



SIMATIC ET 200SP, PROFINET bundle IM, IM 155-6PN ST, max. 32 I/O modules and 16 ET 200AL modules, single hot swap, bundle consists of: Interface module (6ES7155-6AU01-0BN0), Server module (6ES7193-6PA00-0AA0), BusAdapter BA 2xRJ45 (6ES7193-6AR00-0AA0)

General information	
Product type designation	IM 155-6 PN ST
HW functional status	FS01
Firmware version	V4.1
Product function	
I&M data	Yes; I&M0 to I&M3
Module swapping during operation (hot swapping)	Yes; Single hot swapping
Isochronous mode	No
Engineering with	
STEP 7 TIA Portal configurable/integrated as of version	V14
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
Short-circuit protection	Yes
Mains buffering	
• Mains/voltage failure stored energy time	10 ms
Input current	
Current consumption (rated value)	450 mA
Current consumption, max.	550 mA
Inrush current, max.	3.7 A
I^2t	0.09 A ² ·s
Power	
Infeed power to the backplane bus	4.5 W
Power loss	
Power loss, typ.	1.9 W
Address area	
Address space per module	
• Address space per module, max.	256 byte; per input / output
Address space per station	
• Address space per station, max.	512 byte; Dependent on configuration
Hardware configuration	
Rack	
• Modules per rack, max.	32; + 16 ET 200AL modules
Submodules	
• Number of submodules per station, max.	256
Interfaces	
Number of PROFINET interfaces	1; 2 ports (switch)
1. Interface	
Interface types	
• Number of ports	2
• integrated switch	Yes
• RJ 45 (Ethernet)	Yes; Pre-assembled BusAdapter BA 2x RJ45
• BusAdapter (PROFINET)	Yes; Applicable BusAdapter: BA 2x RJ45, BA 2x FC
Protocols	
• PROFINET IO Device	Yes
• Open IE communication	Yes
• Media redundancy	Yes; PROFINET MRP
Interface types	
RJ 45 (Ethernet)	

- Transmission procedure
- 10 Mbps
- 100 Mbps
- Autonegotiation
- Autocrossing

PROFINET with 100 Mbit/s full duplex (100BASE-TX)
 Yes; for Ethernet services
 Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)
 Yes
 Yes

Protocols

PROFINET IO Device

Services

— IRT	Yes; with send cycles of between 250 µs and 4 ms in increments of 125 µs
— PROFinergy	Yes
— Prioritized startup	Yes
— Shared device	Yes
— Number of IO Controllers with shared device, max.	2

Redundancy mode

- PROFINET system redundancy (S2) No

Media redundancy

— MRP	Yes
— MRPD	No

Open IE communication

- TCP/IP Yes
- SNMP Yes
- LLDP Yes

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 display LINK TX/RX Yes; 2x green link LEDs on BusAdapter

Potential separation

between backplane bus and electronics No

between PROFINET and all other circuits Yes; 1 500 V AC

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	2
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
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
Dimensions	
Width	50 mm
Height	117 mm
Depth	74 mm
Weights	
Weight, approx.	190 g; IM 155-6 PN BA with 2x RJ45 ports and server module
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