

SIMATIC ET 200SP, PROFINET interface module IM155-6PN High Speed max. 30 I/O modules, 0.125 ms isochronous mode Multi-hotswap, incl. server module



General information	
Product type designation	IM 155-6 PN HS
Firmware version	V4.0
Product function	
I&M data	Yes; I&M0 to I&M3
Module swapping during operation (hot swapping)	Yes; Multi-hot swapping
Engineering with	
STEP 7 TIA Portal configurable/integrated as of version	STEP 7 V14 or higher
STEP 7 configurable/integrated as of version	V5.5 SP4 and higher
PROFINET as of GSD version/GSD revision	- / 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	5 ms
Input current	
Current consumption, max.	500 mA
Inrush current, max.	4.5 A
I^2t	0.09 A ² ·s
Power loss	
Power loss, typ.	1.7 W
Address area	
Address space per module	
• Address space per module, max.	32 byte; For input and output data respectively
Address space per station	
• Address space per station, max.	968 byte; For input and output data respectively
Hardware configuration	
Rack	
• Modules per rack, max.	30
Submodules	
• Number of submodules per station, max.	125
Interfaces	
Number of PROFINET interfaces	1; 2 ports (switch)
1. Interface	
Interface types	
• Number of ports	2
• 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; As MRP or MRPD client; max. 50 or 30 devices in the ring
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. 125 µs
— Open IE communication	Yes
— IRT	Yes; 125 µs, 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
— PROFINergy	Yes
— Prioritized startup	Yes
— Shared device	Yes
— Number of IO Controllers with shared device, max.	4
Redundancy mode	
• MRP	Yes
• MRPD	Yes
• PROFINET system redundancy (S2)	No
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	125 µs
max. cycle	4 ms
Bus cycle time (TDP), min.	125 µs
Jitter, max.	0.25 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 between supply voltage and electronics (type test); 1 500 V AC between Ethernet and electronics (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.	0 °C
• horizontal installation, max.	60 °C
• vertical installation, min.	0 °C
• vertical installation, max.	50 °C
Connection method	
ET-Connection	
• via BU/BA Send	No
Dimensions	
Width	50 mm
Height	117 mm
Depth	74 mm
Weights	
Weight, approx.	147 g; without BusAdapter
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