



| Single Phase 600 VA - 3 kVA |

Ensuring continuous uninterrupted power for your mission critical loads, requires a carefully designed and reliable Uninterruptible Power Supply (UPS) product.

The challenge gets tougher when your loads are installed in harsh outdoor environments, where dust, extreme temperatures and humidity are often present.



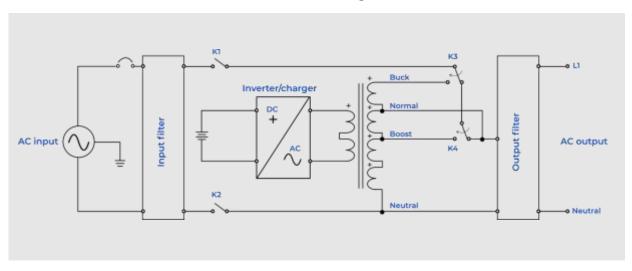


TSI Power, with more than 20 years designing and installing power protection products, specialized in outdoor UPS products. Thousands of outdoor UPS products are installed and proven in many mission critical sites globally.

## **XUPS** Outdoor UPS with Voltage Regulation

TSI Power's outdoor XUPS is a series of line interactive Uninterruptible Power Supplies (UPS), equipped with wide-temperature, pure lead, gel batteries and housed in a weather-protected enclosure. It offers line-interactive automatic voltage regulation, over/under voltage protection, surge protection with heavy duty noise filtering, communications capability and optional extended battery backup.

#### **XUPS Block Diagram**



Features and Benefits					
Built-in automatic voltage regulation enables a wide-input voltage window to deliver power while preventing unnecessary battery drain.	The XUPS uses wide temperature, pure lead, gel batteries and internal cooling fan to extend battery life and protect electronic components.				
Precise output current limiting permits start of induction motors and other difficult loads.	Internal bypass switch provides power if UPS fails and prevents unnecessary shutdown of connected equipment.				
Cabinet can be pad, pole or wall mounted for utmost mounting flexibility.	Rugged enclosures to withstand harsh environments.				
Designed to UL 60950-22 standard for outdoor equipment with UL- 50E rain - tested enclosure.	Heavy-duty surge protection and noise filtering protects load and UPS.				
The XUPS is easy to repair because internal circuit board assemblies are connectorized.	The XUPS includes a two-year limited warranty.				
Conformal coating of electronic boards for moisture resistance	Quiet - ideal for use in locations with noise ordinances.				

# Type of XUPS

The XUPS family of products consists of five different groups, that are designed for various power rating, back up time and mounting options.

	Dimension (W x H x D) 16.5 x 20.5 x 9.5" (419 x 521 x 241 mm) [W x H x D] Power range 500 – 1540 W Runtime range 12 – 32 minutes Mounting option Wall, Pole
	Dimension (W x H x D) 24.0 x 24.0 x 12.0" (610 x 610 x 305 mm) [W x H x D]  Power range 500 – 1050 W  Runtime range 29 minutes – 1 hour 27 minutes  Mounting option  Wall, Pole, Pad
En en	Dimension (W x H x D) 24.0 x 24.0 x 17.1" (610 x 610 x 434 mm) [W x H x D]  Power range 500 - 2250 W  Runtime range 38 minutes - 5 hours 9 minutes  Mounting option  Wall, Pole, Pad
	Dimension (W x H x D)  28.8 x 24.0 x 17.1" (732 x 610 x 434 mm) [W x H x D]  Power range  500 - 2250 W  Runtime range  56 minutes - 7 hours 28 minutes  Mounting option  Wall, Pole, Pad
13R	Dimension (W x H x D) 36.0 x 36.0 x 13.5" (914 x 914 x 343 mm)  Power range 500 - 2250 W  Runtime range 2 hours 23 minutes - 15 hours 27 minutes  Mounting option  Wall, Pole, Pad

Compact	115V, 60 Hz	Techr	nical Specif	ications*
Model	XUPS-600-0220	XUPS-1000-0220	XUPS-1500-0120	XUPS-2200-0120
AC Input			•	
Nominal voltage		115 V,	, 60 Hz	
Operating voltage		96 V - 136 V (without t	ransferring to inverter)	
Frequency range		57 -	63 Hz	
Current at 96 V and max charging current	8.2 A	12 A	15 A	20 A
nput Circuit Breaker rating	10 A	15 A	15 A	20 A
Surge voltage withstand rating	AN	SI/IEEE: 6 kV, 1.2 x 50 us / 3kA,	8 x 20 us combination wavef	orm
Remnant voltage		L-N: 450V	& L-G: 300V	
AC Output				
Power	500 W	840 W	1050 W	1540 W
Maximum current	4.3 A	7.3 A	9.1 A	13 A
Voltage 120 V / 230 V system		115 V	/ ± 8%	•
Crest factor		3	3: 1	
Waveform and THD		Sine wave, < 3% Th	HD with linear load	
Power efficiency (under full load conditions)	Line: 97% Inverter: 85%	Line: 97% Inverter: 85%	Line: 97% Inverter: 87%	Line: 97% Inverter: 87%
Transfer time		⅓ to ½ cy	cle (typical)	1
Battery				
Type x quantity	8GU1 x 2	8GU1 x 2	NP18-12 x 4	NP18-12 x 4
Battery circuit breaker	30 A	60 A	40 A	60 A
Temperature range fully		/° to ±1/.0° F	/-20° to +60° C	
charged °F / °C	(		C with optional battery heate	er)
Battery heater pad	BH5	BH5	2 x BH5	2 x BH5
Rated load runtime @ 25° C	34 min	14 min	13 min	8 min
Recharge time to 90 %	6 hr	6 hr	6 hr	6 hr
Mechanical			1	
Enclosure	Light gray powd	er coat aluminum cabinet wi	ith swing out front door, NEM	A 3R / IP 44 rated
Dimensions		W: 16.5" / 419 mm x H: 20.5"	' / 521 mm x D: 9.5" / 241 mm	
Weight with batteries lbs(kg)	95 (43)	110 (50)	110 (50)	130 (59)
Mounting		Wall-Mount: (with	w/6 mounting feet);	1
	<u> </u>	Pole-Mount: (With Pol	le-Mount Bracket PM9)	
Environmental		1//0 + ~ + 1170 = /	-10° to +45° C )	
Operating Temperature Range Protection Against Moisture		,	,	
and Dust	Cup chada ayar narth f		e conformal coated	dod) Enclosure must be
Installation environment	Sun snade over north f		avoid solar heating (Not includ 2 km from ocean	ueuj. Enclosure must be
Safety				
Safety listing	ETL/cETL	ETL/cETL	ETL/cETL	-
Warranty				

<sup>\*</sup>NOTE: Due to continuous product improvement, specifications are subject to change without notice.

Compact	230V, 50 H.	Z TECI	nnical Spec	incacion:
Model	XUPS-600-3220	XUPS-1000-3220	XUPS-1500-3120	XUPS-2200-3120
AC Input				
Nominal voltage		230 V,	50 Hz	
Operating voltage		192 V - 272 V (without ti	ransferring to inverter)	
Frequency range		47 – 5	53 Hz	
Current at 192 V and max charging current	4.1 A	5.9 A	7.3 A	9.9 A
Input Circuit Breaker rating	5 A	10 A	10 A	15 A
Surge voltage withstand rating	ANS	SI/IEEE: 6 kV, 1.2 x 50 us / 3kA, 8	3 x 20 us combination wavefo	rm
Remnant voltage		L-N: 450V 8	k L-G: 300V	
AC Output				
Power	500 W	840 W	1050 W	1540 W
Maximum current	2.2 A	3.7 A	4.6 A	6.7 A
/oltage		230 V	± 8%	
Crest factor		3:	1	
Waveform and THD		Sine wave, < 3% TH	ID with linear load	
Power efficiency	Line: 97%	Line: 97%	Line: 97%	Line: 97%
(under full load conditions)  Transfer time	Inverter: 85%	Inverter: 85%  ½ to ½ cyc	Inverter: 87%	Inverter: 87%
Transfer time		74 to 72 cyc	le (typical)	
Battery		ı		
Type x quantity	8GU1 x 2	8GU1 x 2	NP18-18 x 4	NP18-18 x 4
Battery circuit breaker	30 A	60 A	40 A	60 A
Temperature range fully charged °F / °C	(	-4° to +140° F/ -40° to +140° F/ -40° to +60° C		)
Battery heater pad	BH6	BH6	2 x BH6	2 x BH6
Rated load runtime @ 25° C	34 min	14 min	13 min	8 min
Recharge time to 90 %	6 hr	6 hr	6 hr	6 hr
Mechanical			1	
Enclosure	Light gray powde	er coat aluminum cabinet wit	h swing out front door, NEMA	3R/IP 44 rated
Dimensions		W: 16.5" / 419 mm x H: 20.5" ,	/ 521 mm x D: 9.5" / 241 mm	
Weight with batteries lbs(kg)	95 (43)	110 (50)	110 (50)	130 (59)
Mounting		Wall-Mount: (with v Pole-Mount: (with Pole	- ,	
Environmental		,	,	
Operating Temperature Range		14° to +113° F ( -	-10° to +45° C )	
Protection Against Moisture		Circuit boards are	conformal coated	
Installation environment	Sun shade over north fa	acing enclosure required to av	• ,	ed). Enclosure must be
Safety		.ssatea at least 2		
Safety listing	-	-	-	-
Warranty				

\*NOTE: Due to continuous product improvement, specifications are subject to change without notice.

