



SECURING YOUR SITE WITH
UPS ON YOUR SIDE

RIELLO ELETTRONICA
 **riello ups**



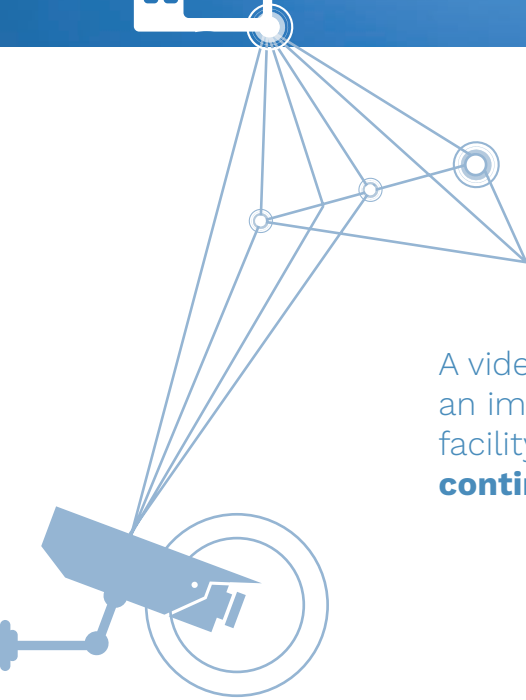
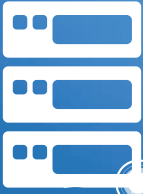
Innovation - the secret of an all-Italian success story

Riello UPS offers an award-winning range of 24 uninterruptible power supplies (UPS) and standby power systems developed using the latest, state-of-the-art technologies.

Thanks to our two cutting-edge research centres in Legnago (Verona) and Cormano (Milan), world-class centres of excellence for the design, development, and testing of uninterruptible power supplies, Riello UPS constantly innovates and evolves our product portfolio to keep it at the pinnacle of performance, reliability, and competition.

Riello UPS designs and manufactures our UPS in Italy so we can maintain direct control over the quality and reliability.

www.riello-ups.com



A video surveillance system is often an important part of securing any facility but it relies on **stable** and **continuous** power to function.



Continuity = SAFETY

Many intruders also know that:

- Cutting off the power in the knowledge that safety regulations allow any electrical doors / access points to 'unlock'.
- many installers neglect installing an emergency power supply in the installation of video surveillance systems; this means if there is a power failure, either locally by a breaker tripping out, or from a power cut from the national grid, the video surveillance system shuts down.



Quality = Reliability

Also, installing a UPS will prevent **infantile equipment failures caused by voltage** disturbances on the supply such as voltage spikes and surges. These can be frequent and unfortunately can easily cause video surveillance equipment to fail.

This is particularly because:

- The hard disk recording the footage needs a stable voltage - if not, the electronic components can rupture and affect reading/ writing on the disk.
- The cameras have sensitive circuits which can be easily damaged by abnormal power fluctuations.
- The LEDs, an essential part in many video surveillance systems, are extremely sensitive to sudden changes in voltage. It is often the case that the LED illuminator is burnt on the cameras without UPS backup.

If you want your video surveillance system to function reliably and last a long time, it is essential to protect it with a UPS.

In short, **A UPS EXTENDS THE LIFE OF YOUR SYSTEM.**



Which UPS?

After understanding the importance of continuous power supply to ensure a reliable surveillance system, it is time to choose the most suitable UPS.

Small and medium-sized video surveillance systems have a lower power requirement and are quite easy to secure. These systems can be properly protected by **Line Interactive UPS (VI)**, which is equipped with technology which activates after a few milliseconds (2-4ms) to provide system continuity. This type of UPS is also equipped with a device for automatic adjustment (AVR), capable of handling small voltage surges even before the direct intervention of the batteries. The 'Line Interactive' type of UPS are suitable for the majority of sites as the most cost effective and the most efficient to manage and install. A further distinction of the Line Interactive UPS is the type of the waveform output which can be Pseudo Sine (typical of entry-level devices and suitable for computer loads) or sinusoidal (typical of





the more advanced and suitable for sensitive equipment).

For more sophisticated systems with complex IT components it would be recommended to choose **ON LINE Double Conversion UPS (VFI)** where the batteries are always connected to the inverter so that no power transfer switches are needed. When power loss occurs, the rectifier drops out of the circuit and the batteries keep the power steady in voltage and frequency. This happens instantaneously.



ONLINE

What needs powering

There are typically 2 types of CCTV systems Analogue and Digital. Analog which uses tradition coaxial cables and typically now TVI (Transport Video Interface) cameras. Analog and TVI systems are more commonly installed in domestic applications and a UPS can be fitted to the DVR as the cameras will take their power from this. A 650VA UPS is sufficient to power a 4 channel system for up to 30 minutes, while a 1200VA can do the same with a system of 16 cameras. Some cameras backed up by UPS Pseudo Sine wave can incur flicker and noise in data recording and so it is recommended to adopt models with sinusoidal output waveform.

For Industrial applications IP Camera systems are used. The cameras use PoE (Power over Ethernet) technology, this means they take the power from the network, even PTZ (Pan Tilt and Zoom) cameras will take their power from the Ethernet. So when installing the UPS onto the CCTV system it is essential that not only the DVR (Digital Video Recorder) is supported by the UPS but also any network switches, patch panels, and PoE injectors are supported by the UPS. This is easier on dedicated CCTV Ethernet network, but more consideration is needed if using an existing data network to ensure no network switch is over looked.





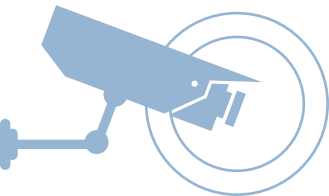
HAVING A UPS IN PLACE:

- ➔ Ensures reliable power and quality in the event of a blackout.

- ➔ Safeguards the functionality of equipment.

- ➔ Ensures data integrity and quality of transmission.

- ➔ Ensures the continuous and proper storage of information.



With security a paramount issue across all business sectors, having essential power protection to back this up is also imperative. Therefore, it's important to choose a reliable UPS manufacturer with proven industry experience.

A leader in the power protection market, Riello UPS ensures the highest quality products and distributors as well as unrivalled sales and service as well as superb maintenance and the ability to provide original spare parts, even years after installation.

Guide to choosing a UPS

iDialog (IDG)



- Compact
- Silent
- Contemporary design
- Auto restart
- Low power consumption



UPS VFD



Tower



USB plug



Plug & Play installation

Net Power (NPW)



- Automatic Voltage Regulation (AVR)
- Advanced communications
- Automatic battery test



LINE INTERACTIVE



Tower



USB plug



Plug & Play installation

Vision (VST)



- Automatic Voltage Regulation (AVR)
- LCD Display
- Sine wave
- Cold Start function
- Low power consumption
- Communication Slot



LINE INTERACTIVE



Tower



USB plug



Plug & Play installation



Hot swap battery



GS Nemko certified

Vision Rack (VSR)



- Automatic Voltage Regulation (AVR)
- LCD Display
- Sine wave
- Cold Start function
- Communication Slot



LINE INTERACTIVE



Rack



USB plug



Plug & Play installation



Hot swap battery



Energy share

Vision Dual (VSD)



- High Power Factor 0.9
- Automatic Voltage Regulation (AVR)
- Flexibility of installation
- Sine wave
- Communication Slot
- Expandability of autonomy



LINE INTERACTIVE



Tower Rack



USB plug



Plug & Play installation



Hot swap battery



Energy share

Sentinel Dual SDH



- High Power Factor 0.9
- Maximum protection
- Flexibility of installation
- Sine wave
- Communication Slot
- ER versions for extended autonomy



ON LINE



Tower Rack



USB plug



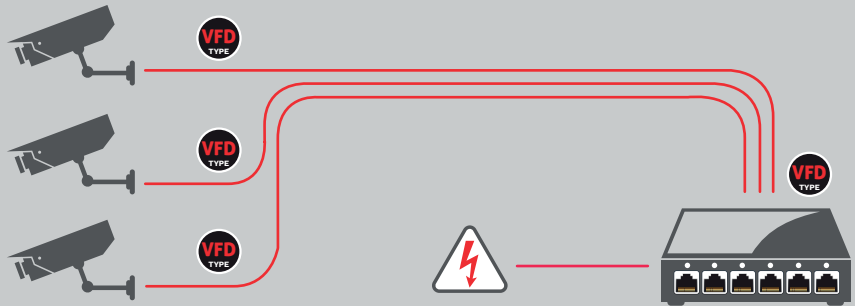
Plug & Play installation



Hot swap battery



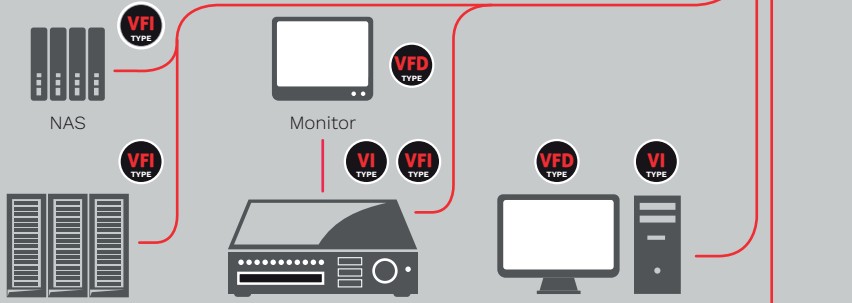
Energy share



IP Camera (POE Enabled)

