

CITYSOLAR smart bin compactors

3iS Transport

CitySolar

SOLAR-POWERED SMART BIN COMPACTORS

1 Largest capacity

Waste capacity up to 2000 litres, depending on the size of the container and the type of waste.

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Size



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The 240-liter model can be easily adjusted to a larger 360-li-
tre container or downsized to 120 liters as seasonal needs or requirements change. The new 120-liter model is a compact and agile container that fits even the narrowest alleys.

11 A wide range of accessories

CitySolar accessories offer versatile solutions for various environments and needs.

AI-powered cloud service eliminates wasteful kilometers

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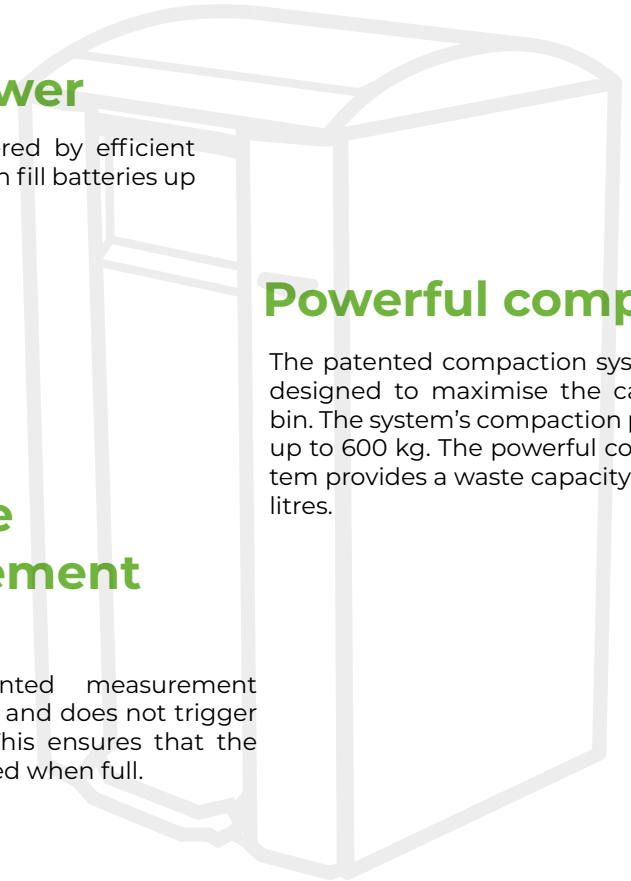
6 Reduce the risk of injury

The standard 240-litre container (EN-840) can be emptied mechanically, avoiding any risks related to manual emptying, e.g. back problems. The smaller 120-litre model includes a standard 120-litre container, which can be emptied also manually.

HOW DOES IT WORK?

Fill level information in our cloud service

CitySolar reports fill level information to our cloud service. This enables just-in-time emptying, reducing costs.



Solar power

CitySolar is powered by efficient solar panels, which fill batteries up with energy.

Powerful compaction

The patented compaction system has been designed to maximise the capacity of the bin. The system's compaction power reaches up to 600 kg. The powerful compaction system provides a waste capacity of up to 2,000 litres.

Accurate measurement system

CitySolar's patented measurement system is reliable and does not trigger false warnings. This ensures that the bin is only emptied when full.

1

Largest capacity

CitySolar holds up to 2000 litres of waste.

This equals at least 8 standard 240 litre bins of uncompressed waste.

700 litres

CitySolar 120 l with wheelie bin

1,200 litres

CitySolar with standard 240 l wheelie bin

up to 2,000 litres

CitySolar with standard 360 l wheelie bin

The litre volumes depend on the type of waste and may be lower or higher than stated.

2 Reliable fill level measurement thanks to patented compaction system

The powerful patented compaction system allows you to maximise the bin's waste capacity by compressing the waste down to the bottom of the bin.

Our patented fill level measurement system is based on data generated during compaction. The system gives us reliable information on the bin's fill level in real time. The system also collects data on how many times the bin door is opened.

Secret behind the massive capacity

Prerequisites for a high compaction rate

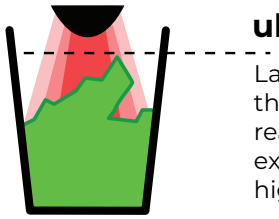
1. **Standard 120 l, 240 l or 360 l waste container**
   Standard 240-litre wheeled waste container as the inner container.
   The possibility for a standard 360 liter waste container by changing the back panel.
   Also available is a smaller model, CitySolar 120, with a 120-litre wheelie bin.

