



**SIEMENS**

*Ingenuity for life*



## The basis for the efficient operation of your machines

### Energy data recording with SIMATIC ET 200SP and SIMATIC S7-1200 energy meters

#### No efficiency without transparency

New legal regulations and rising energy prices are persuading a growing number of companies to address the issue of energy management. In order to reduce the demand for energy and the associated costs, it is necessary to find answers to the following questions: Which systems need how much energy and when do they need it? Where do peak loads occur? Which forms of energy have to be optimized? The precise recording of all energy flows is the basis for all energy management in accordance with ISO 50001.



#### Space-saving and flexible in use

The Energy Meter is the ideal first step into machine-level energy management and the recording of electrical variables. The measuring device is available in two designs. With being extremely compact, it saves a considerable amount of space in the control cabinet. In addition, it has a convincingly low purchase price and offers a high number of available measured values.

#### Get your machine ready for energy management

With the Energy Meter, you get a clearer picture of the electrical energy consumption of your machine in various different operating states. The energy data is captured directly at the machine and can be visualized by means of SIMATIC HMI. This means that machine operators always have the energy behavior under their control and are able to influence the operating behavior immediately. They can, for example, shut down the machine during breaks in production in order to avoid consumption of energy while the plant is at a downtime. Any changes can be quickly identified and associated faults cleared to ensure efficient operation of your machines.

## Technical data

		
	SIMATIC S7-1200 SM 1238 Energy Meter 480VAC	SIMATIC ET 200SP AI Energy Meter 480VAC ST
Application	One, two and three-phase power supplies of up to 480 V (and higher voltages via voltage converters)	
Measured variables	Energy meters with a high precision of +/-0.5% with an update time of just 50 ms for: voltage, current, power, phase angle, energy/electrical energy, frequency, minimum and maximum values, power factor, operating hours	
Diagnostics	Per phase	Per phase or freely adjustable by user for over- and undervoltage, overload, tolerance value and tolerance time.
Communication	PROFINET or PROFIBUS	
Module width	45 mm	20 mm
Number of modules per CPU	Up to 8 modules	Up to 64 modules
Order number	6ES7238-5XA32-0XB0	6ES7134-6PA20-0BD0

### Your advantages at a glance

- Economical and compact recording of the energy demand
- Low investment risk through the use of existing automation technology
- Easy integration into the TIA Portal
- Energy management systems compliant with ISO 50001 and energy audits conforming to DIN EN 16247-1

### Further information

- [siemens.com/simatic-energiemanagement](http://siemens.com/simatic-energiemanagement)
- [siemens.com/io-systems](http://siemens.com/io-systems)
- [siemens.com/s7-1200](http://siemens.com/s7-1200)

### Compact and economical recording in energy distribution systems

Thanks to its modular and compact design, the Energy Meter is a cost-effective solution for the recording of several outputs in an energy distribution system. The modules can not only be set up centrally on a SIMATIC S7-1200 or an ET 200SP CPU, but can also be set up on an ET 200SP IM on a distributed basis.

### Easy integration into TIA Portal and Energy Manager PRO

The Energy Meters can be easily commissioned in the TIA Portal. With the Energy Suite, the energy management program can be generated automatically and all energy data can be seamlessly transferred to the higher-level SIMATIC Energy Manager PRO energy management system.

Subject to changes and errors.  
The information given in this document only contains general descriptions and/or performance features which may not always specifically reflect those described, or which may undergo modification in the course of further development of the products. The requested performance features are binding only when they are expressly agreed upon in the concluded contract.

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