

SIMATIC ET 200SP, PROFINET interface module IM 155-6PN  
 Standard, max. 32 I/O modules, and 16 ET 200AL modules, single  
 hot swap, incl. server module (6ES7193-6PA00-0AA0)



General information	
Product type designation	IM 155-6 PN ST
HW functional status	From FS03
Product function	
<ul style="list-style-type: none"> <li>• I&amp;M data</li> </ul>	Yes; I&M0 to I&M3
<ul style="list-style-type: none"> <li>• Module swapping during operation (hot swapping)</li> </ul>	Yes; Single hot swapping
<ul style="list-style-type: none"> <li>• Isochronous mode</li> </ul>	No
Engineering with	
<ul style="list-style-type: none"> <li>• STEP 7 TIA Portal configurable/integrated as of version</li> </ul>	V14
<ul style="list-style-type: none"> <li>• STEP 7 configurable/integrated as of version</li> </ul>	V5.5 SP4 and higher
<ul style="list-style-type: none"> <li>• PROFINET as of GSD version/GSD revision</li> </ul>	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
<b>Mains buffering</b>	
• Mains/voltage failure stored energy time	10 ms
<b>Input current</b>	
Current consumption (rated value)	450 mA
Current consumption, max.	550 mA
Inrush current, max.	3.7 A
I <sup>2</sup> t	0.09 A <sup>2</sup> ·s
<b>Power</b>	
Infeed power to the backplane bus	4.5 W
<b>Power loss</b>	
Power loss, typ.	1.9 W
<b>Address area</b>	
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
<b>Hardware configuration</b>	
Rack	
• Modules per rack, max.	32; + 16 ET 200AL modules
Submodules	
• Number of submodules per station, max.	256
<b>Interfaces</b>	
Number of PROFINET interfaces	1; 2 ports (switch)
<b>1. Interface</b>	
Interface types	
• Number of ports	2
• integrated switch	Yes
• 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
<b>Interface types</b>	
RJ 45 (Ethernet)	
• Transmission procedure	PROFINET with 100 Mbit/s full duplex (100BASE-TX)
• 10 Mbps	Yes; for Ethernet services

• 100 Mbps	Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)
• Autonegotiation	Yes
• Autocrossing	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
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## Isolation

Isolation tested with	707 V DC (type test)
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## 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.	2 000 m; On request: Installation altitudes greater than 2 000 m

## 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.	147 g; without BusAdapter
<b>last modified:</b>	05/13/2020