SIEMENS

Data sheet

6ES7137-6AA01-0BA0



SIMATIC ET 200SP, CM PTP communication module for serial connection RS-422, RS-485 and RS-232, freeport, 3964 (R), USS, MODBUS RTU master, slave, max. 250 Kbit/s, suitable for BU type A0, pack quantity: 1 unit

Figure similar

General Information Product type designation Firmware version Firmware ver	Figure similar	
Firmware version • FW update possible usable BaseUnits Product function • I&M data Engineering with • STEP 7 TIA Portal configurable/integrated from version • PROFIBUS from GSD version/GSD revision • PROFIBUS from GSD version/GSD revision • PROFINET from GSD version/	General information	
usable BaseUnits BU type A0 Product function I I8M data Yes; I8M0 to I8M3 Eginieering with STEP 7 TIA Portal configurable/integrated from version STEP 7 TIA Portal configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFIBUS from GSD version/GSD revision GSD as of Revision 5 PROFIBUS from GSD version/GSD revision GSD As of Revision 5 Supply voltage Rated value (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC) Permissible range, upper limit (DC) Permissible range, upper limit (DC) STEP 7 VI7 or higher Via GSD as of V5.6 HF4 SD	Product type designation	CM PtP
usable BaseUnits Product function • I&M data Engineering with • STEP 7 TAR Portal configurable/integrated from version • STEP 7 Tonfigurable/integrated from version • STEP 7 Configurable/integrated from version • STEP 7 Configurable/integrated from version • PROFIBUS from GSD version/GSD revision • PROFINET from GSD version/GSD revision • PROFINET from GSD version/GSD revision • PROFINET from GSD version/GSD revision SUML V2.34 Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, l	Firmware version	
Product function • I&M data Engineering with • STEP 7 TIA Portal configurable/integrated from version • PROFIBUS from GSD version/GSD revision • PROFIBUS from GSD version/GSD revision • PROFINET from GSD version/GSD revision • SDML V2.34 Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) 228.8 V Reverse polarity protection input current Current consumption (rated value) 31 mA Current consumption (rated value) 31 mA Current consumption, max. 35 mA Power loss, typ. Address area Address space per module • Inputs • Inputs • Outputs • Outputs • Outputs • Outputs • Outputs • Obyte; performance mode: 32 byte • Outputs • Outputs • Outputs • Obyte; performance mode: 32 byte Interface vipes • RS 485 • RS 485 • RS 422 • RS 232 • Pes • RS 485 • RS 422 • RS 232 • Design of the connection Interfaces types RS 232	 FW update possible 	Yes
• 18M data Engineering with • STEP 7 TIA Portal configurable/integrated from version • STEP 7 configurable/integrated from version • STEP 7 tonfigurable/integrated from version • STEP 7 tonfigurable/integrated from version • STEP 7 tonfigurable/integrated from version • PROFIBUS from GSD version/GSD revision • PROFIBUS from GSD version/GSD revision Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Yes Input current Current consumption (rated value) Current consumption (rated value) 31 mA Current consumption (rated value) 35 mA Power loss, typ. Address area Address space per module • Inputs • Outputs • Outputs • Outputs • Outputs • Outputs • Mechanical coding element • Type of mechanical coding element •	usable BaseUnits	BU type A0
Engineering with STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/integrated from version STEP 7 configurable/integrated from version STEP 7 configurable/integrated from version PROFIBUS from GSD version/GSD revision SD as of Revision 5 SD	Product function	
STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/integrated from version PROFINET from GSD version/GSD revision PROFINET from GSD version/GSD revision Supply voltage Rated value (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC)	• I&M data	Yes; I&M0 to I&M3
STEP 7 configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFIBUS from GSD version/GSD revision Supply voltage Rated value (DC) Permissible range, lower limit (DC) Permissible range,	Engineering with	
PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision Supply voltage Rated value (DC) Permissible range, lower limit (DC) Permissible range, upper l	 STEP 7 TIA Portal configurable/integrated from version 	STEP 7 V17 or higher
PROFINET from GSD version/GSD revision Supply voltage Rated value (DC) 24 V permissible range, lower limit (DC) 19.2 V permissible range, upper limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption (rated value) 31 mA Current consumption, max. 35 mA Power loss Power loss, typ. 0.7 W Address area Address space per module Inputs 8 byte; performance mode: 32 byte Outputs 0 byte; performance mode: 32 byte Hardware configuration Automatic encoding Yes Interface Interface Interface types RS 232 Design of the connection Push-in terminal Interface types RS 232 RS 232 RS 232 RS 232 Push Sa V V V V V V V V V V V V V V V V V V	 STEP 7 configurable/integrated from version 	via GSD as of V5.6 HF4
Rated value (DC) 24 V permissible range, lower limit (DC) 19.2 V permissible range, upper limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption (rated value) 31 mA Current consumption, max. 35 mA Power loss Power loss, typ. 0.7 W Address area Address space per module Inputs 8 byte; performance mode: 32 byte Outputs 0 byte; performance mode: 32 byte Hardware configuration Automatic encoding Yes Type of mechanical coding element Yes RS 485 Yes RS 485 Yes RS 422 Yes RS 232 Design of the connection Push-in terminal Interface types RS 232 RS 232	 PROFIBUS from GSD version/GSD revision 	GSD as of Revision 5
