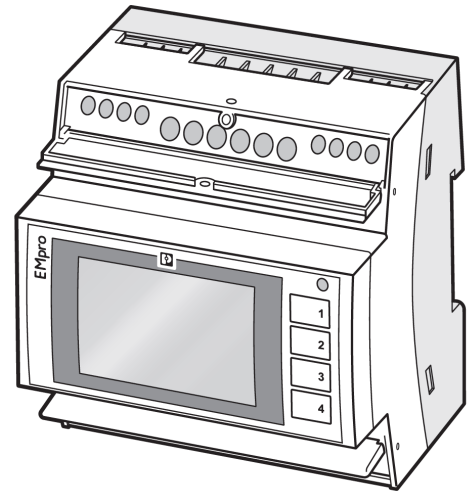


## DYNAMIC LOAD BALANCER

The Dynamic Load Balancer is the ultimate device for load balancing in all industrial buildings, also in locations where energy is produced (using PV).

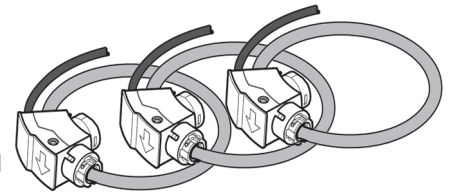
The device measures the energy flow and provides continuous information on the energy consumption or production of the installation.

This plug-on solution allows for efficient smart charging in combination with compatible chargers, resulting in the perfect solution to optimize the use of your own green energy for your vehicle. The ultimate green e-Mobility!



### Product highlights

- Easy to install on every grid installation on DIN rail & plug-on coils
- Real time bi-directional energy flow detection allowing for optimal energy monitoring
- Obtain ultimate green e-mobility in combination with eNovates chargers
- Minimize the grid usage to save on electricity costs



### Typical installation & energy flow

During the day, the office energy consumption and production varies continuously, due to the activity, weather conditions, ....

The eNovates eDLB and EV chargers continuously optimize the energy flow, so that all vehicles are charged using the maximum available energy.

This whilst keeping the grid installation into account, preserving reliable power availability. The outcome is a maximum of vehicle charging with minimal grid usage, resulting in a lower electricity bill!

### Types and standard specifications

	eDLB
Grid connection	Triphase (3 x 400V)
Max primary current	4000A
Current direction	Bi-directional
Voltage measurement range	230V +/- 20%
Voltage measurement accuracy	+/- 5V
Max wire diameter	16mm <sup>2</sup> solid / 10mm <sup>2</sup> stranded wire
Communication protocol	REST API
Communication interface	Ethernet

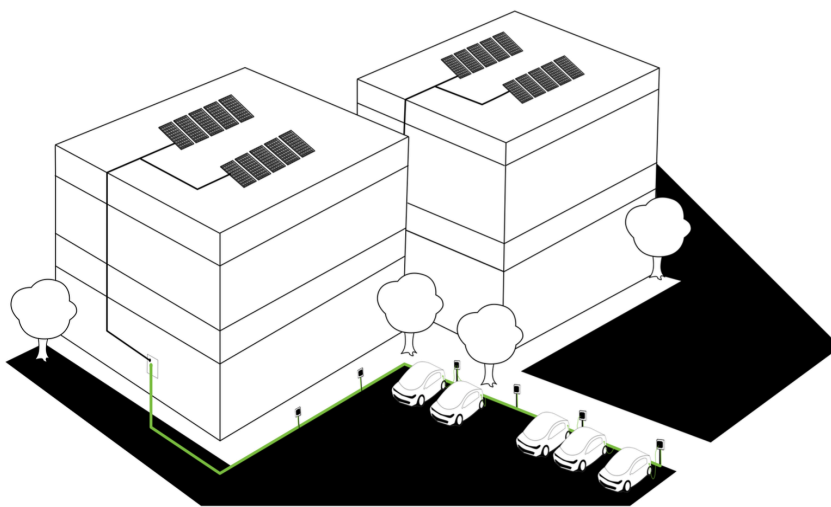


## Product description & standard applications

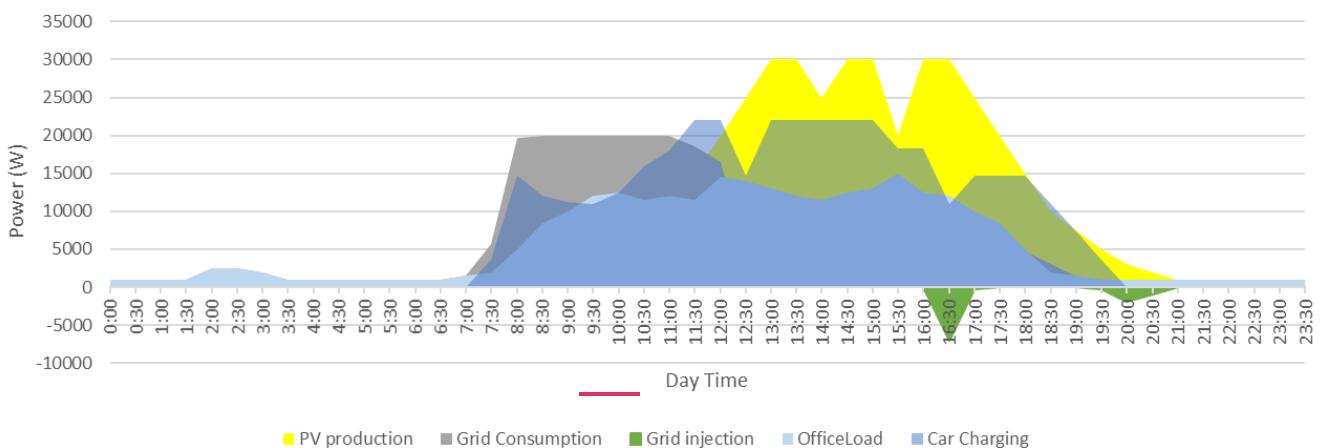
The eDLB device continuously measures the voltage and current of an office/industrial installation and provides this information to the eNovates Chargers (via the Chargers Cluster Master). As a result, the charger cluster can take the actual load of the building into account and balance the EV charging power of all chargers accordingly protecting the overall grid connection.

This results in a well balanced installation, never overloading the grid connection and hence avoiding the circuit breaker to interrupt the power supply. Additionally, the installation can be configured as such that the EV chargers mainly use the energy provided by the PV installation, maximizing the self-consumption of self-generated green energy, contribution to a zero-emission fleet (and reducing the energy bill).

The device can be added to any existing grid connection without interruption of the energy connection by means of easy-to-install Rogowski coils. The eDLB communicates to the EV chargers by means of ethernet connection, allowing for a flexible installation in all environments.



(in kWh)	Feed	Use
PV production	201	
Office Load		135
Car Charging		191
Grid Consumption		
Grid injection	131	
Grid injection	-5	
<b>Total</b>	<b>323</b>	<b>323</b>



### ENOVATES

Brandstraat 13 T: +32 9 430 77 20  
 9160 Lokeren F: +32 9 430 77 21  
 Belgium info@enovates.com

