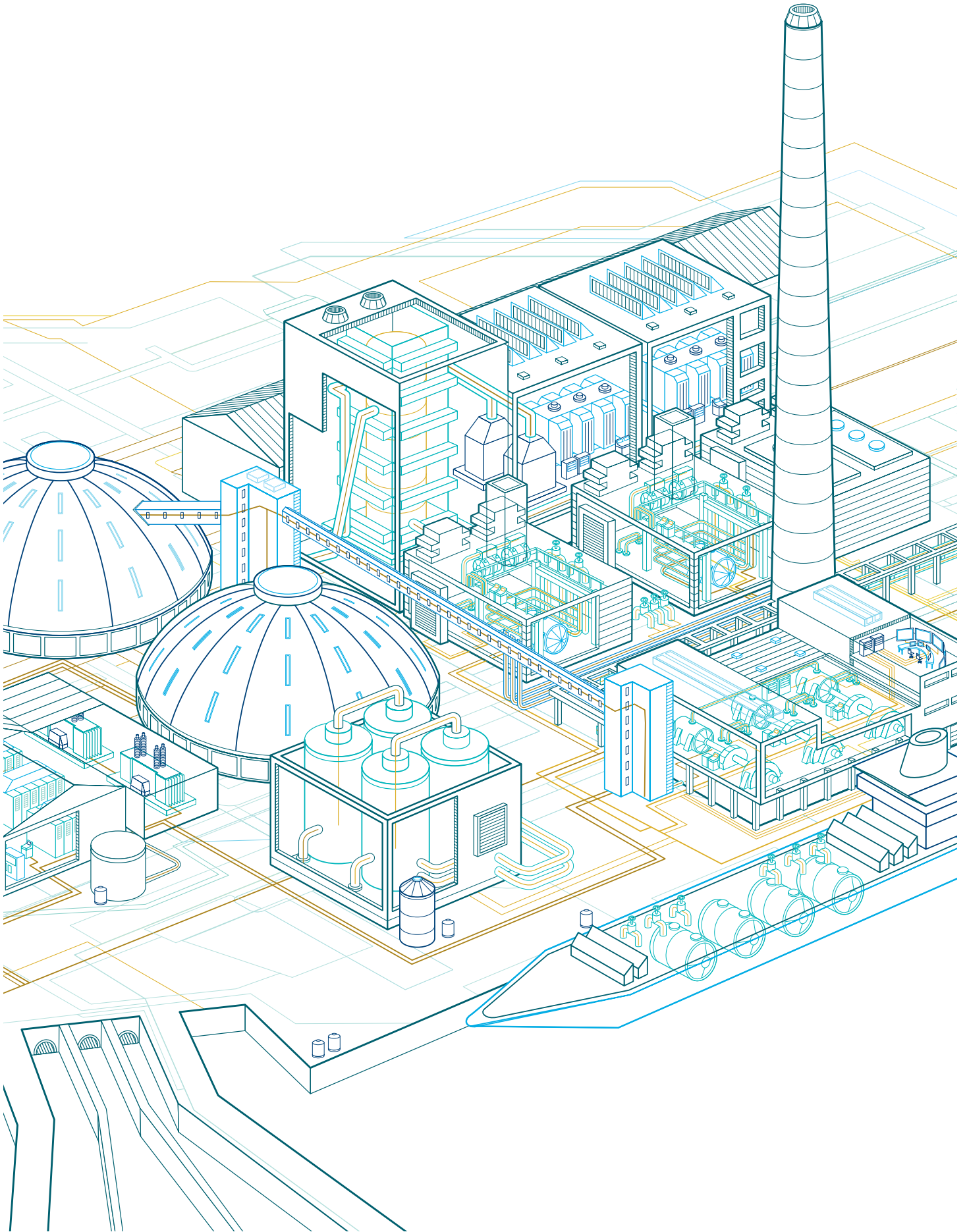


Product brochure

Cyberex[®] Cyberwave UPS – UL series

Uninterruptible power supply system

Single phase 40kVA/32kW – 112.5kVA/90kW



Cyberex® Cyberwave UPS – single phase

Cyberwave UPS

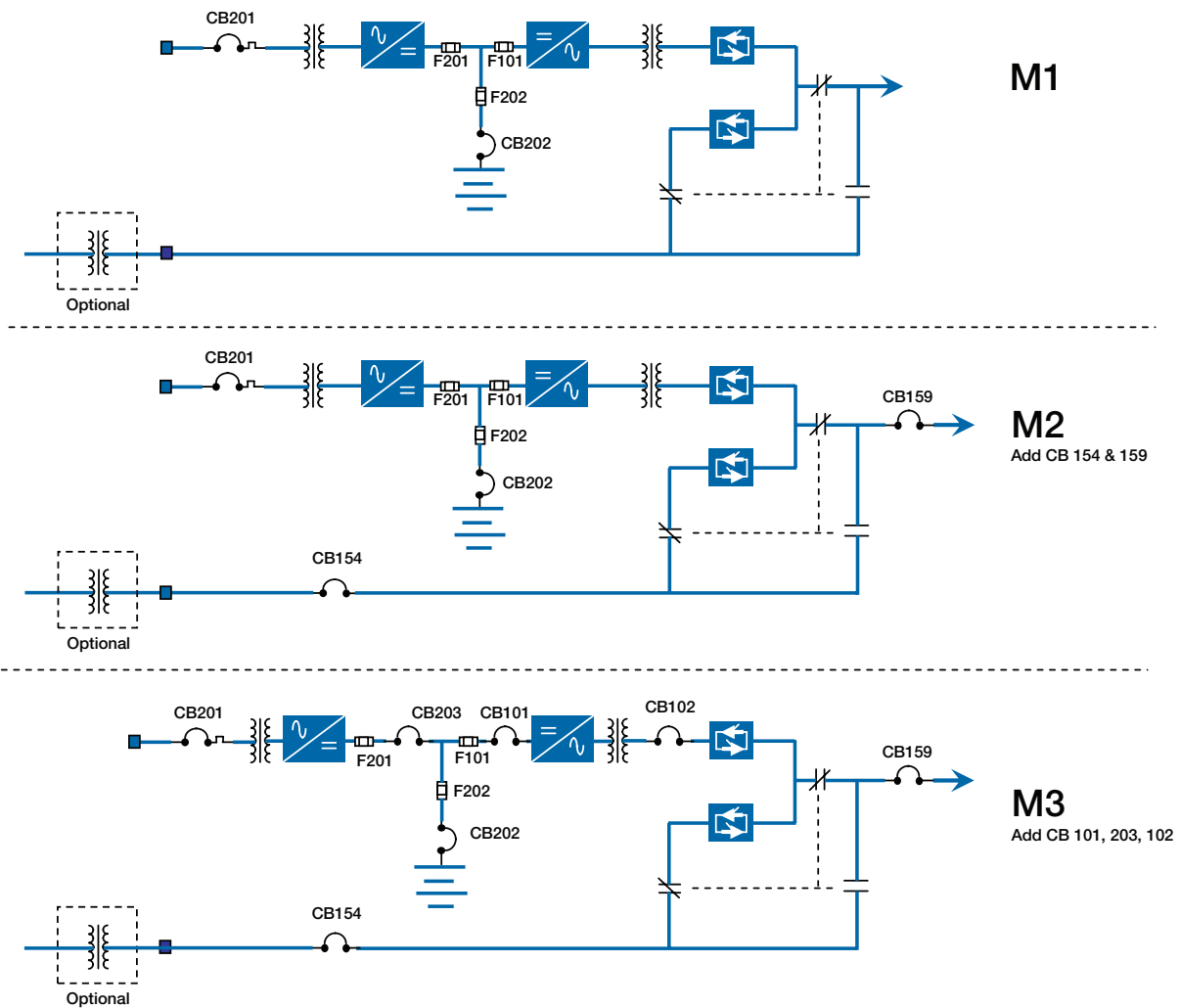
Cyberwave UPS, the world's first digitally controlled UPS for custom industrial applications, combines Cyberex's hallmark rugged electrical design with the versatility of digital signal processors, field-programmable gate arrays and EPROMs to set a new standard in UPS performance and reliability. Cyberwave UPS has standard features no other UPS manufacturer can match, including modbus communications, advanced battery management capabilities and a PowerPad, the world's first VGA, full color touch-screen control panel that measures 6" x 8". In addition, every Cyberwave UPS incorporates Cyberex's patented Digital Static Transfer Switch design for increased system redundancy and reliability.