Compact	240V, 60 H	z leci	hnical Spec	cifications		
Model	XUPS-600-4220	XUPS-1000-4220	XUPS-1500-4120	XUPS-2200-4120		
AC Input						
Nominal voltage		240 V,	, 60 Hz			
Operating voltage		200 V - 284 V (without transferring to inverter)				
Frequency range		57 – 6	63 Hz			
Current at 200 V and max charging current	4.0 A	5.7 A	7.0 A	9.5 A		
Input Circuit Breaker rating	5 A	10 A	10 A	15 A		
Surge voltage withstand rating	AN:	SI/IEEE: 6 kV, 1.2 x 50 us / 3kA,	8 x 20 us combination wavef	orm		
Remnant voltage		L-N: 450V 8	& L-G: 300V			
AC Output						
Power	500 W	840 W	1050 W	1540 W		
Maximum current	2.2 A	3.7 A	4.6 A	6.7 A		
Voltage		240 V	/ ± 8%			
Crest factor		3:	:1			
Waveform and THD		Sine wave, < 3% Th	HD with linear load			
Power efficiency (under full load conditions)	Line: 97% Inverter: 85%	Line: 97% Inverter: 85%	Line: 97% Inverter: 87%	Line: 97% Inverter: 87%		
Transfer time		½ to ½ cyc	cle (typical)			
Battery						
Type x quantity	8GU1 x 2	8GU1 x 2	NP18-18 x 4	NP18-18 x 4		
Battery circuit breaker	30 A	60 A	40 A	60 A		
Temperature range fully charged °F / °C	(	-4° to +140° F / -40° to +140° F / -40° to +60° (	/-20° to +60° C C with optional battery heate	er)		
Battery heater pad	BH6	BH6	2 x BH6	2 x BH6		
Rated load runtime @ 25° C	34 min	14 min	13 min	8 min		
Recharge time to 90 %	6 hr	6 hr	6 hr	6 hr		
Mechanical						
Enclosure	Light gray powd	er coat aluminum cabinet wit	th swing out front door, NEM	A 3R / IP 44 rated		
Dimensions		W: 16.5" / 419 mm x H: 20.5"	/ 521 mm x D: 9.5" / 241 mm			
Weight with batteries lbs(kg)	95 (43)	110 (50)	110 (50)	130 (59)		
Mounting		•	I w/6 mounting feet); e-Mount Bracket PM9)			
Environmental		,	,			
Operating Temperature Range		14° to +113° F (	-10° to +45° C )			
Protection Against Moisture		Circuit boards are	conformal coated			
and Dust Installation environment	Sun shade over north f	acing enclosure required to a located at least 2	<u> </u>	ded). Enclosure must be		
Safaty		iocated at least 2	z MITHOTH OCEAN			
Safety						
Safety listing	-	-	-			

<sup>\*</sup>NOTE: Due to continuous product improvement, specifications are subject to change without notice.

Plus	115V, 60 Hz	Technical Specifications					
Model	XUPS-600-0340	XUPS-1000-0340	XUPS-1500-0340				
AC Input							
Nominal voltage		115 V, 60 Hz					
Operating voltage	96	V - 136 V (without transferring to inver	ter)				
Frequency range		57 - 63 Hz					
Current at 96 V and max charging current	8.6 A	12 A	15 A				
nput Circuit Breaker rating	10 A	15 A	15 A				
Surge voltage withstand rating	ANSI/IEEE: 6	kV, 1.2 x 50 us / 3kA, 8 x 20 us combinat	ion waveform				
Remnant voltage		L-N: 450V & L-G: 300V					
AC Output							
Power	500 W	840 W	1050 W				
Aaximum current	4.3 A	7.3 A	9.1 A				
/oltage		115 V ± 8%					
Crest factor		3:1					
Waveform and THD		Sine wave, < 3% THD with linear load					
Power efficiency under full load conditions)	Line: 97% Inverter: 85%	Line: 97% Inverter: 85%	Line: 97% Inverter: 87%				
ransfer time	1/4 to 1/2 cycle (typical)						
Battery							
ype x quantity	8GU1 x 4	8GU1 x 4	8GU1 x 4				
Battery circuit breaker	30 A	60 A	40 A				
Temperature range fully Charged ○F / °C	(-40° to +1		tery heater)				
Battery heater pad	2 x BH5	2 x BH5	2 x BH5				
Rated load runtime @ 25° C	1 hr 36 min	40 min	33 min				
Recharge time to 90 %		10 hr					
Mechanical							
Enclosure	Light gray powder coat alu	uminum cabinet with swing out front o	door, NEMA 3R / IP 44 rated				
Dimensions	W: 24.0"	/ 610 mm x H: 24.0" / 610 mm x D: 13.8"	/ 350 mm				
Weight with batteries lbs(kg)	170 (77)	170 (77)	180 (82)				
Mounting		Wall-Mount: (with w/6 mounting feet) ble-Mount: (with Pole-mount bracket P d-mount: (with Pad-mount bracket PA	M1)				
Environmental							
Operating Temperature Range		14° to +113° F ( -10° to +45° C )					
Protection Against Moisture		Circuit boards are conformal coated					
nstallation environment	Sun shade over north facing enc	losure required to avoid solar heating (	Not included). Enclosure must be				
Safety	<u> </u>	. Journal of Journal of Control o					
Safety listing	ETL/cETL	ETL/cETL	ETL/cETL				

#### Warranty

 $\label{two-year-limited} \textbf{Two-year limited warranty on parts and labor; One-year manufacturer warranty on batteries.}$ 

<sup>\*</sup>NOTE: Due to continuous product improvement, specifications are subject to change without notice.

Plus	230V, 50 Hz	Technical S	Specifications*			
Model	XUPS-600-3340	XUPS-1000-3340	XUPS-1500-3340			
AC Input						
Nominal voltage	230 V, 50 Hz					
Operating voltage	192	V - 272 V (without transferring to inver	ter)			
Frequency range		47 - 53 Hz				
Current at 192 V and max charging current	4.3 A	6.1 A	7.3 A			
Input Circuit Breaker rating	5 A	10 A	10 A			
Surge voltage withstand rating	ANSI/IEEE: 6 k	xV, 1.2 x 50 us / 3kA, 8 x 20 us combinat	ion waveform			
Remnant voltage		L-N: 450V & L-G: 300V				
AC Output						
Power	500 W	840 W	1050 W			
Maximum current	2.2 A	3.7 A	4.6 A			
Voltage		230 V ± 8%				
Crest factor		3:1				
Waveform and THD		Sine wave, < 3% THD with linear load				
Power efficiency (under full load conditions)	Line: 97% Inverter: 85%	Line: 97% Inverter: 85%	Line: 97% Inverter: 87%			
Transfer time		⅓ to ⅓ cycle (typical)	,			
Battery						
Type x quantity	8GU1 x 4	8GU1 x 4	8GU1 x 4			
Battery circuit breaker	30 A	60 A	40 A			
Temperature range fully charged °F / °C	( -40° to +14	-4° to +140° F / -20° to +60° C 40° F / -40° to +60° C with optional bat	tery heater)			
Battery heater pad	2 x BH6	2 x BH6	2 x BH6			
Rated load runtime @ 25° C	1 hr 36 min	40 min	33 min			
Recharge time to 90 %		10 hr				
Mechanical						
Enclosure	Light gray powder coat alu	minum cabinet with swing out front c	door, NEMA 3R / IP 44 rated			
Dimensions	W: 24.0" /	<sup>/</sup> 610 mm x H: 24.0" / 610 mm x D: 13.8" ,	/ 350 mm			
Weight with batteries lbs(kg)	170 (77)	170 (77)	180 (82)			
Mounting	Ро	Wall-Mount: (with w/6 mounting feet) le-Mount: (with Pole-mount bracket P d-mount: (with Pad-mount bracket PA	M1)			
Environmental						
Operating Temperature Range		14° to +113° F ( -10° to +45° C )				
Protection Against Moisture and Dust		Circuit boards are conformal coated				
Installation environment	Sun shade over north facing encl	osure required to avoid solar heating ( located at least 2 km from ocean	Not included). Enclosure must be			
Cofety		iocated at least 2 km from ocean				
Safety listing	-	-	-			

#### Warranty

<sup>\*</sup>NOTE: Due to continuous product improvement, specifications are subject to change without notice.

