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Data sheet 6ES7155-6AR01-0AN0



SIMATIC ET 200SP, PROFINET interface module IM 155-6 PN Basic, max. 16 I/O modules, 2x integrated RJ45 sockets PN security class 1 including server module (6ES7193-6PA00-0AA0)

General information	
Product type designation	IM 155-6 PN BA
Firmware version	V6.4.0
● FW update possible	Yes
Vendor identification (VendorID)	0x002A
Device identifier (DeviceID)	0x0313
Product function	
● I&M data	Yes; I&M0 to I&M4
● Module swapping during operation (hot swapping)	Yes; Multi-hot swapping
● Isochronous mode	No
● IRT	Yes
● Local coupling, IO data	Yes
— Number of coupling modules	6; 1x output + max. 5x input
Engineering with	
● STEP 7 TIA Portal configurable/integrated from version	V20
● STEP 7 configurable/integrated from version	V5.7 SP3
● PROFINET from GSD version/GSD revision	GSDML V2.45
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	5 ms
Input current	
Current consumption (rated value)	200 mA
Current consumption, max.	300 mA
Inrush current, max.	1 A
I^2t	0.05 $A^2 \cdot s$
Power loss	
Power loss, typ.	1.8 W
Address area	
Address space per module	
● Address space per module, max.	128 byte; For input and output data respectively
Address space per station	
● Address space per station, max.	128 byte

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Hardware configuration	
Rack	
● Quantity of operable ET 200SP modules, max.	16
● Quantity of operable ET 200AL modules, max.	0
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; 2 integrated RJ45 ports
● Number of ports	2; integrated RJ45 ports
● integrated switch	Yes
● BusAdapter (PROFINET)	No
Protocols	
● PROFINET IO Device	Yes
● Open IE communication	Yes
● Media redundancy	Yes; PROFINET MRP client
PROFINET IO Device	
Services	
— IRT	Yes; 1 ms to 4 ms at an interval of 125 µs
— Dynamic Frame Packing (DFP)	Yes
— Fast Forwarding	Yes
— Fragmentation	Yes
— PROFIenergy	Yes
— Prioritized startup	Yes
— Shared device	No
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	No
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	Yes
Open IE communication	
● TCP/IP	Yes
● UDP	Yes
● SNMP	Yes
● LLDP	Yes
● ARP	Yes
● IGMP	Yes
● Multicast	Yes
● Broadcast	Yes
● IPv4	Yes
● IPv6	No
Interrupts/diagnostics/status information	
Status indicator	Yes

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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 LED
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
Security	
PROFINET Security Class	1
signed firmware update	Yes
Secure Boot	No
securely removing data	Yes
data integrity	Yes
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	No
Mechanics/material	
Strain relief	No
Dimensions	
Width	35 mm
Height	117 mm
Depth	74 mm
Weights	
Weight, approx.	125 g
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

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	ETIM	7	EC001604

Approvals / Certificates

General Product Approval

Manufacturer Declaration | Miscellaneous | PROFINET

General Product Approval | EMV

China RoHS

For use in hazardous locations

CCC-Ex | FM | Miscellaneous

For use in hazardous locations | Maritime application

Type Examination Certificate | CCC-Ex

Maritime application

NK / Nippon Kaiji Kyokai | CCS (China Classification Society) | KR (Korean Register of Shipping)

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