## **SIEMENS**

## **Data sheet**

## 6ES7155-6AU01-0CN0



SIMATIC ET 200SP, PROFINET, 2-port interface module IM 155-6PN/2 High Feature, 1 slot for BusAdapter, max. 64 I/O modules and 16 ET 200AL modules, S2 redundancy, multi-hotswap, 0.25 ms, isochronous mode, optional PN strain relief, including server module

Product type designation  HW functional status  From FS02  From FS	General information		
Firmware version  Firmware version  Fivu update possible  Fixunction  Fixuncti	Product type designation	IM 155-6 PN/2 HF	
FW update possible Product function    Rikk data	HW functional status	From FS02	
Product function    Note was paping during operation (hot swapping)   Yes; NaM0 to NaM3	Firmware version	V4.2	
I I I I I I I I I I I I I I I I I I I	FW update possible	Yes	
Module swapping during operation (hot swapping) Isochronous mode Tool changer Yes; Docking station and docking unit  STEP 7 The Portal configurable/integrated from version STEP 7 configuration STEP 7 configurable/integrated from version STEP 7 configuration for STEP 7 configurable/integrated from version STEP 7 configuration STEP 7 configuration for STEP 7 configuration for STEP 7 configuration STEP 7 configuration for STEP 7 configuration for STEP 7 configuration STEP 7 configurat	Product function		
Isochronous mode Tool changer Tool changer Fingineering with STEP 7 TIA Portal configurable/integrated from version STEP 7 toonfigurable/integrated from version STEP 7 configurable/integrated from version PROFINET from GSD version/GSD revision  STEP 7 toonfigurable/integrated from version STEP 7 configurable/integrated from version STEP 7 configurable/integrated from version STEP 7 toonfigurable/integrated from version STEP 7 to NEW STEP	I&M data	Yes; I&M0 to I&M3	
Tool changer  Fingineering with  STEP 7 TIA Portal configurable/integrated from version STEP 7 Tonfigurable/integrated from version STEP 7 Configurable/integrated from version STEP 7 Configuration control  Via dataset Yes  Supply voltage  Rated value (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC) Pes Short-circuit protection Pes  Mains buffering  Mains/voltage failure stored energy time Input current Current consumption, max. Ton mA Inrush current, max. Pt Durent loss Power loss Power loss Power loss Power loss, typ. Address space per module Address space per module Address space per module Address space per station Add	<ul> <li>Module swapping during operation (hot swapping)</li> </ul>	Yes; Multi-hot swapping	
Engineering with  STEP 7 TIA Portal configurable/integrated from version STEP 7 Tonfigurable/integrated from version PROFINET from GSD version/GSD revision GSDML V2.34  Configuration control Via dataset Yes Supply voltage Rated value (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC) Permissible range, upper limit (DC) Permissible range in the control Yes Short-circuit protection Yes Short-circuit protection Adins buffering Mains/voltage failure stored energy time To ms Input current Current consumption, max. Fig. 10 ms Inrush current, max. Pt. 0.25 A²-s Power loss Power loss Power loss, typ. Address space per module Address space per module Address space per station Address space per station, max. 1 440 byte Hardware configuration Rack Quantity of operable ET 200SP modules, max. 4 64 Quantity of operable ET 200SL modules, max. 4 64 Quantity of operable ET 200SL modules, max. 4 64 Quantity of operable ET 200SL modules, max. 4 64	<ul> <li>Isochronous mode</li> </ul>	Yes	
STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/integrated from version PROFINET from GSD version/GSD revision SDML V2:34  Configuration control  via dataset Yes  Supply voltage Rated value (DC) permissible range, lover limit (DC) Permissible range, upper limit (DC) Pesses volume limit (DC) Pe	Tool changer	Yes; Docking station and docking unit	
STEP 7 configuration from version PROFINET from GSD version/GSD revision  Supply voltage Rated value (DC) Permissible range, lower limit (DC) Permissible range, upper limit	Engineering with		