Plus	240V, 60 Hz	Technical S	pecifications				
Model	XUPS-600-4340	XUPS-1000-4340	XUPS-1500-4340				
AC Input							
Nominal voltage	240 V, 50 Hz						
Operating voltage	200	V - 284 V (without transferring to inve	rter)				
Frequency range		47 - 53 Hz					
Current at 200 V and max charging current	4.1 A	5.9 A	7.0 A				
nput Circuit Breaker rating	5 A	10 A	10 A				
Surge voltage withstand rating	ANSI/IEEE: 6 k	V, 1.2 x 50 us / 3kA, 8 x 20 us combinati	ion waveform				
Remnant voltage		L-N: 450V & L-G: 300V					
AC Output							
Power	500 W	840 W	1050 W				
Maximum current	2.1 A	3.5 A	4.4 A				
/oltage		240 V ± 8%	1				
Crest factor		3:1					
Waveform and THD		Sine wave, < 3% THD with linear load					
Power efficiency	Line: 97%	Line: 97%	Line: 97% Inverter: 87%				
(under full load conditions) Transfer time	Inverter: 85% In						
		to .2 eyele (typical)					
Battery							
Type x quantity	8GU1 x 4	8GU1 x 4	8GU1 x 4				
Battery circuit breaker	30 A	60 A	40 A				
Temperature range fully charged °F / °C	( -40° to +14	-4° to +140° F / -20° to +60° C 0° F / -40° to +60° C with optional batt	ery heater)				
Battery heater pad	2 x BH5	2 x BH5	2 x BH5				
Rated load runtime @ 25° C	1 hr 36 min	40 min	33 min				
Recharge time to 90 %		10 hr					
Mechanical							
Enclosure	Light gray powder coat alu	minum cabinet with swing out front d	loor, NEMA 3R / IP 44 rated				
Dimensions	W: 24.0" /	610 mm x H: 24.0" / 610 mm x D: 13.8" /	′350 mm				
Weight with batteries lbs(kg)	170 (77)	170 (77)	180 (82)				
Mounting	Pol	Wall-Mount: (with w/6 mounting feet); e-Mount: (with Pole-mount bracket Pl I-mount: (with Pad-mount bracket PA	M1)				
Environmental							
Operating Temperature Range		14° to +113° F ( -10° to +45° C )					
Protection Against Moisture and Dust		Circuit boards are conformal coated					
Installation environment	Sun shade over north facing encl	osure required to avoid solar heating (l located at least 2 km from ocean	Not included). Enclosure must be				
Safety							
Safety listing	-	-	-				

warranty

<sup>\*</sup>NOTE: Due to continuous product improvement, specifications are subject to change without notice.

Extended	115V, 60 Hz		Technic	cations		
Model	XUPS-600-0560	XUPS-1000-0560	XUPS-1500-0560	XUPS-2200-0560	XUPS-3000-0560	
AC Input	I	1	1		1	
Nominal voltage			115 V, 60 Hz			
Operating voltage		96 V - 136 '	/ (without transferring	to inverter)		
Frequency range			57 – 63 Hz			
Current at 96 V and max charging current	8.6 A	12 A	15 A	20 A	27 A	
nput Circuit Breaker rating	10 A	15 A	15 A	20 A	30 A	
Surge voltage withstand rating		ANSI/IEEE: 6 kV, 1.2 x	<u>I</u> 50 us / 3kA, 8 x 20 us co	mbination waveform		
Remnant voltage			L-N: 450V & L-G: 300V			
AC Output						
Power	500 W	840 W	1050 W	1540 W	2250 W	
Maximum current	4.3 A	7.3 A	9.1 A	13 A	20 A	
/oltage		1	115 V ± 8%	1	1	
Crest factor			3: 1			
Waveform and THD		Sine w	rave, < 3% THD with line	ear load		
Power efficiency	Line: 97%	Line: 97%	Line: 97%	Line: 97%	Line: 97%	
under full load conditions)	Inverter: 85% Inverter: 85% Inverter: 87% Inverter: 87% Inverter: 87% Inverter: 87%					
			74 to 72 eyele (typical)			
Battery					l	
Type x quantity	8G24 x 4	8G24 x 4	8G24 x 4	8G24 x 4	8G24 x 4	
Battery circuit breaker	30 A	60 A	40 A	60 A	80 A	
Femperature range fully Charged F / °C			° to +140° F / -20° to +60 40° to +60° C with optic			
Battery heater pad	2 x BH5	2 xBH5	2 x BH5	2 x BH5	2 x BH5	
Rated load runtime @ 25° C	4 hr 18 min	2 hr 24 min	2 hr	1 hr 12 min	38 min	
Recharge time to 90 %			23 hr		1	
Mechanical						
Enclosure	Light gray	powder coat aluminum	cabinet with swing ou	t front door, NEMA 3R /	IP 44 rated	
Dimensions		W: 24.0" / 610 m	m x H: 24.0" / 610 mm x	D: 17.1" / 434 mm		
Weight with batteries lbs(kg)	290 (132)	290 (132)	290 (132)	300 (136)	320 (145)	
Mounting		Pole-Mou	I ount: (with w/6 mounti nt: (with Pole-Mount Br .t: (with Pad-mount bra	acket PM1)		
Environmental						
Operating Temperature Range		14	° to +113° F ( -10° to +45°	C)		
Protection Against Moisture and Dust		Circui	boards are conformal	coated		
Installation environment	Sun shade over n	-	equired to avoid solar h ed at least 2 km from c	eating (Not included). E ocean	Enclosure must be	
Safety						
Safety listing	ETL/cETL	ETL/cETL	ETL/cETL	ETL/cETL	ETL/cETL	

<sup>\*</sup>NOTE: Due to continuous product improvement, specifications are subject to change without notice.

Model	XUPS-600-3560	XUPS-1000-3560	XUPS-1500-3560	XUPS-2200-3560	XUPS-3000-356
AC Input					
Nominal voltage			230 V, 50 Hz		
Operating voltage		192 V - 272	V (without transferring	to inverter)	
Frequency range			47 – 53 Hz		
Current at 192 V and	4.3 A	6.1 A	7.3 A	9.9 A	14 A
max charging current  nput Circuit Breaker rating	5 A	10 A	10 A	15 A	15 A
Surge voltage withstand rating			50 us / 3kA, 8 x 20 us co		1371
Remnant voltage		7 11 10 4 12 21 10 10 17 11 2 X	L-N: 450V & L-G: 300V		
AC Output Power	500 W	84014	1050 W	15 (0 \\\)	2250 \\/
Maximum current	2.2 A	840 W 3.7 A	4.6 A	1540 W 6.7 A	2250 W 9.8 A
	Z.Z A	3.7 A		6.7 A	9.8 A
Voltage			230 V ± 8%		
Crest factor			3: 1		
Waveform and THD  Power efficiency	Line: 97%	Sine w	vave, < 3% THD with line Line: 97%	Line: 97%	Line: 97%
(under full load conditions)	Inverter: 85%	Inverter: 85%	Inverter: 87%	Inverter: 87%	Inverter: 87%
Transfer time			1/4 to 1/2 cycle (typical)		
Battery					
Type x quantity	8G24 x 4	8G24 x 4	8G24 x 4	8G24 x 4	8G24 x 4
Battery circuit breaker	30 A	60 A	40 A	60 A	80 A
Temperature range fully charged °F / °C			° to +140° F / -20° to +60 40° to +60° C with optic		1
Battery heater pad	2 x BH6	2 xBH6	2 x BH6	2 x BH6	2 x BH6
Rated load runtime @ 25° C	4 hr 18 min	2 hr 24 min	2 hr	1 hr 12 min	38 min
Recharge time to 90 %			23 hr	L	
Mechanical					
Enclosure	Light gray	powder coat aluminum	n cabinet with swing ou	t front door, NEMA 3R /	IP 44 rated
Dimensions		W: 24.0" / 610 m	m x H: 24.0" / 610 mm x	D: 17.1" / 434 mm	
Weight with batteries lbs(kg)	290 (132)	290 (132)	290 (132)	300 (136)	320 (145)
Mounting		Pole-Mou	ount: (with w/6 mounti nt: (with Pole-Mount Br nt: (with Pad-mount bra	acket PM1)	
Environmental					
Operating Temperature Range		14	° to +113° F ( -10° to +45°	C)	
Protection Against Moisture		Circui	t boards are conformal	coated	
Installation environment	Sun shade over n		equired to avoid solar h ted at least 2 km from c		Enclosure must be
Safety		IOCa	ted at least 2 MIII II OITI C	occari	
Suicty					
Safety listing	-	-	-	-	-

