SUPERCAP

The fully-automated satellite, usable with AUTOSATMOVER mother vehicles or stacker cranes, for multi-depth intensive storage of pallets in all industrial sectors.

Battery-free, supercapacitor powered.

Charges from the mother vehicle in just 7 seconds.

MODELS

STANDARD
Equipped with a supercapacitor, it automatically recharges every time it is on board the mother vehicle in a maximum of 7 seconds. It is loaded on a mother satellite (AUTOSATMOVER) which transports it to the storage lane for the carrying out of its missions. It is capable of handling any type of pallet, and maintains constant operational levels from -30°C to +55°C.

NEVER DIE
As well as supercapacitor technology, this model is also equipped with an additional 20 Ah lithium battery, which is essential in FIFO logic systems which require operations of compacting and re-organising of storage lanes.

More than 1000 SATELLITES installed
Range of application -30°C/+55°C

The SUPERCAP satellite has been designed by Automha to operate in multi-depth in fully-automated systems. The introduction of supercapacitor technology has allowed for the resolving of typical problems related to systems powered by standard batteries, which require long charging times (in the case of satellites with integrated batteries) or the presence of operators for the substitution of batteries (in the case of machines with removable power sources).
SUPERCAP is suitable for the storage of all types of pallet and loading units and can be used in **all industrial sectors:** it guarantees excellent performance in extremely low or high temperatures. (-30 C°/+ 55 C°). It can be used on stacker cranes or automated vehicles.

The most common use of SUPERCAP is on an AUTOSATMOVER mother satellite, but it can also be loaded on a stacker crane, thanks to the CAPTIVE variant (a satellite managed from a stacker crane) or the ROAMING variant (multiple satellites handled from a stacker crane).
Both variants are equipped with an additional lithium battery as well as a supercapacitor, which is useful for powering the unit inside the racking while waiting for the mother vehicle. This also allows for the management of warehouses with FIFO-logic handling.

All of the SUPERCAP variants are capable of operating in frozen and hostile environments.

SUPERCAP charges its supercapacitor from either the mother vehicle or stacker crane. This technology avoids:

- Lengthy charging times
- Maintenance
- The risk of leakage of chemicals contained in traditional batteries

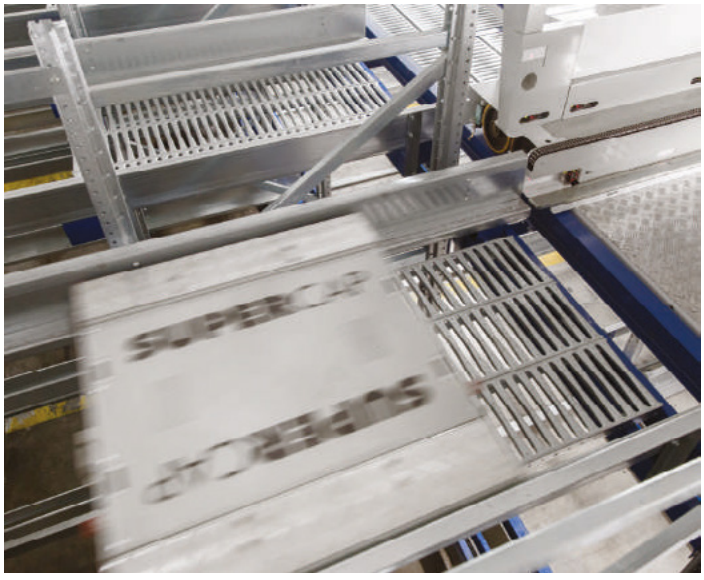
The mother vehicles are in fact fitted with copper brushes which charge SUPERCAP's supercapacitors in 7 seconds when it is on board. Once charging is complete, the satellite is ready to carry out storage or picking operations for load units.
SUPERCAP communicates with the mother vehicle via Wi-Fi, sending detailed reports of its charge status and the progress of its missions minute-by-minute.

BACKUP CAPTIVE
As well as supercapacitor technology, this model is also equipped with an additional 10 Ah lithium battery, which is useful for powering the unit inside the racking while waiting for the mother vehicle, and it allows for the management of warehouses with FIFO-logic handling. The presence of the battery guarantees the highest levels of safety in the case of breakdowns or maintenance; in fact, SUPERCAP CAPTIVE is available with PL=D safe level functioning. This model allows for a single satellite to be managed by a single stacker crane.

