

SuperCaps UPS

SOLUTIONS WITH SUPERCAPACITORS



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

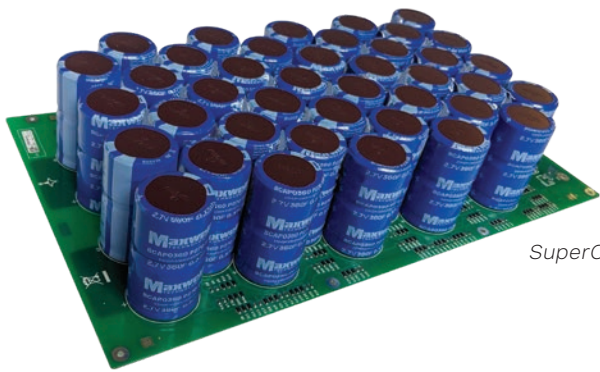
SuperCaps UPS are a type of uninterruptible power supply developed by Riello UPS which use super capacitors to accumulate energy instead of conventional batteries. It delivers autonomy in the range of seconds (1 to 60 sec). The innovative Riello SuperCaps UPS is designed to provide complete power supply 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 [VA]	10	10	15	15	20	20
	Power [W]	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 [VA]	10	10	15	15	20	20
	Power [W]	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 [VA]	30	30	40	40	60	80
	Power [W]	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 [VA]	60	80	100	120	160
	Power [W]	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 [VA]	100	120	160	200
	Power [W]	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 [VA]	250	300	400	500	600	800
	Power [W]	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).