<sup>\*</sup>NOTE: Due to continuous product improvement, specifications are subject to change without notice.

Extended	240V, 6	0 Hz	Technic	al Specifi	cations*		
Model	XUPS-600-4560	XUPS-1000-4560	XUPS-1500-4560	XUPS-2200-4560	XUPS-3000-4560		
AC Input							
Nominal voltage			240 V, 60 Hz				
Operating voltage		200 V - 284	V (without transferring	to inverter)			
Frequency range			57 – 63 Hz				
Current at 200 V and max charging current	4.1 A	5.9 A	7.0 A	9.5 A	13 A		
Input Circuit Breaker rating	5 A	10 A	10 A	15 A	15 A		
Surge voltage withstand rating		ANSI/IEEE: 6 kV, 1.2 x	50 us / 3kA, 8 x 20 us co	mbination waveform			
Remnant voltage			L-N: 450V & L-G: 300V				
AC Output							
Power	500 W	840 W	1050 W	1540 W	2250 W		
Maximum current	2.1 A	3.5 A	4.4 A	6.4 A	9.4 A		
Voltage			240 V ± 8%	l			
Crest factor			3: 1				
Waveform and THD		Sine w	vave, < 3% THD with line	ear load			
Power efficiency	Line: 97%	Line: 97%	Line: 97%	Line: 97%	Line: 97%		
(under full load conditions) Transfer time	Inverter: 85%	Inverter: 85%	Inverter: 87%  1/4 to 1/2 cycle (typical)	Inverter: 87%	Inverter: 87%		
Transfer time			74 to 72 cycle (typical)				
Battery		1	1	Ī	T		
Type x quantity	8G24 x 4	8G24 x 4	8G24 x 4	8G24 x 4	8G24 x 4		
Battery circuit breaker	30 A	60 A	40 A	60 A	80 A		
Temperature range fully charged °F / °C			° to +140° F / -20° to +60 40° to +60° C with optic				
Battery heater pad	2 x BH6	2 xBH6	2 x BH6	2 x BH6	2 x BH6		
Rated load runtime @ 25° C	4 hr 18 min	2 hr 24 min	2 hr	1 hr 12 min	38 min		
Recharge time to 90 %			23 hr				
Mechanical							
Enclosure	Light gray	powder coat aluminum	n cabinet with swing ou	t front door, NEMA 3R /	IP 44 rated		
Dimensions		W: 24.0" / 610 m	m x H: 24.0" / 610 mm x	D: 17.1" / 434 mm			
Weight with batteries lbs(kg)	290 (132)	290 (132)	290 (132)	300 (136)	320 (145)		
Mounting		Pole-Mou	ount: (with w/6 mounti nt: (with Pole-Mount Br nt: (with Pad-mount bra	acket PM1)			
Environmental	•						
Operating Temperature Range		14	° to +113° F ( -10° to +45°	C)			
Protection Against Moisture		Circui	t boards are conformal	coated			
and Dust	Sun shade over n			eating (Not included). E	inclosure must be		
Installation environment		-	ted at least 2 km from c	- ,			
Safety	T			1			
Safety listing	-	-	-	-	-		

Warranty

Two-year limited warranty on parts and labor; One-year manufacturer warranty on batteries.

\*NOTE: Due to continuous product improvement, specifications are subject to change without notice.

Large	115V, 60		Technic	_			
Model	XUPS-600-0780	XUPS-1000-0780	XUPS-1500-0780	XUPS-2200-0780	XUPS-3000-078		
AC Input			115 V CO LI-				
Nominal voltage		06.1/ 176.1	115 V, 60 Hz				
Operating voltage		96 V - 136 V	V (without transferring	to inverter)			
Frequency range  Current at 96 V and			57 – 63 Hz				
max charging current	8.6 A	12 A	15 A	20 A	27 A		
Input Circuit Breaker rating	10 A	15 A	15 A	20 A	30 A		
Surge voltage withstand rating		ANSI/IEEE: 6 kV, 1.2 x	50 us / 3kA, 8 x 20 us co	mbination waveform			
Remnant voltage			L-N: 450V & L-G: 300V				
AC Output							
Power	500 W	840 W	1050 W	1540 W	2250 W		
Maximum current	4.3 A	7.3 A	9.1 A	13 A	20 A		
Voltage			115 V ± 8%				
Crest factor			3: 1				
Waveform and THD		Sine w	vave, < 3% THD with line	ear load			
Power efficiency (under full load conditions)	Line: 97% Inverter: 85%	Line: 97% Inverter: 85%	Line: 97% Inverter: 87%	Line: 97% Inverter: 87%	Line: 97% Inverter: 87%		
Transfer time	inverter. 93%	1/4 to 1/2 cycle (typical)					
Patton							
Battery Type x quantity	8G31 x 4	8G31 x 4	8G31 x 4	8G31 x 4	8G31 x 4		
Battery circuit breaker	30 A	60 A	40 A	60 A	80 A		
Temperature range fully	3071				3071		
charged °F / °C			° to +140° F / -20° to +60 40° to +60° C with optic				
Battery heater pad	2 x BH5	2 xBH5	2 x BH5	2 x BH5	2 x BH5		
Rated load runtime @ 25° C	6 hr 6 min	3 hr 18 min	2 hr 48 min	1 hr 42 min	1 hr 6 min		
Recharge time to 90 %			30 hr				
Marsharetaal							
Mechanical  Enclosure	Light gray	powder coat aluminum	n cabinet with swing ou	t front door, NEMA 3R /	IP 44 rated		
Dimensions		·	m x H: 24.0" / 610 mm x				
Weight with batteries lbs(kg)	360 (163)	360 (163)	380 (172)	380 (172)	390 (177)		
5	(9)		ount: (with w/6 mounti		(.,,)		
Mounting			nt: (with Pole-Mount Brait: (with Pad-mount bra	,			
Environmental			,	,			
Operating Temperature Range		14	° to +113° F ( -10° to +45°	C)			
Protection Against Moisture			t boards are conformal	,			
and Dust	Sun shade over n	orth facing enclosure re			Enclosure must be		
Installation environment			ted at least 2 km from c				
Safety							
Safety listing	ETL/cETL	ETL/cETL	ETL/cETL	ETL/cETL	ETL/cETL		

\*NOTE: Due to continuous product improvement, specifications are subject to change without notice.

