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	General information	
Firmware version • I'W update possible • I'	Product type designation	IM 155-6 PN/2 HF
Product function Rad data	HW functional status	From FS02
Product function • i&M data • Module swapping during operation (hot swapping) • Isochronous mode • Tool changer • Tool changer • Tool changer • Tool changer • Till Portal configurable/integrated from version • STEP 7 TIA Portal configurable/integrated from version • STEP 7 TIA Portal configurable/integrated from version • STEP 7 TIA Portal configurable/integrated from version • PROFINET from GSD version/GSD revision Configurable via GSD file SDML V2.34 Configurable via GSD file SDML V2.34 Configurable via GSD file SUPPLY Via dataset Yes Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, l	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 Engineering with STEP 7 The Portal configurable/integrated from version STEP 7 configuration for STEP 7 configurable/integrated from version STEP 7 configuration for STEP 7 configuration for STEP 7 configuration STEP 7 configuration for STEP 7 configuration STEP 7 configuration for ST	Product function	
• Isochronous mode • Tool changer • Tool changer Engineering with • STEP 7 TIA Portal configurable/integrated from version • STEP 7 TIA Portal configurable/integrated from version • STEP 7 TIA Portal configurable/integrated from version • PROFINET from GSD version/GSD revision Toolingurable via GSD file • PROFINET from GSD version/GSD revision Via dataset Yes Supply voltage Rated value (DC) permissible range, lower limit (DC) 19.2 V permissible range, upper limit (DC) 28.8 V Reverse polarity protection Yes Short-circuit protection • Mains buffering • Mains/voltage failure stored energy time Input current Current consumption, max. Inrush current, max. 700 mA Inrush current, max. 4.5 A Pt 0.25 A²-s Power loss Power loss Power loss, typ. Address space per module • Address space per module, max. Address space per station • Address space per	 I&M data 	Yes; I&M0 to I&M3
• Tool changer Yes; Docking station and docking unit Engineering with • STEP 7 TIA Portal configurable/integrated from version • STEP 7 configurable/integrated from version • PROFINET from GSD version/GSD revision Configuration control 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, 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 • 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. 64 • Quantity of operable ET 200AL modules, max. 64 • Quantity of operable ET 200AL modules, max. 16	 Module swapping during operation (hot swapping) 	Yes; Multi-hot swapping
Engineering with STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/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 and protection Yes Short-circuit protection Yes Short-circuit protection Adins buffering Mains buffering Mains voltage failure stored energy time To ms Input current Current consumption, max. To mA Inrush current, max. Pt Dozen Toss Power loss Power loss Power loss, typ. Address space per module Address space per module Address space per station Address configuration Rack Quantity of operable ET 200SP modules, max. 64 Quantity of operable ET 200SL modules, max. 64 Quantity of operable ET 200SL modules, max. 64 Quantity of operable ET 200SL modules, max. 64 Quantity of operable ET 200AL modules, max. 64	 Isochronous mode 	Yes
STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/integrated from version PROFINET from GSD version/GSD revision SSDML V2:34 Configuration control via dataset Yes Supply voltage Rated value (DC) permissible range, lover limit (DC) permissible range, upper limit (DC) Permissible range, upper limit (DC) Reverse polarity protection Yes Short-circuit protection Walins buffering Mains buffering Mains voltage failure stored energy time Input current Current consumption, max. Inrush current, max. Pt Ouze A3-s Power loss 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 Address space per station Address configuration Rack Quantity of operable ET 200SP modules, max. 64	Tool changer	Yes; Docking station and docking unit
STEP 7 configurable/integrated from version PROFINET from GSD version/GSD revision Supply voltage Rated value (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC) Permissible range, up	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 Anins buffering Mains/voltage failure stored energy time Input current Current consumption, max. Insus 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 space per station Address space per station Address space per station Action Action Action Action Action 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 200SL modules, max. 64 Quantity of operable ET 200SL modules, max. 16	 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 Ves Mains buffering Mains/voltage failure stored energy time 10 ms Input current Current consumption, max. Inrush current, max. 700 mA Inrush current, max. 4.5 A Ift 0.25 A²s Power loss Power loss, typ. Address space per module Address space per module 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	 STEP 7 configurable/integrated from version 	Configurable via 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 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 200SP 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, 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 200AL 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 IPt 0.25 AP's 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. 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 Yes Short-circuit protection Yes Mains buffering • Mains/voltage failure stored energy time 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. I 440 byte Hardware configuration Rack • Quantity of operable ET 200SP modules, max. • 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 10 ms Input current Current consumption, max. 700 mA Inrush current, max. If t 0.25 A²-s Power loss Power loss Power loss Power loss, typ. 2.4 W Address space per module • Address space per module, max. Address space per station • Address space per station • Address space per station, max. Hardware configuration Rack • Quantity of operable ET 200SP modules, max. 64 • Quantity of operable ET 200AL modules, max. 16	Rated value (DC)	24 V
Reverse polarity protection Short-circuit protection Yes Mains buffering Mains/voltage failure stored energy time 10 ms Input current Current consumption, max. Inrush current, max. Pt 0.25 A²·s Power loss Power loss Power loss, typ. Address area 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 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. 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 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. 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. 10 ms 10 ms 10 ms 10 ms 10 ms 12 max 4.5 A 12 t 0.25 A²-s Power loss, typ. 2.4 W Address area Address space per module 1 440 byte; For input and output data respectively Address space per station, max. 1 440 byte	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. 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	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. 2	Input current	
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. 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. 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	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	²t	0.25 A²-s
Address space per module • Address space per module, max. Address space per station • Address space per station, max. • 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
 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
Number of ports	2; via 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
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
— MRP — MRPD	Yes No
— MRPD	
— MRPD Open IE communication ● TCP/IP	No Yes
— MRPD Open IE communication	No
— MRPD Open IE communication • TCP/IP • SNMP • LLDP	Yes Yes
— MRPD Open IE communication • TCP/IP • SNMP • LLDP Isochronous mode	Yes Yes Yes
— MRPD Open IE communication • TCP/IP • SNMP • LLDP Isochronous mode Equidistance	Yes Yes Yes Yes
— MRPD Open IE communication • TCP/IP • SNMP • LLDP Isochronous mode Equidistance shortest clock pulse	Yes Yes Yes Yes 250 µs
— MRPD Open IE communication • TCP/IP • SNMP • LLDP Isochronous mode Equidistance shortest clock pulse max. cycle	Yes Yes Yes Yes 250 µs 4 ms
— MRPD Open IE communication • TCP/IP • SNMP • LLDP Isochronous mode Equidistance shortest clock pulse max. cycle Bus cycle time (TDP), min.	Yes Yes Yes Yes Yes 250 µs 4 ms 250 µs
— MRPD Open IE communication • TCP/IP • SNMP • LLDP Isochronous mode Equidistance shortest clock pulse max. cycle Bus cycle time (TDP), min. Jitter, max.	Yes Yes Yes Yes 250 µs 4 ms
— MRPD Open IE communication • TCP/IP • SNMP • LLDP Isochronous mode Equidistance shortest clock pulse max. cycle Bus cycle time (TDP), min. Jitter, max. Interrupts/diagnostics/status information	Yes Yes Yes Yes Yes 250 μs 4 ms 250 μs 1 μs
— MRPD Open IE communication • TCP/IP • SNMP • 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 Yes Yes 250 μs 4 ms 250 μs 1 μs
— MRPD Open IE communication • TCP/IP • SNMP • 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 Yes Yes 250 μs 4 ms 250 μs 1 μs Yes
— MRPD Open IE communication • TCP/IP • SNMP • 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 Yes Yes 250 μs 4 ms 250 μs 1 μs
— MRPD Open IE communication • TCP/IP • SNMP • LLDP Sochronous 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 Yes Yes 250 μs 4 ms 250 μs 1 μs Yes Yes Yes
— MRPD Open IE communication • TCP/IP • SNMP • 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 Yes Yes 250 µs 4 ms 250 µs 1 µs Yes Yes Yes Yes Yes Yes
— MRPD Open IE communication • TCP/IP • SNMP • 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 Yes Yes 250 µs 4 ms 250 µs 1 µs Yes Yes Yes Yes Yes Yes Yes Yes Yes Y
— MRPD Open IE communication • TCP/IP • SNMP • 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 Yes Yes 250 µs 4 ms 250 µs 1 µs Yes Yes Yes Yes Yes Yes Yes Yes Yes Y
— MRPD Open IE communication • TCP/IP • SNMP • 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 Yes Yes 250 µs 4 ms 250 µs 1 µs Yes Yes Yes Yes Yes Yes Yes Yes Yes Y
— MRPD Open IE communication • TCP/IP • SNMP • 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 Yes Yes 250 µs 4 ms 250 µs 1 µs Yes Yes Yes Yes Yes Yes Yes Yes Yes Y
— MRPD Open IE communication • TCP/IP • SNMP • 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 Yes Yes 250 µs 4 ms 250 µs 1 µs Yes Yes Yes Yes Yes Yes Yes Yes Yes Y
— MRPD Open IE communication • TCP/IP • SNMP • 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 Yes Yes 250 µs 4 ms 250 µs 1 µs Yes Yes Yes Yes Yes Yes Yes Yes Yes Y

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
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

8/7/2023

last modified: