



DATACENTER



E-MEDICAL



INDUSTRY

SuperCaps UPS

SOLUTIONS WITH SUPERCAPACITORS



ONLINE

1:1 1-10 kVA
3:3 10-400 kVA



HIGHLIGHTS

Clean energy

An eco-friendly, battery-free uninterruptible power system.

High efficiency innovative technology

Modular expansion options for more power and runtime.

Long operating life

5 to 10 times standard lead batteries.

High number of cycles

Million vs. ca 300 of lead batteries.

Low maintenance costs

Easy to install and maintain.

High working temperature

No need of cooling or heating systems.

Low footprint & weight

SuperCaps UPS are a type of uninterruptible power supply developed by Riello UPS which use super capacitors to accumulate energy instead of conventional batteries. It delivers autonomy in the range of seconds (1 to 60 sec). The innovative Riello SuperCaps UPS is designed to provide complete power supply protection for sensitive and mission critical loads, protecting them from mains disturbances and providing sufficient power to compensate for interruptions in mains supply.

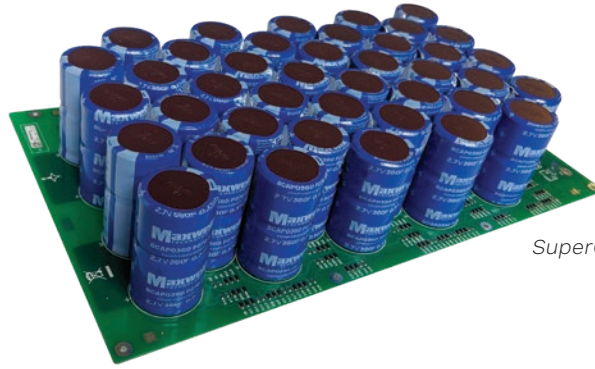
Traditionally UPS rely on batteries for accumulating energy, but at least 87% of power supply interruptions last for less than a second⁽¹⁾. SuperCaps UPS provide greater energy efficiency, lower costs and reduced footprints – ideal for installations where floor space is at a premium. At the heart of the Riello SuperCaps UPS is a sophisticated control system that manages the charge-discharge cycle of

the super-capacitors and optimises their lifecycle, which may exceed a million cycles. Their back-up time is dependent on the load but is sufficient to supply it until the mains power is restored or until reserve power from a generator starts automatically.

Most UPS are installed as standard with batteries lasting 5-10 minutes to protect the load against generator start up failure. For modern data centers, electro-medical and industrial applications, an efficient generator set supported by a UPS with a relatively brief autonomy offers the most efficient and effective power continuity solution, with conventional batteries providing sufficient runtime to cover most power interruptions. However, SuperCaps UPS do not have batteries and therefore provide long term savings in terms of battery installation, monitoring, maintenance, replacement and recycling costs. In addition, when compared to the

5-7 years lifespan of standard batteries, SuperCaps UPS have a theoretically infinite life.

These cost savings, along with the reduced footprint make SuperCaps UPS the ideal solution for critical installations that are particularly sensitive to short power supply interruptions.



SuperCaps module.

¹Electric Power Research Institute study.

SENTINELPROSC

| MODELS | | SEP 1000 C1 | SEP 3000 C2 |
|---------------|----------------------------|------------------------|-------------|
| INPUT | Rated voltage [V] | 220 / 230 / 240 1 ph+N | |
| | Rated frequency [Hz] | 50 / 60 | |
| | Power factor | >0.99 | |
| | Current distortion | ≤7% | |
| OUTPUT | Nominal power [VA] | 1000 | 3000 |
| | Power [W] | 900 | 2700 |
| | Rated voltage [V] | 220 / 230 / 240 1 ph+N | |
| BACKUP | Autonomy [s] | 8 | 7 |
| | Recharge time [min] | 2 | |
| DATA | Net weight [kg] | 8.1 | 17.6 |
| | Dimensions (WxDxH) [mm] | 158x422x235 | 190x446x333 |

Note: Back-up time is calculated at 70% load (W).

