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	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	 Module swapping during operation (hot swapping) 	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	 Isochronous mode 	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 li	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	 STEP 7 TIA Portal configurable/integrated from version 	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	 STEP 7 configurable/integrated from version 	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	 PROFINET from GSD version/GSD revision 	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	 Mains/voltage failure stored energy time 	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	² t	0.25 A²-s	
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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	
 Quantity of operable ET 200SP modules, max. Quantity of operable ET 200AL modules, max. 16 	Hardware configuration		
Quantity of operable ET 200AL modules, max.	Rack		
	 Quantity of operable ET 200SP modules, max. 	64	
Submodules	 Quantity of operable ET 200AL modules, max. 	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
 Number of ports 	2; with BusAdapter
 integrated switch 	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
 Prioritized startup 	Yes
— Shared device	Yes
 Number of IO Controllers with shared device, max. 	4
Interface types	
RJ 45 (Ethernet)	
Transmission procedure	PROFINET with 100 Mbit/s full duplex (100BASE-TX)
• 100 Mbps	Yes
 Autonegotiation 	Yes
 Autocrossing 	Yes
Protocols	
Modbus TCP	No
Number of connections	
 Number of MtM communication relationships/connections, max. 	16
Redundancy mode	
 PROFINET system redundancy (S2) 	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	
 environmental product declaration 	Yes
Global warming potential	
— global warming potential, (total) [CO2 eq]	105 kg
— global warming potential, (during production) [CO2 eq]	13.7 kg
— global warming potential, (during operation) [CO2 eq]	91.9 kg
 — global warming potential, (after end of life cycle) [CO2 eq] 	-0.617 kg
Ambient conditions	
Ambient temperature during operation	
 horizontal installation, min. 	-30 °C; No condensation
 horizontal installation, max. 	60 °C
 vertical installation, min. 	-30 °C; No condensation
vertical installation, max.	50 °C
Altitude during operation relating to sea level	
 Installation altitude above sea level, max. 	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