# **UPS 5-10kVA VRLA**

### overview

This pure sine wave Double Conversion 5-10KVA UPS, delivers efficient and reliable power protection and backup for your computer IT equipment. The UPS features a maintenance-free VRLA battery and is a 5-10kVA single-phase 208/230 volt unit. The pure Online Double Conversion system provides constant excellent electrical performance and comes standard with enhanced intelligent monitoring and network functions. The unit complies with ENERGY STAR<sup>®</sup> 2.0, EMC, and safety standards to meet the continually growing power demands of Data Center, Enterprise, and Edge IT Infrastructure.

### key features and benefits

Rack/Tower convertible:	Supports rack/tower installation with rotatable colorful touchscreen LCD panel
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:	110-280 VAC covering extended voltage range, applicable for severe situation such as large power grid fluctuation
High efficiency:	Up to 98%, 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/UL/ENERGY STAR 2.0 compliant for North America units
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)
Expandable battery packs:	Allows to connect maximum five external battery packs, extending the UPS backup running time
Intelligent Battery Management:	Three-stage battery charging method matching the most optimal curve and temperature compensated with advanced algorithms prolonging the battery life
EPO function (Emergency Power Off):	Allows to quickly and easily 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 main input but with batteries
Intelligent fan speed regulation:	Automatically adjustment of fan speed due to the ambient temperature and load percentage
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
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.
Touch-Screen colorful LCD:	Colorful LCD with cold start button and LED indicators, providing intuitive display
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.
DCIM Cloud Ready (included with N Models*):	Support for technology allowing to easily, securely, and quickly connect to the cloud DCIM software with management, monitoring, control, and alerting of Power Chain, Environmental, Cooling, Security, Asset, and Connectivity Infrastructure Assets.
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. U05N11V





### product specifications

### 6-10kVA 230 V VRLA

MODEL		U06S12V/U06N12V	U10S12V/U10N12V	
Output power capacity		6000 VA	10000 VA	
Max Configurable Power (Watts)		6000 W	10000 W	
Nominal output volta		230 VAC (220 VAC, 24	40 VAC selectable)	
Output voltage Linear load   distortion Non linear load		<3%	6	
		<5%		
<b>A</b>	Online mode	50/60 ±4 Hz		
Output frequency	Battery mode	50/60 ±0.1 Hz		
Output power factor		1		
Load crest factor		3:1		
Topology		Double Conver	rsion Online	
Waveform		Pure Sine	Wave	
<b>A A A A A</b>	Online mode	105% - 125%: 5 min; 125% - 130%: 1 min; >130%: 200 ms, transfer to bypass		
Overload capability	Battery mode	105% - 125%: 1 min; 125% - 130%:	30 s; >130%: 200 ms, shut down	
Transfer time	Online mode <-> Battery mode	0 ms		
(typical)	Inverter <-> Bypass	0 m	S	
	Online mode	94.0%	95.0%	
Efficiency	ECO mode	97.5%	98.0%	
Output	Programmable	(2) IEC C19; (2) IEC C13		
connection Non-programmable		HW terminal (L+N+G)		
Bypass		Internal		
INPUT				
Nominal input voltage	e	230 VAC (220 VAC, 24	40 VAC selectable)	
Input voltage	Full load	176 - 264 VAC		
range	Half load	110 - 285 VAC		
Input frequency range		40 - 70 Hz (auto sensing)		
Input connection		HW terminal (L+N+G)		
Input power factor		>0.99 (ful	ll load)	
BATTERY				
Battery type		VRL	A	
Typical recharge time	)	4-6 hours		
Battery voltage		240 VDC		
Battery quantity × ca	pacity	20 × 12 V / 9 Ah		
Charging current (ma		10 /	A	
Backup time	Full load	15 min.	9 min.	
•	Half load	30 min.	18 min.	
Expected Battery Life (years)		3-5 уе		
EBP Replacement Cartridge		UVD240		
Additional External Battery Pack (EBP)		UVP240		
Maximum External B (EBP) quantity	attery Pack	5 units		
Communication ports		USB, RS232, intelligent slot		
Pre-Installed iNMC Card		N model only		
Local Display/Contro	l Panel	3.5 inch colorful touch screen		
Audible Alarm		Yes		
Emergency Power Of	ff (EPO)	Yes	3	

