Enhancement for your Wallbox

KeContact E10 Smart Energy Meter

The intelligent energy meter for optimized photovoltaic (PV) surplus charging.

The KeContact E10 Smart Energy Meter, available in variants for 63 amps and 200 amps, captures the entire energy flow in the house bidirectionally. It prioritizes the use of self-generated solar power from your own photovoltaic system by preferentially supplying excess energy to the electric vehicle instead of feeding it into the grid. The control is managed via a communication interface between the KeContact E10 and the KeContact P30 or P40 wallboxes, ensuring optimal self-utilization of the generated solar power.

Efficient use of self-generated solar power

The KeContact E10 Smart Energy Meter provides intelligent house connection monitoring, enabling dynamic load management and PV surplus charging. For those who want to charge their electric vehicle easily and in an environmentally friendly way using self-generated solar power, KEBA offers the ideal solution: the KeContact P30 PV EDITION or the KeContact P40 combined with the KeContact E10.

The KeContact P30 PV EDITION and KeContact P40 wallboxes are specifically designed to maximize self-consumption of self-generated solar power. Optimized PV surplus charging is achieved through continuous communication between the KeContact E10 and the wallbox. This enables dynamic and intelligent control: the surplus resulting from the difference between current household consumption and PV output is fully directed to the electric vehicle.

Key advantages at a glance

// Precise power consumption measurement
// Efficient PV surplus charging
// Protection against overload and grid stability issues
// Reduced grid connection costs
// Easy installation and operation
// High connectivity and integration
// Clear device identification
// Suitable for homes and small business (63 A / 200 A)

Product details

// Compact design: 2 modular width units
// Measurement for 1- and 3-phase consumers / producers
// High measurement accuracy: ±1% (active power / energy)
// Max. current measurement: 63 A or 200 A (model dependent)
// Measurement method: Current Transformer (CT)
// 4-guadrant meter for all energy flows
// Modbus TCP interface
// Measurement interval: 200 ms for real-time data
// Installation: Suitable for sub-distribution panels

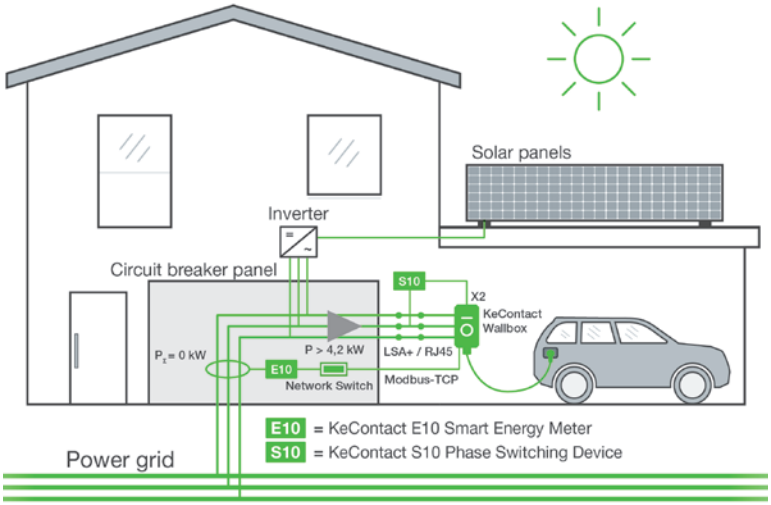
KeContact E10
in practice

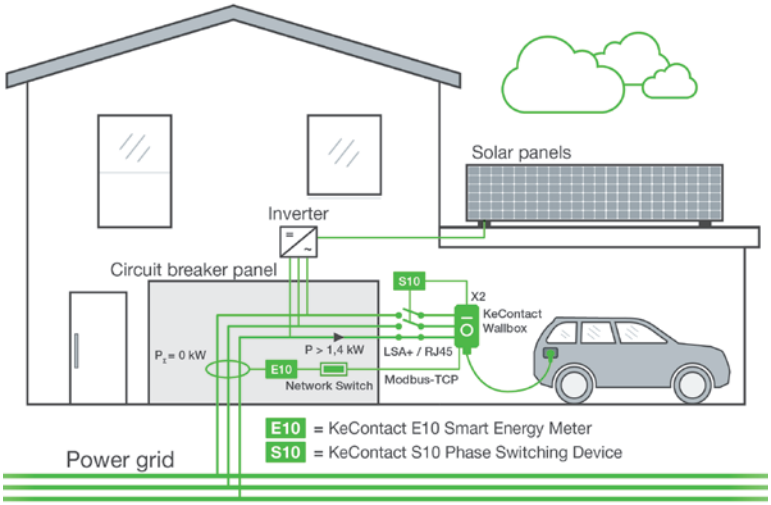
The KeContact E10 energy meter measures the power consumption of all household devices and detects when the PV system generates more energy than is currently needed in the household – the so-called PV surplus. If this surplus exceeds 4.2 kW*, the excess solar power is automatically used to charge the electric vehicle via the KeContact P30 or P40 wallbox instead of being fed into the public grid.

Through the optional phase switch KeContact S10 Phase Switching Device (important when using the KeContact P30) by KEBA, this threshold of 4.2 kW* can be reduced to just 1.4 kW*, enabling efficient use of smaller PV surpluses to charge the vehicle. The KeContact P40 already includes an integrated automatic phase switch and therefore requires no additional hardware.

How Does the System Respond to Changing Weather Conditions?

If, for example, clouds reduce solar radiation and the PV output falls below the 4.2 kW* threshold, the excess solar power is no longer used for charging and is instead fed into the grid. If the PV output is insufficient overall, the missing power demand is automatically covered from the grid.





Product description	Phase	max. measurable current per phase	Communication interface	LAN	Item number
KeContact E10 Smart Energy Meter Basic (1 phase)	1-phase	63 A	Modbus TCP	●	126 807
KeContact E10 Smart Energy Meter Basic (3 phase)	3-phase	3 x 63 A	Modbus TCP	●	126 804
KeContact E10 Smart Energy Meter Basic (3 phase)	3-phase	3 x 200 A	Modbus TCP	●	131 892

* Common electric vehicles require a minimum current of 6 A per phase to initiate a charging process. This corresponds to 1.4 kW for single-phase charging and 4.2 kW for three-phase charging.