PROFINET from GSD version/GSD revision  Configuration control  via dataset  Rated value (DC)  permissible range, lower limit (DC)  permissible range, upper limit (DC)  permissible range, upper limit (DC)  Reverse polarity protection  Yes  Short-circuit protection  Adins buffering  Mains/voltage failure stored energy time  Input current  Current consumption, max.  Inrush current, max.  Pt  0.25 A²-s  Power loss  Power loss, typ.  Address space per module  Address space per module, max.  Address space per station  Address configuration  Rack  Quantity of operable ET 200SP modules, max.  64  Quantity of operable ET 200SP modules, max.  64  Quantity of operable ET 200SP modules, max.  64  Quantity of operable ET 200SL modules, max.  64  Quantity of operable ET 200SL modules, max.  64	<ul> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul>	V15.1	
Via dataset  Ves  Supply voltage  Rated value (DC)  permissible range, lower limit (DC)  permissible range, upper limit (DC)  Reverse polarity protection  Yes  Short-circuit protection  Yes  Short-circuit protection  Yes  Mains buffering  • Mains/voltage failure stored energy time  Input current  Current consumption, max.  Inrush current, max.  Ift  0.25 A²-s  Power loss  Power loss, typ.  Address space per module  • Address space per module, max.  Address space per station  • Address space per station, max.  1 440 byte  Hardware configuration  Rack  • Quantity of operable ET 200SP modules, max.  64  • Quantity of operable ET 200SP modules, max.  64  • Quantity of operable ET 200SP modules, max.  64  • Quantity of operable ET 200AL modules, max.  16	<ul> <li>STEP 7 configurable/integrated from version</li> </ul>	use GSD file	
via dataset Yes  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 Short-circuit protection Yes Mains buffering  • Mains/voltage failure stored energy time 10 ms  Input current  Current consumption, max. 700 mA Inrush current, max. 4.5 A Pt 0.25 A²-s  Power loss Power loss Power loss, typ. 2.4 W  Address space per module  • Address space per module, max. 288 byte; For input and output data respectively  Address space per station  • Address space per station, max. 1 440 byte  Hardware configuration  Rack  • Quantity of operable ET 200SP modules, max. 64 • Quantity of operable ET 200AL modules, max. 16	<ul> <li>PROFINET from GSD version/GSD revision</li> </ul>	GSDML V2.34	
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 Short-circuit protection Yes Mains buffering • Mains/voltage failure stored energy time 10 ms Input current Current consumption, max. 700 mA Inrush current, max. 4.5 A Ift 0.25 A²-s  Power loss Power loss Power loss, typ. 2.4 W Address space per module • Address space per module, max. 288 byte; For input and output data respectively Address space per station • Address space per station, max. 1440 byte  Hardware configuration Rack • Quantity of operable ET 200SP modules, max. 64 • Quantity of operable ET 200SL modules, max. 16	Configuration control		
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 Short-circuit protection Yes Mains buffering  • Mains/voltage failure stored energy time 10 ms Input current  Current consumption, max. 700 mA Inrush current, max. 4.5 A I²t 0.25 A²-s  Power loss Power loss, typ. 2.4 W  Address apace per module  • Address space per module, max. 288 byte; For input and output data respectively  Address space per station  • Address space per station, max. 1440 byte  Hardware configuration  Rack  • Quantity of operable ET 200SP modules, max. 64 • Quantity of operable ET 200AL modules, max. 16	via dataset	Yes	
permissible range, lower limit (DC)  permissible range, upper limit (DC)  Reverse polarity protection  Short-circuit protection  Yes  Short-direction  Mains buffering  Mains/voltage failure stored energy time  10 ms  Input current  Current consumption, max.  Inrush current, max.  If 0.25 A²-s  Power loss  Power loss, typ.  Address space per module  Address space per module  Address space per station  Address space per station  Address space per station, max.  1 440 byte  Hardware configuration  Rack  Quantity of operable ET 200SP modules, max.  4 9 Quantity of operable ET 200AL modules, max.  16	Supply voltage		
permissible range, upper limit (DC) Reverse polarity protection Yes Short-circuit protection Yes Mains buffering  • Mains/voltage failure stored energy time Input current Current consumption, max. Irush current, max. If t 0.25 A²-s  Power loss Power loss Power loss Address space per module • Address space per module, max. Address space per station • Address space per station, max.  Address space per station • Address space per station, max.  Address space per station • Address space per station, max.  Address space per station • Address space per station, max.  Address space per station • Address space per station, max.  Address space per station • Address space per station, max.  Address space per station.	Rated value (DC)	24 V	