UL compliant



Hardware configurations

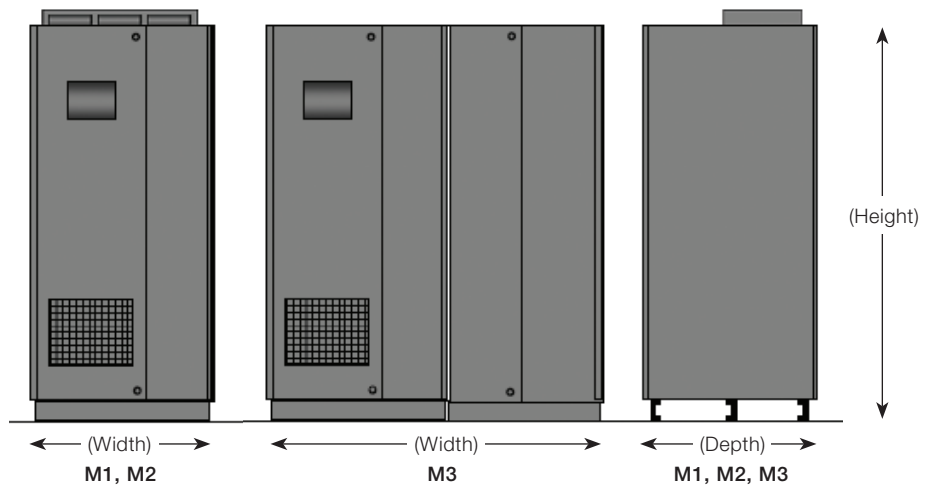


Features

Standard features

- IGBT-based PWM inverter
- Digital signal processing (DSP)
- Fiber optic datapaths
- PowerPad – 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 UL-1778

UPS module



Enclosure dimensions

Size	Configuration	Width (in.) 120V	Width (in.) 240V	Depth (in.)	Height (in.)
40kVA	M1	55	–	34.38	77.25
40kVA	M2	80	–	34.38	77.25
40kVA	M3	92	–	34.38	77.25
50kVA	M1	55	55	34.38	77.25
50kVA	M2	80	55	34.38	77.25
50kVA	M3	92	80	34.38	77.25
60kVA	M1	55	55	34.38	77.25
60kVA	M2	80	55	34.38	77.25
60kVA	M3	92	80	34.38	77.25
75kVA	M1	–	55	34.38	77.25
75kVA	M2	–	80	34.38	77.25
75kVA	M3	–	92	34.38	77.25
112.5kVA	M3	–	129	34.38	77.25

Weight

40kVA

M1	120V – 2,500 lbs (1,134 kg)
M2	120V – 2,900 lbs (1,315 kg)
M3	120V – 2,900 lbs (1,315 kg)

50kVA

M1	120V – 2,800 lbs (1,270 kg) 240V – 3,200 lbs (1,451 kg)
M2	120V – 3,200 lbs (1,451 kg) 240V – 3,200 lbs (1,451 kg)
M3	120V – 3,200 lbs (1,451 kg) 240V – 3,800 lbs (1,723 kg)

60kVA

M1	120V – 3,200 lbs (1,451 kg) 240V – 3,500 lbs (1,588 kg)
M2	120V – 3,500 lbs (1,588 kg) 240V – 3,500 lbs (1,588 kg)
M3	120V – 3,500 lbs (1,588 kg) 240V – 4,200 lbs (1,905 kg)

75kVA

M1	240V – 4,600 lbs (2,087 kg)
M2	240V – 5,100 lbs (2,313 kg)
M3	240V – 6,000 lbs (2,722 kg)

112.5kVA

M3	240V – 8,000 lbs (3,629 kg)
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Product specifications

AC input

Input voltage	480VAC, 3W+G 208VAC, 3W+G Consult factory for additional voltages
Max input current @ rated load (nominal VAC)	
(40kVA/32kW)	80A @ 480VAC – 197A @ 208VAC
(50kVA/40kW)	107A @ 480VAC – 247A @ 208VAC
(60kVA/48kW)	128A @ 480VAC – 296A @ 208VAC
(75kVA/60kW)	160A @ 480VAC – 370A @ 208VAC
(112.5kVA/90kW)	239A @ 480VAC – 553A @ 208VAC
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)	120VDC (60 cells nominal) 240VDC (120 cells nominal)
DC range	105–140VDC – 210–280VDC
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	1.75V/cell end volts

