SIEMENS

## Data sheet 6ES7134-6PA01-0BU0



SIMATIC ET 200SP, analog input module, AI Energy Meter CT ST, for 1A or 5A current transformer, suitable for BU type U0, channel diagnostics

| | |
|---|---|
| **General information** | |
| Product type designation | AI Energy Meter CT ST |
| Firmware version | V8.0 |
| ● FW update possible | Yes |
| usable BaseUnits | BU type U0 |
| Color code for module-specific color identification plate | CC20 |
| Supported power supply systems | TT, TN, IT |
| Product function | |
| ● Voltage measurement | Yes |
| — without voltage transformer | Yes |
| — with voltage transformer | Yes |
| ● Current measurement | Yes; max. 3 + neutral conductor |
| — without current transformer | No |
| — with current transformer | Yes; 1 A or 5 A current transformer |
| — With Rogowski coil | No |
| — With current-voltage-converter | No |
| ● Energy measurement | Yes |
| ● Frequency measurement | Yes |
| ● Power measurement | Yes |
| ● Active power measurement | Yes |
| ● Reactive power measurement | Yes |
| ● Power factor measurement | Yes |
| ● Active factor measurement | Yes |
| ● Reactive power compensation | Yes |
| ● Line analysis | No |
| ● I&M data | Yes; I&M0 to I&M3 |
| ● Isochronous mode | No |
| Engineering with | |
| ● STEP 7 TIA Portal configurable/integrated from version | STEP 7 V16 or higher with HSP |
| ● STEP 7 configurable/integrated from version | Configurable via GSD file |
| ● PROFIBUS from GSD version/GSD revision | One GSD file each, Revision 3 and 5 and higher |
| ● PROFINET from GSD version/GSD revision | V2.3 |
| Operating mode | |
| ● Switching between operating modes in RUN | Yes; For module version 32 I/20 Q, it is possible to dynamically switch between 25 user data variants, 23 of which are pre-defined and 2 of which can be defined by the specific user |
| ● Cyclic measured value access | Yes |
| ● Acyclic measured value access | Yes |
| ● Fixed measured value sets | Yes |
| ● Freely definable measured value sets | Yes; For cyclic and acyclic measured value access |
| **CiR - Configuration in RUN** | |


Subject to change without notice
© Copyright Siemens

| | |
|---|---|
| Reparameterization possible in RUN | Yes |
| Calibration possible in RUN | Yes |
| **Installation type/mounting** | |
| Mounting position | any |
| **Supply voltage** | |
| Rated value (DC) | 24 V |
| permissible range, lower limit (DC) | 19.2 V |
| permissible range, upper limit (DC) | 28.8 V |
| **Input current** | |
| Current consumption (rated value) | 12.5 mA |
| Current consumption, max. | 17 mA |
| **Power loss** | |
| Power loss, typ. | 1 W; 3x 5 A input current, 3x 230 V AC |
| **Address area** | |
| Address space per module | |
| ● Inputs | 256 byte |
| ● Outputs | 20 byte |
| **Hardware configuration** | |
| Automatic encoding | Yes |
| ● Mechanical coding element | Yes |
| ● Type of mechanical coding element | type C |
| Selection of BaseUnit for connection variants | |
| ● 2-wire connection | BU type U0 |
| **Time of day** | |
| Operating hours counter | |
| ● present | Yes |
| **Analog inputs** | |
| Cycle time (all channels), typ. | 50 ms; Time for consistent update of all measured and calculated values (cyclic und acyclic data) |
| Cable length | |
| ● shielded, max. | 200 m |
| ● unshielded, max. | 200 m |
| **Analog value generation for the inputs** | |
| Sampling frequency, max. | 2 048 kHz |
| **Interrupts/diagnostics/status information** | |
| Alarms | |
| ● Diagnostic alarm | Yes |
| ● Limit value alarm | Yes |
| ● Hardware interrupt | Yes; Monitoring of up to 16 freely selectable process values (exceeding or undershooting of value) |
| Diagnoses | |
| ● Supply voltage | Yes |
| ● Hardware interrupt lost | Yes |
| ● Parameter assignment error | Yes |
| ● Module fault | Yes |
| ● Channel not available | Yes |
| ● Overflow/underflow | Yes |
| ● Overload current | Yes |
| Diagnostics indication LED | |
| ● Monitoring of the supply voltage (PWR-LED) | Yes |
| ● Channel status display | Yes; green LED |
| ● for channel diagnostics | Yes; red Fn LED |
| ● for module diagnostics | Yes; green/red DIAG LED |
| **Integrated Functions** | |
| Measuring functions | |
| ● Measuring procedure for voltage measurement | TRMS |
| ● Measuring procedure for current measurement | TRMS |
| ● Type of measured value acquisition | seamless |
| ● Curve shape of voltage | Sinusoidal or distorted |
| ● Buffering of measured variables | Yes |
| ● Parameter length | 128 byte |


