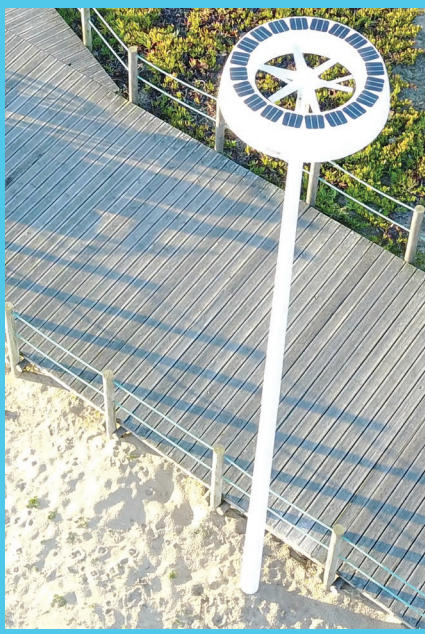
Omniflow®

SMART CITY & SUSTAINABLE MOBILITY

www.omniflow.io

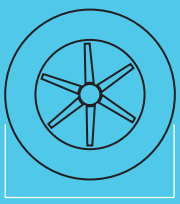
OMNILED
SMART IoT PLATFORM



OMNILED is a Smart Energy Platform powered by wind and solar with built-in energy storage.
It turns renewable energy into IoT, smart lighting, surveillance or telecom services.

Its unique design blends advanced aerodynamics with a simple geometry allowing continuous operation even in urban scenarios. PV cells cover the top surface of the design-patented shroud, while its distinctive geometry based on an inverted wing shaped airfoil directs the free wind stream from any direction to a diffuser hence promoting a speed up effect into a central wind turbine.

Sourced energy is stored in a shroud-enclosed battery bank that serves as a platform for a number of additional services. All functionalities are remotely accessible via Omniflow's web based Monitor and Control platform.



Solar Power
High efficiency solar cells
23.5% Efficiency

Wind Power
Patented vertical
technology

Built in Batteries
Continuous power for
multiple applications

Technical Data	Omniled 07
DIMENSIONS (D/H) [m]	1.20 / 0.30
GENERATOR	Direct drive ironless start permanent magnet
DIFFUSER	Single-element patented shroud
DC CONTROLLER	Hybrid wind/ solar regulator
WIND POWER [W]	100 (rated @11 m/s, steady)
SOLAR POWER [W]	60 (peak) 1
BATTERY	500 Wh C10 Lead Crystal 2
WEIGHT [Kg]	35
POLE HEIGHT [m]	6/ 8/ 12
LIGHTING POWER [W]	30/ 45/ 60 (W/ Grid-Backup)
LUMEN LUMINANCE [lm]	5100/ 6800/ 9270
COLOR TEMPERATURE [K]	4000 / 6000
CONTROL	OmniConnect IoT Platform
OPTIONAL	- Wi-Fi, 4G, Small Cell - IP Camera's and Video Analytics - USB Charger, E-Bike charger - Grid-backup - [1] Additional integrated solar PV - [2] Additional battery storage

Technical Data	Omniled 035
DIMENSIONS (D/H) [m]	0.60 / 0.15
GENERATOR	Direct drive ironless start permanent magnet
DIFFUSER	Single-element patented shroud
DC CONTROLLER	Hybrid wind/ solar regulator
WIND POWER [W]	15 (rated @11 m/s, steady)
SOLAR POWER [W]	16 (peak) 1
BATTERY	90 Wh C10 Lead Crystal 2
WEIGHT [Kg]	4
POLE HEIGHT [m]	3/ 4/ 5
LIGHTING POWER [W]	6/ 12/ 24 (W/ Grid-Backup)
LUMEN LUMINANCE [lm]	1200/ 2040/ 3700
COLOR TEMPERATURE [K]	4000 / 6000
CONTROL	OmniConnect IoT Platform
OPTIONAL	- Wi-Fi, 4G - IP Camera's and Video Analytics - USB Charger, E-Bike charger - Grid-backup - [1] Additional integrated solar PV - [2] Additional battery storage

OMNI **BENCH**

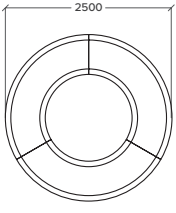
Omnibench is a urban furniture design for public spaces patented by Omniflow.

