

overview

The Panduit® SmartZone™ Intelligent Rack UPS with compact, high capacity, and long life Lithium Ion battery, 1-3kVA single phase 120 V Line-Interactive unit and 230 V unit with pure Online Double Conversion system that delivers highly efficient and reliable power protection and backup power for your computer IT equipment. With excellent electrical performance, enhanced intelligent monitoring and network functions and complying with EMC and safety standards to meet the continually growing power demands of Data Center, Enterprise and Edge IT equipment.





key features and benefits

Key leatures and	Delicites
Rack/Tower convertible	Support rack/tower installation with rotatable colorful LCD display
Online Double Conversion with fully digital control (EMEA unit only)	Provides stable and clean power with less ripple by filtering noise, automatic voltage regulation (AVR) and surge protection
Wide input voltage range	(110-300Vac Online models) (75-146Vac Line Interactive models), covering more voltage range, applicable for severe situation such as large power grid fluctuation
High efficiency	Up to 96.5% for Online models and up to 98.5% for Line-interactive models, reducing the energy waste and the cost of electricity
Energy savings	High Efficiency on Smart ECO mode for Online Double Conversion models
Green design	RoHS and Reach, CE, NOM/UL/ENERGY STAR® 2.0 for North America
Output unity power factor	Means more active power for IT equipment load
Input power factor	Power factor correction topology on the input side dramatically reducing the total harmonic distortion (THD)
Intelligent Battery Management	The most optimal curve with advanced algorithms prolonging the battery life
EPO function (Emergency Power Off)	Allows to quickly and easy shut down the UPS when emergency event occurs
Generator compatible	Wide input frequency and voltage, supports connecting to generators, ensuring the uninterruptible operation
Hot-Swappable battery design	Can perform the replacement of battery cartridge without powering down the UPS
Cold start function	Allows to boot up the UPS without mains input but with batteries
Intelligent fan speed regulation	Automatic adjustment of fan speed due to the ambient temperature and load percentage
Programmable outlet group with Smart Load Shedding	Loads connected to the programmable group can lose power first, saving more energy and extending the runtime for critical load. Smart Load Shed allows logical group shutdown with time or load.
Segment colorful LCD	Colorful LCD with four buttons and LED indicators, providing intuitive display
Multiple communication interface	RS232/USB/intelligent slot, realizing communication and monitoring function
Comprehensive protection function	Short-circuit, overload, overheat, battery overcharge and over discharge, output low voltage, fan fault alarm and RJ45 surge protection
Intelligent Network Management Card (included with N Models*)	Provides harden security remote access via Ethernet Secure SNMPv3 protocol to monitor and manage the UPS, micro-USB for firmware upgrade and RS-485 for connecting environmental and security sensors. Built-in WiFi and Bluetooth hardware support with future optional firmware upgrade.
SmartZone™ Cloud Ready (included with N Models*)	Support for technology allowing to easily, securely and quickly connect to SmartZone™ Cloud DCIM with management, monitoring, control and alerting of Power Chain, Environmental, Cooling, Security, Asset, and Connectivity Infrastructure Assets.
SmartZone™ mPower Management Software	Configure, monitor, and manage the UPS (includes graceful equipment shutdown) remotely via RS-232 or USB or Ethernet. Software is available for free download from www.panduit.com/ups.

^{*}N Model UPS has an N in the 4th digit of the part number, e.g. U01N12L

SmartZone[™] UPS 1-3kVA Lithium Ion

product specifications
• International 1-3kVA 230 V Lithium Ion (Online Models)

