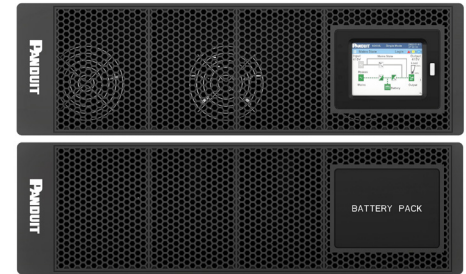


## overview

The Panduit® SmartZone™ UPS with maintenance free VRLA battery, 3-Phase 230/400 V unit is a true Online Double Conversion system that delivers highly efficient and reliable power protection for your computer IT equipment. With excellent electrical performance, enhanced intelligent monitoring, and network functions, 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

<b>Online double conversion with fully digital control</b>	Provides stable and clean power with less ripple and by filtering noise, automatic voltage regulation (AVR) and surge protection
<b>Wide input voltage range</b>	138-485Vac, covering extended voltage range, applicable for severe situation such as large power grid fluctuation
<b>High efficiency</b>	Up to 98.5%, reducing the energy waste and the cost of electricity
<b>Energy Savings</b>	High Efficiency on Smart ECO mode for Online Double Conversion models
<b>Green Design</b>	RoHS and Reach, CE/UL/ENERGY STAR® 2.0 compliant for North America units
<b>Output unity power factor</b>	Means more active power for customer's load
<b>Input power factor</b>	Power factor correction topology on the input side dramatically reducing the total harmonic distortion (THD)
<b>Matchable battery packs</b>	Allows to connect maximum four external battery packs, extending the UPS backup time
<b>Three-stage battery charging method</b>	Three-stage battery charging method matching the most optimal curve and temperature-compensated with advanced algorithms prolonging the battery life
<b>EPO function (Emergency Power Off)</b>	Allows to quickly and easily shut down the UPS when emergency event occurs
<b>Generator compatible</b>	Wide input frequency and voltage, supports connecting to generators, ensuring the uninterrupted operation
<b>Hot-Swappable battery design</b>	Can perform the replacement of battery cartridge without powering down the UPS
<b>Cold start function</b>	Allows to boot up the UPS without mains input but with batteries
<b>Intelligent fan speed regulation</b>	Automatic adjustment of fan speed due to the ambient temperature and load percentage
<b>Touch-screen colorful LCD</b>	Colorful LCD with cold start button and LED indicators, providing intuitive display
<b>Multiple communication interface</b>	RS232/RS485/USB/intelligent slot, realizing communication and monitoring function
<b>Comprehensive protection function</b>	Short-circuit, overload, overheat, battery overcharge and over discharge, output low voltage and fan fault alarm
<b>Parallel functionality</b>	Connect up to 4 units to achieve very high availability of backup power
<b>Inverter design</b>	3-Level IGBT for significant advantages of high efficiency, impact resistance, and reliability
<b>Additional Redundancy</b>	Shared battery group and support dual input to achieve very high availability of backup power
<b>Output Options</b>	Supports 3-Phase or single phase output
<b>Intelligent Network Card (included with N Models*)</b>	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.
<b>SmartZone™ Cloud Ready (included with N Models*)</b>	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.
<b>SmartZone™ mPower Management Software</b>	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 <a href="http://www.panduit.com/ups">www.panduit.com/ups</a> .

\* N Model UPS has an N in the 4<sup>th</sup> digit of the part number, e.g. U10N32V