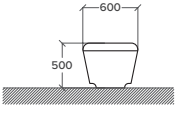
The contemporary design is inspired in the Omniled smart platform shape and can interact with this product with multiple optional features like, bottom light, USB or wireless charging points and electric bicycles docking stations.

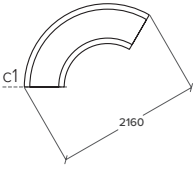
The water tight bench can be opened and be used for other technical purposes like the installation of a camouflaged base station for a telecommunications provider or simply more batteries.

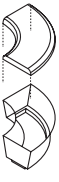
The Omnibench can be filled with sand/water or simply bolted to the ground.

Body Shell	
Material	Composite Fiberglass/Resin Transparent to radio waves
Finishing	Marine grade gel coat
Color	RAL 9010
Space inside	Can fit 3 (Three) objects up to: 500 x 500mm 1,25 m (external radius)
General	
Dimensions	0.5m height, 2.16m maximum length
Weight	50Kg per module
Mounting	Mounts: Bolted to the ground Fill with water Fill with sand
Transportation	Package dimensions: 2.20m x 0.95m x 0.50m Up to 6 units stackable
Optional Accessories	- Bottom lighting (bench) - E-Bike Charging Station - E-Scooter Charging Station - USB Charger ports - Wireless Charger - Wifi Ethernet Router AP - Wifi Ethernet Fiberoptic Router AP - LoRA Gateway (under consultation) - Transmission - 4G Modem, ethernet, fiber, P2P, P2MP - Small Cell integration (under consultation)









OMNI **BIKE**

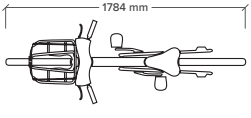
The Omnibikes can integrate with the Omniled & OmniBench for a more complete sustainable urban mobility solution that will be part of a bike sharing service.

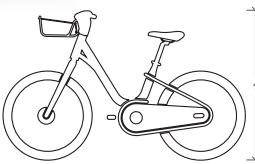
The bikes are aesthetically appealing, with a simple and modern design provided by CEiiA. They are available in two versions, electric and conventional.

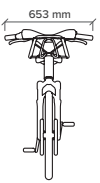
The electric version is equipped with a motor of 250 watts of power and allows to reach a maximum speed of 25 Km/h and estimated range of 30 to 50 km.

The Omnibikes can integrate the Omniled + OmniBench solution for a more complete sustainable urban mobility solution.

General	
Dimensions	1.1m height, 1.8m length, 0,65m width
Materials	Aluminum frame with robust design for vandalism endurance PC-ABS plastic steering covers PC-ABS plastic battery enclosure and chain cover PC-ABS plastic mudguard
IP	Ip 54 (for vehicle controller)
Power train	SHIMANO 3 speed hub SHIMANO Roller brakes on both wheels
Tyres	26x1.75 city tyres with reflective strip Anti theft nuts
Lights	LED Front light LED presence rear light
Features	Automatic Light Management Front, rear and pedals reflectors Steel framed basket City comfort saddle with anti theft feature Low maintenance cycling components Front wheel mudguard Rear wheel mudguard Double leg kickstand GPS tracking Vandalism detection GPRS communication
Optional	Disc Brakes Skirt guard
Electric Bike	
Weight	27 kg
Power train	Front wheel Motor 250W
Battery	Li-ion battery 10S3P 36V 9Ah - EU certified 30 to 50 km range RoPD plug
Optional	Smart lock Li-ion battery 10S4P 36V 12Ah - EU certified
Certifications	EN 15194 EN 14764 RoHS RED Directive (2014/53/EU) (for communication module)
Conventional Bike	
Weight	22 kg
Power train	Front wheel SHIMANO dynamo
Certifications	ISSO 4210-2 RoHS







CEiiA

OMNI DOCKING STATION

Omni Docking Station integrates a bike sharing solution, and simultaneously has a bike-parking and charging station equipped with a 36V charger for e-bikes and e-scooters.