2. **Intensive compaction**
   The compaction is over 50% of the depth of the inner container with a minimum total compaction distance of 540-450 mm depenging on the model.

3. **Enough power**
   Compression power more than 600 kg

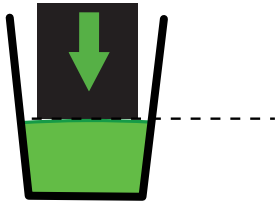
4. **Frequent compaction cycle**
   The compaction mechanism activates after every 8 uses.

3 Measurement technology is crucial



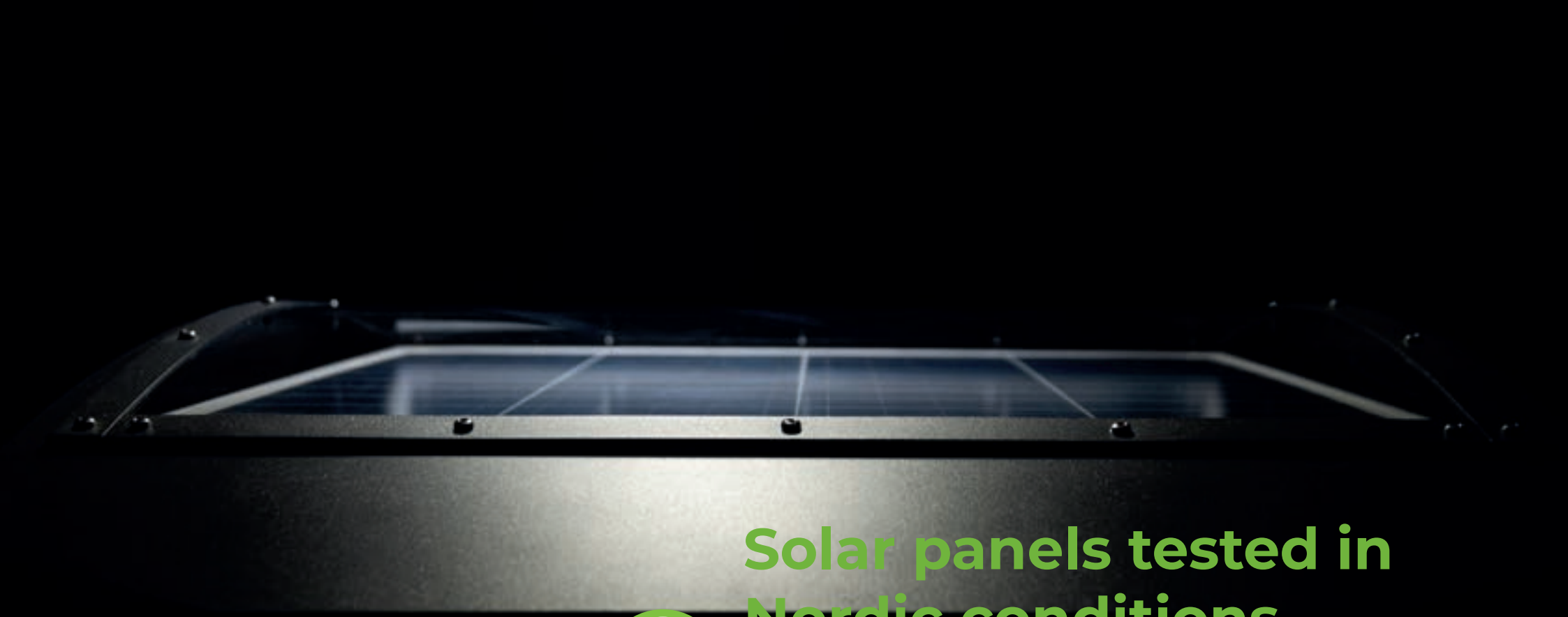
Why do we not use laser or ultrasonic technology?

Laser and ultrasonic technologies detect the volume of waste collected but the readings can easily be distorted by, for example, individual pieces of litter placed higher than the rest of the waste mass.