## product specifications

### • 10-20kVA Lead-Acid 230/400 V EMEA 3-Phase Units

MODEL		U10S32V / U10N32V	U15S32V / U15N32V	U20S32V / U20N32V
Output power capacity		10000 VA	15000 VA	20000 VA
Max Configurable Power (Watts)		10000 W	15000 W	20000 W
Nominal output voltage		380/400 (default)/415 Vac (3Ph+N+PE) 220/230/240 Vac (1Ph+N+PE)		
Output voltage distortion	Linear Load	<2%		
	Non Linear Load	<5%		
Output frequency	Online mode	50/60 ± 10% Hz (± 5%, ± 4%, ± 2%, ± 1% selectable)		
	Battery mode	50/60 ± 0.1 Hz		
Output power factor		1		
Topology		Double Conversion Online		
Waveform		Pure Sine Wave		
Overload capability	Online mode	105% - 110%: 60 min; 110% - 125%: 10 min; 125% - 150%: 1 min; > 150%: 500 ms, transfer to bypass		
	Battery mode	105% - 110%: 60 min; 110% - 125%: 10 min; 125% - 150%: 1 min; > 150%: 500 ms, shut down		
Transfer time (typical)	Online mode <-> Battery mode	0 ms		
	Inverter <-> Bypass	0 ms		
Efficiency	Online mode	95.5%	95.5%	95.5%
	ECO mode	98.0%	98.5%	98.5%
Output connection		HW terminal		
Bypass		Internal		
INPUT				
Nominal input voltage		380/400 (default)/415 Vac (3Ph+N+PE)		
Input voltage range	Full load	305 - 485 Vac		
	Half load	138 - 485 Vac		
Input frequency range		40 - 70 Hz (auto sensing)		
Input connection		HW terminal (L+N+G)		
Input power factor		>0.99 (full load)		
BATTERY				
Battery type		VRLA		
Typical recharge time		4-5 hrs.		
Battery voltage		480 Vdc		
Battery quantity × capacity		40 × 12 V/ 9 Ah		
Charging current (max.)		12A		
Backup time	Full load	11 min.	6.4 min.	4.1 min.
	Half load	28.7 min.	19 min.	11.8 min.
Expected Battery Life (years)		3-5 yrs.		
EBP Replacement Cartridge		UVD480		
Additional External Battery Pack (EBP)		UVP480		
Maximum External Battery Pack (EBP) quantity		8 units		

## product specifications (continued)

COMMUNICATION & MANAGEMENT			
Communication ports	USB, RS232, RS485, intelligent slot		
Pre-Installed SmartZone™ iNMC Card	N model only		
Local Display/Control Panel	3.5 inch colorful touch screen		
Audible Alarm	Yes		
Emergency Power Off (EPO)	Yes		
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 3000 m (derated 10%)		
Online thermal dissipation	1607 BTU/hr.	2411 BTU/hr.	3215 BTU/hr.
Protection Class	IP20		
Noise level	<58dB at 1 m		
CONFORMANCE			
Safety	CB: IEC62040-1:2013, CE-LVD: EN62040-1:2008+A1:2013, UKCA: BS62040-1-2013		
EMC	IEC 62040-2-2016, EN 62040-2-2018, BS62040-2-2018		
Transportation	ISTA Procedure 2B		
Surge protection	IEEE/ANSI C62, 41 Category A, Level 3; 600Joules		
CUSTOMER SERVICE			
Warranty	3 years for UPS and EBP, 2 years for battery		
SUSTAINABLE OFFER STATUS			
Proposition 65 Warning	See Safety Sheet (IM053)		
PHYSICAL			
Maximum Height	131mm UPS + 175mm Battery		
Maximum Width	440mm + 443mm Battery		
Maximum Depth	660mm + 896mm Battery		
Rack Height	7 RU		
Net Weight	180kg		
Shipping Weight	220kg		
Shipping Height	280mm UPS + 340mm Battery + 114mm Pallet		
Shipping Width	770mm Pallet		
Shipping Depth	1060mm Pallet		
Color	Black		

## EBP specifications

<b>MODEL</b>	<b>UVP480</b>
<b>MATCHED UPS</b>	<b>U10S32V / U15S32V / U20S32V U10N32V / U15N32V / U20N32V</b>
<b>BATTERY SYSTEM</b>	
Battery type	VRLA (lead acid maintenance free battery)
Typical battery life	3-5 years, depend on discharging cycle and ambient temperature
System voltage	480Vdc
Battery quantity	40 pcs.
Battery capacity	12 V/9 Ah
Replacement cartridge set	UVD480
<b>PHYSICAL</b>	
Maximum Height	131mm
Maximum Width	443mm
Maximum Depth	896mm
Rack Height	4 RU
Net Weight	153kg
Shipping Weight	180kg
Shipping Height	340mm Battery + 114mm Pallet
Shipping Width	770mm Pallet
Shipping Depth	1060mm Pallet
<b>ENVIRONMENTAL</b>	
Operating temperature	0°C - 40°C
Relative humidity	0 - 95% (non-condensing)
Noise level	0dB
<b>CONFORMANCE</b>	
Safety	CB: IEC62040-1:2013, CE-LVD: EN62040-1:2008+A1:2013, UKCA: BS62040-1-2013
Transportation	ISTA Procedure 2B

