# SIEMENS

SIMATIC ET 200SP, BUNDLE PROFINET IM, IM155-6PN ST, MAX. 32 PERIPHERY MODULES AND 16 ET 200AL MODULES, SINGLE HOT SWAP, BUNDLE CONTAINS: INTERFACEMODULE (6ES7155-6AU00-0BN0), SERVERMODULE (6ES7193-6PA00-0AA0), BUSADAPTER BA 2X RJ45 (6ES7193-6AR00-0AA0)



| General information | |
| --- | --- |
| Product type designation | IM 155-6 PN ST |
| Firmware version | V3.3 |
| **Product function** | |
| ● I&M data | Yes; I&M0 to I&M3 |
| **Engineering with** | |
| ● STEP 7 TIA Portal configurable/integrated as of version | V13 SP1 |
| ● 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 |
| Reverse polarity protection | Yes |
| **Mains buffering** | |

| | |
|---|---|
| • Mains/voltage failure stored energy time | 5 ms |

## Input current

| | |
|---|---|
| Current consumption, max. | 450 mA |
| Inrush current, max. | 3.7 A |
| I²t | 0.09 A²·s |

## Power loss

| | |
|---|---|
| Power loss, typ. | 1.9 W |

## Address area

### Address space per module

| | |
|---|---|
| • Address space per module, max. | 256 byte; per input / output |

### Address space per station

| | |
|---|---|
| • Address space per station, max. | 512 byte; Dependent on configuration |

## Hardware configuration

### Rack

| | |
|---|---|
| • Modules per rack, max. | 32; + 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 |
| • RJ 45 (Ethernet) | Yes; Pre-assembled BusAdapter BA 2x RJ45 |
| • BusAdapter (PROFINET) | Yes; Applicable BusAdapter: BA 2x RJ45, BA 2x FC |

### Functionality

| | |
|---|---|
| • 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 | No |
| — Open IE communication | Yes |
| — IRT | Yes; with send cycles of between 250 µs and 4 ms in increments of 125 µs |
| — MRP | Yes |
| — MRPD | No |
| — PROFINET system redundancy | No |
| — PROFIenergy | Yes |
| — Prioritized startup | Yes |
| — Shared device | Yes |
| — Number of IO Controllers with shared device, max. | 2 |
| **Open IE communication** | |
| • TCP/IP | Yes |
| • SNMP | Yes |
| • LLDP | Yes |

| Isochronous mode | |
|---|---|
| Isochronous operation (application synchronized up to terminal) | No |
| Equidistance | No |

| Interrupts/diagnostics/status information | |
|---|---|
| Status indicator | Yes |
| Alarms | Yes |
| Diagnostic functions | 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 |
| between supply and all other circuits | Yes |

| Isolation | |
|---|---|
| Isolation tested with | 707 V DC between supply voltage and electronics; 1 500 V AC between Ethernet and electronics |

| Standards, approvals, certificates | |
|---|---|
| Network loading class | 2 |
| 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. | 191 g; IM155PN ST with BA 2x RJ45 (mounted) |

| | |
|---|---|
| **last modified:** | 09/23/2017 |