Reverse polarity protection Yes Short-circuit protection Yes Mains buffering  • Mains/voltage failure stored energy time 10 ms Input current  Current consumption, max. 700 mA Inrush current, max. 4.5 A I't 0.25 A²-s  Power loss Power loss Power loss, typ. 2.4 W  Address area  Address space per module  • Address space per module, max. 288 byte; For input and output data respectively Address space per station  • Address space per station  • Address space per station, max. 1 440 byte  Hardware configuration  Rack  • Quantity of operable ET 200SP modules, max. 64  • Quantity of operable ET 200AL modules, max. 16	permissible range, lower limit (DC)	19.2 V	
Short-circuit protection  Mains buffering  Mains/voltage failure stored energy time  Input current  Current consumption, max.  Inrush current, max.  I't  O.25 A²-s  Power loss  Power loss, typ.  Address area  Address space per module  Address space per module, max.  Address space per station  Address space per station  Address space per station, max.  1 440 byte  Hardware configuration  Rack  Quantity of operable ET 200SP modules, max.  64  Quantity of operable ET 200AL modules, max.  16	permissible range, upper limit (DC)	28.8 V	
Mains buffering  Mains/voltage failure stored energy time  Input current  Current consumption, max.  Inrush current, max.  If t 0.25 A²-s  Power loss  Power loss, typ.  Address area  Address space per module  Address space per module, max.  Address space per station  Address space per station  Address space per station, max.  1 440 byte  Hardware configuration  Rack  Quantity of operable ET 200SP modules, max.  Quantity of operable ET 200AL modules, max.  64  Quantity of operable ET 200AL modules, max.	Reverse polarity protection	Yes	
Mains/voltage failure stored energy time Input current  Current consumption, max. Inrush current, max.  I**  O.25 A*-s  Power loss  Power loss, typ.  Address area  Address space per module  • Address space per module, max.  Address space per station  • Address space per station, max.  1 440 byte  Hardware configuration  Rack  • Quantity of operable ET 200SP modules, max.  • Quantity of operable ET 200AL modules, max.  16	Short-circuit protection	Yes	
Input current  Current consumption, max.  Inrush current, max.  It 0.25 A²-s  Power loss  Power loss, typ.  Address area  Address space per module  • Address space per module, max.  Address space per station  • Address space per station  • Address space per station, max.  I 440 byte  Hardware configuration  Rack  • Quantity of operable ET 200SP modules, max.  • Quantity of operable ET 200AL modules, max.  16	Mains buffering		
Current consumption, max.  Inrush current, max.  It 0.25 A²-s  Power loss  Power loss, typ.  Address area  Address space per module  • Address space per module, max.  Address space per station  • Address pace per station  • Address space per station, max.  1 440 byte  Hardware configuration  Rack  • Quantity of operable ET 200SP modules, max.  • Quantity of operable ET 200AL modules, max.  16	<ul> <li>Mains/voltage failure stored energy time</li> </ul>	10 ms	
Inrush current, max.  It 0.25 A²-s  Power loss  Power loss, typ.  Address area  Address space per module  • Address space per module, max.  Address space per station  • Address space per station, max.  1 440 byte  Hardware configuration  Rack  • Quantity of operable ET 200SP modules, max.  • Quantity of operable ET 200AL modules, max.  16	Input current		
Power loss Power loss, typ. 2.4 W  Address area  Address space per module  • Address space per module, max. 288 byte; For input and output data respectively  Address space per station  • Address space per station, max. 1 440 byte  Hardware configuration  Rack  • Quantity of operable ET 200SP modules, max. 64  • Quantity of operable ET 200AL modules, max. 16	Current consumption, max.	700 mA	
Power loss Power loss, typ.  2.4 W  Address area  Address space per module  • Address space per module, max.  Address space per station  • Address space per station  • Address space per station, max.  1 440 byte  Hardware configuration  Rack  • Quantity of operable ET 200SP modules, max.  • Quantity of operable ET 200AL modules, max.  16	Inrush current, max.	4.5 A	
