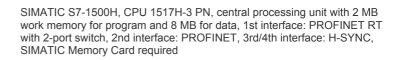
6ES7517-3HP00-0AB0

Data sheet





| General information | |
|--|---|
| Product type designation | CPU 1517H-3 PN |
| HW functional status | FS05 |
| Firmware version | V2.9 |
| Product function | |
| I&M data | Yes; I&M0 to I&M3 |
| Isochronous mode | No |
| Engineering with | |
| STEP 7 TIA Portal configurable/integrated from version | V17 (FW V2.9) / V16 (FW V2.8) / V15.1 (FW V2.6) |
| Display | |
| Screen diagonal [cm] | 6.1 cm |
| Control elements | |
| Number of keys | 6 |
| Mode selector switch | 1 |
| 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 (rated value) | 1.5 A |
| Inrush current, max. | 2.4 A; Rated value |
| l²t | 0.02 A ² ·s |
| Power loss | |
| Power loss, typ. | 24 W |
| Memory | |
| Number of slots for SIMATIC memory card | 1 |
| SIMATIC memory card required | Yes |
| Work memory | |
| integrated (for program) | 2 Mbyte |
| integrated (for data) | 8 Mbyte |
| Load memory | |
| Plug-in (SIMATIC Memory Card), max. | 32 Gbyte |
| Backup | |
| maintenance-free | Yes |
| CPU processing times | |

| | _ |
|---|---|
| for bit operations, typ. | 4 ns |
| for word operations, typ. | 6 ns |
| for fixed point arithmetic, typ. | 6 ns |
| for floating point arithmetic, typ. | 24 ns |
| CPU-blocks | |
| Number of elements (total) | 12 000; Blocks (OB, FB, FC, DB) and UDTs |
| DB | |
| Number range | Number range: 1 to 59 999 |
| • Size, max. | 8 Mbyte; For non-optimized block accesses, the max. size of the DB is |
| | 64 KB |
| FB | |
| Number range | 0 65 535 |
| Size, max. | 1 Mbyte |
| FC | |
| Number range | 0 65 535 |
| Size, max. | 1 Mbyte |
| OB | |
| • Size, max. | 1 Mbyte |
| Number of free cycle OBs | 100 |
| Number of time alarm OBs | 20 |
| Number of delay alarm OBs | 20 |
| Number of cyclic interrupt OBs | 20 |
| Number of process alarm OBs | 50 |
| Number of startup OBs | 100 |
| Number of asynchronous error OBs | 4 |
| Number of synchronous error OBs | 2 |
| Number of diagnostic alarm OBs | 1 |
| Nesting depth | |
| per priority class | 24 |
| Counters, timers and their retentivity | |
| S7 counter | |
| Number | 2 048 |
| Retentivity | |
| — adjustable | Yes |
| IEC counter | |
| Number | Any (only limited by the main memory) |
| Retentivity | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| — adjustable | Yes |
| S7 times | |
| Number | 2 048 |
| Retentivity | |
| — adjustable | Yes |
| IEC timer | |
| Number | Any (only limited by the main memory) |
| Retentivity | , |
| — adjustable | Yes |
| Data areas and their retentivity | |
| Retentive data area (incl. timers, counters, flags), max. | 768 kbyte |
| | 1 00 kByto |
| • Size, max. | 16 kbyte |
| Number of clock memories | 8; 8 clock memory bit, grouped into one clock memory byte |
| Data blocks | o, o slock memory bit, grouped into one clock memory byte |
| | Voc |
| Retentivity adjustable Retentivity propert | Yes |
| Retentivity preset | No |
| Local data | CA librates many AC I/D mar blands |
| per priority class, max. | 64 kbyte; max. 16 KB per block |
| Address area | |
| Number of IO modules | 8 192; max. number of modules / submodules |
| I/O address area | |
| Inputs | 32 kbyte; All inputs are in the process image |
| | |

| Outrote | 20 14-4- All |
|--|--|
| Outputs | 32 kbyte; All outputs are in the process image |
| per integrated IO subsystem | 4C librate |
| — Inputs (volume)— Outputs (volume) | 16 kbyte |
| | 16 kbyte |
| Subprocess images • Number of subprocess images, max. | 32 |
| · | 32 |
| Hardware configuration | 4 |
| Number of distributed IO systems | 1 |
| Number of IO Controllers | 4 |
| • integrated | 1 |
| Time of day | |
| Clock | |
| • Type | Hardware clock |
| Backup time | 6 wk; At 40 °C ambient temperature, typically |
| Deviation per day, max. | 10 s; Typ.: 2 s |
| Operating hours counter | 46 |
| Number Cleak synchronization | 16 |
| Clock synchronization | Voo |
| supported on Ethernet via NTP | Yes |
| on Ethernet via NTP Interfaces | Yes |
| Interfaces Number of PROFINET interfaces | 2 |
| | 2 |
| 1. Interface | |
| Interface types | |
| • RJ 45 (Ethernet) | Yes; X1 |
| Number of ports | 2 |
| • integrated switch | Yes |
| Protocols | V 10 4 |
| • IP protocol | Yes; IPv4 |
| PROFINET IO Controller | Yes |
| PROFINET IO Device | No |
| SIMATIC communication | Yes; Only Server |
| Open IE communication | Yes |
| Web server | No |
| Media redundancy | Yes |
| PROFINET IO Controller | |
| Services | V |
| — PG/OP communication | Yes |
| — Isochronous mode | No |
| — IRT | No |
| — PROFlenergy | Yes |
| — Number of connectable IO Devices, max. | 256 |
| Update time for RT | 4 may to 540 may |
| — for send cycle of 1 ms | 1 ms to 512 ms |
| 2. Interface | |
| Interface types | V V0 |
| • RJ 45 (Ethernet) | Yes; X2 |
| Number of ports | 1 |
| • integrated switch | No |
| Protocols | Very ID-A |
| • IP protocol | Yes; IPv4 |
| PROFINET IO Controller | No |
| PROFINET IO Device | No |
| SIMATIC communication | Yes; Only Server |
| Open IE communication | Yes |
| Web server | No |
| Media redundancy | No |
| 3. Interface | |
| Interface type | Pluggable synchronization submodule (FO) |

