

DATASHEET

Factbird® Energy Monitoring - Siemens Energy Meter Solution



TRACK AND REDUCE THE EQUIPMENT ENERGY CONSUMPTION 24/7

Reduce equipment energy consumption without compromising on output and performance.

Conveniently track and monitor the machinery power consumption to shed light on usage while on standby or at different speed levels.

How it works

The Factbird energy monitoring solution, which utilizes a Siemens energy meter, provides precise energy consumption data as the energy meter calculates actual power consumption, taking into account power factor and variations in the machine's supply voltage.

Factbird offers two types of Siemens energy meters: Direct monitoring and transformer monitoring, depending on the machine's maximum current draw. Direct monitoring is suitable for currents below 80A, while transformer monitoring is used for higher currents.

The installation requires a shutdown and power-off of the machine due to the necessity of a direct connection to the machine's supply cables. For a more convenient, plug-and-play installation and energy consumption monitoring based on current data, please consider exploring Factbird's current transducer solution.

Key features

Energy consumption data can be correlated and analyzed at the machine level alongside production performance data.

Checklist for installation

Components provided by Factbird

- Factbird® devices
- Power supply unit of Factbird® devices
- Cable with wire-ends and an M8 connector
- Siemens three-phase energy meter
- Siemens three-phase MCB (Miniature Circuit Breaker)
- Siemens three-phase current transformer - in case of transformer monitoring

Customer-Provided Components (not provided by Factbird)

- DIN rails
- DIN terminal blocks
- Cable marking labels
- Cable Lugs
- Various cables/wires to connect the components

	Direct monitoring (standard items)	Transformer monitoring (standard items)
Max current draw	< 80A	> 80 A
Siemens energy meter	7KT1670 or 7KT1671 (MID)	7KT1672 or 7KT1673 (MID)
Siemens transformer	Not required	7KT1202 or similar
MCB	e.g. 32A MCB: Siemens 5SL6332-7	e.g. 6A MCB: Siemens 5SL6306-7

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Product Specifications

Siemens 7KT1670 / 7KT1671 (Energy meter)	
Dimensions	90 × 72 × 63 mm / 3.5 × 2.8 × 2.5 in
Weight	7KT1670: 398 g / 14 oz 7KT1671: 361 g / 13 oz
Protection class	IP40
Supply voltage	Between L and L min 323 V Between L and L max 456 V Between N and L min 187 V Between N and L max 264 V
Main circuit operating frequency rated value	Minimum 45 Hz Maximum 65 Hz

Siemens 7KT1672 / 7KT1673 (Energy meter)	
Dimensions	91 × 72 × 63 mm / 3.6 × 2.8 × 2.5 in
Weight	7KT1672: 286 g / 10 oz 7KT1673: 281 g / 10 oz
Protection class	IP40
Supply voltage	Between L and L min 323 V Between L and L max 456 V Between N and L min 187 V Between N and L max 264 V
Main circuit operating frequency rated value	Minimum 45 Hz Maximum 65 Hz

Siemens 7KT1202 (Current transformer)	
Dimensions	90 × 105 × 64 mm / 3.5 × 4.1 × 2.5 in
Weight	561 g / 20 oz
Current	at input rated value: 150 A

Siemens 5SL6332-7 (MCB)	
Dimensions	90 × 54 × 76 mm / 3.5 × 2.1 × 3 in
Weight	435 g / 15 oz
Protection class	IP20
Supply voltage at AC rated value	400 V
Value range of supply voltage frequency	50/60 Hz

Siemens 5SL6306-7 (MCB)	
Dimensions	90 × 54 × 76 mm / 3.5 × 2.1 × 3 in
Weight	355 g / 13 oz
Protection class	IP20
Supply voltage at AC rated value	400 V
Value range of supply voltage frequency	50/60 Hz

Please refer to each manufacturer's website for more information.

Please refer to the Factbird® energy monitoring solution that utilizes a clamp on current transducer for plug and play solution.

End of life

When you wish to dispose the sensor cable, please return it to Factbird ApS for recycling or recycle local according to local laws where the end-of-life takes place.

Limitations of liability

Factbird ApS shall not be responsible for any direct or indirect damages, commercial losses, loss of profit in any way connected with the Factbird devices.

Warranty

Factbird ApS's warranty is that the product is free from defects in materials and workmanship for a period of one year from the date of sale by Factbird ApS.