Rated value (DC) 24 V permissible range, lower limit (DC) 19.2 V permissible range, upper limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption (rated value) 31 mA Current consumption, max. 35 mA Power loss Power loss, typ. 0.7 W Address area Address space per module Inputs 8 byte; performance mode: 32 byte Outputs 0 byte; performance mode: 32 byte Ves Mechanical coding element Yes Type of mechanical coding element Type D 1. Interface Interface types RS 485 Yes RS 232 Yes Design of the connection Push-in terminal Interface types RS 232 RS 232	 PROFINET from GSD version/GSD revision 	GSDML V2.34
permissible range, lower limit (DC) 19.2 V permissible range, upper limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption (rated value) 31 mA Current consumption, max. 35 mA Power loss Power loss, typ. 0.7 W Address area Address space per module • Inputs 8 byte; performance mode: 32 byte • Outputs 0 byte; performance mode: 32 byte Hardware configuration Automatic encoding Yes • Mechanical coding element Yes • Type of mechanical coding element Yes • Type of mechanical coding element To the face the service of the ser	Supply voltage	
permissible range, upper limit (DC) Reverse polarity protection Yes Input current Current consumption (rated value) Current consumption, max. 35 mA Power loss Power loss, typ. Address area Address space per module Inputs Interface types Inputs	Rated value (DC)	24 V
Reverse polarity protection Yes Input current Current consumption (rated value) 31 mA Current consumption, max. 35 mA Power loss. Power loss, typ. 0.7 W Address area Address space per module • Inputs 8 byte; performance mode: 32 byte • Outputs 0 byte; performance mode: 32 byte Hardware configuration Automatic encoding Yes • Mechanical coding element Yes • Type of mechanical coding element type D 1. Interface types • RS 485 Yes • RS 422 Yes • RS 232 Yes • Design of the connection Push-in terminal Interface types RS 232	permissible range, lower limit (DC)	19.2 V
Input current Current consumption (rated value) Current consumption, max. 35 mA Power loss Power loss, typ. 0.7 W Address area Address space per module Inputs Outputs	permissible range, upper limit (DC)	28.8 V
Current consumption (rated value) Current consumption, max. Power loss Power loss, typ. O.7 W Address area Address space per module Inputs Outputs	Reverse polarity protection	Yes
Current consumption, max. Power loss Power loss, typ. O.7 W Address area Address space per module Inputs Outputs Outputs Outputs Mechanical coding element Tyes Type of mechanical coding element Interface types RS 232 RS 232 RS 232 Power loss, typ. O.7 W Address area 8 byte; performance mode: 32 byte O byte; performance mode: 32 byte Ves Ves Ves Ves Yes Yes Yes Ye	Input current	
Power loss, typ. Address area Address space per module Inputs Outputs	Current consumption (rated value)	31 mA
Power loss, typ. Address area Address space per module Inputs Outputs Outputs Outputs Automatic encoding Mechanical coding element Type of mechanical coding element Interface types RS 485 RS 232 Posign of the connection Interface types RS 232	Current consumption, max.	35 mA
Address space per module Inputs Outputs Outputs Obyte; performance mode: 32 byte Hardware configuration Automatic encoding Mechanical coding element Type of mechanical coding element Type of mechanical coding element Interface Interface types RS 485 RS 232 Design of the connection RS 282 RS 232	Power loss	
Address space per module Inputs Outputs Outputs Obyte; performance mode: 32 byte Hardware configuration Automatic encoding Mechanical coding element Type of mechanical codin	Power loss, typ.	0.7 W
 Inputs Outputs O byte; performance mode: 32 byte Hardware configuration Automatic encoding Mechanical coding element Type of mechanical coding element Interface Interface types RS 485 RS 422 RS 232 Design of the connection Push-in terminal Interface types Push-in terminal 	Address area	
Outputs O byte; performance mode: 32 byte Hardware configuration Automatic encoding • Mechanical coding element • Type of mechanical coding element 1. Interface Interface types • RS 485 • RS 422 • RS 232 • Design of the connection Interface types RS 232 RS 232	Address space per module	
Automatic encoding • Mechanical coding element • Type of mechanical coding element 1. Interface Interface types • RS 485 • RS 422 • RS 232 • Design of the connection Interface types RS 232 RS 232 RS 232 RS 232	Inputs	8 byte; performance mode: 32 byte
Automatic encoding • Mechanical coding element • Type of mechanical coding element 1. Interface Interface types • RS 485 • RS 422 • RS 232 • Design of the connection Interface types RS 232 RS 232 RS 232	Outputs	0 byte; performance mode: 32 byte
Mechanical coding element Type of mechanical coding element Interface Interface types RS 485 RS 422 RS 232 Pes Design of the connection Interface types RS 232 RS 232 RS 232 RS 232 RS 232 RS 232	Hardware configuration	
 Type of mechanical coding element 1. Interface Interface types RS 485 RS 422 RS 322 Design of the connection Interface types RS 232 Push-in terminal Interface types RS 232	Automatic encoding	Yes
1. Interface Interface types • RS 485 • RS 422 • RS 232 • Design of the connection Interface types RS 232 RS 232	 Mechanical coding element 	Yes
Interface types • RS 485 • RS 422 • RS 232 • Design of the connection Interface types RS 232 RS 232	 Type of mechanical coding element 	type D
RS 485 RS 422 RS 232 Design of the connection Push-in terminal Interface types RS 232	1. Interface	
 RS 422 RS 232 Design of the connection Interface types RS 232 Yes Push-in terminal	Interface types	
RS 232 Design of the connection Push-in terminal Interface types RS 232	• RS 485	Yes
Design of the connection Push-in terminal Interface types RS 232	• RS 422	Yes
Interface types RS 232	• RS 232	Yes
RS 232	 Design of the connection 	Push-in terminal
	Interface types	
• Transmission rate, max. 115.2 kbit/s	RS 232	
	Transmission rate, max.	115.2 kbit/s

