



Figure similar

SIMATIC ET 200SP, PROFINET bundle IM, IM 155-6PN ST, max. 32 I/O modules and 16 ET 200AL modules, single hot swap, bundle consists of: Interface module (6ES7155-6AA01-0BN0), Server module (6ES7193-6PA00-0AA0), BusAdapter BA 2xRJ45 (6ES7193-6AR00-0AA0)

General information	
Product type designation	IM155-6PN ST, including BusAdapter BA 2x RJ45
HW functional status	From FS03
Firmware version	V4.2
• FW update possible	Yes
Product function	
• I&M data	Yes; I&M0 to I&M3
• Module swapping during operation (hot swapping)	Yes; Single hot swapping
• Isochronous mode	No
Engineering with	
• STEP 7 TIA Portal configurable/integrated from version	V14
• STEP 7 configurable/integrated from version	V5.5 SP4
• PROFINET from GSD version/GSD revision	GSDML V2.35
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	
• 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 ² t	0.09 A ² ·s
Power loss	
Power loss, typ.	1.9 W
Address area	
Address space per module	
• Address space per module, max.	256 byte; For input and output data respectively
Address space per station	
• Address space per station, max.	512 byte
Hardware configuration	
Rack	
• Quantity of operable ET 200SP modules, max.	32

• Quantity of operable ET 200AL modules, max.	16
Submodules	
• Number of submodules per station, max.	256
Interfaces	
Transmission procedure	100BASE-TX
Number of PROFINET interfaces	1; 2 ports (switch)
1. Interface	
Interface types	
• RJ 45 (Ethernet)	Yes; with BusAdapter
• Number of ports	2; with BusAdapter
• integrated switch	Yes
• BusAdapter (PROFINET)	Yes; BA 2x RJ45, BA 2x FC, BA 2x M12
Protocols	
• PROFINET IO device	Yes
• Open IE communication	Yes
• Media redundancy	Yes; PROFINET MRP client
PROFINET IO Device	
Services	
— IRT	Yes; 250 µs to 4 ms in 125 µs frame
— Dynamic Frame Packing (DFP)	No
— PROFIenergy	Yes
— Prioritized startup	Yes
— Shared device	Yes
— Number of IO Controllers with shared device, max.	2
Interface types	
RJ 45 (Ethernet)	
• Transmission procedure	PROFINET with 100 Mbit/s full duplex (100BASE-TX)
• 100 Mbps	Yes
• Autonegotiation	Yes
• Autocrossing	Yes
Protocols	
Supports protocol for PROFINET IO	Yes
PROFIsafe	Yes
PROFIBUS	No
EtherNet/IP	No
Modbus TCP	No
Redundancy mode	
• PROFINET system redundancy (S2)	No
• PROFINET system redundancy (R1)	No
Media redundancy	
— MRP	Yes
— MRPD	No
Open IE communication	
• TCP/IP	Yes
• SNMP	Yes
• LLDP	Yes
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 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	3		
Ecological footprint			
• environmental product declaration	Yes		
Global warming potential			
— global warming potential, (total) [CO2 eq]	105 kg		
— global warming potential, (during production) [CO2 eq]	13.7 kg		
— global warming potential, (during operation) [CO2 eq]	91.9 kg		
— global warming potential, (after end of life cycle) [CO2 eq]	-0.617 kg		
Security			
PROFINET Security Class	1		
Ambient conditions			
Ambient temperature during operation			
• horizontal installation, min.	-30 °C; No condensation		
• horizontal installation, max.	60 °C		
• vertical installation, min.	-30 °C; No condensation		
• vertical installation, max.	50 °C		
Altitude during operation relating to sea level			
• Installation altitude above sea level, max.	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual		
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		
Classifications			
		Version	Classification
	eClass	16	27-24-26-08
	eClass	14	27-24-26-08
	eClass	12	27-24-26-08
	eClass	9.1	27-24-26-08
	eClass	9	27-24-26-08
	eClass	8	27-24-26-08
	eClass	7.1	27-24-26-08
	eClass	6	27-24-26-08
	ETIM	10	EC001604
	ETIM	9	EC001604
	ETIM	8	EC001604
	ETIM	7	EC001604
	IDEA	4	3564
	UNSPSC	15	32-15-17-05
Approvals / Certificates			
General Product Approval			



[Manufacturer Declaration](#)

[Miscellaneous](#)



General Product Approval

Maritime application

Environment

[China RoHS](#)



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