SIEMENS

*** Spare part *** SIMATIC ET 200SP, PROFINET interface module IM 155-6PN High Feature max. 64 I/O modules, 0.25 ms isochronous mode Multi-hotswap, incl. server module

General information	
Product type designation	IM 155-6 PN HF
Firmware version	V3.3
Product function	
• I&M data	Yes; I&M0 to I&M4
• Module swapping during operation (hot swapping)	Yes; Multi-hot swapping
Engineering with	
• STEP 7 TIA Portal configurable/integrated as of version	V13 SP1 Update 6
• 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

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Reverse polarity protection	Yes
Mains buffering	
• Mains/voltage failure stored energy time	5 ms

Input current
Current consumption, max.	700 mA
Inrush current, max.	4.5 A
I²t	0.09 A²·s

Power loss
Power loss, typ.	2.4 W

Address area
Address space per module	
• Address space per module, max.	288 byte; For input and output data respectively
Address space per station	
• Address space per station, max.	1 440 byte; Dependent on configuration

Hardware configuration
Rack	
• Modules per rack, max.	64; + 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
• BusAdapter (PROFINET)	Yes; Compatible BusAdapter: BA 2x RJ45, BA 2x FC, BA 2x SCRJ (from FS03, V2.2), BA SCRJ / RJ45 (from FS03, V3.1), BA SCRJ / FC (from FS03, V3.1), BA 2x LC (from FS03, V3.3), BA LC / RJ45 (from FS03, V3.3), BA LC / FC (from FS03, V3.3)
Protocols	
• PROFINET IO Device	Yes
• Open IE communication	Yes
• Media redundancy	Yes; PROFINET MRP

Interface types
RJ 45 (Ethernet)	
• Transmission procedure	PROFINET with 100 Mbit/s full duplex (100BASE-TX)
• 10 Mbps	No
• 100 Mbps	Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)
• Autonegotiation	Yes
• Autocrossing	Yes

Protocols	
PROFINET IO Device	
Services	
— Isochronous mode	Yes; Bus cycle time: min. 250 µs
— Open IE communication	Yes
— IRT	Yes; 250 µs, 500 µs, 1 ms, 2 ms, 4 ms additionally with IRT with high performance: 250 µs to 4 ms in 125 µs frame
— PROFIenergy	Yes
— Prioritized startup	Yes
— Shared device	Yes
— Number of IO Controllers with shared device, max.	4
Redundancy mode	
• MRP	Yes
• MRPD	No
• PROFINET system redundancy (S2)	Yes; NAP S2
Open IE communication	
• TCP/IP	Yes
• SNMP	Yes
• LLDP	Yes

Isochronous mode	
Isochronous operation (application synchronized up to terminal)	Yes
Equidistance	Yes
shortest clock pulse	250 µs
max. cycle	4 ms
Bus cycle time (TDP), min.	250 µs
Jitter, max.	1 µs

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 to network LINK (green)	Yes; 2x green link LEDs on BusAdapter

Potential separation	
between backplane bus and electronics	No
between PROFINET and all other circuits	Yes

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between supply and all other circuits	Yes

Isolation

Isolation tested with	707 V DC between supply voltage and electronics (type test); 1
	500 V AC between Ethernet and electronics (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

• horizontal installation, min.	0 °C
• horizontal installation, max.	60 °C
• vertical installation, min.	0 °C
• vertical installation, max.	50 °C

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
last modified:	09/12/2019