### 6-10kVA 230 V VRLA (continued)

ENVIRONMENTAL		
Operating temperature	32°F - 104°F (0°C - 40°C) (no derating)	
Storage temperature	-25°C - 55°C (without batteries)	
Relative humidity	0% - 95% (non-condensing)	
Operating elevation	Up to 3000m (derated 10%)	
Online thermal dissipation	1306 BTU/hour 1795 BTU/hour	
Protection class	IP2	20
Noise level	<55dB at 1m	<58dB at 1m
CONFORMANCE		
Safety	CB: IEC62040-1:2013, CE-LVD: EN62040-1:20	008+A1:2013, UKCA: BS62040-1-2013, RCM
EMC	IEC 62040-2-2016, EN 62040-2-2018, BS62040-2-2018	
Transportation	ISTA Procedure ISTA Procedure 2B	
Surge protection	IEEE/ANSI C62, 41 Category A, Level 3; 600 Joules	
CUSTOMER SERVICE		
Warranty	3 years for UPS & EBP, 2 years for battery	
SUSTAINABLE OFFER STATUS		
RoHS	Compliant	
Proposition 65 Warning	See Safety Sheet (IM053)	
PHYSICAL		
Maximum height	131mm UPS + 131mm Battery	
Maximum width	440mm UPS + 440mm Battery	
Maximum depth	666mm UPS + 666mm Battery	
Rack height	6 RU	
Net weight	101 kg	103 kg
Shipping weight	116 kg	118 kg
Shipping height	280mm UPS + 280mm Battery + 144mm Pallet	
Shipping width	565mm (22.2")	
Shipping depth	865mm Pallet	
Color	Black	

### 5-10kVA 208 V VRLA

MODEL		U05S11V/U05N11V	U06S11V/U06N11V	U10S11V/U10N11V
Output power capacity		5000 VA	6000 VA	10000 VA
Max Configurable Power (Watts)		5000 W	6000 W	10000 W
Nominal output voltage		208 VAC (240 VAC selectable)		
Output voltage	Linear load	<3%		
distortion	Non linear load	<5%		
Output frequency	Online mode	50/60 ±4 Hz		
	Battery mode	50/60 ±0.1 Hz		
Output power factor		1		
Load crest factor		3:1		
Topology Double Conversion Online				
Waveform		Pure Sine Wave		
Overload capability	Online mode	105% - 125%: 5 min; 125% - 130%: 1 min; >130%: 200 ms, transfer to bypass		
	Battery mode	105% - 125%: 1 min; 125% - 130%: 30 s; >130%: 200 ms, shut down		
Transfer time (typical)	Online mode <-> Battery mode	0 ms		
	Inverter <-> Bypass	0 ms		

## UPS 5-10kVA VRLA

### 5-10kVA 208 V VRLA (continued)

J-10KVA 200 V V				
Efficiency	Online mode	93.5%	94.0%	95.0%
Enciency	ECO mode	97.0%	97.5%	98.0%
Output connection	Programmable		(2)L6-30R	
Output connection	Non-programmable	(2) NEMA L6-30R	HW termina	al (L1+L2+G)
Bypass			Internal	
INPUT				
Nominal input voltage	)		208 VAC (240 VAC selectable)	
Input voltage range	Full load		185 - 264 VAC	
input voltage range	Half load	110 - 285 VAC		
Input frequency range	e	40 - 70 Hz (auto sensing)		
Input connection		NEMA L6-30R	HW termina	al (L1+L2+G)
Input power factor			>0.99 (full load)	
BATTERY				
Battery type			VRLA	
Typical recharge time			4-6 hours	
Battery voltage			240 VDC	
Battery quantity × cap		20 × 12 V / 9 Ah		
Charging current (max	x.)		10 A	
Backup time	Full load	18 min.	15 min.	9 min.
	Half load	36 min.	30 min.	18 min.
Expected Battery Life	e (years)	3-5 years		
EBP Replacement Ca	rtridge	UVD240		
Additional External Ba	attery Pack (EBP)	UVP240		
Maximum External Ba	attery Pack (EBP) quantity		5 units	
COMMUNICATION 8	-			
Communication ports	3	USB, RS232, intelligent slot		
Pre-Installed iNMC Ca	ard	N model only		
Local Display/Control	Panel	3.5" colorful touch screen		
Audible Alarm		Yes		
Emergency Power Of	f (EPO)	Yes		
ENVIRONMENTAL				
Operating temperatur	e	32°	°F - 104°F (0°C - 40°C) (no derati	ng)
Storage temperature			-25°C - 55°C (without batteries)	
Relative humidity			0% - 95% (non-condensing)	
Operating elevation			Up to 3000m (derated 10%)	<del>,</del>
Online thermal dissipa	ation	1067 BTU/hour	1423 BTU/hour	1985 BTU/hour
Protection class			IP20	
Noise level		<55dB at 1m		<58dB at 1m
CONFORMANCE				
Energy saving			ENERGY STAR 2.0	
Safety		cULus: UL 1778 5th Edition, CSA C22.2 NO. 107.3-14, NOM, RETIE		
FCC		FCC Part 15 Subpart B Class A, ANSI C63.4-2014		
Transportation		ISTA Procedure 2B		
Surge protection		IEEE/ANSI C62, 41 Category A, Level 3; 600 Joules		
CUSTOMER SERVIC	E			
Warranty		3 уеа	ars for UPS & EBP, 2 years for ba	ttery
SUSTAINABLE OFFE	ER STATUS			
Proposition 65 Warnin	ng		See Safety Sheet (IM053)	

