



Vertiv™ Desktop UPS

Installer/User Guide

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Technical Support Site

If you encounter any installation or operational issues with your product, check the pertinent section of this manual to see if the issue can be resolved by following outlined procedures. Visit <https://www.VertivCo.com/en-us/support/> for additional assistance.

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IMPORTANT SAFETY INFORMATION

IMPORTANT! This manual contains important safety instructions that must be followed during the installation and maintenance of the UPS and batteries. Read this manual thoroughly and the safety and regulatory information, available at <https://www.vertivco.com/ComplianceRegulatoryInfo>, before attempting to install, connect to supply, or operate this UPS.

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1 DESCRIPTION

The Vertiv™ Desktop UPS is an off-line/standby UPS designed to for computer and modem related equipment. The vDesktop provides both battery-backed receptacles for critical equipment and surge-only receptacles for your less critical equipment.

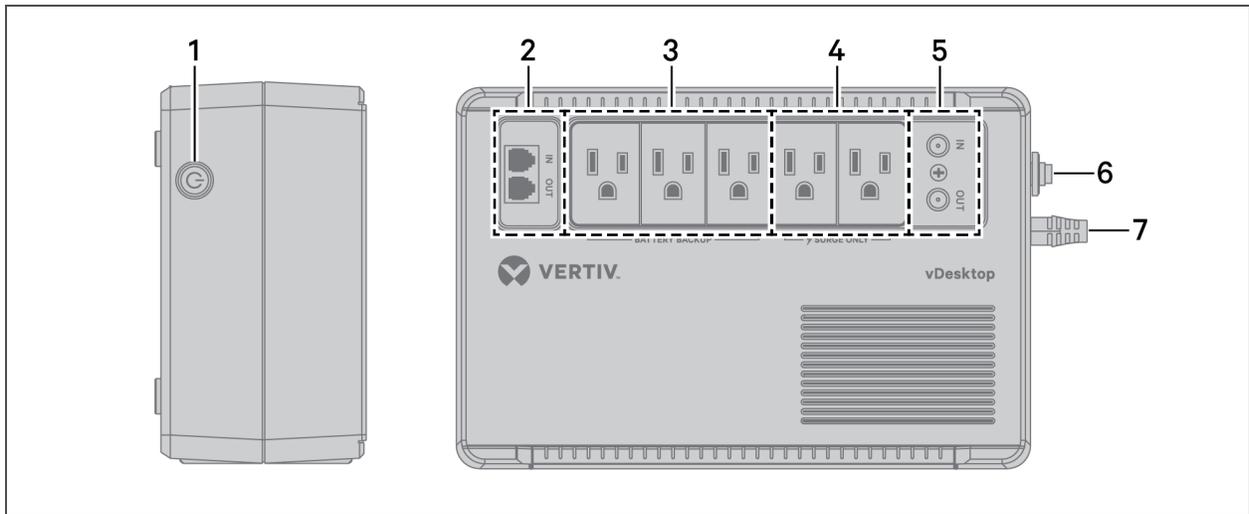
1.1 Available Models

Table 1.1 vDesktop Models

MODEL NUMBER	NOMINAL POWER RATING
VDSK400LV	400VA/240W
VDSK600LV	600VA/360W
VDSK800LV	800VA/480W

1.2 Controls and Features

Figure 1.1 Controls and Features



ITEM	DESCRIPTION
1	Power button with status indicator
2	Phone line surge protection
3	Battery-backed output power receptacles
4	Surge-protected output power receptacles
5	Coax surge protection
6	Circuit breaker
7	Input cord

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2 INSTALLATION

2.1 What's Included

- Quick Installation Guide
- Safety and Regulatory Guidelines
- Wall-mounting template

The following is available online at www.VertivCo.com:

- Vertiv™ Desktop UPS Installer/User Guide (this document)

2.2 Unpacking and Inspection

Unpack the UPS and conduct the following checks:

- Inspect the UPS for shipping damage. If any shipping damage is found, report it to the carrier and your local dealer or your Vertiv representative immediately.
- Check the accessories included in packaging list. If there is any discrepancy, contact your local dealer or your Vertiv representative immediately.