## PDU 10-20k

PANDUIT MODEL		UMB20K	
Power capacity		20kVA/20kW (10-15kVA/kW compatible)	
Transfer time		0 ms	
Single line diagram			
Model	3:01	3:3	
INPUT			
Input power capacity		20kVA/20kW (10-15kVA/kW compatible)	
Nominal input voltage		Mains: 380/400/415 VAC Bypass: 220/230/240 VAC	Mains & Bypass: 380/400/415 VAC
Input connection		Hardwire connection (L1+L2+L3+N+PE)	Hardwire connection (L1+L2+L3+N+PE)
Input voltage range		138 to 485 VAC	138 to 485 VAC
Maximum input current		Mains: 42.9A Bypass: 125.1A	Mains: 42.9A Bypass: 41.7
OUTPUT			
Output power capacity		20kVA/20kW (10-15kVA/kW compatible)	
Nominal output voltage		220/230/240 VAC	380/400/415 VAC
Output connection		Hardwire connection (L+N+PE)	Hardwire connection (L1+L2+L3+N+PE)
Maximum total current		90.9A	30.4A
MBS		Yes	Yes
MAIN CIRCUIT WIRING SIZE (Typical)			
Single Feed	Input	35mm²	16mm²
	Output	25mm²	10mm²
Dual Feed	Input	16mm² (Mains)	16mm²
		35mm² (Bypass)	
	Output	25mm²	10mm²
MBS circuit wiring size (Typical)		0.5mm²	
INTERNAL WIRING DIMENSIONS			
Connection mode		Input	Output
Main		Black 1015 8 AWG RoHS	Black 1015 8 AWG RoHS
Bypass		Black 1015 8 AWG RoHS	Black 1015 8 AWG RoHS
Maintenance bypass		Black 1015 8 AWG RoHS	Black 1015 8 AWG RoHS
MBS terminal		Black 60227IEC53(RVV) 2C/0.5mm² Power cable RoHS	

## PDU 10-20k (continued)

BREAKER	
Input & Output & Maintain	Mains: NDB1-63 C50A/3P 50A/400/415Vac 6KA RoHS Bypass: NDB1-63 C50A/3P 50A/400/415Vac 6KA RoHS Output: NDB1-63 C50A/3P 50A/400/415Vac 6KA RoHS Maintenance: NDB1-63 C50A/3P 50A/400/415Vac 6KA RoHS
ENVIRONMENTAL	
Operating Temperature	0°C to 40°C
Storage Temperature	-25°C to +55°C
Operating/Storage Humidity	0 - 95% (non-condensing)
Operating Elevation	0 to 2000 m
PHYSICAL	
Dimension W × D × H	440 × 660 × 131mm
Net Weight	15kg
REGULATORY COMPLIANCE	
Safety	CB: IEC62040-1:2013, CE-LVD: EN62040-1:2008+A1:2013, UKCA: BS62040-1-2013
EMC verification	IEC 62040-2-2016, EN 62040-2-2018, BS62040-2-2018
Transport	ISTA Procedure 2B

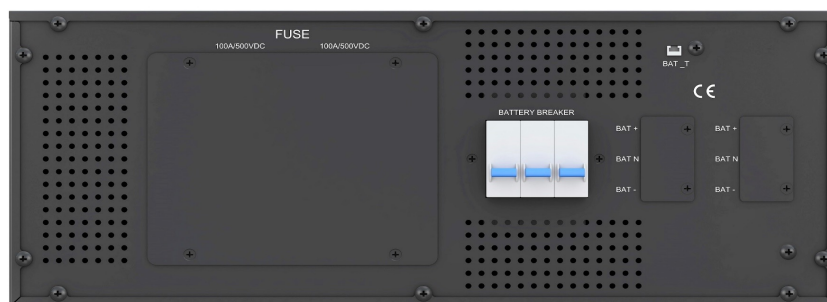
## UPS accessories

UNCP01	Panduit® Intelligent Network Management Card (iNMC)
UMB20K	SmartZone™ PDU (Maintenance Bypass Switch) (17.3 in. × 25.98 in. × 5.1 in.) (440mm × 660mm × 131mm) (15kg)
URMKIT2	Rack mount rail kit for 5-20kVA UPS and 5-10kVA EBP
URM480	Rack mount rail kit for External Battery Pack 480 V Chassis

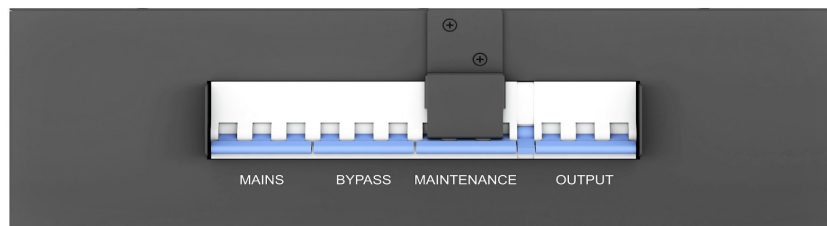
U10N32V / U15N32V / U20N32V (Rear)



UVP480 (Rear)



UMB20K (Front)



UMB20K (Rear)



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