SENTINELTOWERSC

| MODELS | | STW 6000 C3 ER | STW 10000 C4 ER |
|---------------|----------------------------|------------------------|-----------------------------------------------------|
| INPUT | Rated voltage [V] | 220 / 230 / 240 1 ph+N | 220 / 230 / 240 1 ph+N or 380 / 400 / 415 3 ph+N |
| | Rated frequency [Hz] | 50 / 60 | |
| | Power factor | >0.99 | |
| | Current distortion | ≤5% | |
| OUTPUT | Nominal power [VA] | 6000 | 10000 |
| | Power [W] | 6000 | 10000 |
| | Rated voltage [V] | 220 / 230 / 240 1 ph+N | |
| BACKUP | Autonomy [s] | 8 | 7 |
| | Recharge time [min] | 2 | |
| DATA | Net weight [kg] | 45 | 46 |
| | Dimensions (WxDxH) [mm] | 250x698x500 | |

Note: Back-up time is calculated at 70% load (W).

SENTRYUMSC

| MODELS | S3M 10 XTD C5 | S3M 10 XTD C6 | S3M 15 XTD C5 | S3M 15 XTD C7 | S3M 20 XTD C6 | S3M 20 XTD C8 |
|-----------------------------------|-----------------------------------------------|------------------|------------------|------------------|------------------|------------------|
| INPUT Rated voltage [V] | 220 / 230 / 240 1 ph+N 380 / 400 / 415 3 ph+N | | | | | |
| Rated frequency [Hz] | 50 / 60 | | | | | |
| Power factor | >0.99 | | | | | |
| Current distortion | ≤3% | | | | | |
| OUTPUT Nominal power [kVA] | 10 | 10 | 15 | 15 | 20 | 20 |
| Power [kW] | 10 | 10 | 15 | 15 | 20 | 20 |
| Rated voltage [V] | 220 / 230 / 240 1 ph+N | | | | | |
| BACKUP Autonomy [s] | 14 | 30 | 8 | 30 | 14 | 30 |
| Recharge time [min] | 2 | 4 | 2 | 5 | 4 | 7 |
| DATA Net weight [kg] | 130 | 151 | 132 | 180 | 155 | 202 |
| Dimensions (WxDxH) [mm] | 440x840x1320 | | | | | |

| MODELS | S3T 10 XTD C5 | S3T 10 XTD C6 | S3T 15 XTD C5 | S3T 15 XTD C7 | S3T 20 XTD C6 | S3T 20 XTD C8 |
|-----------------------------------|------------------------|------------------|------------------|------------------|------------------|------------------|
| INPUT Rated voltage [V] | 380 / 400 / 415 3 ph+N | | | | | |
| Rated frequency [Hz] | 50 / 60 | | | | | |
| Power factor | >0.99 | | | | | |
| Current distortion | ≤3% | | | | | |
| OUTPUT Nominal power [kVA] | 10 | 10 | 15 | 15 | 20 | 20 |
| Power [kW] | 10 | 10 | 15 | 15 | 20 | 20 |
| Rated voltage [V] | 380 / 400 / 415 3 ph+N | | | | | |
| BACKUP Autonomy [s] | 14 | 30 | 8 | 30 | 14 | 30 |
| Recharge time [min] | 2 | 4 | 2 | 5 | 4 | 7 |
| DATA Net weight [kg] | 130 | 151 | 132 | 180 | 155 | 202 |
| Dimensions (WxDxH) [mm] | 440x840x1320 | | | | | |

| MODELS | S3T 30 XTD C6 | S3T 30 XTD C8 | S3T 40 XTD C6 | S3T 40 XTD C8 | S3T 60 SC + BTC 1320 648V BB C7 3F | S3T 80 SC + BTC 1320 648V BB C8 3F |
|-----------------------------------|------------------------|------------------|------------------|------------------|------------------------------------------|------------------------------------------|
| INPUT Rated voltage [V] | 380 / 400 / 415 3 ph+N | | | | | |
| Rated frequency [Hz] | 50 / 60 | | | | | |
| Power factor | >0.99 | | | | | |
| Current distortion | ≤3% | | | | | |
| OUTPUT Nominal power [kVA] | 30 | 30 | 40 | 40 | 60 | 80 |
| Power [kW] | 30 | 30 | 40 | 40 | 60 | 80 |
| Rated voltage [V] | 380 / 400 / 415 3 ph+N | | | | | |
| BACKUP Autonomy [s] | 10 | 20 | 7 | 15 | 7 | 7 |
| Recharge time [min] | 4 | 7 | 3 | 5 | 3 | 3 |
| DATA Net weight [kg] | 160 | 207 | 164 | 211 | 190+148 | 200+168 |
| Dimensions (WxDxH) [mm] | 440x840x1320 | | | | (500x830x1600) + (400x825x1320) | |

Note: Back-up time is calculated at 100% load (W).