### 5-10kVA 208 V VRLA (continued)

PHYSICAL		
Maximum height	131mm UPS + 131mm Battery	
Maximum width	440mm UPS + 440mm Battery	
Maximum depth	666mm UPS + 666mm Battery	
Rack height	6 RU	
Net weight	85 kg	87 kg
Shipping weight	101 kg	103 kg
Shipping height	280mm UPS + 280mm Battery + 144mm Pallet	
Shipping width	595mm Pallet	
Shipping depth	865mm Pallet	
Color	Black	

### EBP specifications

MODEL	UVP240	
MATCHED UPS	U05S11V / U06S11V / U10S11V / U06S12V / U10S12V U05N11V / U06N11V / U10N11V / U06N12V / U10N12V	
BATTERY SYSTEM		
Battery type	VRLA (lead acid maintenance free battery)	
Typical battery life	3 - 5 years, depend on discharging cycle and ambient temperature	
System voltage	±240 VDC	
Battery quantity	20 pcs.	
Battery capacity	12 V/9 Ah	
Replacement cartridge set	UVD240	
PHYSICAL		
Dimension W × D × H	440 × 666.5 × 131mm	
Net weight	67.5 kg	
Maximum height	13mm	
Maximum width	440mm	
Maximum depth	666mm	
Rack height	3 RU	
Net weight	67.5 g	
Shipping weight	75 kg	
Shipping height	280mm Battery + 144mm Pallet	
Shipping width	595mm Pallet	
Shipping depth	865mm Pallet	
ENVIRONMENTAL		
Operating temperature	0°C - 40°C	
Relative humidity	0% - 95% (non-condensing)	
CONFORMANCE		
Safety	cULus: UL 1778 5th Edition, CSA C22.2 NO.107.3-14, NOM, CE, UKCA, RCM, RETIE	
Transportation	ISTA Procedure 2B	

#### **UPS** accessories

URC005	Relay card (MiniAS400) (12 V) (for 1 to 10kVA single phase UPS units)
UNCP01	Intelligent Network Management Card (iNMC) See iNMC specs for more details
UTOWFT	Tower stabilizer brackets
URMKIT2	Rack mount rail kit for 5-10kVA UPS and EBP
UTFMRDU	Step-Down Transformer Distribution Unit is a voltage converter that provides 120 VAC output power from 208 VAC input.
EXTWLAUPS2	5-10kVA LEAD ACID UPS 1 YR Extended Warranty, for up to 3 years. The extended warranty includes repair or replacement of UPS and covers your battery
EXTWLABP2	5-10kVA LEAD ACID Battery Pack 1 YR Extended Warranty, for up to 3 years. The extended warranty includes repair or replacement and covers your battery

U06N12V/U10N12V (Rear)



U05N11V (Rear)



#### U06N11V/U10N11V (Rear)



UVP240 (Rear)



WORLDWIDE SUBSIDIARIES AND SALES OFFICES

PANDUIT US/CANADA Phone: 800.777.3300 PANDUIT EUROPE LTD. London, UK Phone: 44.20.8601.7200 PANDUIT SINGAPORE PTE. LTD. Republic of Singapore Phone: 65.6305.7575 PANDUIT JAPAN Tokyo, Japan Phone: 81.3.6863.6000 PANDUIT LATIN AMERICA Guadalajara, Mexico Phone: 52.33.3777.6000 PANDUIT AUSTRALIA PTY. LTD. Victoria, Australia Phone: 61.3.9794.9020

For a copy of Panduit product warranties, log on to www.panduit.com/warranty



For more information Visit us at www.panduit.com Contact Customer Service by email: cs@panduit.com or by phone: 800.777.3300

© 2023 Panduit Corp. ALL RIGHTS RESERVED. PUSP86-WW-ENG 9/2023