## Data sheet 6ES7137-6AA00-0BA0



SIMATIC ET 200SP, CM PTP communication module for serial connection RS422, RS485 and RS232, Freeport, 3964 (R), USS, MODBUS RTU Master, Slave, 115200 Kbit/s

General information	
Product type designation	CM PtP
Firmware version	
FW update possible	Yes
Product function	
● I&M data	Yes; I&M0 to I&M3
Engineering with	
<ul> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul>	V12 / V12
<ul> <li>STEP 7 configurable/integrated from version</li> </ul>	V5.5 SP2 with GSD file
<ul> <li>PROFIBUS from GSD version/GSD revision</li> </ul>	GSD as of Revision 5
<ul> <li>PROFINET from GSD version/GSD revision</li> </ul>	GSDML V2.3
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)	29 mA
Power loss	
Power loss, typ.	0.7 W
Address area	
Address space per module	
<ul><li>Inputs</li></ul>	8 byte
1. Interface	
Interface types	
• RS 485	Yes
• RS 422	Yes
• RS 232	Yes
Interface types	
RS 232	
<ul> <li>Transmission rate, max.</li> </ul>	115.2 kbit/s
<ul> <li>Cable length, max.</li> </ul>	15 m
RS 232 auxiliary signals	RTS, CTS, DTR, DSR, RI, DCD
RS 485	
<ul> <li>Transmission rate, max.</li> </ul>	115.2 kbit/s
Cable length, max.	1 200 m
RS 422	
Transmission rate, max.	115.2 kbit/s

	Cable length, max.	1 200 m
Protocols		
Integrated protocols		
Integrated protocols	·	
Freeport		
— Bits per character		
— Number of stop bits	Telegram length, max.	2 kbyte
None, even, odd, always 1, always 0, any	— Bits per character	7 or 8
None, even, odd, always 1, always 0, any	— Number of stop bits	1 or 2 bit
Telegram length, max Bits per character Number of stop bits Parity Modbus RTU master Address area Number of sleves, max. 32  MODBUS RTU sisse Address area Number of sleves, max. 32  MODBUS RTU sisse Address area Number of sleves, max. 32  MODBUS RTU sisse Address area Address area Address area Number of sleves, max. 32  Itelegram buffer  Buffer memory for telegrams Number of fleves which can be buffered Buffer memory for telegrams Number of fleves surface Number of fleves which can be buffered Buffer memory for telegrams Number of fleves surface Number of sleves which can be buffered Stoppostics function Address area Address area Itelegram buffer Use of stoppostics function		None, even, odd, always 1, always 0, any
Bits per character Number of stop bits 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 Number of slaves, max. 32 Number of slaves, max. 32 Address area 1 to 247, extended 1 to 65535 Number of slaves, max. 32 Address area 1 to 247, extended 1 to 65535 Number of telegrams within can be buffered Buffer memory for telegrams Address area 1 to 247, extended 1 to 65535 Number of telegrams which can be buffered 255 Number of telegrams which can be buffered 255 Number of telegrams which can be buffered 255 Number of telegrams which can be buffered 255 Number of telegrams which can be buffered Number of telegrams which can be used to the Number of telegrams which can be used to the Number of telegrams which can be used to the Number of telegrams which can be used to the Number of telegrams which can be used to the Number of telegrams which can be used to the Number of telegrams which can be used to the Number of telegrams which can be used to the Number of telegrams which can be used to the Number of telegrams which can be used to the Number of telegrams which can be used to the Number of telegrams which can be used to the Number of telegrams which can be used to the Number of telegrams which can be used to the Number of telegrams which can be used to the Number of telegrams which can be used to the Number of telegrams which can be used to the Number of telegrams which can be used to the Number of telegrams w	3964 (R)	
Number of slop bits	— Telegram length, max.	2 kbyte
None, even, odd, always 1, always 0, any	— Bits per character	7 or 8
Modbus RTU master	<ul> <li>Number of stop bits</li> </ul>	1 or 2 bit