CitySolar's patented fill level measurement technology

CitySolar's technology measures the fill level during compaction. This ensures reliable results.



Solar panels tested in Nordic conditions

4

CitySolar is designed and manufactured in Finland. Finland is known as the land of thousands of lakes and tens of thousands of engineers. Top-level technology expertise is crucial in the building of high-quality infrastructures in our demanding natural conditions.

In mid-winter, there is less than six hours of daylight in southern Finland. In the north, the sun does not rise at all for nearly two months. The temperature varies between +30°C and –30°C during the year. Our high-quality solar panels and batteries ensure that the system works in these conditions.

CitySolar is ideal for Finnish conditions and works everywhere.

Solar panel:
CitySolar 240/360 L min. 50 W,
CitySolar 120 L min. 40 W
Battery: min. 50 AH

5 Designed to fit every situation and need

CITYSOLAR 120/240/360 L

The only 3-in-1 inner container on the market

CitySolar is the only product on the market with an adjustable inner container: easy and quick to switch from 240 litres to 120 litres. It takes less than 5 minutes!

The possibility also for a 360 litre waste container just by changing the back panel. This increases the capacity up to 2000 litres.

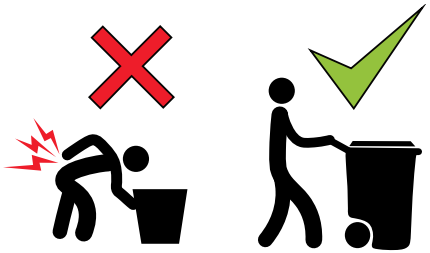


CITYSOLAR 120 L

Save space without compromising waste capacity

The new CitySolar 120 L is a smaller model that fits well in challenging spaces such as narrow streets of old towns or other areas with limited space. Its Scandinavian design gives the product a stylish look, suitable for various environments.

6 Reduce the risk of injury



Annually, there are almost 5500 occupational accidents as a result of carrying a load manually (Statistics Finland 2022). The smaller 120 l container can be emptied manually without the heavy load straining your back. During major events, the bin capacity can be maximised by switching from 120 litres to 240 litres or even 360 litres The standard 240/360 litre container is emptied mechanically.

Also available is a smaller model, CitySolar 120, with a 120-litre standard wheelie bin that can be emptied manually. European accessibility regulations have been taken into account in the product design.

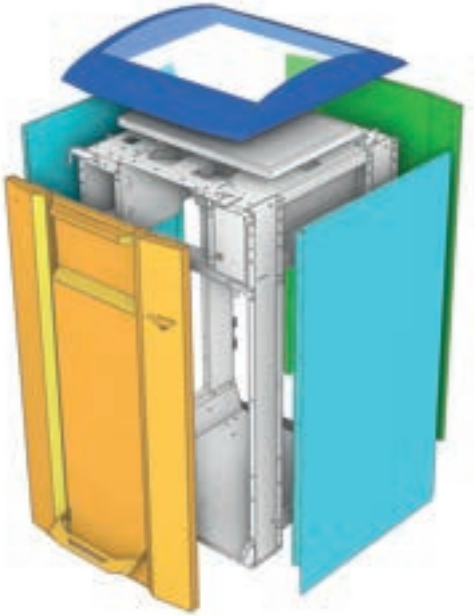


The bin´s filling hatch can be opened hygienically with a foot pedal.

7 Cut vandalism costs with replaceable panels

Field-replaceable panels, which can be swiftly changed in under 10 minutes. This feature radically minimizes the costs of vandalism and extends the product's lifespan.

Field-replaceable panels can be changed in less that 10 minutes!



8 Corrosion-resistant materials

CitySolar is made of SST, and unique galvannealed steel. The material choices improves the fire safety of the bin and the highest corrosion class C5 makes the bin resistant to corrosion.

Easy to use and maintain

- **The bin's filling hatch can be opened by hand or with a foot pedal**
- **Service door with a triangular lock**
- **Easy to install spare parts readily available**
- **Inner container: affordable standard 120, 240 or 360 litre container**

Specifications

Materials
CitySolar is made of SST and unique powder coated galvannealed steel. The material choices improves the fire safety of the bin and the highest corrosion class C5 makes the bin resistant to corrosion.