MODEL		U01S12L/U01N12L	U02S12L/U02N12L	U03S12L/U03N12L	
Output power capacity		1000 VA/1000 W	2000 VA/2000 W	3000 VA/3000 W	
Max Configurable Power (Watts)		1000 VA	2000 VA	3000 VA	
OUTPUT					
Max Config (Watts)	urable Power	1000 W	2000 W	3000 W	
Nominal ou	tput voltage	230 Vac (220/240 Vac selectable)			
Output voltage	Linear load	<3%			
distortion	Non linear load	<5%			
Output	Online mode	50/60 ± 4 Hz			
frequency	Battery mode	50/60 ± 0.1 Hz			
Output pow	ver factor	1.0			
Load crest	factor		3:1		
Topology			Double Conversion Online		
Waveform			Pure Sine Wave		
Overload	Online mode	105% - 125%: 1 min; 125	5% - 130%: 30 s; > 130%: 200	ms, transfer to bypass	
capability Battery mode		105% - 125%: 1 min; 125% - 130%: 10 s; > 130%: 200 ms, shut down			
Transfer Online mode <-> Battery mode		0 ms			
time (typical)	Inverter <-> Bypass	4 ms			
Efficiency.	Online mode	90.0%	92.0%	92.0%	
Efficiency	ECO mode	95.0%	96.0%	96.5%	
Output	Programmable	(4) IEC C13		(4) IEC C13	
connection Non-programmable		(4) IEC C13		(1) IEC C19; (4) IEC C13	
Bypass		Internal			
INPUT					
Nominal inp	out voltage	230 Vac (220 Vac/240 Vac selectable)		ble)	
Input voltage	Full load	176 - 264 Vac			
range	Half load	110 - 300 Vac			
Input freque	ency range	40 - 70 Hz (auto sensing)			
Input conne	ection			C20 socket (2 cords included)	
Input power factor		>0.98 (full load)			
Cord Length		1.8 m (6 ft.)			
Number of Power Cords		Schuko CEE 7/EU1-16P and BS1363A			
BATTERY					
Battery type		Lithium-Ion (LiFePO4)			
Typical recharge time		-	3 hrs. to 90%	T	
Battery volt		25.6 Vdc	76.8 Vdc	76.8 Vdc	
Charging current (max.)			2 A		

• International 1-3kVA 230 V Lithium Ion (Online Models) (continued)

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Backup Full load	9 min.	9 min.	9 min.
time Half load	20 min.	18 min.	18 min.
Expected Battery Life (years)		8-10 yrs.	
Internal Replacement Cartridge	ULC024	ULC272	ULC372
COMMUNICATION & MANAGE	MENT		
Communication ports	USB, RS232, intelligent slot		
Pre-Installed SmartZone™ iNMC Card	N model only		
Local Display/Control Panel		Segment colorful screen	
Audible Alarm		Yes	
Emergency Power Off (EPO)		Yes	
ENVIRONMENTAL			
Operating temperature	32°l	F - 104°F (0°C - 40°C) (no derati	ing)
Storage temperature		-25°C - 55°C (without batteries)	
Relative humidity		0 - 95% (non-condensing)	
Operating elevation		Up to 3000 m (derated 10%)	
Online thermal dissipation	95 BTU/hr.	142 BTU/hr.	334 BTU/hr.
Protection Class	IP20		
Noise level	<55dB at 1 m		
CONFORMANCE			
Safety	CB: IEC 62040-1:2017, CE-LVD: EN 62040-1:2008+A1: 2013, IEC 62133 (cell), IEC 62619 (pack)		
EMC	IEC 62040-2-2016, EN 62040-2-2018, BS62040-2-2018		
Transportation	ISTA Procedure 2A, UN 38.3		
Surge protection	ANSI C62.41 Category A (380 J)		
CUSTOMER SERVICE			
Warranty	5 years (UPS & Battery)		
SUSTAINABLE OFFER STATUS			
RoHS	Compliant		
Proposition 65 Warning	See Safety Sheet (IM053)		
PHYSICAL			
Maximum Height	86.5mm		
Maximum Width	440mm		
Maximum Depth	325mm	500mm	640mm
Rack Height	2 RU		
Net Weight	9.3kg	16.1kg	21kg
Shipping Weight	16.3kg	23.6kg	28.8kg
Shipping Height	202mm (7.95 in.)		
Shipping Width		555mm (21.8 in.)	
Shipping Depth	545mm (21.4 in.)	630mm (24.8 in.)	770mm (29.9 in.)
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• North America 1-3 kVA 120 V Lithium Ion (Line Interactive Models)