MASTERMPSSC

| MODELS | MPT 60 SC + BTC 1900 480V BB CD 2T | MPT 80 SC + BTC 1900 480V BB CD 2T | MPT 100 SC + BTC 1900 480V BB CD 2T | MPT 120 SC + BTC 1900 480V BB CD 2T | MPT 160 SC + BTC 1900 480V BB CE 2T |
|-----------------------------------|------------------------------------------|------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
| INPUT Rated voltage [V] | 380 / 400 / 415 3 ph+N | | | | |
| Rated frequency [Hz] | 50 / 60 | | | | |
| Power factor | >0.9 (HC version) | | | | |
| Current distortion | <5% (HC version) | | | | |
| OUTPUT Nominal power [kVA] | 60 | 80 | 100 | 120 | 160 |
| Power [kW] | 54 | 72 | 90 | 108 | 144 |
| Rated voltage [V] | 380 / 400 / 415 3 ph+N | | | | |
| BACKUP Autonomy [s] | 20 | 15 | 11 | 10 | 15 |
| Recharge time [min] | 6 | 4 | 4 | 3 | 4 |
| DATA Net weight [kg] | 460+395 | 520+395 | 620+395 | 640+395 | 700+540 |
| Dimensions (WxDxH) [mm] | (800x740x1400) + (860x800x1900) | | (800x800x1900) + (860x800x1900) | | |

Note: Back-up time is calculated at 100% load (W).

MASTERHPSC

| MODELS | MHT 100 SC + BTC 1900 624V BB C9 2T | MHT 120 SC + BTC 1900 624V BB C9 2T | MHT 160 SC + BTC 1900 624V BB CA 2T | MHT 200 SC + BTC 1900 624V BB CA 2T |
|-----------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|
| INPUT Rated voltage [V] | 380 / 400 / 415 3 ph+N | | | |
| Rated frequency [Hz] | 50 / 60 | | | |
| Power factor | >0.99 | | | |
| Current distortion | ≤3% | | | |
| OUTPUT Nominal power [kVA] | 100 | 120 | 160 | 200 |
| Power [kW] | 90 | 108 | 144 | 180 |
| Rated voltage [V] | 380 / 400 / 415 3 ph+N | | | |
| BACKUP Autonomy [s] | 14 | 10 | 18 | 14 |
| Recharge time [min] | 3 | 2 | 4 | 3 |
| DATA Net weight [kg] | 700+435 | 755+435 | 830+625 | 965+625 |
| Dimensions (WxDxH) [mm] | (800x850x1900) + (860x800x1900) | | (1000x850x1900) + (860x800x1900) | |

Note: Back-up time is calculated at 100% load (W).

NEXTENERGYSC

| MODELS | NXE 250 SB SC + BTC 1900 624V BB CA 2T | NXE 300 SB SC + 2x BTC 1900 624V BB CA 2T | NXE 400 SB SC + 2x BTC 1900 624V BB CA 2T | NXE 500 SB SC + 2x BTC 1900 624V BB CA 2T | NXE 600 SB SC + 3x BTC 1900 624V BB CA 2T | NXE 800 SB SC + 4x BTC 1900 624V BB CA 2T |
|-----------------------------------|----------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
| INPUT Rated voltage [V] | 380 / 400 / 415 3 ph+N | | | | | |
| Rated frequency [Hz] | 50 / 60 | | | | | |
| Power factor | >0.99 | | | | | |
| Current distortion | ≤3% | | | | | |
| OUTPUT Nominal power [kVA] | 250 | 300 | 400 | 500 | 600 | 800 |
| Power [kW] | 250 | 300 | 400 | 500 | 600 | 800 |
| Rated voltage [V] | 380 / 400 / 415 3 ph+N | | | | | |
| BACKUP Autonomy [s] | 8 | 18 | 13 | 10 | 13 | 13 |
| Recharge time [min] | 5 | 5 | 4 | 4 | 4 | 4 |
| DATA Net weight [kg] | 635+625 | 890+2x625 | 1100+2x625 | 1300+2x625 | 1600+3x625 | 1985+4x625 |
| Dimensions (WxDxH) [mm] | (800x850x1900) + 2x (860x800x1900) | (1200x850x1900) + 2x (860x800x1900) | (1400x850x1900) + 2x (860x800x1900) | (1600x850x1900) + 2x (860x800x1900) | (2000x850x1900) + 3x (860x800x1900) | (2400x850x1900) + 4x (860x800x1900) |

Note: Back-up time is calculated at 100% load (W).

