



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                                                                                      |                                                               |
|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| Product type designation                                                                                 | IM 155-6 MF HF                                                |
| Firmware version                                                                                         | V5.1.1                                                        |
| <ul style="list-style-type: none"> <li>FW update possible</li> </ul>                                     | 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"> <li>I&amp;M data</li> </ul>                                           | Yes; I&M0 to I&M3                                             |
| <ul style="list-style-type: none"> <li>Module swapping during operation (hot swapping)</li> </ul>        | Yes; Multi-hot swapping                                       |
| <ul style="list-style-type: none"> <li>Isochronous mode</li> </ul>                                       | No                                                            |
| <ul style="list-style-type: none"> <li>Tool changer</li> </ul>                                           | Yes; Docking station and docking unit                         |
| <ul style="list-style-type: none"> <li>Local coupling, IO data</li> </ul>                                | No                                                            |
| <ul style="list-style-type: none"> <li>Local coupling, data records</li> </ul>                           | No                                                            |
| Engineering with                                                                                         |                                                               |
| <ul style="list-style-type: none"> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul> | via IM155-6PN/2 HF in compatibility mode                      |
| <ul style="list-style-type: none"> <li>STEP 7 configurable/integrated from version</li> </ul>            | via IM155-6PN/2 HF in compatibility mode                      |
| <ul style="list-style-type: none"> <li>PROFINET from GSD version/GSD revision</li> </ul>                 | GSDML V2.3                                                    |
| <ul style="list-style-type: none"> <li>Multi Fieldbus Configuration Tool (MFCT)</li> </ul>               | V1.0 Update 2                                                 |
| 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"> <li>Mains/voltage failure stored energy time</li> </ul>               | 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 <sup>2</sup> t                                                                                         | 0.25 A <sup>2</sup> ·s                                        |
| Power loss                                                                                               |                                                               |
| Power loss, typ.                                                                                         | 2.4 W                                                         |
| Address area                                                                                             |                                                               |
| Address space per module                                                                                 |                                                               |
| <ul style="list-style-type: none"> <li>Address space per module, max.</li> </ul>                         | 288 byte; For input and output data respectively              |

|                                                               |                                                                                                                                     |
|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Address space per station                                     |                                                                                                                                     |
| • Address space per station, max.                             | 1 440 byte; Dependent on configuration                                                                                              |
| <b>Hardware configuration</b>                                 |                                                                                                                                     |
| 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                                                                                                                                 |
| <b>Time stamping</b>                                          |                                                                                                                                     |
| Accuracy                                                      | 10 ms                                                                                                                               |
| <b>Interfaces</b>                                             |                                                                                                                                     |
| Number of PROFINET interfaces                                 | 1; 2 ports (switch)                                                                                                                 |
| <b>1. Interface</b>                                           |                                                                                                                                     |
| 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 LC, BA LC/RJ45, BA LC/FC, BA 2x SCRJ, BA SCRJ/RJ45, BA SCRJ/FC, |
| Protocols                                                     |                                                                                                                                     |
| • PROFINET IO Device                                          | Yes                                                                                                                                 |
| • Open IE communication                                       | Yes                                                                                                                                 |
| • Media redundancy                                            | Yes; PROFINET MRP                                                                                                                   |
| <b>Interface types</b>                                        |                                                                                                                                     |
| 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                                                                                                                                 |
| <b>Protocols</b>                                              |                                                                                                                                     |
| Modbus TCP                                                    | Yes                                                                                                                                 |
| Number of connections                                         |                                                                                                                                     |
| • Number of MtM communication relationships/connections, max. | 16                                                                                                                                  |
| <b>PROFINET IO Device</b>                                     |                                                                                                                                     |
| Services                                                      |                                                                                                                                     |
| — IRT                                                         | No                                                                                                                                  |
| — PROFIenergy                                                 | Yes                                                                                                                                 |
| — Prioritized startup                                         | No                                                                                                                                  |
| — Shared device                                               | No                                                                                                                                  |
| Redundancy mode                                               |                                                                                                                                     |
| • PROFINET system redundancy (S2)                             | Yes; NAP S2                                                                                                                         |
| • H-Sync forwarding                                           | Yes                                                                                                                                 |
| Media redundancy                                              |                                                                                                                                     |
| — MRP                                                         | Yes                                                                                                                                 |
| — MRPD                                                        | No                                                                                                                                  |
| <b>EtherNet/IP</b>                                            |                                                                                                                                     |
| Services                                                      |                                                                                                                                     |
| — CIP Implicit Messaging                                      | Yes                                                                                                                                 |
| — CIP Explicit Messaging                                      | Yes                                                                                                                                 |
| — CIP Safety                                                  | No                                                                                                                                  |
| — Configuration control via Explicit Messaging                | No                                                                                                                                  |
| — Shared device                                               | No                                                                                                                                  |
| Updating times                                                |                                                                                                                                     |
| — Requested Packet Interval (RPI)                             | 2 ms                                                                                                                                |
| Address area                                                  |                                                                                                                                     |
| — 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                                                                                                                          |