Large	230V, 50 Hz		Technical Spe		CITICALIOTIS			
Model	XUPS-600-3780	XUPS-1000-3780	XUPS-1500-3780	XUPS-2200-3780	XUPS-3000-378			
AC Input								
Nominal voltage	230 V, 50 Hz							
Operating voltage	192 V - 272 V (without transferring to inverter)							
Frequency range	47 – 53 Hz							
Current at 192 V and max charging current	4.3 A	6.1 A	7.3 A	9.9 A	14 A			
nput Circuit Breaker rating	5 A	10 A	10 A	15 A	15 A			
Surge voltage withstand rating		ANSI/IEEE: 6 kV, 1.2 x	50 us / 3kA, 8 x 20 us co	mbination waveform	•			
Remnant voltage			L-N: 450V & L-G: 300V					
AC Output								
Power	500 W	840 W	1050 W	1540 W	2250 W			
Maximum current	2.2 A	3.7 A	4.6 A	6.7 A	9.8 A			
/oltage	230 V ± 8%							
Crest factor	3:1							
Waveform and THD	Sine wave, < 3% THD with linear load							
Power efficiency	Line: 97%	Line: 97%	Line: 97%	Line: 97%	Line: 97%			
(under full load conditions)	Inverter: 85%	Inverter: 85%	Inverter: 87%  1/4 to 1/2 cycle (typical)	Inverter: 87%	Inverter: 87%			
			7. co 72 oyo.o (cyp.oa.)					
Battery				T				
Type x quantity	8G31 x 4	8G31 x 4	8G31 x 4	8G31 x 4	8G31 x 4			
Battery circuit breaker	30 A	60 A	40 A	60 A	80 A			
Femperature range fully charged °F / °C	-4° to +140° F / -20° to +60° C ( -40° to +140° F / -40° to +60° C with optional battery heater)							
Battery heater pad	2 x BH6	2 xBH6	2 x BH6	2 x BH6	2 x BH6			
Rated load runtime @ 25° C	6 hr 6 min	3 hr 18 min	2 hr 48 min	1 hr 42 min	1 hr 6 min			
Recharge time to 90 %	30 hr							
Mechanical								
Enclosure	Light gray	powder coat aluminum	n cabinet with swing ou	t front door, NEMA 3R /	IP 44 rated			
Dimensions		W: 28.8" / 732 m	m x H: 24.0" / 610 mm x	D: 17.1" / 434 mm				
Weight with batteries lbs(kg)	360 (163)	360 (163)	380 (172)	380 (172)	390 (177)			
Mounting	Wall-Mount: (with w/6 mounting feet); Pole-Mount: (with Pole-Mount Bracket PM4) Pad-mount: (with Pad-mount bracket PAD2)							
Environmental								
Operating Temperature Range		14	° to +113° F ( -10° to +45°	C)				
Protection Against Moisture		Circui	t boards are conformal	coated				
Installation environment	Sun shade over north facing enclosure required to avoid solar heating (Not included). Enclosure must be located at least 2 km from ocean							
Safety		10Ca	ted at least 2 KIII II OIII C	occui i				
Safety listing	-	-	-	-	-			

Warranty

<sup>\*</sup>NOTE: Due to continuous product improvement, specifications are subject to change without notice.

	240V, 60 Hz		1	<u> </u>	cations'			
Model	XUPS-600-4780	XUPS-1000-4780	XUPS-1500-4780	XUPS-2200-4780	XUPS-3000-478			
AC Input								
Nominal voltage	240 V, 60 Hz							
Operating voltage	200 V - 284 V (without transferring to inverter)							
Frequency range		57 – 63 Hz						
Current at 200 V and max charging current	4.1 A	5.9 A	7.0 A	9.5 A	13 A			
nput Circuit Breaker rating	5 A	10 A	10 A	15 A	15 A			
Surge voltage withstand rating		ANSI/IEEE: 6 kV, 1.2 x	50 us / 3kA, 8 x 20 us co	mbination waveform				
Remnant voltage			L-N: 450V & L-G: 300V					
AC Output								
Power	500 W	840 W	1050 W	1540 W	2250 W			
Maximum current	2.1 A	3.5 A	4.4 A	6.4 A	9.4 A			
/oltage	240 V ± 8%							
Crest factor	3:1							
Waveform and THD		Sine wave, < 3% THD with linear load						
Power efficiency (under full load conditions)	Line: 97%	Line: 97%	Line: 97%	Line: 97%	Line: 97%			
Transfer time	inverter. 85%	Inverter: 85% Inverter: 87% Inverter: 87% Inverter: 87% Inverter: 87% Inverter: 87%						
			3 (31 /					
Battery	8G31 x 4	8G31 x 4	8G31 x 4	8G31 x 4	8G31 x 4			
Type x quantity								
Battery circuit breaker	30 A	60 A	40 A	60 A	80 A			
Femperature range fully charged °F / °C			° to +140° F / -20° to +60 40° to +60° C with optic					
Battery heater pad	2 x BH6	2 xBH6	2 x BH6	2 x BH6	2 x BH6			
Rated load runtime @ 25° C	6 hr 6 min	3 hr 18 min	2 hr 48 min	1 hr 42 min	1 hr 6 min			
Recharge time to 90 %		30 hr						
Mechanical								
Enclosure	Light gray	powder coat aluminum	n cabinet with swing ou	t front door, NEMA 3R /	IP 44 rated			
Dimensions		W: 28.8" / 732 m	m x H: 24.0" / 610 mm x	D: 17.1" / 434 mm				
Weight with batteries lbs(kg)	360 (163)	360 (163)	380 (172)	380 (172)	390 (177)			
Mounting	Wall-Mount: (with w/6 mounting feet); Pole-Mount: (with Pole-Mount Bracket PM4) Pad-mount: (with Pad-mount bracket PAD2)							
Environmental								
Operating Temperature Range		14	° to +113° F ( -10° to +45°	C)				
Protection Against Moisture		Circui	t boards are conformal	coated				
Installation environment	Sun shade over north facing enclosure required to avoid solar heating (Not included). Enclosure must be							
Safoty		юса	ted at least 2 km from c	ocean				
Safety		<u> </u>						
Safety listing	-	-	-	-	-			

Warranty

<sup>\*</sup>NOTE: Due to continuous product improvement, specifications are subject to change without notice.

XL	115V, 60 Hz		<b>Technical Specifications</b>					
Model	XUPS-600-0890	XUPS-1000-0890	XUPS-1500-0890	XUPS-2200-0890	XUPS-3000-089			
AC Input								
Nominal voltage	115 V, 60 Hz							
Operating voltage	96 V - 136 V (without transferring to inverter)							
requency range	57 – 63 Hz							
Current at 96 V and max charging current	8.6 A	12 A	15 A	20 A	27 A			
nput Circuit Breaker rating	10 A	15 A	15 A	20 A	30 A			
Surge voltage withstand rating		ANSI/IEEE: 6 kV, 1.2 x	50 us / 3kA, 8 x 20 us co	mbination waveform				
Remnant voltage			L-N: 450V & L-G: 300V					
AC Output								
Power	500 W	840 W	1050 W	1540 W	2250 W			
Maximum current	4.3 A	7.3 A	9.1 A	13 A	20 A			
/oltage 120 V / 230 V system		<u>l</u>	115 V ± 8%	<u> </u>	1			
Crest factor			3: 1					
Waveform and THD		Sine w	vave, < 3% THD with line	ar load				
Power efficiency	Line: 97%	Line: 97%	Line: 97%	Line: 97%	Line: 97%			
(under full load conditions) Transfer time	Inverter: 85%	Inverter: 85%	Inverter: 87%  1/4 to 1/2 cycle (typical)	Inverter: 87%	Inverter: 87%			
			7 : 20 72 0y 0.0 (cy p.00.)					
Battery			<b>1</b>					
Type x quantity	8G4D x 4	8G4D x 4	8G4D x 4	8G4D x 4	8G4D x 4			
Battery circuit breaker	30 A	60 A	40 A	60 A	80 A			
Femperature range fully charged °F / °C	-4° to +140° F / -20° to +60° C ( -40° to +140° F / -40° to +60° C with optional battery heater)							
Battery heater pad	2 x BH5 Double	2 xBH5 Double	2 x BH5 Double	2 x BH5 Double	2 x BH5 Double			
Rated load runtime @ 25° C	12 hr	6 hr 45 min	5 hr 40 min	3 hr 30 min	2 hr 15 min			
Recharge time to 90 %			56 hr	l	1			
Mechanical								
Enclosure	Light gray	powder coat aluminum	n cabinet with swing ou	t front door, NEMA 3R /	IP 44 rated			
Dimensions		W: 36.0" / 914 m	m x H: 36.0" / 914 mm x	D: 13.5" / 343 mm				
Weight with batteries lbs(kg)	680 (308)	680 (308)	680 (308)	680 (308)	710 (322)			
Mounting	Wall-Mount: (with w/6 mounting feet); Pole-Mount: (with Pole-Mount Bracket PM3) Pad-mount: (with Pad-mount bracket PAD4)							
Environmental								
Operating Temperature Range		14	° to +113° F ( -10° to +45°	C)				
Protection Against Moisture and Dust		Circui	t boards are conformal	coated				
Installation environment	Sun shade over n		equired to avoid solar h		Enclosure must be			
Safety	<u> </u>	loca	led at least 2 km from c	ocean				
	ETL/cETL	ETL/cETL	ETL/cETL	ETL/cETL	ETL/cETL			

<sup>\*</sup>NOTE: Due to continuous product improvement, specifications are subject to change without notice.