2.3 Preparation for Installation

2.3.1 Installation Environment

- Install the UPS indoors in a controlled environment, where it cannot be accidentally turned Off. The installation environment should meet the specifications listed in Specifications table, see [Specifications](#) on page 15.
- Place it in an area of unrestricted air-flow around the unit, away from water, flammable liquids, gases, corrosives, and conductive contaminants. Avoid direct sunlight.
- The socket outlet should be nearby and easily accessible.
- This UPS is not for use in a computer room as defined in the standard for the Protection of Electronic Computer/Data Processing Equipment ANSI/NFPA 75.

NOTE: Operating the UPS in temperatures above 77°F (25°C) reduces battery life.

2.3.2 Installation Clearances

Maintain at least 2 in (50.8 mm) clearance in the front and rear. Do not obstruct the air inlets on the front panel and rear panel. Blocking the air inlets reduces ventilation and heat dissipation, shortening the service life of the UPS.

2.4 Installing the UPS

2.4.1 Connecting Loads

The UPS has battery-backed outlets and surge-protected receptacles and surge-protected-only receptacles. Plug your critical equipment (such as computer, monitors, modems and routers) into the battery-backed receptacles and your less-critical equipment into the surge-only receptacles.

2.4.2 Connecting for Network or phone line or cable surge Protection

Protection from electrical surges to your telephone or DSL modem is provided. Use the phone line surge-protection ports. Connect the “IN” port to the line from the wall jack and the “OUT” port to your device. Use of this feature is not required for proper operation of the UPS.

Surge protection for your cable modem, DSS Receiver, or cable-TV connection is also provided using the coax surge-protection ports. Connect the “IN” port to the line from the wall jack and the “OUT” port to your device. Use of this feature is not required for proper operation of the UPS.

2.4.3 Connecting AC Input

Ensure that all the loads are first powered off. Connect to an input-power supply/wall outlet that is properly protected by a circuit breaker in accordance with national and local electrical codes. The input receptacle must be grounded.

Once the UPS is plugged into the wall outlet, it begins charging the battery.

NOTE: While every precaution has been taken to ensure that the battery is in good condition, we recommend allowing the UPS to be plugged into AC input and to charge the battery for at least 8 hours prior to providing full back-up time protection for any utility-power abnormality.

3 OPERATION

3.1 Modes of Operation

NOTE: In all of the following modes, including Off mode:

The UPS always provides surge protection and input-breaker protection to the battery backed-up outlets and the surge-only outlets. The UPS does not need to be On to provide this protection.

The surge-only outlets always have the same voltage level as the UPS input voltage, even when the UPS is Off. The surge-only outlets are not battery backed-up or switched by the UPS.

3.1.1 Off Mode

The UPS input voltage is normal, but the battery-backed-up outlets are turned off. The internal batteries are charging. The power button is not illuminated.

3.1.2 On/Normal Mode

The UPS input voltage is normal, and the battery-backed-up outlets are turned on. The internal batteries are charging. The power button will be illuminated solid blue.

3.1.3 On/Battery Mode

The UPS input voltage is unstable, missing, or too high or low. The UPS automatically switches to the internal battery to provide normal, usable voltage to the battery-backed-up outlets. The power button flashes blue and an audible beep happens every 10 seconds.

NOTE: The surge-only outlets will not have power.

3.1.4 On/Low Battery Mode

The UPS is in battery mode and the battery capacity is almost exhausted. The battery backed outlets will be turned off soon. The power button flashes blue and an audible beep happens every second.

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4 MAINTENANCE

4.1 Precautions

Although the vDesktop is designed and manufactured to ensure personal safety, improper use can result in electrical shock or fire. To ensure safety, observe the following precautions:

- Turn off and unplug the UPS before cleaning it.
- Clean the UPS with a dry cloth. Do not use liquid or aerosol cleaners.
- Never block or insert any objects into the ventilation holes or other openings of the UPS.
- Do not place the UPS power cord where it might be damaged.