Environmental

Acoustical noise level	< 60dBA @ 3 feet
Operating temperature	0–40°C
Relative humidity	0–95% non-condensing
Enclosure protection	NEMA 1 (IP21)
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	
(40kVA/32kW)	19,320 Btu/Hr
(50kVA/40kW)	24,196 Btu/Hr
(60kVA/48kW)	28,198 Btu/Hr
(75kVA/60kW)	38,000 Btu/Hr
(112.5kVA/90kW)	62,890 Btu/Hr
Operating altitude	Up to 1000m w/o derating load
Standard paint	ANSI 61

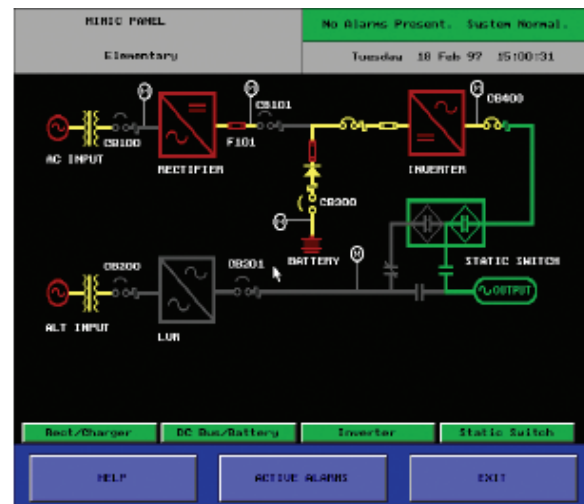
AC output

Output voltages	120V Consult factory for additional voltages
Output current (nominal)	
(40kVA/32kW)	250A @ 120VAC
(50kVA/40kW)	417A @ 120VAC
(60kVA/48kW)	500A @ 120VAC
(75kVA/60kW)	625A @ 120VAC
(112.5kVA/90kW)	933A @ 120VAC
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
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 (50Hz optional)
Frequency stability	± 0.1% free running
Frequency slew rate	1.0 Hz/sec maximum

Product standards

In compliance to UL 1778

Mimic display



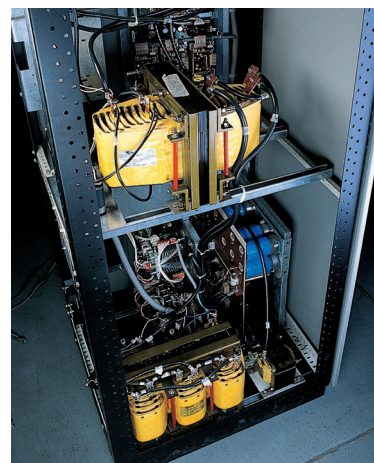
Metering

3 options: PowerPad 1, PowerPad 2 and PowerPad 3 • Metering value (1% accurate)

	Metering features	PowerPad 1	PowerPad 2	PowerPad 3
Rectifier	Input voltage (all phase)	■	■	■
	Input current (all phase)	■	■	■
	Input frequency		■	■
	Output voltage (VDC)	■	■	■
	Output current	■	■	■
Battery	Voltage (VDC)	■	■	■
	Current	■	■	■
	Runtime		■	■
	Time remaining		■	■
	Power		■	■
	Cycles			■
	Total cycles			■
	Test cycles			■
	Inverter	Voltage (RMS)		■
Current (RMS)			■	■
Frequency			■	■
Input voltage (VDC)		Optional	Optional	Optional
Input current (VDC)		Optional	Optional	Optional
Output	Voltage (RMS)	■	■	■
	Current (RMS)	■	■	■
	Frequency	■	■	■
	Real power (W)		■	■
	Apparent power (VA)		■	■
	% Loading		■	■
	Crest factor			■
	Peak current			■
	Power factor			■
Alternate Line	Input voltage	■	■	■
	Input frequency	■	■	■



Inverter



Isolation Transformer

Circuit breakers/fuse sizes

	40kVA/32kW	50kVA/40kW	60kVA/48kW	75kVA/60kW	112.5kVA/90kW
CB 201 – AF/AT					
208V	400AF/300AT	400AF/350AT	600AF/450AT	600AF/600AT	1200AF/900AT
480V	125AF/125AT	250AF/150AT	250AF/175AT	250AF/250AT	400AF/400AT
F 101, 201, 202 – Rating (A)					
120VDC	600A	800A	800A	–	–
240VDC	300A	400A	500A	600A	800A
CB 102, 154, 159 – Rating (AF)					
120VAC	400A	600A	600A	800A	1200A
CB 202, 203, 101 – Rating (AF)					
120VDC	600A	600A	600A	–	–
240VDC	–	–	–	400A	600A

Contact us

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