— Address area — Number of slaves, max.  MOBUS RTU slave — Address area  1 to 247, extended 1 to 65535  Telegram buffer  • Buffer memory for telegrams which can be buffered Interrupts diagnostics/status information  Diagnostics function  Pesson  • Hardware interrupt  • Diagnostics alarm • Hardware interrupt  • Wire-break • Wire-break • Wire-break • Wire-break • Wire-break • Montoring of the supply voltage (PWR-LED) • for module diagnostics • Receive RXD • Tansmit TXD • Yes; green LED  Potential separation  between backplane bus and interface  teolation  Isolation tested with Anticort conditions Anabient temperature during operation • horizontal installation, min. • vertical installation in peration • Installation altitude above sea level, max.  • Do C; From FS03 • C; From FS0	— Parity	None, even, odd, always 1, always 0, any
MODBUS RTU slave  — Address area  1 to 247, extended 1 to 65535  Telegram buffer  • Buffer memory for telegrams • Number of telegrams which can be buffered 255  Interrupts/diagnostics/status information  Diagnostics function  Alarms • Diagnostic alam • Hardware interrupt No  Diagnostic alam • Hardware interrupt No  Diagnostic alam • Hardware interrupt  • Monitoring of the supply voltage (PWR-LED) • for module diagnostics • Receive RXD • Transmit TxD  Potential separation  between backplane bus and interface  Yes  Isolation Isolation tested with Ambient conditions  Ambient conditions  Ambient condition, max. • vertical installation, min. • horizontal installation, min. • horizontal installation, min. • vertical installation, min. • vertical installation, min. • vertical installation, min. • vertical installation, max. • vertical installation, max. • vertical installation, min. • vertical instal	Modbus RTU master	
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 Diagnostics function Yes Alams  Diagnostic alarm Yes Hardware interrupt No Diagnostics with the control of the supply voltage (PWR-LED) for module diagnostics with the control of the supply voltage (PWR-LED) for module diagnostics Receive RtD Yes; green PWR LED Yes; green PWR LED 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 conditions  Ambient conditions  Ambient condition, max. 60 °C horizontal installation, min30 °C; From FS03 vertical installation, max. 50 °C Solation sets of the condition of the supply voltage (PWR-LED) Isolation allutude above sea level, max. 2000 m; On request: Installation allitudes greater than 2 000 m Decentralized operation To SIMATIC S7-300 Yes Solation SIMATIC S7-400 Yes Solation SIMATIC S7-500 Yes Solati	— Address area	1 to 247, extended 1 to 65535
Telegram buffer  Buffer memory for telegrams Number of telegrams which can be buffered Sturber of telegrams which can be buffered Sturber of telegrams which can be buffered Sturber of telegrams which can be buffered Start of the supply sturber of telegrams which can be buffered Start of the supply sturber of telegrams which can be buffered Start of the supply sturber of the supply sturber of the supply voltage (PWR-LED) Start of the supply voltag	<ul><li>— Number of slaves, max.</li></ul>	32
Telegram buffer  Buffer memory for telegrams Number of telegrams which can be buffered  255  Interrupts/diagnostics/status information  Diagnostics function Alarms Diagnostic alarm Personal Part of telegrams Personal Part of telegrams which can be buffered Personal Part of telegrams which can be buffered  255  Interrupts/diagnostics/status information  Yes Alarms Diagnostics alarm Personal Part of the September	MODBUS RTU slave	
Buffer memory for telegrams   Number of telegrams which can be buffered   1	— Address area	1 to 247, extended 1 to 65535