|                                                        |                                                                        |
|--------------------------------------------------------|------------------------------------------------------------------------|
| <b>Connections</b>                                     |                                                                        |
| — Number of rack connections                           | 1                                                                      |
| <b>Modbus TCP</b>                                      |                                                                        |
| <b>Services</b>                                        |                                                                        |
| — Read Holding Registers (Code=3)                      | Yes                                                                    |
| — Write Multiple Registers (Code=16)                   | Yes                                                                    |
| — Parameter change by master                           | Yes                                                                    |
| — Modbus TCP Security Protocol                         | No                                                                     |
| <b>Address space per station</b>                       |                                                                        |
| — 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)                         |
| <b>Updating time</b>                                   |                                                                        |
| — I/O request interval                                 | 2 ms                                                                   |
| <b>Connections</b>                                     |                                                                        |
| — Number of connections per slave                      | 9; (1x inputs / 2x outputs / 4x volatile registers / 2x Device Info)   |
| <b>Open IE communication</b>                           |                                                                        |
| • TCP/IP                                               | Yes                                                                    |
| • UDP                                                  | Yes                                                                    |
| • SNMP                                                 | Yes                                                                    |
| • LLDP                                                 | Yes                                                                    |
| • ARP                                                  | Yes                                                                    |
| • IGMP                                                 | Yes                                                                    |
| • Multicast                                            | Yes                                                                    |
| • Broadcast                                            | Yes                                                                    |
| • IPv4                                                 | Yes                                                                    |
| <b>Interrupts/diagnostics/status information</b>       |                                                                        |
| Status indicator                                       | Yes                                                                    |
| Alarms                                                 | Yes                                                                    |
| Diagnostics function                                   | Yes                                                                    |
| <b>Diagnostics indication LED</b>                      |                                                                        |
| • 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                                  |
| <b>Potential separation</b>                            |                                                                        |
| between backplane bus and electronics                  | No                                                                     |
| between PROFINET and all other circuits                | Yes                                                                    |
| between supply and all other circuits                  | No                                                                     |
| <b>Isolation</b>                                       |                                                                        |
| Isolation tested with                                  | 707 V DC (type test)                                                   |
| <b>Standards, approvals, certificates</b>              |                                                                        |
| Network loading class                                  | 3                                                                      |
| Security level                                         | According to Security Level 1 Test Cases V1.1.1                        |
| <b>Ambient conditions</b>                              |                                                                        |
| <b>Ambient temperature during operation</b>            |                                                                        |
| • horizontal installation, min.                        | -30 °C; No condensation                                                |
| • horizontal installation, max.                        | 60 °C                                                                  |
| • vertical installation, min.                          | -30 °C; No condensation                                                |
| • vertical installation, max.                          | 50 °C                                                                  |
| <b>Altitude during operation relating to sea level</b> |                                                                        |
| • Installation altitude above sea level, max.          | 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual |
| <b>connection method / header</b>                      |                                                                        |
| <b>ET-Connection</b>                                   |                                                                        |
| • via BU/BA Send                                       | Yes; + 16 ET 200AL modules                                             |
| <b>Mechanics/material</b>                              |                                                                        |

|                       |                                                                                             |
|-----------------------|---------------------------------------------------------------------------------------------|
| Strain relief         | Yes; Optional                                                                               |
| <b>Dimensions</b>     |                                                                                             |
| Width                 | 50 mm                                                                                       |
| Height                | 117 mm                                                                                      |
| Depth                 | 74 mm                                                                                       |
| <b>Weights</b>        |                                                                                             |
| Weight, approx.       | 120 g; without BusAdapter                                                                   |
| <b>last modified:</b> | 2/10/2022  |