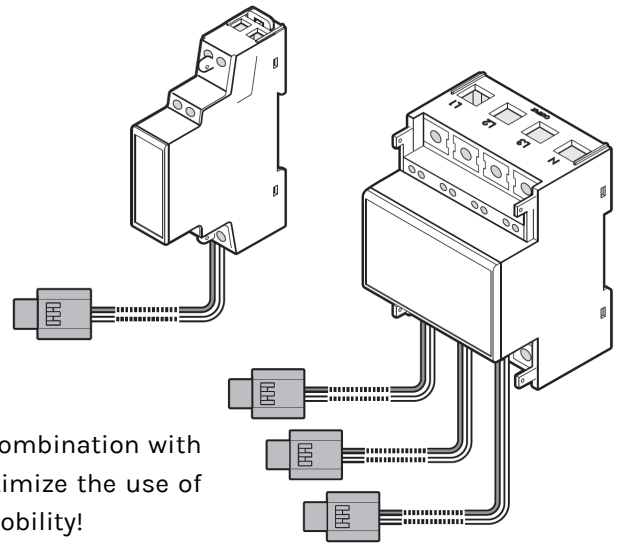


## DYNAMIC SOLAR BALANCER

The Dynamic Solar Balancer is the ultimate device for load balancing in all residential buildings, especially 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 a compatible charger, 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 household 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 household energy production and consumption varies continuously, due to the house activity, weather conditions, ....

The eNovates eDSB and EV charger continuously optimize the energy flow, so that the vehicle is charged using the excess of PV energy.

This whilst keeping the house comfort to an optimal level. The outcome is a minimal grid usage, resulting in a lower electricity bill!

### Types and standard specifications

	eDSB
<b>Grid connection</b>	eDSB-I: Single Phase (1 x 230V) eDSB-III: Triphase (3 x 400V)
<b>Max primary current</b>	80A
<b>Current direction</b>	Bi-directional
<b>Voltage measurement range</b>	230V +/- 20%
<b>Voltage measurement accuracy</b>	+/- 5V
<b>Max wire diameter</b>	16mm <sup>2</sup> solid / 10mm <sup>2</sup> stranded wire
<b>Power input (power supply not included)</b>	10-13V—100mA
<b>Communication protocol</b>	ModBus
<b>Communication interface</b>	2-wire RS-485
<b>Communication baudrate</b>	9600

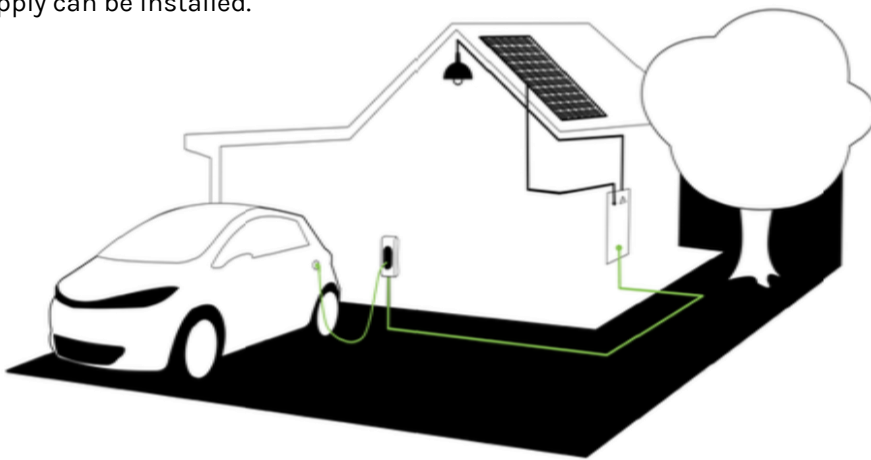


## Product description & standard applications

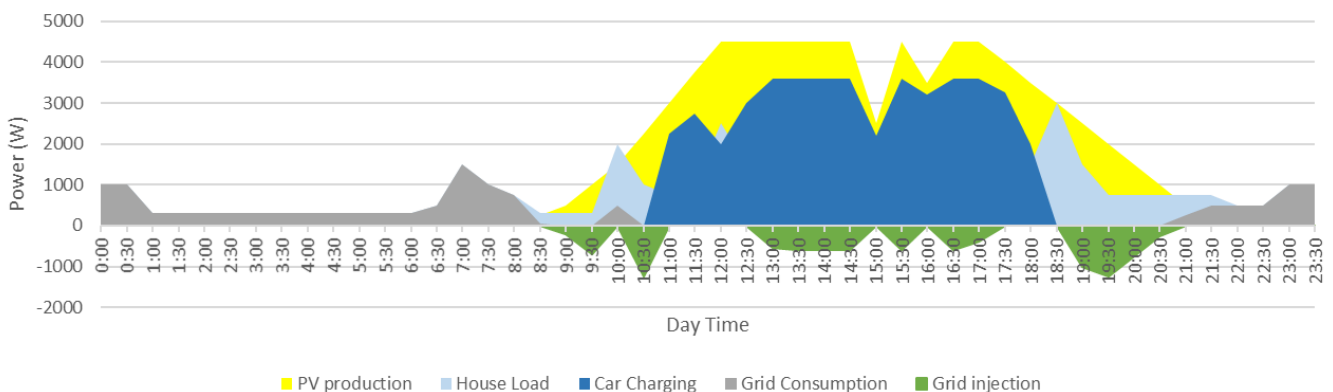
The eDSB device continuously measures the voltage and current of a residential installation and provides this information to the eNovates Home Charger. As a result, the charger can take the actual load of the house into account and balance the EV charging power accordingly.

This results in a well balanced installation, never overloading the grid connection, avoiding peak loads and hence avoiding the circuit breaker to interrupt the power supply. Additionally, the installation can be configured as such that the EV charger only uses the energy provided by the PV installation, maximizing the self-consumption of self-generated green energy and reducing the energy bill.

The device can be added to any existing grid connection (single or tri-phase) without interruption of the energy connection by means of easy-to install clip-on coils. The connection of the eDSB to the EV charger can be established by standard UTP cable, by which the charger can also power the device. Alternatively an optional 12V power supply can be installed.



(in kWh)	Feed	Use
PV production	38,5	
House Load		17,6
Car Charging		22,9
Grid Consumption	6,7	
Grid injection	-4,7	
<b>Total</b>	<b>40,5</b>	<b>40,5</b>



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