




SIMATIC ET 200SP, MultiFieldbus, 2-port interface module, IM 155-6MF High Feature, PN IO, Ethernet IP, Modbus TCP, 1 slot for BusAdapter, max. 64 I/O modules and 16 ET 200AL modules, multi-hot swap, optional cable grip, including server module

| General information | |
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| Product type designation | IM 155-6 MF HF |
| Firmware version | V5.2 |
| <ul style="list-style-type: none"> FW update possible | Yes |
| Vendor identification (VendorID) | 002AH |
| Device identifier (DeviceID) | 0313H |
| Manufacturer ID according to ODVA (VendorID) | 04E3H |
| Device ID according to ODVA (Product code) | 0FA2H |
| Product function | |
| <ul style="list-style-type: none"> I&M data | Yes; I&M0 to I&M3 |
| <ul style="list-style-type: none"> Module swapping during operation (hot swapping) | Yes; Multi-hot swapping |
| <ul style="list-style-type: none"> Isochronous mode | No |
| <ul style="list-style-type: none"> Tool changer | Yes; Docking station and docking unit |
| <ul style="list-style-type: none"> Local coupling, IO data | Yes |
| <ul style="list-style-type: none"> <ul style="list-style-type: none"> Number of coupling modules | 6; 1x output + max. 5x input |
| <ul style="list-style-type: none"> Local coupling, data records | No |
| Engineering with | |
| <ul style="list-style-type: none"> STEP 7 TIA Portal configurable/integrated from version | via IM155-6PN/2 HF in compatibility mode |
| <ul style="list-style-type: none"> STEP 7 configurable/integrated from version | via IM155-6PN/2 HF in compatibility mode |
| <ul style="list-style-type: none"> PROFINET from GSD version/GSD revision | GSDML V2.3 |
| <ul style="list-style-type: none"> Multi Fieldbus Configuration Tool (MFCT) | from V1.3 |
| 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 | |
| <ul style="list-style-type: none"> Mains/voltage failure stored energy time | 10 ms; according to IEC 61131-2 (6.2.1.3) severity degree PS2 |
| Input current | |
| Current consumption, max. | 700 mA |
| Inrush current, max. | 4.5 A |
| I^2t | 0.25 A ² ·s |
| Power loss | |
| Power loss, typ. | 2.4 W |
| Address area | |
| Address space per module | |
| <ul style="list-style-type: none"> Address space per module, max. | 288 byte; For input and output data respectively |
| Address space per station | |

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| • Address space per station, max. | 1 440 byte; Dependent on configuration |
| Hardware configuration | |
| Rack | |
| • Quantity of operable ET 200SP modules, max. | 64 |
| • Quantity of operable ET 200AL modules, max. | 16 |
| Submodules | |
| • Number of submodules per station, max. | 256 |
| Time stamping | |
| Accuracy | 10 ms |
| Interfaces | |
| Number of PROFINET interfaces | 1; 2 ports (switch) |
| 1. Interface | |
| Interface types | |
| • Number of ports | 2; via BusAdapter |
| • integrated switch | Yes |
| • BusAdapter (PROFINET) | Yes; compatible BusAdapters: BA 2x RJ45, BA 2x M12, BA 2x FC, BA 2x SCRJ, BA SCRJ / RJ45, BA SCRJ / FC, BA 2x LC, BA LC / RJ45, BA LC / FC, BA 2x LC-LD, BA LC-LD / RJ45, BA LC-LD / M12 |
| Protocols | |
| • PROFINET IO Device | Yes |
| • Open IE communication | Yes |
| • Media redundancy | Yes |
| PROFINET IO Device | |
| Services | |
| — IRT | No |
| — PROFIenergy | Yes |
| — Prioritized startup | No |
| — Shared device | Yes |
| — Number of IO Controllers with shared device, max. | 14; 2x PN controller + 2x EtherNet/IP scanner + 10x Modbus TCP master |
| 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 | |
| Modbus TCP | Yes |
| Number of connections | |
| • Number of MtM communication relationships/connections, max. | 16 |
| Redundancy mode | |
| • PROFINET system redundancy (S2) | Yes; NAP S2 |
| — on S7-1500R/H | Yes |
| — on S7-400H | Yes |
| • PROFINET system redundancy (R1) | No |
| • H-Sync forwarding | Yes |
| Media redundancy | |
| — MRP | Yes |
| — MRPD | No |
| EtherNet/IP | |
| Services | |
| — CIP Implicit Messaging | Yes |
| — CIP Explicit Messaging | Yes |
| — CIP Safety | No |
| — Configuration control via Explicit Messaging | No |
| — Shared device | Yes; 2x PN controller + 2x EtherNet/IP scanner + 10x Modbus TCP master |
| — Number of scanners with shared device, max. | 2 |
| Updating times | |
| — Requested Packet Interval (RPI) | 2 ms |
| Address area | |

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| — Address space per module, max. | 288 byte; (246 byte outputs / 288 byte inputs) |
| — ForwardOpen (Class1 & 32 bit Header) | 500 byte; (246 byte outputs / 500 byte inputs) |
| — LargeForwardOpen (Class3) | 4 002 byte |
| Connections | |
| — Number of rack connections | 2 |
| Modbus TCP | |
| Services | |
| — read coils (code=1) | Yes |
| — read discrete inputs (code=2) | Yes |
| — Read Holding Registers (Code=3) | Yes |
| — write single coil (code=5) | Yes |
| — write multiple coils (code=15) | Yes |
| — Write Multiple Registers (Code=16) | Yes |
| — Parameter change by master | Yes |
| — Modbus TCP Security Protocol | No |
| Address space per station | |
| — Address space per station, max. | 500 byte; (246 byte outputs / 500 byte inputs) |
| — Access-consistent address space | 250 byte; (246 byte outputs / 250 byte inputs) |
| Updating time | |
| — I/O request interval | 2 ms |
| Connections | |
| — Number of connections per slave | 9; (1x inputs / 2x outputs / 4x volatile registers / 2x Device Info) |
| 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 |
| 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 |
| • NS LED | Yes; green/red LED |
| • MS LED | Yes; green/red LED |
| • IO LED | Yes; red-green-yellow 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 | No |
| Isolation | |
| Isolation tested with | 707 V DC (type test) |
| Standards, approvals, certificates | |
| Network loading class | 3 |
| Security level | According to Security Level 1 Test Cases V1.1.1 |
| 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 / header | |
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| ET-Connection | |
| <ul style="list-style-type: none"> via BU/BA Send | Yes; + 16 ET 200AL modules |
| Mechanics/material | |
| Strain relief | Yes; Optional |
| Dimensions | |
| Width | 50 mm |
| Height | 117 mm |
| Depth | 74 mm |
| Weights | |
| Weight, approx. | 120 g; without BusAdapter |
| last modified: | 3/31/2023  |