

\*\*\* 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	
<ul style="list-style-type: none"> <li>• I&amp;M data</li> </ul>	Yes; I&M0 to I&M4
<ul style="list-style-type: none"> <li>• Module swapping during operation (hot swapping)</li> </ul>	Yes; Multi-hot swapping
<ul style="list-style-type: none"> <li>• Isochronous mode</li> </ul>	Yes
Engineering with	
<ul style="list-style-type: none"> <li>• STEP 7 TIA Portal configurable/integrated from version</li> </ul>	V13 SP1 Update 6
<ul style="list-style-type: none"> <li>• STEP 7 configurable/integrated from version</li> </ul>	V5.5 SP4 and higher
<ul style="list-style-type: none"> <li>• PROFINET from 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
<b>Mains buffering</b>	
• Mains/voltage failure stored energy time	5 ms

<b>Input current</b>	
Current consumption, max.	700 mA
Inrush current, max.	4.5 A
$I^2t$	0.09 A <sup>2</sup> ·s

<b>Power loss</b>	
Power loss, typ.	2.4 W

<b>Address area</b>	
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

<b>Hardware configuration</b>	
Rack	
• Modules per rack, max.	64; + 16 ET 200AL modules
Submodules	
• Number of submodules per station, max.	256

<b>Interfaces</b>	
Number of PROFINET interfaces	1; 2 ports (switch)

### 1. Interface

<b>Interface types</b>	
• 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)

<b>Protocols</b>	
• 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	No
• 100 Mbps	Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX)
• Autonegotiation	Yes

• Autocrossing	Yes
<b>Protocols</b>	
PROFINET IO Device	
Services	
— IRT	Yes; 250 $\mu$ s, 500 $\mu$ s, 1 ms, 2 ms, 4 ms additionally with IRT with high performance: 250 $\mu$ s to 4 ms in 125 $\mu$ s frame
— PROFINergy	Yes
— Prioritized startup	Yes
— Shared device	Yes
— Number of IO Controllers with shared device, max.	4
Redundancy mode	
• PROFINET system redundancy (S2)	Yes; NAP S2
Media redundancy	
— MRP	Yes
— MRPD	No
Open IE communication	
• TCP/IP	Yes
• SNMP	Yes
• LLDP	Yes
<b>Isochronous mode</b>	
Equidistance	Yes
shortest clock pulse	250 $\mu$ s
max. cycle	4 ms
Bus cycle time (TDP), min.	250 $\mu$ s
Jitter, max.	1 $\mu$ s
<b>Interrupts/diagnostics/status information</b>	
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
<b>Potential separation</b>	
between backplane bus and electronics	No
between PROFINET and all other circuits	Yes
between supply and all other circuits	Yes
<b>Isolation</b>	

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
<b>last modified:</b>	11/20/2020