MODEL		U01S11L/U01N11L	U02S11L/U02N11L	U03S11L/U03N11L	
Output power capacity		1000 VA	1500 VA	3000 VA	
Max Configurable Power (Watts)		900 W	1350 W	2700 W (UL derated)	
Nominal ou	tput voltage	120 Va	ac (100/110/115/125 Vac selec	table)	
Output Linear load voltage distortion Non linear load		<2%			
		<5%			
Output	Line mode	Sychronize with input			
frequency	Battery mode	50/60 ± 0.1 Hz			
Output pow	ver factor	0.9			
Load crest	factor		3:1		
Topology			Line-interactive		
Waveform			Pure Sine Wave		
			105%-110%, last warning		
	Line mode		-120%, alarm for 10s and shute		
Overload		>120%, shut down immediately			
capability		105%-110%, last warning			
	Battery mode		-120%, alarm for 10s and shute		
			>120%, shut down immediately	,	
Transfer time (typical)			4 - 6 ms.		
Efficiency	Line mode	98.5%	98.5%	97%	
Liliciency	Battery mode	87.5%	89.5%	89.5%	
Output	Programmable	(2) NEMA 5-15R		(2) NEMA 5-20R	
connection	Non-Programmable	(4) NEMA 5-15R		(1) NEMA L5-30R; (2) NEMA 5-20R	
Bypass			Internal		
INPUT					
Nominal inp	out voltage		100 - 125Vac		
Input voltage range	Full load	75 - 146Vac			
Input freque	ency range	50/60 Hz (auto sensing)			
Input connection		NEMA 5-15P		NEMA L5-30P	
Cord length			3 m (10 ft.)		
Number of power cords		1 (fixed)			
BATTERY					
Battery typ	е		Lithium-Ion (LiFePO4)		
Typical recharge time		3 hrs. to 90%			
Battery voltage		25.6 Vdc	48 Vdc	76.8 Vdc	
Charging co	urrent (max.)		2.5 A		
Backup	Full load	9.5 min.	8 min.	9.5 min.	
time	Half load	22.5 min.	19.5 min.	22.5 min.	
Expected E	Sattery Life (years)		8-10 yrs.		
Internal Replacement Cartridge		ULC024	ULC048	ULC372	

• North America 1-3kVA 120 V Lithium Ion (continued)

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COMMUNICATION & MANAGE	MENT			
Communication ports	USB, RS232, intelligent slot			
Pre-Installed SmartZone™ iNMC Card	N model only			
Local Display/Control Panel		Segment colorful screen		
Audible Alarm		Yes		
Emergency Power Off (EPO)		Yes		
ENVIRONMENTAL				
Operating temperature	32°F	- 104°F (0°C - 40°C) (no derat	ing)	
Storage temperature	-	-25°C - 55°C (without batteries)		
Relative humidity		0 - 95% (non-condensing)		
Operating elevation		Up to 3000 m (derated 10%)		
Operating elevation		Up to 3000 m (derated 10%)		
Online thermal dissipation	95 BTU/hr.	142 BTU/hr.	334 BTU/hr.	
Protection Class		IP20		
Noise level	<55dB at 1 m			
CONFORMANCE				
Safety	cTUVus: UL1778 5th Edition, CSA C22.2 NO.107.3-14, UL 1642 (cell), UL 1973 (pack)			
FCC	FCC Part 15 Subpart B Class A, ANSI C63.4-2014			
Transportation	ISTA Procedure 2A, UN 38.3			
Surge protection	IEEE/ANSI C62.41 Category A Level 3			
CUSTOMER SERVICE				
Warranty	5 years (UPS & Battery)			
SUSTAINABLE OFFER STATUS	8			
RoHS	Compliant			
Proposition 65 Warning	See Safety Sheet (IM053)			
PHYSICAL				
Maximum Height	86.5mm (3.42 in.)			
Maximum Width	440mm (17.2 in.)			
Maximum Depth	460mm (18.1 in.) 640mm (25.1 in.)		640mm (25.1 in.)	
Rack Height	2 RU			
Net Weight	14.0kg (30.8 lbs.)	15.4kg (33.8 lbs.)	28.4kg (62.4 lbs.)	
Shipping Weight	20.7kg (45.5 lbs.)	22.3kg (49.0 lbs.)	35.8kg (78.7 lbs.)	
Shipping Height		202mm (7.95 in.)		
Shipping Width	555mm (21.8 in.)			
Shipping Depth	590mm (23.2 in.) 760mm (29.9 in.)			
Color	Black			

UPS accessories

URC005	Relay card (MiniAS400) (12 V) (for 1 to 10kVA single phase UPS units)	
UNCP01	Panduit® Intelligent Network Management Card (iNMC)	
	See iNMC specs for more details	
UTOWFT	Tower stabilizer brackets	
URMKIT2	Rack mount rail kit for 1-3kVA & 5-20kVA UPS and EBP	

U01N12L (Rear)



U02N12L (Rear)



U03N12L (Rear)



U01N11L (Rear)



U02N11L (Rear)



U03N11L (Rear)



For more information, contact the UPS Technical Support Team at techsupport@panduit.com or the UPS and DCIM System Support Team at systemsupport@panduit.com. Click here for firmware updates and the user manual.

For downloading the latest firmware as well as downloading a copy of SmartZone mPower, go to https://www.panduit.com/en/support/download-center/uninterruptible-power-supply.html.

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