



# Technical Datasheet

## Fields of use

In urban areas, at the heart of the energy challenge, Wattway is a genuine solution for “Smart Cities”, the aim of which is to design a different kind of city, one that is more integrated and participative, by pooling local resources (energy, parking areas, local services, etc.).

In isolated areas, where low population density greatly increases the cost of connecting to the grid, Wattway provides a local, long lasting, short-circuit source of electricity.

**Wattway is an original alternative energy solution for roads, bike paths, shopping centers, airports, public transportation infrastructure, and more.**

The Wattway solar road is one of the cornerstone of the energy mix in the city of tomorrow, making for easier, more sustainable city living.

### THE ADVANTAGES OF WATTWAY

- ✓ First trafficable photovoltaic road surface
- 📍 Produces electricity close to consumer locations
- 📦 Turnkey solution that adapts to your needs
- 📊 Optimizing land resources which are rare in cities and highly valuable in farmland

## Paving the way to tomorrow's energy



## Presentation

Colas has invented the solar road in partnership with the French National Solar Energy Institute.

For the first time ever, roadways are now able to produce electricity, while fully preserving their original role as a vector for vehicle traffic.

Designed to last for the long run, the very thin, heavy-duty, skid resistant photovoltaic panels are simply glued to the existing road.

Protected by three patents, the groundbreaking technology gives roads a new functionality: producing clean, renewable energy.

## Technical features

TECHNICAL CHARACTERISTICS	WATTWAY
Dimensions of a module	1398mm x 690mm *other dimensions possible after study
Production surface/module	0.96 m <sup>2</sup>
Number of active cells	28
Nominal Power (P <sub>nom</sub> )	115 Wc
Average Yield (module)	12%
Maximum power point Voltage (V <sub>mpp</sub> )	14 V
Maximum power point Current (I <sub>mpp</sub> )	8.14 A
Open circuit voltage (V <sub>oc</sub> )	17.5 V
Short circuit current (I <sub>sc</sub> )	8.5 A
Maximum voltage of system	60 V
Power Temp. coefficient (P <sub>mpp</sub> )	-0.43 % / °C
Tolerance (module)	± 5%
Connector	IP68
Inverted Current max A	15
Number of bypass diodes	2

1 Under standard test conditions (1000 W/m<sup>2</sup> sunlight, AM 1.5, 25°C)  
2 Based on average yield of nominal power production

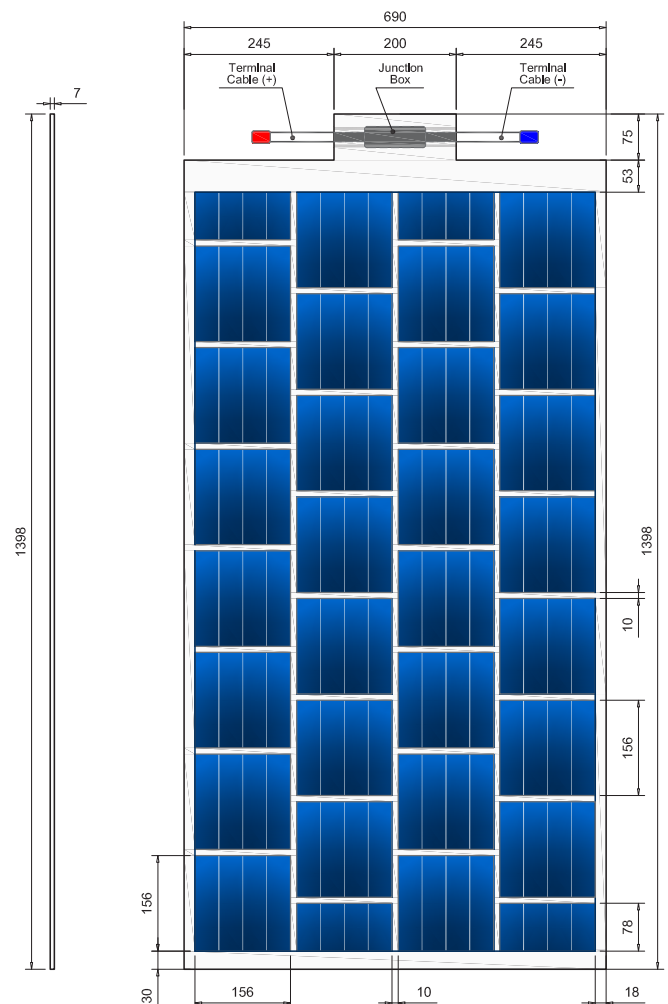
MECHANICAL SETTINGS	WATTWAY
Impact resistance	IK 07
Cells	Polycrystalline / mono-like
Weight	9 kg
Road performance	1 million wheel passages (13T per axle)
Grip test	SRT – PFT, CFL, Wehner & Schulze

The surface on which Wattway is applied must have the following prerequisites :

- Good overall condition
- Adequate design of existing pavement structure
- Proper texture of the existing surface
- Compliance with specific application conditions

All projects must be approved by the Colas technical network.

## Wattway module diagram



by