	230V, 50 Hz		1		cations'				
Model	XUPS-600-3890	XUPS-1000-3890	XUPS-1500-3890	XUPS-2200-3890	XUPS-3000-389				
AC Input									
Nominal voltage	230 V, 50 Hz								
Operating voltage	192 V - 272 V (without transferring to inverter)								
Frequency range		47 – 53 Hz							
Current at 96 V and max charging current	4.7 A	6.5 A	7.6 A	10 A	14 A				
nput Circuit Breaker rating	5 A	10 A	10 A	15 A	15 A				
Surge voltage withstand rating		ANSI/IEEE: 6 kV, 1.2 x	50 us / 3kA, 8 x 20 us co	mbination waveform					
Remnant voltage			L-N: 450V & L-G: 300V						
AC Output									
Power	500 W	840 W	1050 W	1540 W	2250 W				
Maximum current	2.2 A	3.7 A	4.6 A	6.7 A	9.8 A				
/oltage		230 V ± 8%							
Crest factor	3:1								
Waveform and THD		Sine wave, < 3% THD with linear load							
Power efficiency	Line: 97%	Line: 97%	Line: 97%	Line: 97%	Line: 97%				
(under full load conditions)	Inverter: 85%	Inverter: 85%	Inverter: 87%  1/4 to 1/2 cycle (typical)	Inverter: 87%	Inverter: 87%				
iransier diffe			74 to 72 cycle (typical)						
Battery		T	T	T	ı				
Type x quantity	8G4D x 4	8G4D x 4	8G4D x 4	8G4D x 4	8G4D x 4				
Battery circuit breaker	30 A	60 A	40 A	60 A	80 A				
Femperature range fully charged °F / °C			° to +140° F / -20° to +60 40° to +60° C with optic						
Battery heater pad	2 x BH6 Double	2 xBH6 Double	2 x BH6 Double	2 x BH6 Double	2 x BH6 Double				
Rated load runtime @ 25° C	12 hr	6 hr 45 min	5 hr 40 min	3 hr 30 min	2 hr 15 min				
Recharge time to 90 %	56 hr								
Mechanical									
Enclosure	Light gray	powder coat aluminum	n cabinet with swing ou	t front door, NEMA 3R /	IP 44 rated				
Dimensions		W: 36.0" / 914 mi	m x H: 36.0" / 914 mm x	D: 13.5" / 343 mm					
Weight with batteries lbs(kg)	680 (308)	680 (308)	680 (308)	680 (308)	710 (322)				
Mounting	Wall-Mount: (with w/6 mounting feet); Pole-Mount: (with Pole-Mount Bracket PM3) Pad-mount: (with Pad-mount bracket PAD4)								
Environmental				•					
Operating Temperature Range		14	° to +113° F ( -10° to +45°	C)					
Protection Against Moisture		Circui	t boards are conformal	coated					
Installation environment	Sun shade over north facing enclosure required to avoid solar heating (Not included). Enclosure must be located at least 2 km from ocean								
Safety		ioca	ted at least 2 KIII II OIII C	occuri					
Safety listing	-	-	-	-	-				

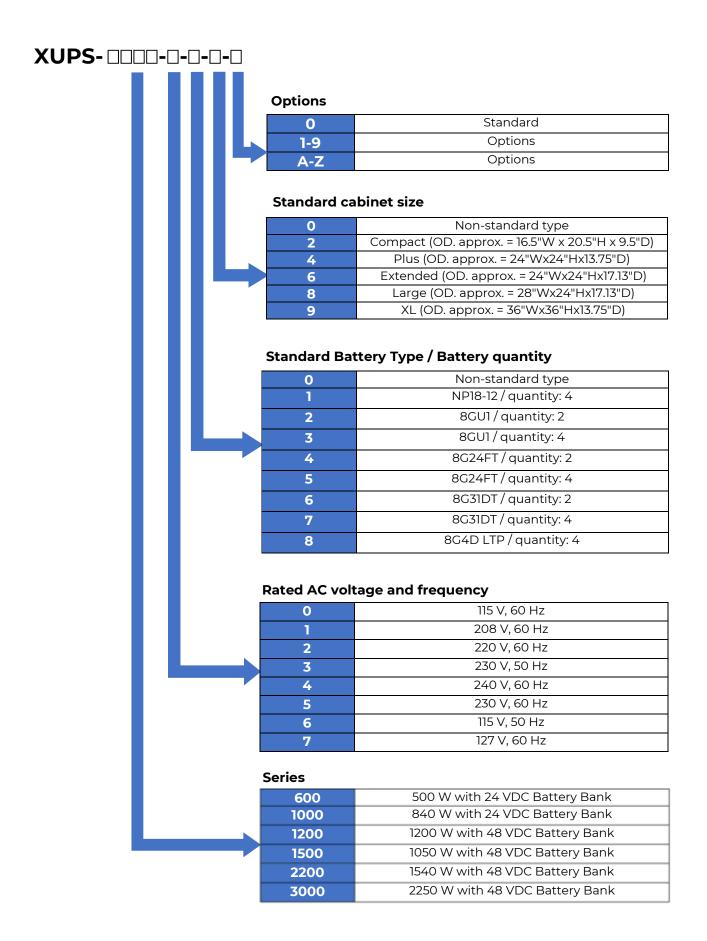
<sup>\*</sup>NOTE: Due to continuous product improvement, specifications are subject to change without notice.

XL	240V, 60 Hz		<b>Technical Specifications</b>					
Model	XUPS-600-4890	XUPS-1000-4890	XUPS-1500-4890	XUPS-2200-4890	XUPS-3000-4890			
AC Input								
Nominal voltage	240 V, 60 Hz							
Operating voltage	200 V - 284 V (without transferring to inverter)							
Frequency range	57 – 63 Hz							
Current at 96 V and max charging current	4.5 A	6.3 A	7.3 A	9.9 A	14 A			
Input Circuit Breaker rating	5 A	10 A	10 A	15 A	15 A			
Surge voltage withstand rating		ANSI/IEEE: 6 kV, 1.2 x	1 50 us / 3kA, 8 x 20 us co	I ombination waveform	<u> </u>			
Remnant voltage			L-N: 450V & L-G: 300V					
AC Output								
Power	500 W	840 W	1050 W	1540 W	2250 W			
Maximum current	2.1 A	3.5 A	4.4 A	6.4 A	9.4 A			
Voltage	240 V ± 8%							
Crest factor	3:1							
Waveform and THD	Sine wave, < 3% THD with linear load							
Power efficiency	Line: 97%	Line: 97%	Line: 97%	Line: 97%	Line: 97%			
(under full load conditions) Transfer time	Inverter: 85%	Inverter: 85% Inverter: 87% Inverter: 87% Inverter: 87% Inverter: 87%						
			7. co 72 oj olo (cj plodi)					
Battery		1	1	Ī	1			
Type x quantity	8G4D x 4	8G4D x 4	8G4D x 4	8G4D x 4	8G4D x 4			
Battery circuit breaker	30 A	60 A	40 A	60 A	80 A			
Temperature range fully charged °F / °C	-4° to +140° F / -20° to +60° C ( -40° to +140° F / -40° to +60° C with optional battery heater)							
Battery heater pad	2 x BH6 Double	2 xBH6 Double	2 x BH6 Double	2 x BH6 Double	2 x BH6 Double			
Rated load runtime @ 25° C	12 hr	6 hr 45 min	5 hr 40 min	3 hr 30 min	2 hr 15 min			
Recharge time to 90 %			56 hr		1			
Mechanical								
Enclosure	Light gray	powder coat aluminum	n cabinet with swing ou	t front door, NEMA 3R /	IP 44 rated			
Dimensions	W: 36.0" / 914 mm x H: 36.0" / 914 mm x D: 13.5" / 343 mm							
Weight with batteries lbs(kg)	680 (308)	680 (308)	680 (308)	680 (308)	710 (322)			
Mounting	Wall-Mount: (with w/6 mounting feet); Pole-Mount: (with Pole-Mount Bracket PM3) Pad-mount: (with Pad-mount bracket PAD4)							
Environmental								
Operating Temperature Range		14	° to +113° F ( -10° to +45°	C)				
Protection Against Moisture and Dust	Circuit boards are conformal coated							
Installation environment	Sun shade over north facing enclosure required to avoid solar heating (Not included). Enclosure must be located at least 2 km from ocean							
Safety		10Ca	at least 2 KIII HOITI C	, court				
Safety listing	-	_	-	-	-			

Warranty

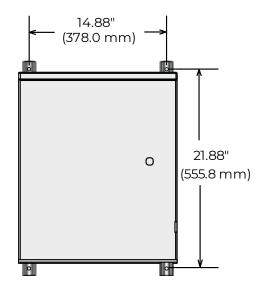
<sup>\*</sup>NOTE: Due to continuous product improvement, specifications are subject to change without notice.