Number of telegrams which can be buffered  Interrupts/diagnostics/status information  Diagnostics function  Alarms  • Diagnostic alarm • Ves • Hardware interrupt No  Diagnoses • Wire-break Ves Diagnoses • Wire-break Nonitoring of the supply voltage (PWR-LED) • for module diagnostics • Receive RXD • Transmit TXD  Potential separation  between backplane bus and interface  teloslation  Isolation tested with Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, min. • vertical installation, max. • vertical installation, max.  Alitic during operation relating to sea level • Installation attitude above sea level, max.  Decentralized operation  to SIMATIC S7-300  to SIMATIC S7-300  to SIMATIC S7-1200 Ves Under the simple of the supply very simple to the supply simple to the supply simple to some the supply simple to standard PROFINET controller  Depth Weights  Ves  Some  Yes  15 mm  Yes  No  Verights  Ves  Some	Telegram buffer	
Diagnostics function	Buffer memory for telegrams	4 kbyte
Diagnostics function  Alarms  Diagnoses  Wire-break  Diagnoses  Wire-break  Diagnostics indication LED  Monitoring of the supply voltage (PWR-LED)  For module diagnostics  Receive RXD  Transmit TXD  Potential separation  between backplane bus and interface  Isolation  Isolation tested with  Ambient conditions  Ambient temperature during operation  Portzontal installation, min.  Norizontal installation, min.  Vertical installation, min.  Vertical installation, min.  Vertical installation, min.  Vertical installation, max.  Vertical i	<ul> <li>Number of telegrams which can be buffered</li> </ul>	255
Alarms  Diagnostic alarm Hardware interrupt No  Diagnoses  Wire-break Pes  Diagnostics indication LED  Monitoring of the supply voltage (PWR-LED) For module diagnostics Receive RxD Transmit TxD Resignment TxD  Potential separation  between backplane bus and interface  Isolation  Isolation tested with Ambient conditions  Ambient temperature during operation Porizontal installation, min. Porizontal installation win. Porizontal ins	Interrupts/diagnostics/status information	
Diagnostic alarm Hardware interrupt No  Diagnoses Wire-break Diagnostics indication LED Monitoring of the supply voltage (PWR-LED) For module diagnostics Receive RxD Transmit TxD Potential separation Between backplane bus and interface Isolation Isolation tested with Torizontal installation, min. Torizontal installation, min. Torizontal installation, max. Torizon	Diagnostics function	Yes
Hardware interrupt  Diagnoses  ● Wire-break  Diagnostics indication LED  • Monitoring of the supply voltage (PWR-LED)  • for module diagnostics  Receive RxD  • Transmit TxD  Potential separation  between backplane bus and interface  Isolation  Isolation tested with  Ambient conditions  Ambient temperature during operation  • horizontal installation, min.  • horizontal installation, min.  • vertical installation altitude above sea level  • installation altitude above sea level, max.  Decentralized operation  to SIMATIC S7-300  to SIMATIC S7-300  Tyes  to SIMATIC S7-1500  Yes  to standard PROFINET controller  Dimensions  Width  Height  Depth  S8 mm  Verigins  Vesigneen PWR LED  Yes; green PWR LED  Yes; green/red DIAG LED  Yes; green/red DIAG LED  Yes; green/red DIAG LED  Yes  On Transmit TxD  Yes  On Tr	Alarms	
Diagnoses         Yes           Diagnostics indication LED         Yes; green PWR LED           ● Monitoring of the supply voltage (PWR-LED)         Yes; green PWR LED           • for module diagnostics         Yes; green 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 conditions           Ambient conditions           Ambient stallation, min.         -30 °C; From FS03           • horizontal installation, min.         -30 °C; From FS03           • vertical installation, min.         -30 °C; From FS03           • vertical installation, max.         50 °C           • Altitude during operation relating to sea level         • Installation altitude above sea level, max.         2 000 m; On request: Installation altitudes greater than 2 000 m           • Decentralized operation         Yes           to SIMATIC S7-300         Yes           to SIMATIC S7-400         Yes           to SIMATIC S7-1500         Yes           to SIMATIC	<ul> <li>Diagnostic alarm</li> </ul>	Yes
