



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
Firmware version	
<ul style="list-style-type: none"> FW update possible 	Yes
Product function	
<ul style="list-style-type: none"> I&M data 	Yes; I&M0 to I&M3
<ul style="list-style-type: none"> Module swapping during operation (hot swapping) 	Yes; Single hot swapping
<ul style="list-style-type: none"> Isochronous mode 	No
Engineering with	
<ul style="list-style-type: none"> STEP 7 TIA Portal configurable/integrated from version 	V14
<ul style="list-style-type: none"> STEP 7 configurable/integrated from version 	V5.5 SP4 and higher
<ul style="list-style-type: none"> PROFINET from 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	
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> Address space per module, max. 	256 byte; per input / output
Address space per station	
<ul style="list-style-type: none"> Address space per station, max. 	512 byte; Dependent on configuration
Hardware configuration	
Rack	

<ul style="list-style-type: none"> Quantity of operable ET 200SP modules, max. 	32
<ul style="list-style-type: none"> Quantity of operable ET 200AL modules, max. 	16
Submodules	
<ul style="list-style-type: none"> Number of submodules per station, max. 	256
Interfaces	
Number of PROFINET interfaces	1; 2 ports (switch)
1. Interface	
Interface types	
<ul style="list-style-type: none"> Number of ports 	2
<ul style="list-style-type: none"> integrated switch 	Yes
<ul style="list-style-type: none"> BusAdapter (PROFINET) 	Yes; compatible BusAdapters: BA 2x RJ45, BA 2x FC, BA 2x M12
Protocols	
<ul style="list-style-type: none"> PROFINET IO Device 	Yes
<ul style="list-style-type: none"> Open IE communication 	Yes
<ul style="list-style-type: none"> Media redundancy 	Yes; PROFINET MRP
Interface types	
RJ 45 (Ethernet)	
<ul style="list-style-type: none"> Transmission procedure 	PROFINET with 100 Mbit/s full duplex (100BASE-TX)
<ul style="list-style-type: none"> 100 Mbps 	Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)
<ul style="list-style-type: none"> Autonegotiation 	Yes
<ul style="list-style-type: none"> Autocrossing 	Yes
Protocols	
PROFINET IO Device	
Services	
— IRT	Yes; with send cycles of between 250 µs and 4 ms in increments of 125 µs
— PROFIenergy	Yes
— Prioritized startup	Yes
— Shared device	Yes
— Number of IO Controllers with shared device, max.	2
Redundancy mode	
<ul style="list-style-type: none"> PROFINET system redundancy (S2) 	No
Media redundancy	
— MRP	Yes
— MRPD	No
Open IE communication	
<ul style="list-style-type: none"> TCP/IP 	Yes
<ul style="list-style-type: none"> SNMP 	Yes
<ul style="list-style-type: none"> LLDP 	Yes
Interrupts/diagnostics/status information	
Status indicator	Yes
Alarms	Yes
Diagnostics function	Yes
Diagnostics indication LED	
<ul style="list-style-type: none"> RUN LED 	Yes; green LED
<ul style="list-style-type: none"> ERROR LED 	Yes; red LED
<ul style="list-style-type: none"> MAINT LED 	Yes; Yellow LED
<ul style="list-style-type: none"> Monitoring of the supply voltage (PWR-LED) 	Yes; green PWR LED
<ul style="list-style-type: none"> 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; 1500 V AC (type test)
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.	-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
connection method / header	
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
last modified:	9/26/2022 