It aims to promote sustainable urban mobility, including the use of bicycles and renewables when using Omniled product.

This results in a reduction of the carbon emissions and the carbon intensity of the activities that take place in the city, reducing energy consumption and promoting sustainable urban mobility.

The bike sharing and loading solution is managed with CEiiA mobility management platform - the mobi.me.

General	
Materials	Galvanized Steel 42,4mm Tube Frame DCPD-RIM Panels
Color	RAL 9010
Dimensions	1.00m height, 0.68m length, 0.18m width
Installation	Underground infrastructure with levelling fine tuning Allows Flexible layout installation
IP	Ip 54
Authentication	App - DOC STATION RFID/NFC
User interface	RGB light feedback Buzzer
Nr of Parking Spots	2
Lock	Ø8 mm stainless steel pvc coated cable Anti theft sensor Universal locking system - Ability to lock sharing or private bikes Cable length ensures 2 locked points: front wheel and frame
Charging	36V RoPD plug
Certifications	EN60950-1:2006 EN60950-22:2006 EN61000-6-1:2007 EN61000-6-3:2007
Optional accessories	Ø8mm heat treated steel chain solution instead of steel cable

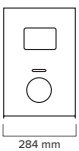
OMNI CHARGER EV STATION

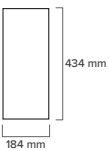
The Omni Charger is designed for conductive battery charging of the BEV (Battery Electric Vehicle) or PHEV's (Plug-in Hybrid Elecric Vehicles) on board batteries at public access charging locations, where usage simplicity and functionality are important.

Equipped with one Mode 3 charging outlet (power ranging from 3,7 kVA to 22 kVA), can charge any EV compatible vehicle with IEC61851.
Using easy installation procedures and requirements, allowing versatile installation options.

Each Efacec Public Charger can be integrated in a charging infrastructure network and its operation and status is controlled by the central management system.

The Omni Charger can integrate the Omniflow systems for a more complete sustainable urban mobility solution while providing additional services like security cameras and connectivity present in Omniled.





Technical Data	CE			
AC Nominal Input				
Phases / Lines	1 phase + neutral + PE		3 phases + neutral + PE	
Voltage	230 Vac ± 10%		400 Vac ± 10%	
Frequency	50 or 60 Hz			
Input Current	16 A	32 A	16 A	32 A
Input Power	3,7 kVA	7,4 kVA	11 kVA	22 kVA
AC Nominal Output				
Voltage	230 Vac ± 10%		400 Vac ± 10%	
Current	16 A	32 A	16 A	32 A
Nominal power	3,7 kVA	7,4 kVA	11 kVA	22 kVA
Over current	20 A	40 A	20 A	40 A
RCD	30mA (Type A)		30 mA (Type B)	
General Specifications				
Equipment	Sinlge AC output equipment			
Mounting	Pole			
Communication with EV	Pilot Signal according to IEC61851			
AC Plug (or socket)	IEC62196 Type-2 (others under request)			
Human machine interface	By default			
Display	No			
RFID system	Mifare (Classic, DesFire EV1)			
Communication	3G (GSM or CDMA) I LAN I Wi-Fi			
Communication protocols	OCPP (1.2; 1.5) and others			
Place of installation	Indoor/Outdoor			
Altitude	Up to 1000 m			
Protection degree	IP54 I IK10			
Operating Temperature Optional Cold Option	-25 to +50 °C -35 to +50 °C			
Storage temperature	-40 to +60 °C			
Humidity	5% to 95%			
Dimensions (W x D x H)	284 x 184 x 434 mm			
Weight	≈ 9 Kg			

DIGITAL VERSION

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