SIEMENS

## Data sheet 6ES7157-1AB00-0AB0

SIMATIC ET 200AL, PROFINET interface module IM 157-1 PN, Degree of protection IP67

| | |
|---|---|
| **General information** | |
| Product type designation | IM 157-1 PN |
| HW functional status | FS02 |
| Firmware version | V1.0.x |
| Vendor identification (VendorID) | 002AH |
| Product function | |
| ● I&M data | Yes; I&M0 to I&M4 |
| Engineering with | |
| ● STEP 7 TIA Portal configurable/integrated from version | STEP 7 V13 SP1 or higher |
| ● STEP 7 configurable/integrated from version | From V5.5 SP4 Hotfix 3 |
| ● PROFINET from GSD version/GSD revision | GSDML V2.3.1 |
| **Configuration control** | |
| via dataset | Yes |
| **Supply voltage** | |
| power supply according to NEC Class 2 required | No |
| Load voltage 1L+ | |
| ● Rated value (DC) | 24 V |
| ● permissible range, lower limit (DC) | 20.4 V |
| ● permissible range, upper limit (DC) | 28.8 V |
| ● Reverse polarity protection | Yes; against destruction |
| **Input current** | |
| Current consumption (rated value) | 100 mA |
| from load voltage 1L+ (unswitched voltage) | 4 A; Maximum value |
| from load voltage 2L+, max. | 4 A; Maximum value |
| **Power loss** | |
| Power loss, typ. | 2.9 W |
| **Address area** | |
| Address space per station | |
| ● Address space per station, max. | 1 430 byte |
| **Interfaces** | |
| Number of PROFINET interfaces | 1 |
| **1. Interface** | |
| Interface type | PROFINET |
| Interface types | |
| ● M12 port | Yes; 2x M12 D-coded |
| ● integrated switch | Yes |
| Protocols | |
| ● PROFINET IO Device | Yes |
| ● Open IE communication | Yes |
| **Interface types** | |


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| | |
|---|---|
| M12 port | |
| ● Transmission procedure | PROFINET with 100 Mbit/s full duplex (100BASE-TX) |
| ● 10 Mbps | Yes; for Ethernet services |
| ● 100 Mbps | Yes; PROFINET with 100 Mbit/s full duplex (100BASE-TX) |
| ● Autonegotiation | Yes |
| ● Autocrossing | Yes |
| **Protocols** | |
| PROFINET IO Device | |
| Services | |
| — IRT | Yes; 250 µs, 500 µs, 1 ms, 2 ms, 4 ms, 8 ms, 16 ms, 32 ms, 64 ms, 128 ms |
| — PROFIenergy | Yes |
| — Shared device | Yes |
| — Number of IO Controllers with shared device, max. | 4 |
| Redundancy mode | |
| Media redundancy | |
| — MRP | Yes |
| — MRPD | Yes |
| Open IE communication | |
| ● TCP/IP | Yes |
| ● SNMP | Yes |
| ● LLDP | Yes |
| **Interrupts/diagnostics/status information** | |
| Diagnostics function | Yes |
| Alarms | |
| ● Diagnostic alarm | Yes |
| Diagnostics indication LED | |
| ● RUN LED | Yes; green LED |
| ● ERROR LED | Yes; red LED |
| ● MAINT LED | Yes; Yellow LED |
| ● Connection display LINK TX/RX | Yes; 2x green LED |
| **Potential separation** | |
| between the load voltages | Yes |
| between PROFINET and all other circuits | Yes |
| **Isolation** | |
| Isolation tested with | 707 V DC (type test) |
| **Degree and class of protection** | |
| IP degree of protection | IP65/67 |
| **Standards, approvals, certificates** | |
| Suitable for safety-related tripping of standard modules | Yes; From FS01 |
| Highest safety class achievable for safety-related tripping of standard modules | |
| ● Performance level according to ISO 13849-1 | PL d |
| ● Category according to ISO 13849-1 | Cat. 3 |
| ● SIL acc. to IEC 62061 | SIL 2 |
| ● remark on safety-oriented shutdown | https://support.industry.siemens.com/cs/de/en/view/39198632 |
| **Ambient conditions** | |
| Ambient temperature during operation | |
| ● min. | -25 °C |
| ● max. | 55 °C |
| **connection method** | |
| Design of electrical connection for supply voltage | M8, 4-pole |
| ET-Connection | |
| ● ET-Connection | M8, 4-pin, shielded |
| **Dimensions** | |
| Width | 45 mm |
| Height | 159 mm |
| Depth | 40 mm |
| **Weights** | |
| Weight, approx. | 263 g |

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