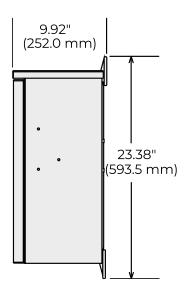
### **Model Number Selection Guide**

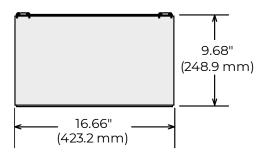


Dimensions shown are for standard wall mount type. For other mounting, please contact us for details.

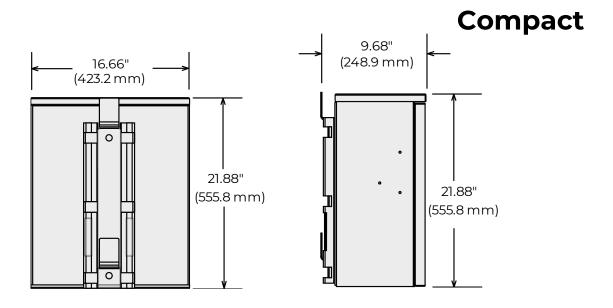
# **Compact**

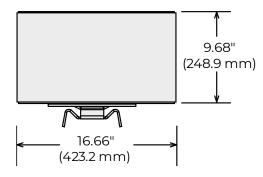






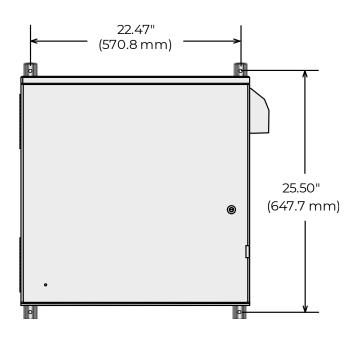
Dimensions shown are for pole mount type. For other mounting, please contact us for details.

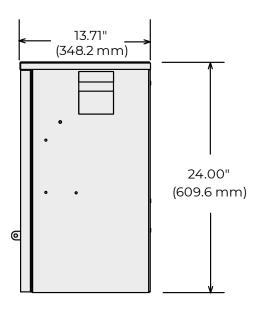


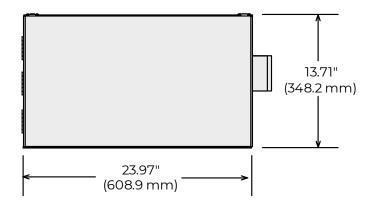


Dimensions shown are for standard wall mount type.

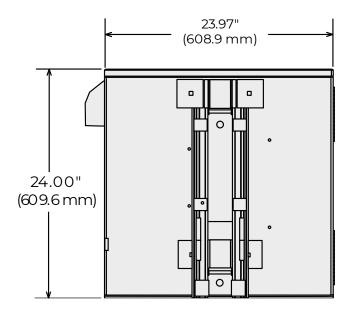
### **Plus**

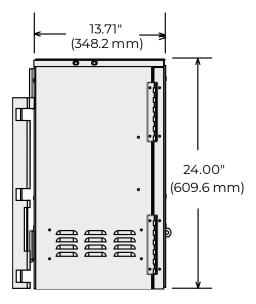


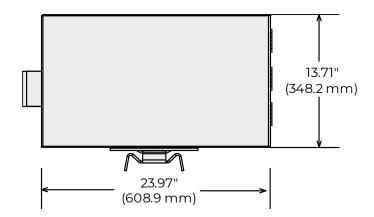




## **Plus**

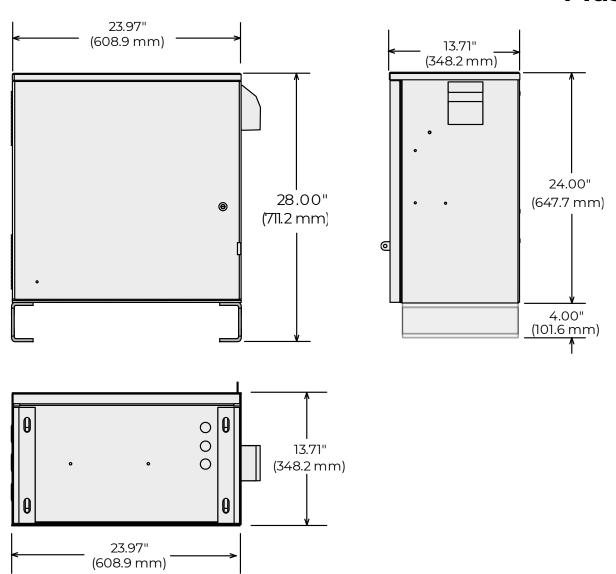






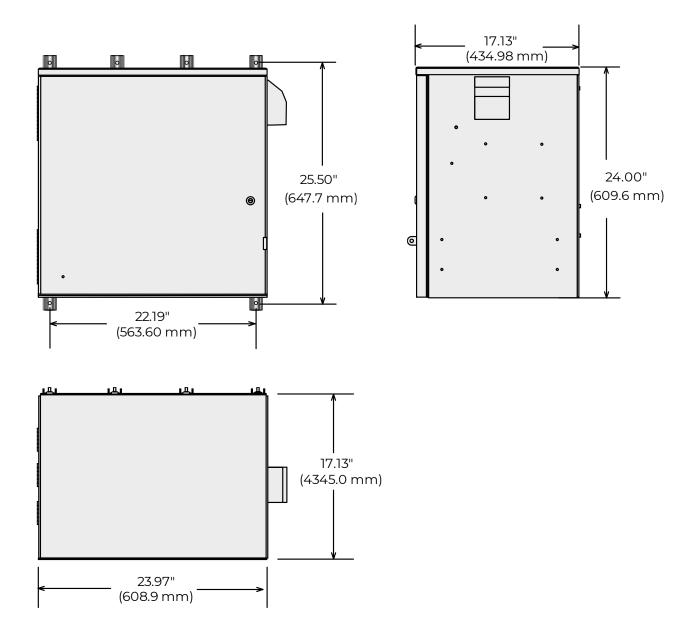
Dimensions shown are for pad mount type.

## **Plus**



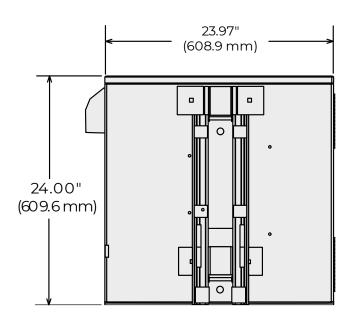
Dimensions shown are for standard wall mount type.