Power loss, typ.  Address area  Address space per module  • Address space per module, max.  Address space per station  • Address space per station  • Address space per station, max.  1 440 byte  Hardware configuration  Rack  • Quantity of operable ET 200SP modules, max.  • Quantity of operable ET 200AL modules, max.  16	<sup>2</sup> t	0.25 A²-s	
Address space per module  • Address space per module, max.  Address space per station  • Address space per station  • Address space per station, max.  1 440 byte  Hardware configuration  Rack  • Quantity of operable ET 200SP modules, max.  • Quantity of operable ET 200AL modules, max.  16	Power loss		
Address space per module  • Address space per module, max.  288 byte; For input and output data respectively  Address space per station  • Address space per station, max.  1 440 byte  Hardware configuration  Rack  • Quantity of operable ET 200SP modules, max.  • Quantity of operable ET 200AL modules, max.  16	Power loss, typ.	2.4 W	
Address space per module, max.  Address space per station  Address space per station, max.  1 440 byte  Hardware configuration  Rack  Quantity of operable ET 200SP modules, max.  Quantity of operable ET 200AL modules, max.  16	Address area		
Address space per station  • Address space per station, max.  1 440 byte  Hardware configuration  Rack  • Quantity of operable ET 200SP modules, max.  • Quantity of operable ET 200AL modules, max.  16	Address space per module		
Address space per station, max.  1 440 byte  Hardware configuration  Rack  Quantity of operable ET 200SP modules, max.  Quantity of operable ET 200AL modules, max.  16	Address space per module, max.	288 byte; For input and output data respectively	
Hardware configuration  Rack  • Quantity of operable ET 200SP modules, max.  • Quantity of operable ET 200AL modules, max.  16	Address space per station		
Rack  • Quantity of operable ET 200SP modules, max.  • Quantity of operable ET 200AL modules, max.  16	Address space per station, max.	1 440 byte	
<ul> <li>Quantity of operable ET 200SP modules, max.</li> <li>Quantity of operable ET 200AL modules, max.</li> <li>16</li> </ul>	Hardware configuration		
Quantity of operable ET 200AL modules, max.	Rack		
	<ul> <li>Quantity of operable ET 200SP modules, max.</li> </ul>	64	
Submodules	<ul> <li>Quantity of operable ET 200AL modules, max.</li> </ul>	16	
	Submodules		

Number of submodules per station, max.	256
Interfaces	
Number of PROFINET interfaces	1; 2 ports (switch)
1. Interface	
Interface types	
• RJ 45 (Ethernet)	Yes; with BusAdapter
<ul> <li>Number of ports</li> </ul>	2; with BusAdapter
<ul> <li>integrated switch</li> </ul>	Yes
BusAdapter (PROFINET)	Yes; BA 2x RJ45, BA 2x FC, BA 2x SCRJ, BA SCRJ/RJ45, BA SCRJ/FC, BA 2x LC, BA LC/RJ45, BA LC/FC
Protocols	
PROFINET IO Device	Yes
Open IE communication	Yes
Media redundancy	Yes; PROFINET MRP client
PROFINET IO Device	
Services	
— IRT	Yes; 250 µs to 4 ms in 125 µs frame
— PROFlenergy	Yes
<ul> <li>Prioritized startup</li> </ul>	Yes
— Shared device	Yes
<ul> <li>Number of IO Controllers with shared device, max.</li> </ul>	4
Interface types	
RJ 45 (Ethernet)	
Transmission procedure	PROFINET with 100 Mbit/s full duplex (100BASE-TX)
• 100 Mbps	Yes
<ul> <li>Autonegotiation</li> </ul>	Yes
<ul> <li>Autocrossing</li> </ul>	Yes
Protocols	
Modbus TCP	No
Number of connections	
<ul> <li>Number of MtM communication relationships/connections, max.</li> </ul>	16
Redundancy mode	
<ul> <li>PROFINET system redundancy (S2)</li> </ul>	Yes; NAP S2
H-Sync forwarding	Yes
Media redundancy	
— MRP	Yes
— MRPD	No
Open IE communication	
• TCP/IP	
	Yes
• SNMP	Yes Yes
• SNMP • LLDP	
	Yes
• LLDP	Yes
LLDP  Isochronous mode	Yes Yes
LLDP Isochronous mode Equidistance	Yes Yes
LLDP  Isochronous mode  Equidistance  shortest clock pulse	Yes Yes Yes 250 µs
● LLDP  Isochronous mode  Equidistance  shortest clock pulse  max. cycle	Yes Yes  Yes  250 µs 4 ms
● LLDP  Isochronous mode  Equidistance shortest clock pulse max. cycle Bus cycle time (TDP), min.	Yes Yes  Yes  250 µs  4 ms  250 µs
● LLDP  Isochronous mode  Equidistance shortest clock pulse max. cycle Bus cycle time (TDP), min. Jitter, max.	Yes Yes  Yes  250 µs  4 ms  250 µs
● LLDP  Isochronous mode  Equidistance shortest clock pulse max. cycle  Bus cycle time (TDP), min.  Jitter, max.  Interrupts/diagnostics/status information	Yes Yes  Yes  250 μs 4 ms 250 μs 1 μs