Solar panel
Solar panel:
CitySolar 240/360 L, min. 50 W,
CitySolar 120 L, min. 40 W
Battery: min. 50 AH

Dimensions

CitySolar 120 l
height: 1350 mm
width: 580 mm
depth (with foot pedal) 600 mm
hatch: width 223 mm

Inner container:
Standard 120 L waste container (EN-840),

Capacity: Up to 700 litres*

CitySolar 240 L
height: 1510 mm
width: 780 mm
depth (with foot pedal) 980 mm
hatch: width 380 mm

Inner container:
Standard 240 L waste container (EN-840)
Standard 360 L waste container (with larger back panel)
A 120-litre insert can be added to a standard 240-litre container to reduce its volume.

Capacity: Up to 2,000 litres*

*The litre volumes depend on the type of waste and may be lower or higher than stated.

CITYSOLAR
120/240/360 L

CITYSOLAR
120 L



SCANDINAVIAN DESIGN

” The CitySolar smart bin features a sleek and minimalist Scandinavian design, with clean lines and a modern aesthetic. Its streamlined form is both functional and visually appealing.”
- Henri Sydänheimo, Design Lead

Minimise the Carbon Footprint

CitySolar is an eco-friendly choice in multiple respects. Our principle is to minimise the carbon footprint of waste management.

CitySolar promotes efficient waste collection routes, leading to fewer collection trips and up to 90% reduced CO2 emissions from transportation.
We do not use the unecological hot galvanizing technique in the manufacture of CitySolar smart bins. Additionally, 95% of the materials used in CitySolar Smart Bins are recyclable. CitySolar is manufactures using recycled steel.

Many of our clients have decided to promote positive environmental actions on their bin labels. CitySolar end users' feedback has been enthusiastic!



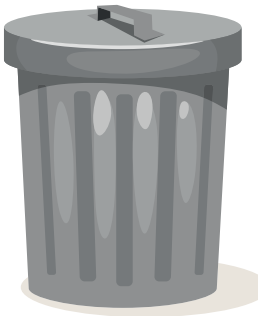
9 Where do the savings come from?

Replacing normal litter bins with CitySolar smart bins reduces the carbon footprint of waste management and decreases your waste management expenses significantly. CitySolar's compaction system, reliable fill level measurement and real-time reporting will bring you substantial savings in waste management expenses.

How much money will you save by replacing your bins with CitySolar smart bins?

WE CAN GIVE YOU AN ESTIMATE!

An example estimate for a client whose weekly waste volume is 29,400 litres.



70 LITTER BINS (á 60 l)		**25 CITYSOLAR** smart bins (240 l)
Total capacity **4,200 litres**		Total capacity **30,000 litres**
Number of times emptied per week **7 times per bin** **In total 490 times emptied**	**VS**	Number of times emptied per week **Once per bin** **In total 25 times emptied**
Price for emptying **EUR 3 per bin**		Price for emptying **EUR 7 per bin**
Total cost of emptying per month **EUR 6,365**		Total cost of emptying per month **EUR 758**



Savings EUR 5,607/month*

Investment payback time less than 2 years

*1 month = 4,33 weeks

Many cities across Europe have already chosen CitySolar.