● Wire-break Yes  Diagnostics indication LED  ● Monitoring of the supply voltage (PWR-LED)  ● for module diagnostics  ● Receive RxD  ● Transmit TxD  Potential separation  between backplane bus and interface  Isolation  Isolation tested with  Ambient conditions  Ambient temperature during operation  ● horizontal installation, min.  ● horizontal installation, min.  ● vertical installation, max.  ● vertical installation, max.  ● vertical installation, max.  ● vertical installation attitude above sea level, max.  Altitude during operation  ■ Installation attitude above sea level, max.  Decentralized operation  to SIMATIC S7-300  to SIMATIC S7-100  Yes  to SIMATIC S7-1500  Yes  to SIMATIC S7-1500  Yes  to SIMATIC S7-1500  Yes  to Standard PROFINET controller  Dimensions  Width  15 mm  Depth  58 mm  Weights	Hardware interrupt	No
Diagnostics indication LED  • Monitoring of the supply voltage (PWR-LED)  • for module diagnostics  • Receive RxD  • Transmit TxD  Potential separation  between backplane bus and interface  Isolation  Isolation tested with  Ambient conditions  Ambient temperature during operation  • horizontal installation, min.  • horizontal installation, min.  • vertical installation, max.  • vertical installation, max.  • vertical installation, max.  • vertical installation max.  • vertical installation bese ea level  • Installation altitude above sea level, max.  • So °C  Altitude during operation  • Installation altitude above sea level, max.  • conditions  Installation altitude above sea level, max.  • vertical installation operation  • Installation of relating to sea level  • Installation altitude above sea level, max.  Decentralized operation  to SIMATIC S7-300  Ves  to SIMATIC S7-1200  Ves  to SIMATIC S7-1500  Yes  to standard PROFINET controller  Pes  Dimensions  Width  15 mm  Height  73 mm  Depth  S8 mm  Weights	Diagnoses	
Monitoring of the supply voltage (PWR-LED) for module diagnostics Receive RxD Transmit TxD Yes; green LED  Potential separation  between backplane bus and interface Yes    Solation	Wire-break	Yes
• for module diagnostics • Receive RxD • Receive RxD • Transmit TxD • Yes; green LED  Potential separation  between backplane bus and interface    Yes	Diagnostics indication LED	
Receive RxD Transmit TxD Transmit Tr	<ul> <li>Monitoring of the supply voltage (PWR-LED)</li> </ul>	Yes; green PWR LED
Transmit TxD  Potential separation  between backplane bus and interface  Isolation  Isolation tested with  Ambient conditions  Ambient temperature during operation  • horizontal installation, min. • horizontal installation, min. • vertical installation, min. • vertical installation, max. • vertical installation relating to sea level • Installation altitude above sea level, max.  Decentralized operation  to SIMATIC S7-300  to SIMATIC S7-1500  to SIMATIC S7-1500  to standard PROFINET controller  Dimensions  Width  15 mm  Height  73 mm  Depth  Weights	<ul> <li>for module diagnostics</li> </ul>	Yes; green/red DIAG LED
Potential separation between backplane bus and interface  Isolation Isolation tested with 707 V DC (type test)  Ambient conditions  Ambient temperature during operation  • horizontal installation, min. • horizontal installation, min. • vertical installation, min. • vertical installation, max. • vertical installation relating to sea level • Installation altitude above sea level, max.  Decentralized operation to SIMATIC S7-300 to SIMATIC S7-400 to SIMATIC S7-1500 to SIMATIC S7-1500 to SIMATIC S7-1500 Tyes to standard PROFINET controller  Dimensions  Width Height 73 mm Depth Weights	<ul> <li>Receive RxD</li> </ul>	Yes; green LED