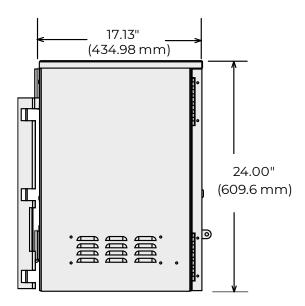
### **Extended**

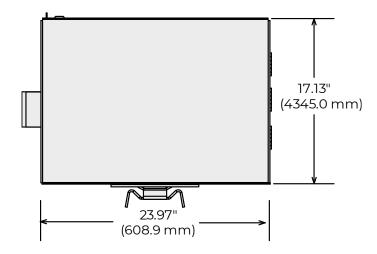


Dimensions shown are pole mount type. For other mounting, please contact us for details

## **Extended**

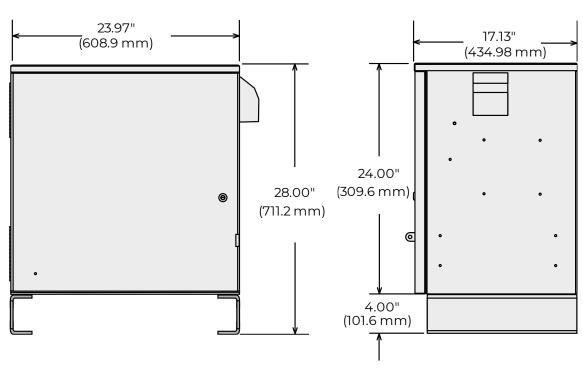


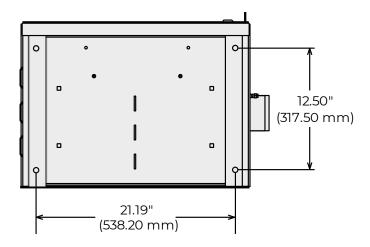




Dimensions shown are pad mount type. For other mounting, please contact us for details

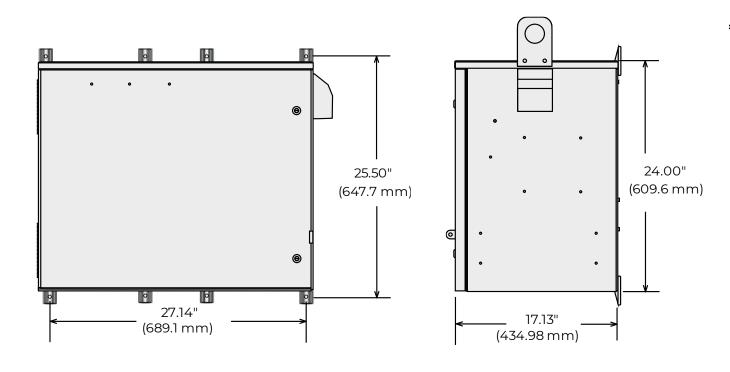
## **Extended**

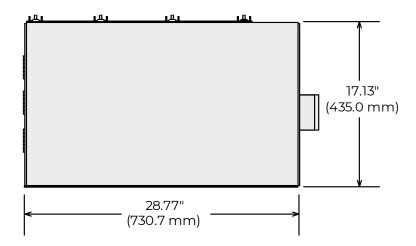




Dimensions shown are for standard wall mount type. For other mounting, please contact us for details

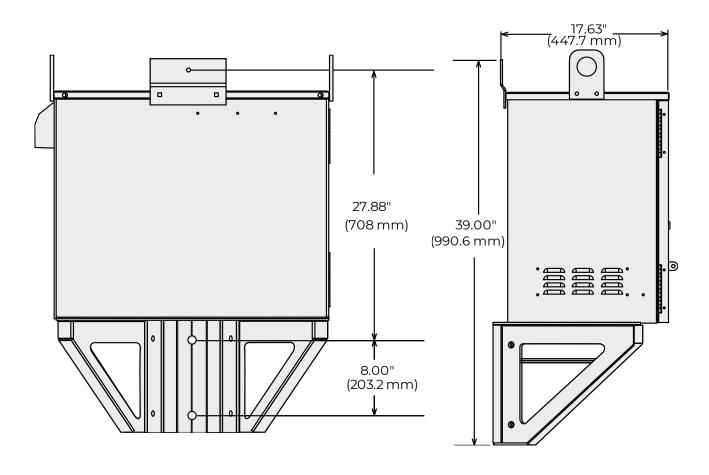
# Large

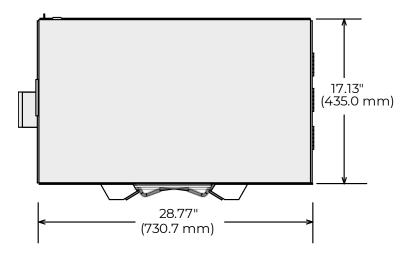




Dimensions shown are for pole mount type. For other mounting, please contact us for details

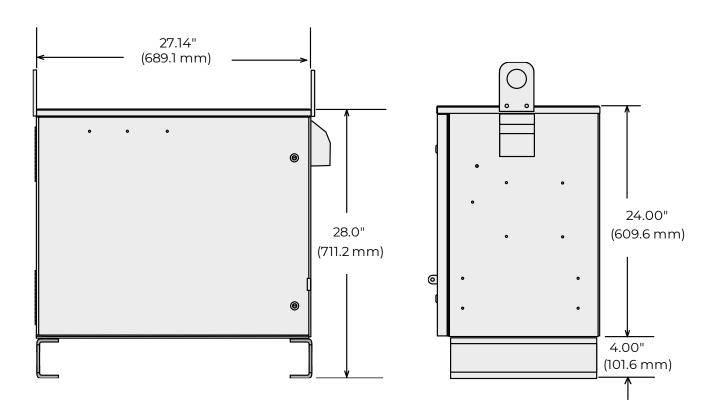
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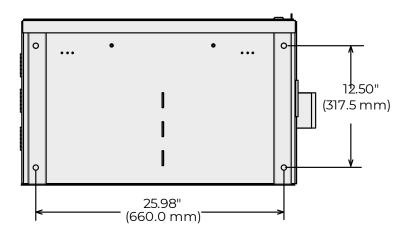




Dimensions shown are for pad mount type. For other mounting, please contact us for details

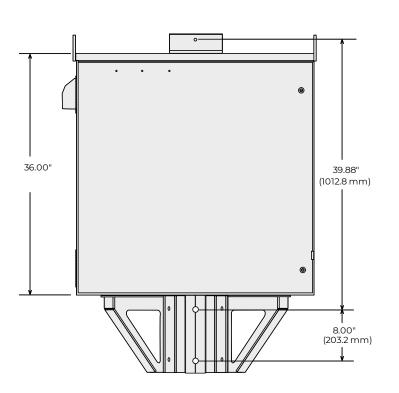
# Large

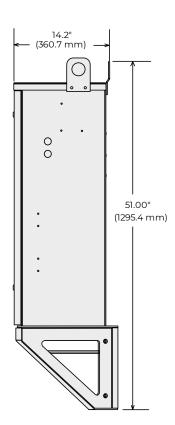


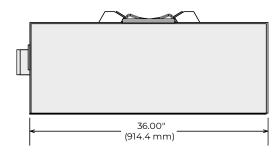


Dimensions shown are for standard wall and pole mount type. For other mounting, please contact us for details

XL

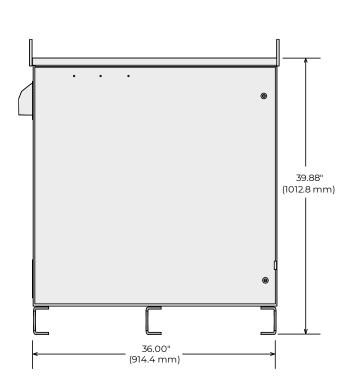


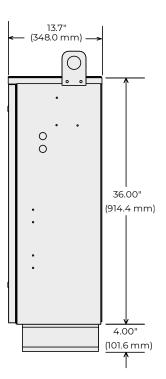


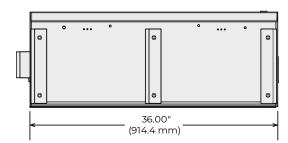


Dimensions shown are for pad mount type. For other mounting, please contact us for details

XL







### Backup time with different battery bank

The different XUPS products provides the required backup time according the application requirements and load factor. The following tables show the backup time for the various XUPS products for different load.

These run times are estimates at 25 °C, and are subject to change.

	Compact 24 V	Compact 48 V	Plus	Extended	Large	XL
Batteries	2 x 8GU1	4 x NP18-12	4 x 8GU1	4 x 8G24	4 x 8G31	4 x 8G4D
10 W	20 hr	20 hr	56 hr	140 hr	230 hr	500 hr
25 W	8 hr 4 min	8 hr	23 hr	57 hr	95 hr	200 hr
50 W	4 hr	4 hr	11 hr	28 hr	47 hr	100 hr
100 W	2 hr	2 hr	5 hr 37 min	14 hr	24 hr	51 hr
250 W	48 min	48 min	2 hr 15 min	5 hr 40 min	9 hr 27 min	20 hr
500 W	34 min	39 min	1 hr 27 min	4 hr 20 min	6 hr 5 min	12 hr
840 W	14 min	19 min	40 min	2 hr 25 min	3 hr 20 min	6 hr 45 min
1050 W	-	13 min	33 min	2 hr	2 hr 45 min	5 hr 40 min
1540 W	-	8 min	-	1 hr 10 min	1 hr 40 min	3 hr 30 min
2250 W	-	-	-	38 min	1 hr 3 min	2 hr 15 min





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