BACKUP ROAMING
As well as supercapacitor technology, this model is also equipped with an additional 10 Ah lithium battery, which is useful for powering the unit inside the racking while waiting for the mother vehicle, and which allows SUPERCAP to manage warehouses with stacker cranes or AUTOSATMOVER. The presence of the battery guarantees the highest levels of safety in the case of breakdowns or maintenance. This model allows for multiple satellites to be managed by a single mother vehicle.

ADVANTAGES

- The possibility to operate in long storage lines, thanks to the absence of power cables connecting the satellite to the mother vehicle.
- Extreme flexibility: SUPERCAP can be used on various types of mother vehicle
- The possibility of handling multiple satellites from the mother vehicle
- The possibility of accessing the SUPERCAP automatic system from an external location to assess and modify parameters.
- Maximum reliability and safety
- Imperceivable recharging times
- Maintenance not required
- Long vehicle life



EQUIPMENT

STANDARD

Integrated supercapacitor

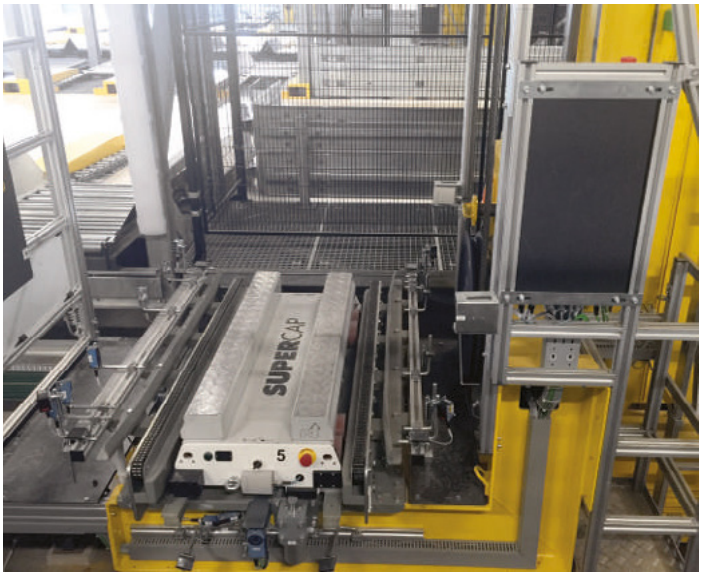
Contact point with conductive brushes on the mother vehicle

Electronic unit for the correct carrying out of controlled cycles

DC DRIVER for running the motors for the transportation and handling of loading units

Wi-Fi communication system for the receiving of commands and the sending of reports to the mother vehicle

Integrated safety commands for the management of critical situations or alarms from the warehouse.