Cable length, max. Po 200 positions along the	15 m
RS 232 auxiliary signals RS 485	RTS, CTS, DTR, DSR, RI, DCD
RS 485	250 kbit/s
Transmission rate, max.Cable length, max.	1 200 m; 100 to 1200 m, depending on transmission speed
RS 422	1 200 HI, 100 to 1200 HI, depending on transmission speed
Transmission rate, max.	115.2 kbit/s
Cable length, max.	1 200 m
4-wire full duplex connection	Yes
4-wire multipoint connection	Yes
Protocols	
Integrated protocols	
Freeport	
— Telegram length, max.	2 kbyte; performance mode: receive data max. 24 byte and send data max. 30
	byte
— Bits per character	7 or 8
— Number of stop bits	1 or 2 bit
— Parity	None, even, odd, always 1, always 0, any
3964 (R) — Telegram length, max.	2 kbyte; performance mode: receive data max. 24 byte and send data max. 30
— relegiani iengui, max.	byte
— Bits per character	7 or 8
Number of stop bits	1 or 2 bit
— Parity	None, even, odd, always 1, always 0, any
Modbus RTU master	
— Address area	1 to 247, extended 1 to 65535
— Number of slaves, max.	32
MODBUS RTU slave	
— Address area	1 to 247, extended 1 to 65535
Telegram buffer	
Buffer memory for telegrams	4 kbyte
Number of telegrams which can be buffered	255
Interrupts/diagnostics/status information	V
Diagnostics function	Yes
Alarms • Diagnostic alarm	Yes
Hardware interrupt	No
Diagnoses	140
Wire-break	Yes
Diagnostics indication LED	
Monitoring of the supply voltage (PWR-LED)	Yes; green PWR LED
• for module diagnostics	Yes; green/red DIAG LED
Receive RxD	Yes; green LED
Transmit TxD	Yes; green LED
Potential separation	
between backplane bus and interface	Yes
Isolation	
Isolation tested with	707 V DC (type test)
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.	5 000 m
Decentralized operation	
to SIMATIC S7-300	Yes
to SIMATIC S7-400	Yes
to SIMATIC S7-1200	Yes
to SIMATIC S7-1500	Yes

to standard PROFINET controller	Yes
Dimensions	
Width	15 mm
Height	73 mm
Depth	58 mm
Weights	
Weight, approx.	30 g

last modified: 3/21/2023 🖸