● LLDP  Isochronous mode  Equidistance shortest clock pulse max. cycle Bus cycle time (TDP), min. Jitter, max.  Interrupts/diagnostics/status information  Status indicator	Yes Yes  Yes  250 μs 4 ms 250 μs 1 μs  Yes
● LLDP  Isochronous mode  Equidistance shortest clock pulse max. cycle Bus cycle time (TDP), min. Jitter, max. Interrupts/diagnostics/status information  Status indicator Alarms	Yes Yes  Yes  250 μs 4 ms 250 μs 1 μs  Yes
● LLDP  Isochronous mode  Equidistance shortest clock pulse max. cycle Bus cycle time (TDP), min.  Jitter, max.  Interrupts/diagnostics/status information  Status indicator Alarms  Diagnostics function	Yes Yes  Yes  250 μs 4 ms 250 μs 1 μs  Yes
LLDP  Isochronous mode  Equidistance shortest clock pulse max. cycle Bus cycle time (TDP), min. Jitter, max.  Interrupts/diagnostics/status information  Status indicator Alarms Diagnostics function Diagnostics indication LED	Yes Yes  Yes  250 µs  4 ms  250 µs  1 µs  Yes  Yes  Yes
LLDP  Isochronous mode  Equidistance shortest clock pulse max. cycle Bus cycle time (TDP), min. Jitter, max.  Interrupts/diagnostics/status information  Status indicator Alarms Diagnostics function Diagnostics indication LED      RUN LED	Yes Yes  Yes  250 μs  4 ms  250 μs  1 μs  Yes  Yes  Yes  Yes  Yes  Yes
● LLDP  Isochronous mode  Equidistance shortest clock pulse max. cycle Bus cycle time (TDP), min.  Jitter, max.  Interrupts/diagnostics/status information  Status indicator Alarms  Diagnostics function  Diagnostics indication LED  ● RUN LED  ● ERROR LED	Yes Yes  Yes  250 µs 4 ms 250 µs 1 µs  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Y
● LLDP  Isochronous mode  Equidistance shortest clock pulse max. cycle Bus cycle time (TDP), min.  Jitter, max.  Interrupts/diagnostics/status information  Status indicator Alarms  Diagnostics function  Diagnostics indication LED  ● RUN LED  ● ERROR LED  ● MAINT LED	Yes Yes  Yes  250 µs 4 ms 250 µs 1 µs  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Y
● LLDP  Isochronous mode  Equidistance shortest clock pulse max. cycle Bus cycle time (TDP), min. Jitter, max.  Interrupts/diagnostics/status information Status indicator Alarms Diagnostics function  Diagnostics indication LED  ● RUN LED  ● ERROR LED  ● MAINT LED  ● Monitoring of the supply voltage (PWR-LED)	Yes Yes  Yes  250 µs 4 ms 250 µs 1 µs  Yes Yes Yes Yes Yes Yes Yes Yes; green LED Yes; red LED Yes; Yellow LED Yes; green PWR LED
● LLDP  Isochronous mode  Equidistance shortest clock pulse max. cycle Bus cycle time (TDP), min.  Jitter, max.  Interrupts/diagnostics/status information  Status indicator Alarms  Diagnostics function  Diagnostics indication LED  ● RUN LED  ● ERROR LED  ● MAINT LED  ● Monitoring of the supply voltage (PWR-LED)  ● Connection display LINK TX/RX	Yes Yes  Yes  250 µs 4 ms 250 µs 1 µs  Yes Yes Yes Yes Yes Yes Yes Yes; green LED Yes; red LED Yes; Yellow LED Yes; green PWR LED

between supply and all other circuits	No
Permissible potential difference	
between different circuits	Safety extra low voltage SELV
Isolation	
Isolation tested with	707 V DC (type test)
Standards, approvals, certificates	
Network loading class	3
Ecological footprint	
<ul> <li>environmental product declaration</li> </ul>	Yes
Global warming potential	
<ul><li>— global warming potential, (total) [CO2 eq]</li></ul>	105 kg
<ul><li>— global warming potential, (during production) [CO2 eq]</li></ul>	13.7 kg
<ul><li>— global warming potential, (during operation) [CO2 eq]</li></ul>	91.9 kg
<ul><li>— global warming potential, (after end of life cycle)</li><li>[CO2 eq]</li></ul>	-0.617 kg
Ambient conditions	
Ambient temperature during operation	
<ul> <li>horizontal installation, min.</li> </ul>	-30 °C; No condensation
<ul> <li>horizontal installation, max.</li> </ul>	60 °C
<ul> <li>vertical installation, min.</li> </ul>	-30 °C; No condensation
vertical installation, max.	50 °C
Altitude during operation relating to sea level	
<ul> <li>Installation altitude above sea level, max.</li> </ul>	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
connection method	
ET-Connection	
• via BU/BA Send	Yes; + 16 ET 200AL modules
Mechanics/material	
Strain relief	Yes; Optional
Dimensions	
Width	50 mm
Height	117 mm
Depth	74 mm
Weights	
Weight, approx.	120 g; without BusAdapter

last modified: 10/9/2024 🖸