4.2 Battery Charging

The batteries are valve-regulated, non-spill-able, lead acid and should be kept charged to attain their design life. The vDesktop charges the batteries continuously when it is connected to the utility input power. If the vDesktop will be stored for a long time, we recommend connecting the UPS to input power for at least 24 hours every 4 to 6 months to ensure full recharge of the batteries.

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5 SPECIFICATIONS

Table 5.1 vDesktop Specifications

MODEL NUMBER	VDSK400LV	VDSK600LV	VDSK800LV
Capacity (VA / W)	400/240	600/360	800/480
Unit Dimensions, in. (mm) W x D x H	6.4 x 9.6 x 3.5 (163 x 245 x 90)		
Unit Weight, lbs (kg)	7.9 (3.6)	8.6 (3.9)	10.1 (4.6)
Shipping Dimensions, in. (mm) W x D x H	9.4 x 12.3 x 5.6 (239 x 314 x 141)		
Shipping Weight, lbs (kg)	8.6 (3.9)	9.5 (4.3)	10.8 (4.9)
Input			
Nominal Voltage	120 VAC		
Voltage Range	90-145 VAC		
Input Voltage Measurement Tolerance	±5%		
High Line Normal Mode to Battery Mode	145 VAC		
High Line Battery Mode to Normal Mode	140 VAC		
Low Line Battery Mode to Normal Mode	95 VAC		
Low Line Normal Mode to Battery Mode	90 VAC		
Frequency Range	60 Hz, ±5 Hz		
Internal Breaker Rating	5A, 250 VAC	7A, 250 VAC	10A, 250 VAC
Input Cord	5 ft. attached with NEMA 5-15P		
Output (On Utility)			
Nominal Voltage	120 VAC		
Voltage Range	90-145 VAC		
Frequency Range	60 Hz, ±5 Hz		
Efficiency	>95% at full load		
Overload Capacity	100% - alarm warning 110% - alarm warning and shutdown after 5 minutes 120% - alarm warning and immediate shutdown		
Surge Only Outlets	(2) NEMA 5-15R		
Output (On Battery)			
Nominal Voltage	120 VAC		
Voltage Range	Nominal ±8% at onset, ±15% at EOD		
Frequency Range	60 Hz, ±1 Hz		
Waveform	PWM Simulated Sine wave		

Table 5.1 vDesktop Specifications (continued)

MODEL NUMBER	VDSK400LV	VDSK600LV	VDSK800LV
Transfer Time	2-6ms typical, 10ms max		
Protection	Electronic (over current, short circuit w/ latching shutdown)		
Battery Backed and Surge Protected Outlets	(3) NEMA 5-15R		
Battery			
Battery Type	Valve Regulated Lead Acid (VRLA)		
Battery Manufacturer / Model	Leoch / DJW12-4.5	Leoch / DJW12-5.0	Leoch / DJW12-6.0
Battery Quantity x VDC x Ah	1 x 12V x 4.5Ah	1 x 12V x 5.0Ah	1 x 12V x 6.0Ah
Backup Time for one PC (typical 120W)	5 min	8 min	10 min
Recharge time	4-6 hours to 90%		
Environmental Requirements			
Operating Temperature, deg(degC)	32-104 (0-40)		
Operating Elevation, feet (meter)	0-9,842 (0-3,000)		
Relative Humidity	0-95% non-condensing		
Storage Temperature, degF (degC)	5 to 113 (-15 to 45)		
Storage Elevation, feet (meter)	0-49,212 (0-15,000)		
Audible Noise	<40 dBA @ 3 ft (1 m) from all sides		
Agency			
Safety	cTUVus (UL 1778, 5th Edition)		
RFI / EMI	FCC part 15 subpart B, CLASS B		
Surge Immunity	EN61000-4-5, Level 2		
Transportation	ISTA Procedure 1A		





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