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	Al 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

Circ Configuration in RUN Reparameter/zation possible in RUN Yes Calibration possible in RUN Nounting posible range, lower limit (DC) permissible range, upper limit (DC) Duret consumption, rax Nounting range, upper limit (DC) Duret consumption, rax Nounting range, upper limit (DC) Duret consumption, rax Nounting range, upper limit (DC) Nounting range, upper limit	 Freely definable measured value sets 	Yes; For cyclic and acyclic measured value access
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Current consumption (rated value) Current consumption, max. Power loss, typ. Address area Address space per module Inputs Inputs Outputs Outpu		28.8 V
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Power loss typ. 1 W; 3x 5 A input current, 3x 230 V AC 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 Base Unit for connection variants • 2-wire connection 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 • shelded, max 200 m • unshelded, max 200 m Analog value generation for the inputs Sampling frequency, max 2 048 kHz Interrupts/diagnostic stratus information Alarms • Diagnostic alarm Yes • Limit value alarm Yes • Hardware interrupt Yes • Hardware interrupt tost Yes • Channel not available Yes • Overflook fault • Channel of available Yes • Channel of available Yes • Overflook fault • Channel status display Yes; green LED • Mondroing of the supply voltage (PWR-LED) • Channel status display • for channel diagnostics Yes; green fat LED • Measuring procedure for voltage measurement TRMS		
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Type of measured value acquisition	seamless
Curve shape of voltage	Sinusoidal or distorted
 Buffering of measured variables 	Yes
Parameter length	128 byte
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 ΜΩ
 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 m Ω ; 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
Ambient conditions	
Ambient temperature during operation	
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 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

12/28/2021

last modified: