



SIMATIC ET 200SP, PROFINET 3-port interface module IM155-6PN/3 High Feature, 2 slots for SIMATIC BusAdapter, max. 64 Periphery modules and 16 ET 200AL modules, S2 redundancy, Multi Hot Swapping, 0,25ms isochronous mode, optional PN strain relief, inclusive server module

General information	
Product type designation	IM 155-6 PN/3 HF with server module
HW functional status	From FS02
Firmware version	V4.2
• FW update possible	Yes
Number of MtM communication relationships/connections, max.	16
Product function	
• I&M data	Yes; I&M0 to I&M3
• Module swapping during operation (hot swapping)	Yes; Multi-hot swapping
• Isochronous mode	Yes
• Tool changer	Yes; Docking station and docking unit
• Local coupling, IO data	Yes
— Number of coupling modules	16
— Number of coupling submodules per module	4
• Local coupling, data records	No
Engineering with	

- STEP 7 TIA Portal configurable/integrated as of version V15.1
- STEP 7 configurable/integrated as of version Configurable via GSD file
- PROFINET as of GSD version/GSD revision GSDML V2.3

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

Mains buffering

- Mains/voltage failure stored energy time 10 ms

Input current

Current consumption (rated value) 175 mA; At 24 V, 2 slots 2x RJ45 BusAdapter, no I/O modules
 Current consumption, max. 950 mA
 Inrush current, max. 9 A
 I²t 0.34 A²·s

Power loss

Power loss, typ. 4.9 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; Dependent on configuration

Hardware configuration

Rack

- Modules per rack, max. 64; + 16 ET 200AL modules

Submodules

- Number of submodules per station, max. 256

Interfaces

Number of PROFINET interfaces 1; 3 ports (switch)

1. Interface

Interface types

- Number of ports 3; Via 2 BusAdapter slots
- integrated switch Yes
- BusAdapter (PROFINET) Yes; Compatible BusAdapter: 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

Interface types

RJ 45 (Ethernet)	
• Transmission procedure	PROFINET with 100 Mbit/s full duplex (100BASE-TX)
• 10 Mbps	No
• 100 Mbps	Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)
• Autonegotiation	Yes
• Autocrossing	Yes

Protocols

PROFINET IO Device	
Services	
— Isochronous mode	Yes; Bus cycle time: min. 250 µs
— Open IE communication	Yes
— IRT	Yes; 250 µs, 500 µs, 1 ms, 2 ms, 4 ms additionally with IRT with high performance: 250 µs to 4 ms in 125 µs frame
— PROFIenergy	Yes
— Prioritized startup	Yes
— Shared device	Yes
— Number of IO Controllers with shared device, max.	4
Redundancy mode	
• MRP	Yes
• MRPD	No
• PROFINET system redundancy (S2)	Yes; NAP S2
• Redundant PROFINET configuration (R1)	No
• H-Sync forwarding	Yes
Open IE communication	
• TCP/IP	Yes
• SNMP	Yes
• LLDP	Yes

Isochronous mode

Isochronous operation (application synchronized up to terminal)	Yes
Equidistance	Yes
shortest clock pulse	250 µs
max. cycle	4 ms
Bus cycle time (TDP), min.	250 µs
Jitter, max.	1 µs

Interrupts/diagnostics/status information

Status indicator	Yes
Alarms	Yes
Diagnostics function	Yes
Diagnostics indication LED	
• RUN LED	Yes; green LED
• ERROR LED	Yes; red LED
• MAINT LED	Yes; Yellow LED
• Monitoring of the supply voltage (PWR-LED)	Yes; green PWR LED
• Connection to network LINK (green)	Yes; 2x green link LEDs on BusAdapter
Potential separation	
between backplane bus and electronics	No
between PROFINET and all other circuits	Yes
between supply and all other circuits	No
Isolation	
Isolation tested with	707 V DC (type test)
Standards, approvals, certificates	
Network loading class	3
Security level	According to Security Level 1 Test Cases V1.1.1
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; 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	100 mm
Height	117 mm
Depth	74 mm
Weights	
Weight, approx.	220 g; without BusAdapter
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