SIEMENS

## Data sheet 6ES7155-6AA01-0BN0



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 (6ES7155-6AU01-0BN0), 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 |
| $I^2t$ | 0.09 $A^2 \cdot s$ |
| **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 |


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| | |
|---|---|
| ● 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) |


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| | |
|---|---|
| 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**


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Manufacturer Declaration

Miscellaneous

| General Product Approval | Maritime application | Environment |
| --- | --- | --- |
| China RoHS | | |

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