between backplane bus and interface  Isolation  Isolation tested with 707 V DC (type test)  Ambient conditions  Ambient temperature during operation  • horizontal installation, min. • horizontal installation, max. 60 °C • vertical installation, min. • vertical installation, min. • vertical installation, max. 50 °C  Altitude during operation relating to sea level • Installation altitude above sea level, max.  Decentralized operation  to SIMATIC S7-300  to SIMATIC S7-400  Yes  to SIMATIC S7-1200  Yes  to SIMATIC S7-1500  Yes  to SIMATIC S7-1500  Yes  Width 15 mm  Height 73 mm  Depth  Weights	<ul> <li>Transmit TxD</li> </ul>	Yes; green LED
Isolation Isolation tested with 707 V DC (type test)  Ambient conditions  Ambient temperature during operation  • horizontal installation, min. • horizontal installation, max. 60 °C • vertical installation, max. 50 °C; From FS03  • vertical installation, max. 50 °C  Altitude during operation relating to sea level • Installation altitude above sea level, max.  Decentralized operation  to SIMATIC S7-300  to SIMATIC S7-400  to SIMATIC S7-1200  to SIMATIC S7-1500  Yes  to SIMATIC S7-1500  Yes  to standard PROFINET controller  Dimensions  Width 15 mm  Height 73 mm  Depth Weights	Potential separation	
Isolation tested with 707 V DC (type test)  Ambient conditions  Ambient temperature during operation  • horizontal installation, min. • horizontal installation, max. • horizontal installation, max. • vertical installation, max. • vertical installation, max. • vertical installation, max.  • vertical installation, max.  • vertical installation, max.  • vertical installation, max.  • vertical installation, max.  • vertical installation, max.  • vertical installation, max.  • vertical installation, max.  • vertical installation, max.  • vertical installation, max.  • vertical installation, max.  • vertical installation, max.  • vertical installation, max.  • vertical installation, min.  • 20 °C; From FS03  • °C  Altitude during operation  • vertical installation altitudes greater than 2 000 m   Decentralized operation  • vertical installation altitudes greater than 2 000 m  Ves  • SIMATIC S7-300  • Yes  • SIMATIC S7-1200  • Yes  • SIMATIC S7-1200  • Yes  • SIMATIC S7-1500  • Yes  • Ves  • Ves  • Ves  • SIMATIC S7-1500  • Yes  • Ves  • SIMATIC S7-1500  • Yes  • SIMATIC S7-1500  • SIM	between backplane bus and interface	Yes
Ambient conditions  Ambient temperature during operation  • horizontal installation, min. • horizontal installation, max. 60 °C  • vertical installation, min. • vertical installation, max. 50 °C  Altitude during operation relating to sea level • Installation altitude above sea level, max.  Decentralized operation to SIMATIC S7-300 To SIMATIC S7-400 To SIMATIC S7-1200 To SIMATIC S7-1500 To S	Isolation	
Ambient conditions  Ambient temperature during operation  • horizontal installation, min. • horizontal installation, max. • horizontal installation, max. • vertical installation, min. • vertical installation, max. • vertical installation relating to sea level • Installation altitude above sea level, max.  Decentralized operation  to SIMATIC S7-300  to SIMATIC S7-400  to SIMATIC S7-1500  to SIMATIC S7-1500  yes  to SIMATIC S7-1500  Yes  to standard PROFINET controller  Dimensions  Width  15 mm  Height  73 mm  Depth  Weights		707 V DC (type test)
Ambient temperature during operation  • horizontal installation, min. • horizontal installation, max. • horizontal installation, max. • vertical installation, min. • vertical installation, min. • vertical installation, max.  50 °C  Altitude during operation relating to sea level • Installation altitude above sea level, max.  2 000 m; On request: Installation altitudes greater than 2 000 m  Decentralized operation  to SIMATIC S7-300  to SIMATIC S7-400  to SIMATIC S7-1200  to SIMATIC S7-1500  to SIMATIC S7-1500  yes  to standard PROFINET controller  Pimensions  Width  15 mm  Height  73 mm  Depth  Weights	Ambient conditions	
