



SIMATIC ET 200SP, PROFINET, 3-port interface module, IM 155-6PN/3 High Feature, 2 slots for BusAdapter, max. 64 I/O modules and 16 ET 200AL modules, S2 redundancy, multi-hotswap, 0.25 ms, isochronous mode, optional PN strain relief, including server module

General information	
Product type designation	IM 155-6 PN/3 HF
HW functional status	From FS02
Firmware version	V4.2
<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
<ul style="list-style-type: none"> Tool changer 	Yes; Docking station and docking unit
<ul style="list-style-type: none"> Local coupling, IO data <ul style="list-style-type: none"> Number of coupling modules Number of coupling submodules per module 	Yes 16 4
<ul style="list-style-type: none"> Local coupling, data records 	No
Engineering with	
<ul style="list-style-type: none"> STEP 7 TIA Portal configurable/integrated from version 	V15.1
<ul style="list-style-type: none"> STEP 7 configurable/integrated from version 	Configurable via GSD file
<ul style="list-style-type: none"> PROFINET from GSD version/GSD revision 	GSDML 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	
<ul style="list-style-type: none"> Mains/voltage failure stored energy time 	10 ms
Input current	
Current consumption (rated value)	175 mA; At 24 V, 2 slots 2x RJ45 BusAdapter, no I/O modules
Current consumption, max.	950 mA
Inrush current, max.	9 A
I^2t	0.34 A ² ·s
Power loss	
Power loss, typ.	4.9 W
Address area	
Address space per module	
<ul style="list-style-type: none"> Address space per module, max. 	288 byte; For input and output data respectively
Address space per station	
<ul style="list-style-type: none"> Address space per station, max. 	1 440 byte; Dependent on configuration

Hardware configuration	
Rack	
<ul style="list-style-type: none"> Quantity of operable ET 200SP modules, max. Quantity of operable ET 200AL modules, max. 	64 16
Submodules	
<ul style="list-style-type: none"> Number of submodules per station, max. 	256
Interfaces	
Number of PROFINET interfaces	1; 3 ports (switch)
1. Interface	
Interface types	
<ul style="list-style-type: none"> Number of ports integrated switch BusAdapter (PROFINET) 	3; Via 2 BusAdapter slots Yes 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	
<ul style="list-style-type: none"> PROFINET IO Device Open IE communication Media redundancy 	Yes Yes Yes; PROFINET MRP
Interface types	
RJ 45 (Ethernet)	
<ul style="list-style-type: none"> Transmission procedure 10 Mbps 100 Mbps Autonegotiation Autocrossing 	PROFINET with 100 Mbit/s full duplex (100BASE-TX) No Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX) Yes Yes
Protocols	
Number of connections	
<ul style="list-style-type: none"> Number of MtM communication relationships/connections, max. 	16
PROFINET IO Device	
Services	
— IRT	Yes; 250 μ s, 500 μ s, 1 ms, 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms
— PROFIenergy	Yes
— Prioritized startup	Yes
— Shared device	Yes
— Number of IO Controllers with shared device, max.	4
Redundancy mode	
<ul style="list-style-type: none"> PROFINET system redundancy (S2) PROFINET system redundancy (R1) H-Sync forwarding 	Yes; NAP S2 No Yes
Media redundancy	
— MRP	Yes
— MRPD	No
Open IE communication	
<ul style="list-style-type: none"> TCP/IP SNMP LLDP 	Yes Yes Yes
Isochronous mode	
Equidistance	Yes
shortest clock pulse	250 μ s
max. cycle	4 ms
Bus cycle time (TDP), min.	250 μ s
Jitter, max.	1 μ s
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 	Yes; green LED Yes; red LED Yes; Yellow LED

<ul style="list-style-type: none"> Monitoring of the supply voltage (PWR-LED) Connection display LINK TX/RX 	<p>Yes; green PWR LED</p> <p>Yes; 2x green link LEDs on BusAdapter</p>
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 (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	
<ul style="list-style-type: none"> horizontal installation, min. horizontal installation, max. vertical installation, min. vertical installation, max. 	<p>-30 °C</p> <p>60 °C</p> <p>-30 °C</p> <p>50 °C</p>
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 / header	
ET-Connection	
<ul style="list-style-type: none"> via BU/BA Send 	Yes; + 16 ET 200AL modules
Mechanics/material	
Strain relief	Yes; Optional
Dimensions	
Width	100 mm
Height	117 mm
Depth	74 mm
Weights	
Weight, approx.	220 g; without BusAdapter
last modified:	12/19/2022 