Power (Switch & Cameras)

POE Switch



NAS

Monitor

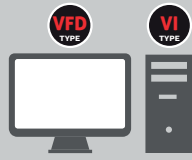
Server

NVR (Network Video Recorder)

Local PC



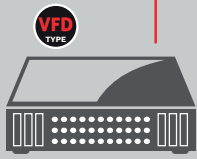
Other Device



Remote PC



INTERNET



Router/Hub



Modem

Backup time table (in minutes)

		LOAD [W]								
		100	200	300	500	750	1000	1250	1500	
IDG	IDG 400	24	9							
	IDG/IDR 600	24	9	6						
	IDG 800	32	14	8						
	IDG/IDR 1200	35	16	10	7					
	IDG 1600	60	35	16	10	7				
NPW	NPW 600	24	9							
	NPW 800	34	16	10						
	NPW 1000	34	16	10	8					
	NPW 1500	40	20	15	9					
	NPW 2000	60	34	20	15	8				
VST	VST 800	61	29	16	12					
	VST 1100	90	40	21	15					
	VST 1500	163	82	46	30	13	8,5			
	VST 2000	168	83	52	42	16	11	7		
VSR	VSR 800	50	25	16						
	VSR 1100	66	32	20	11					
VSD	VSD 1100	66	32	20	13					
	VSD 1500	110	50	35	20	12				
	VSD 2200	145	75	50	30	18	13			
	VSD 2200 + BB72 A3	250	160	110	65	45	30			
	VSD 2200 + BB72 M1	380	235	180	115	70	56			
	VSD 3000	145	75	50	30	18	13			
	VSD 3000 + BB72 A3	240	160	110	75	55	38	30		
	VSD 3000 + BB72 M1	350	240	175	110	75	60	42		
SDH	SDH 1000	58	33	20						
	SDH 1000 + BB 36 A3	140	74	50						
	SDH 1000 + BB 36 M1	220	120	80						
	SDH 1500	75	40	27	15					
	SDH 2200	95	55	40	25	16				
	SDH 2200 + BB72 A3	210	140	95	55	35				
	SDH 2200 + BB72 M1	365	220	160	95	60				
	SDH 3000	110	70	50	30	20	16			
	SDH 3000 + BB72 A3	220	140	100	65	42	30			
	SDH 3000 + BB72 M1	330	220	160	100	65	50			
	Versioni ER									
		SDH 2200 ER + BB 72 M1	249	169	122	82	52	37	27	21
	SDH 3000 ER + BB 72 M1	206	148	112	74	50	35	26	20	

The backup time values in the table are indicative and may be subject to change; please refer to your trusted installer to identify the most suitable UPS for the type of application.



Security Area

FEATURES

- Low energy consumption
- Small footprint
- Silent operation
- Advanced communication

APPLICATIONS

- **Video surveillance**
- **Entertainment systems**
- **Personal computers**
- **xDSL connections**
- **POS systems**

The SoHo market is becoming more and more important, covering the market sector that includes professionals, small businesses and freelance professionals working from home.

No less important are domestic consumers, with the rise of entertainment devices and media centres requiring ever higher quality power supply and protection from interference and black-outs.

LOW ENERGY CONSUMPTION

Reducing energy consumption has become an economical necessity as well as an environmental obligation. It is therefore essential to choose UPS that employ green technology such as those made by Riello UPS,

designed to achieve the best energy efficiency and lowest environmental impact, whilst still providing the best possible performance.

SMALL FOOTPRINT

The small footprint of Riello's UPS allow them to be easily installed anywhere in the office work space, without creating any interference with customer areas. There are also rack versions.

SILENT OPERATION

In the workplace and above all in the home, the silent operation of equipment is very important. This is why our UPS are equipped with a sophisticated microprocessor control system able to reduce the speed of the fans and switch them off

when not required. The entire Off-line range offers maximum silent operation thanks to the employment of high frequency components and the absence of moving parts, the noise level is equal to 0 dbA.

ADVANCED COMMUNICATION

Riello UPS's UPS are equipped with USB and RS232 communication ports, allowing for full management and communication with the UPS to preserve data and make your IT systems secure.

UPS with LI and OL technology are also equipped with expansion slots to house the various different communication options offered by Riello UPS.

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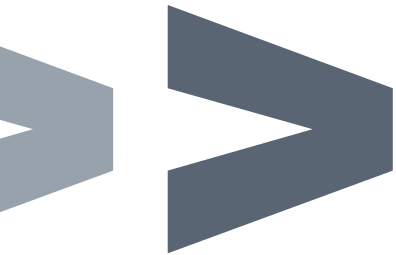
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