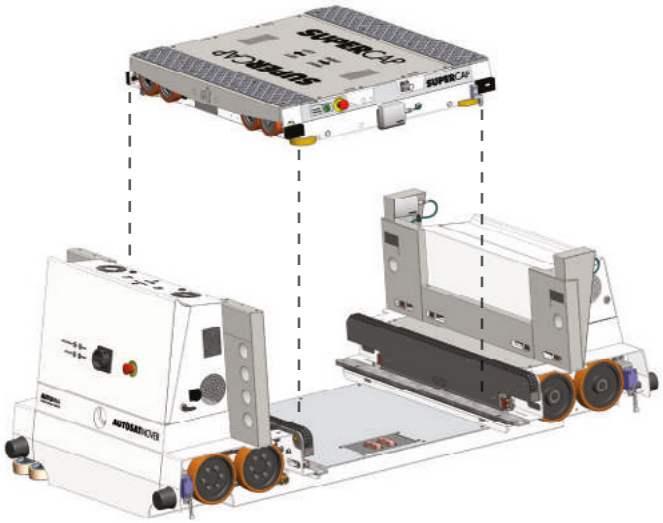
TECHNICAL SPECIFICATIONS

	TECHNICAL DATA			SUPERCAP MODELS							
	Data	u.m.	mm	mm	mm		mm	mm	mm	mm	mm
IDENTIFICATION	Model	Type	SC.0812	SC.1012	SC.1111	SC 1165	SC.1112	SC.1210	SC.1212	SC.4840	SC.4048
	Pallet dimensions (D=depth/F=forking side)	mm.	800(D) X1200(F)	1000(D) X1200(F)	1100(D) X1100(F)		1100(D) X1200(F)	1200(D) X1000(F)	1200(D) X1200(F)	48(D)X40(F)	40(D)X48(F)
	Power supply	Type	Supercapacitor								
	Carrying Load	kg	1500 (2000 Optional)								
	Temperature range ST / BZ	°C									
KG	Machine weight	kg	255	255	245		265	270	275	270	255
WHEELS	Running wheels	Type	4								
	Wheel size front/rear	mm	120								
	Number of driving wheels	nr	4								
	Number of idle wheels	nr	4								
DIMENSIONS	L1 total length (ref. technical drawing)	mm	1084	1084	1184		1184	1304	1304	1304	1084
	L2 total width (ref. technical drawing)	mm	947	947	820		947	820	947	820	947
	L3 total height (ref. technical drawing)	mm									
	Hoisting stroke	mm	45								
PERFORMANCE	Loaded/Unloaded travelling speed	m/min	40/80								
	Up speed	s	1,5								
	Down speed	s	1,5								
MOTORS	Travelling motor power	W									
	Lifting motor power	W									
VARIOUS	Supercap voltage	V	48								
	Charging time 100%	s	7								
	Supercap life	year	>15								
	Control type		PLC 1500 Siemens								
	Type of motor control	type	Driver								
	System working time	h/day	24/7								

USE

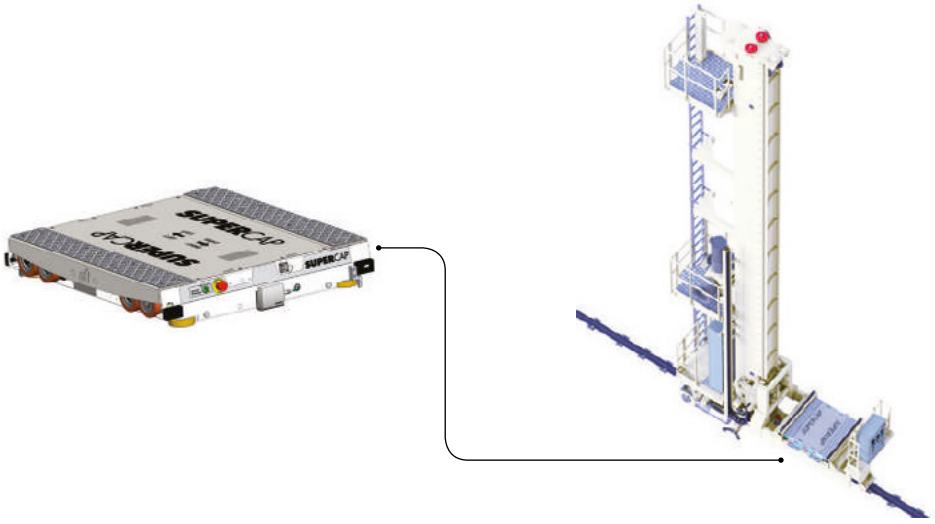
ON BOARD AUTOSATMOVER

The most common use of SUPERCAP is on board an AUTOSATMOVER mother satellite. On board the mother vehicle the satellite recharges its supercapacitor in 7 SECONDS and prepares to carry out its missions in the storage lanes. The STANDARD, BACKUP ROAMING and NEVER DIE models can be used for this system.



ON BOARD STACKER CRANE

SUPERCAP can, however, also be loaded onto a stacker crane, thus allowing for multi-depth storage. The satellite charges in 7 seconds when loaded onto the cradle. The BACKUP CAPTIVE, BACKUP ROAMING and NEVER DIE models can be used for this system.



SECTORS OF APPLICATION

- Food industry
- Storage refrigeration cells
- Chemical and pharmaceutical industry
- Food distribution centres
- Logistics centres


SUPERCAP
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