Subject to change without notice
© Copyright Siemens

| | |
|---|---|
| ● Bandwidth of measured value acquisition | 3.2 kHz; Harmonics: 63 / 50 Hz, 52 / 60 Hz |
| Measuring range | |
| — Frequency measurement, min. | 40 Hz |
| — Frequency measurement, max. | 70 Hz |
| Measuring inputs for voltage | |
| — Measurable line voltage between phase and neutral conductor | 277 V |
| — Measurable line voltage between the line conductors | 480 V |
| — Measurable line voltage between phase and neutral conductor, min. | 3 V |
| — Measurable line voltage between phase and neutral conductor, max. | 300 V |
| — Measurable line voltage between the line conductors, min. | 6 V |
| — Measurable line voltage between the line conductors, max. | 519 V |
| — Internal resistance line conductor and neutral conductor | 1.5 MΩ |
| — Power consumption per phase | 60 mW; 300 V AC |
| — Impulse voltage resistance 1,2/50µs | 2.5 kV |
| — Measurement category for voltage measurement in accordance with IEC 61010-2-030 | CAT II |
| Measuring inputs for current | |
| — measurable relative current (AC), min. | 1 %; Relative to measuring range; 1 A, 5 A |
| — measurable relative current (AC), max. | 100 %; Relative to the secondary rated current 5 A |
| — Continuous current with AC, maximum permissible | 5 A |
| — Apparent power consumption per phase for measuring range 5 A | 0.6 VA |
| — Rated value short-time withstand current restricted to 1 s | 100 A |
| — Input resistance measuring range 0 to 5 A | 25 mΩ; At the terminal |
| — Surge strength | 10 A; for 1 minute |
| — Zero point suppression | 0 ... 20%, referred to the nominal current |
| Accuracy class according to IEC 61557-12 | |
| — Measured variable voltage | 0,2 |
| — Measured variable current | 0,2 |
| — Measured variable apparent power | 0.5 |
| — Measured variable active power | 0.5 |
| — Measured variable reactive power | 1 |
| — Measured variable power factor | 0.5 |
| — Measured variable active energy | 0.5 |
| — Measured variable reactive energy | 1 |
| — Measured variable neutral current | 0,2 |
| — Measured variable phase angle | ±0.5 °; not covered by IEC 61557-12 |
| — Measured variable frequency | 0.05; only valid for the permissible voltage measuring range |
| **Potential separation** | |
| Potential separation channels | |
| ● between the channels | No |
| ● between the channels and backplane bus | Yes |
| ● Between the channels and load voltage L+ | Yes; Including FE |
| **Isolation** | |
| Isolation tested with | Between channels and backplane bus, 24 V supply: Routine test, 1 920 V AC, 2 s; between backplane bus and 24 V supply: Type test, 707 V DC |
| **Standards, approvals, certificates** | |
| Ecological footprint | |
| ● environmental product declaration | Yes |
| Global warming potential | |
| — global warming potential, (total) [CO2 eq] | 9.32 kg |
| — global warming potential, (during production) [CO2 eq] | 4.97 kg |
| — global warming potential, (during operation) [CO2 eq] | 4.79 kg |
| — global warming potential, (after end of life cycle) [CO2 eq] | -0.449 kg |


Subject to change without notice
© Copyright Siemens

| | |
|---|---|
| **Ambient conditions** | |
| Ambient temperature during operation | |
| ● horizontal installation, min. | -30 °C |
| ● horizontal installation, max. | 60 °C |
| ● vertical installation, min. | -30 °C |
| ● vertical installation, max. | 50 °C |
| Altitude during operation relating to sea level | |
| ● Installation altitude above sea level, max. | 3 000 m; Restrictions for installation altitudes > 2 000 m, see manual |
| **Dimensions** | |
| Width | 20 mm |
| Height | 73 mm |
| Depth | 58 mm |
| **Weights** | |
| Weight, approx. | 45 g |
| **Other** | |
| Data for selecting a voltage transformer | |
| ● Secondary side, max. | 300 V |
| Data for selecting a current transformer | |
| ● Burden power current transformer x/1A, min. | As a function of cable length and cross section, see device manual |
| ● Burden power current transformer x/5A, min. | As a function of cable length and cross section, see device manual |

**Classifications**

| | Version | Classification |
|---|---|---|
| eClass | 14 | 27-24-26-01 |
| eClass | 12 | 27-24-26-01 |
| eClass | 9.1 | 27-24-26-01 |
| eClass | 9 | 27-24-26-01 |
| eClass | 8 | 27-24-26-01 |
| eClass | 7.1 | 27-24-26-01 |
| eClass | 6 | 27-24-26-01 |
| ETIM | 10 | EC001596 |
| ETIM | 9 | EC001596 |
| ETIM | 8 | EC001596 |
| ETIM | 7 | EC001596 |
| IDEA | 4 | 3562 |
| UNSPSC | 15 | 32-15-17-05 |

**Approvals / Certificates**

**General Product Approval**

Miscellaneous | EG-Konf. | UKCA | Manufacturer Declaration | UL | KC

| General Product Approval | For use in hazardous locations | | Maritime application | | |
|---|---|---|---|---|---|
| RCM | UL | FM | ABS | BUREAU VERITAS | DNV |

**Maritime application**

LRS | NK / Nippon Kaiji Kyokai | RINA | RMRS | CCS (China Classification Society) | KR


Subject to change without notice
© Copyright Siemens

## Environment






**last modified:** 9/19/2025


Subject to change without notice
© Copyright Siemens