Anykščiai, Lithuania



Stockholm, Sweden



Helsinki, Finland



Lustica Bay, Montenegro



Skien, Norway



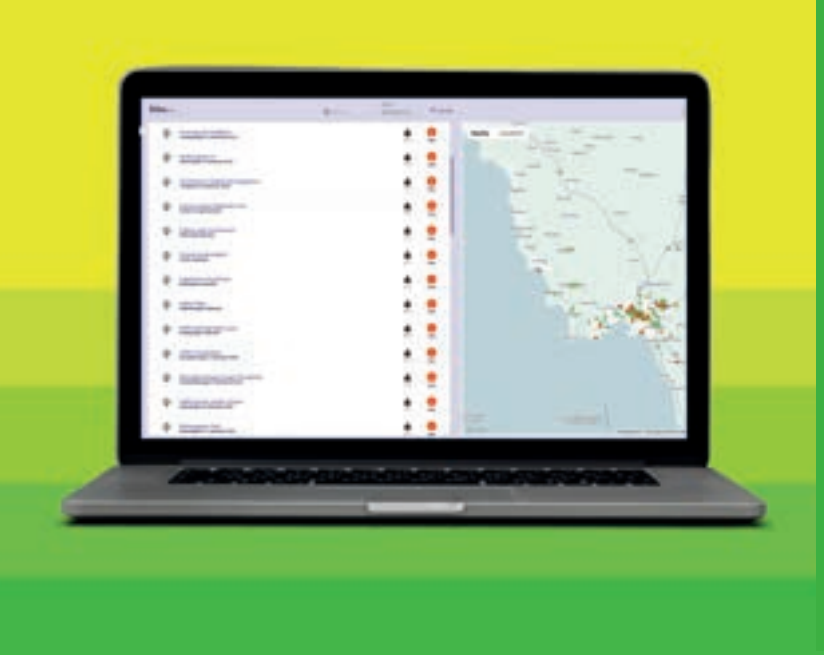
Düsseldorf, Germany



Tallinn, Estonia



Tampere, Finland



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Smart Connect

10 Maximize Savings with Smart Connect cloud service

Smart Connect is a cloud service that collects real-time data on the fill levels of City Solar smart bins, enabling cost-effective optimization of waste management. You can monitor various aspects from your device, such as the fill levels of the bins, the estimated time of the next emptying, and optimize the timing and route of emptying based on the data.



Smart

Connect

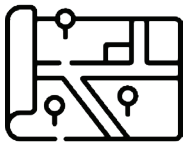


Fill level information in our cloud service

CitySolar reports fill level data and how many times the bin door has been opened to a cloud service.

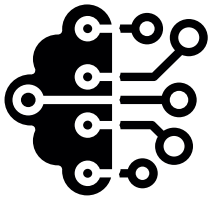
Automatic maintenance request

A maintenance request is sent directly to the person in charge when the waste volume reaches the limit set by the client.



Map view shows the overall situation

In addition to fill level information, CitySolar smart bins' basic information and locations can be viewed in the service. It is also possible to add other street furniture to the service and view them in the map view.



AI as a teacher

Smart Connect utilizes arti·cial intelligence to predict container fill levels, enabling timely emptying and continuously improving forecasts.

11 Versatility with accessories

A wide range of accessories is now available for CitySolar smart bin compators, making them even more versatile and suitable for various environments and needs. Availability of accessories may vary slightly depending on the model.



Integrated ashtray

Combines waste and cigarette butt collection into a single unit, keeping the environment clean.

Installation accessories

Improve the stability of the bin and accessibility for all user groups.





Hatch accessories

Different hatch options makes waste management easier and support recycling.



Replaceable panels

Replaceable panels for bins offer customization options and easy maintenance.





Bottle rack

The deposit tube makes it easier to recycle returnable drink containers and helps reduce littering.

Sorting stickers

Clear markings assist in waste sorting and promote recycling.





Lock options

Different lock options enhance security and user convenience based on individual needs.

CitySolar vs other smart bins

	CitySolar	Other smart bins on the market
Compaction capacity up to 2,000 litres	Yes	No
The patented fill level measurement system prevents false readings	Yes	No
Three waste capacity options in one bin: 600 / 1,200/ up to 2,000 litres	Yes	No
Fire- and corrosion-resistant materials	Yes	Some models
Option to switch between a 120 / 240/ 360 litre container.	Yes	No
Field-replaceable panels that can be changed in less that 10 minutes	Yes	No
Designed and tested to work in Nordic light conditions.	Yes	No
Inner container: standard 120 l, 240 l or 360 l waste container.	Yes	Some models
Easy and affordable maintenance	Yes	Some models
Foot pedal as standard.	Yes	Some models
Many colour options	Yes	Some models
Can be emptied manually or mechanically (waste truck)	Yes	Some models
Reports fill level data and need for maintenance to a cloud service	Yes	Some models
Waste management optimisation based on usage data in the cloud service.	Yes	No

Interested to learn more?

Contact our experts

info@3istransport.co.uk


CITYSOLAR
AUTOMATINĖ PRESAVIMO SISTEMA
ĮŠLAIDŲ IR LAIKO TAUPYMAS
CO2 KIEKIO MAŽINIMAS ATLIEKŲ TVARKYME
100 % NAUDOJAMA SAULĖS ENERGIJA
DIDESNIS PAJĖGUMAS


CITYSOLAR
Solar-Powered
Compacting Smart Bin





Learn more and check out our wide selection!









SETTING NEW STANDARDS



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