



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
HW functional status	From FS02
Firmware version	V4.0
<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; Multi-hot swapping
<ul style="list-style-type: none"> Isochronous mode 	Yes
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
<ul style="list-style-type: none"> PROFINET from GSD version/GSD revision 	GSDML V2.32
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 	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	
<ul style="list-style-type: none"> Address space per module, max. 	32 byte; For input and output data respectively
Address space per station	
<ul style="list-style-type: none"> Address space per station, max. 	968 byte
Hardware configuration	
Rack	
<ul style="list-style-type: none"> Quantity of operable ET 200SP modules, max. 	30
<ul style="list-style-type: none"> Quantity of operable ET 200AL modules, max. 	0
Submodules	
<ul style="list-style-type: none"> Number of submodules per station, max. 	125

Interfaces	
Number of PROFINET interfaces	1; 2 ports (switch)
1. Interface	
Interface types	
<ul style="list-style-type: none"> • RJ 45 (Ethernet) • Number of ports • integrated switch • BusAdapter (PROFINET) 	Yes 2 Yes Yes; 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	
<ul style="list-style-type: none"> • PROFINET IO Device • Open IE communication • Media redundancy 	Yes Yes Yes; As MRP or MRPD client; max. 50 or 30 devices in the ring
PROFINET IO Device	
Services	
<ul style="list-style-type: none"> — IRT — PROFIenergy — Prioritized startup — Shared device — Number of IO Controllers with shared device, max. 	Yes Yes Yes Yes 4
Interface types	
RJ 45 (Ethernet)	
<ul style="list-style-type: none"> • Transmission procedure • 100 Mbps • Autonegotiation • Autocrossing 	PROFINET with 100 Mbit/s full duplex (100BASE-TX) Yes Yes Yes
Protocols	
Modbus TCP	No
Redundancy mode	
<ul style="list-style-type: none"> • PROFINET system redundancy (S2) • H-Sync forwarding 	No Yes
Media redundancy	
<ul style="list-style-type: none"> — MRP — MRPD 	Yes Yes
Open IE communication	
<ul style="list-style-type: none"> • TCP/IP • SNMP • LLDP 	Yes Yes Yes
Isochronous mode	
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	
<ul style="list-style-type: none"> • RUN LED • ERROR LED • MAINT LED • Monitoring of the supply voltage (PWR-LED) • Connection display LINK TX/RX 	Yes; green LED Yes; red LED Yes; Yellow LED Yes; green PWR LED 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	3
Ambient conditions	
Ambient temperature during operation	
<ul style="list-style-type: none"> horizontal installation, min. 	-25 °C; No condensation
<ul style="list-style-type: none"> horizontal installation, max. 	60 °C
<ul style="list-style-type: none"> vertical installation, min. 	-25 °C; No condensation
<ul style="list-style-type: none"> vertical installation, max. 	50 °C
Altitude during operation relating to sea level	
<ul style="list-style-type: none"> Installation altitude above sea level, max. 	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
connection method	
ET-Connection	
<ul style="list-style-type: none"> via BU/BA Send 	No
Dimensions	
Width	50 mm
Height	117 mm
Depth	74 mm
Weights	
Weight, approx.	147 g; without BusAdapter

last modified: 8/27/2023 