horizontal installation, min.     horizontal installation, max.     horizontal installation, max.     vertical installation, min.     vertical installation, max.     vertical installation relating to sea level     Installation altitude above sea level, max.     vertical installation altitude above sea level     Installation altitude above sea level, max.     vertical installation altitudes greater than 2 000 m      vecentralized operation     ves     to SIMATIC S7-300     ves     to SIMATIC S7-400     ves     to SIMATIC S7-1200     ves     to SIMATIC S7-1500     ves     to standard PROFINET controller     ves  Dimensions  Width     15 mm  Height     73 mm  Depth     seminary  Weights		
horizontal installation, max.     vertical installation, min.     vertical installation, max.     vertical installation, max.      vertical installation, max.      vertical installation, max.      Altitude during operation relating to sea level     Installation altitude above sea level, max.      2 000 m; On request: Installation altitudes greater than 2 000 m      Decentralized operation      to SIMATIC S7-300     Yes     to SIMATIC S7-400     Yes     to SIMATIC S7-1200     Yes     to standard PROFINET controller      Pimensions  Width     15 mm  Height     73 mm  Depth     58 mm  Weights		-30 °C; From FS03
<ul> <li>vertical installation, min.</li> <li>vertical installation, max.</li> <li>50 °C</li> <li>Altitude during operation relating to sea level</li> <li>Installation altitude above sea level, max.</li> <li>2 000 m; On request: Installation altitudes greater than 2 000 m</li> <li>Decentralized operation</li> <li>to SIMATIC S7-300</li> <li>to SIMATIC S7-400</li> <li>Yes</li> <li>to SIMATIC S7-1200</li> <li>Yes</li> <li>to SIMATIC S7-1500</li> <li>Yes</li> <li>to standard PROFINET controller</li> <li>Yes</li> <li>Dimensions</li> <li>Width</li> <li>Height</li> <li>Depth</li> <li>58 mm</li> <li>Weights</li> </ul>	·	•
vertical installation, max.  Altitude during operation relating to sea level      • Installation altitude above sea level, max.  Decentralized operation  to SIMATIC S7-300  to SIMATIC S7-400  Yes  to SIMATIC S7-1200  Yes  to SIMATIC S7-1200  Yes  to SIMATIC S7-1500	·	
Altitude during operation relating to sea level  ● Installation altitude above sea level, max.  2 000 m; On request: Installation altitudes greater than 2 000 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  Dimensions  Width  15 mm  Height  73 mm  Depth  Depth  58 mm  Weights	·	
● Installation altitude above sea level, max.  Decentralized operation  to SIMATIC S7-300  to SIMATIC S7-400  Yes  to SIMATIC S7-1200  Yes  to SIMATIC S7-1500  Yes  to standard PROFINET controller  Dimensions  Width  Height  73 mm  Depth  Depth  Weights		
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         Yes		2 000 m; On request: Installation altitudes greater than 2 000 m
to SIMATIC S7-300 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		
to SIMATIC S7-400 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		Yes
to SIMATIC S7-1200         Yes           to SIMATIC S7-1500         Yes           to standard PROFINET controller         Yes           Dimensions         Uidth           Height         73 mm           Depth         58 mm           Weights		
to SIMATIC S7-1500 Yes to standard PROFINET controller Yes  Dimensions Width 15 mm Height 73 mm Depth 58 mm  Weights		
to standard PROFINET controller  Pimensions  Width 15 mm Height 73 mm Depth 58 mm  Weights		
Dimensions           Width         15 mm           Height         73 mm           Depth         58 mm           Weights		
Width         15 mm           Height         73 mm           Depth         58 mm           Weights         ————————————————————————————————————		
Height 73 mm  Depth 58 mm  Weights		15 mm
Depth 58 mm Weights		
Weights		
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vveignt, approx. 30 g		20.7
	vveignt, approx.	30 g

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