| Plug-in interface modules | Synchronization module 6ES7960-1CB00-0AA5 or 6ES7960-1FB00-0AA5 |
|---|---|
| 4. Interface | |
| Interface type | Pluggable synchronization submodule (FO) |
| Plug-in interface modules | Synchronization module 6ES7960-1CB00-0AA5 or 6ES7960-1FB00-0AA5 |
| Interface types | |
| RJ 45 (Ethernet) | |
| • 100 Mbps | Yes |
| Autonegotiation | Yes |
| Autocrossing | Yes |
| Industrial Ethernet status LED | Yes |
| Protocols | |
| PROFIsafe | No |
| Number of connections | |
| Number of connections, max. | 288 |
| Number of connections reserved for ES/HMI/web | 10 |
| Number of S7 routing paths | 64 |
| Redundancy mode | |
| Media redundancy | |
| — MRP | Yes; MRP Automanager according to IEC 62439-2 Edition 2.0 |
| MRP interconnection, supported | Yes; as MRP ring node according to IEC 62439-2 Edition 3.0 |
| — MRPD | No |
| Switchover time on line break, typ. | 200 ms; PROFINET MRP |
| Number of stations in the ring, max. | 50 |
| SIMATIC communication | |
| PG/OP communication | Yes; encryption with TLS V1.3 pre-selected |
| • S7 routing | Yes |
| S7 communication, as server | Yes |
| S7 communication, as client | No |
| Open IE communication | 110 |
| • TCP/IP | Yes |
| — Data length, max. | 64 kbyte |
| several passive connections per port, | Yes |
| supported | 163 |
| • ISO-on-TCP (RFC1006) | Yes |
| — Data length, max. | 64 kbyte |
| • UDP | Yes |
| — Data length, max. | 2 kbyte; 1 472 bytes for UDP broadcast |
| — UDP multicast | Yes; 128 multicast circuits (of which max. 5 via X1) |
| DHCP | No |
| • DNS | Yes |
| • SNMP | Yes |
| • DCP | Yes |
| • LLDP | Yes |
| Web server | |
| • HTTP | No |
| • HTTPS | No |
| OPC UA | |
| OPC UA Client | No |
| OPC UA Server | No |
| Further protocols | |
| MODBUS | Yes; MODBUS TCP |
| Isochronous mode | , |
| Equidistance | No |
| · | 110 |
| S7 message functions | |
| Number of login stations for message functions, max. | 64 |
| Program alarms | Yes |
| Number of configurable program messages, max. | 10 000; Program messages are generated by the "Program_Alarm" block, ProDiag or GRAPH |

| Number of loadable program messages in RIN. max. * Number of program alarms * Number of program alarms of the program alarms * Number of program alarms of the program alarms * Number of configurable max * Number o | | |
|--|---|--|
| Number of alams for system diagnostics and successful and suc | Number of loadable program messages in RUN, max. | 5 000 |
| * Number of alarms for system diagnostics Joint commissioning functions Joint commission (Tram Engineering) Status block Yes: Up to 16 simultaneously No Number of breakpoints Statusborotric variable * Statusborotric variable * Variables * Number of variables, max — of which status variables, max — of which powerfail proof * Forcing * Number of entries, max — of which powerfail-proof * Number of configurable Traces • Number of configurable Traces • Nember of configurable Traces • Number of con | | |
| Tost commission (Team Engineering) | · - | |
| Joint commission (Team Engineering) Straus block Single step No Number of breakpoints Statuse control Statuse | | 1 000 |
| Status block Yes; Up to 16 simultaneously | | |
| Single step | | No |
| Number of breakpoints 20; Breakpoints are only supported in RUN-Solo status | Status block | Yes; Up to 16 simultaneously |
| Status/control variable Status/control variable Ves Status/control variable Number of variables, max. — of which satus variables, max. — of which control variables, max. — of which powerfall-prof Forcing Forcing, variables Number of variables, max. — of which powerfall-prof Number of ortifies, max. — of which powerfall-prof Number of configurable Traces Number of con | Single step | No |
| Slatus/control variable Variables Variables Variables, max. — of which status variables, max. — of which control variables, max. — Percing Forcing For | Number of breakpoints | 20; Breakpoints are only supported in RUN-Solo status |
| Variables Number of variables, max. — of which status variables, max. — of which status variables, max. — of which control variables, max. — of which control variables, max. — of which control variables, max. Perpheral inputs/outputs Perpheral inputs/outputs Number of variables, max. 200; per job 200; per job Perpheral inputs/outputs Perpheral inputs/outputs Number of variables, max. 200 Diagnosts buffer Present Number of entries, max. — of which powerfail-proof Traces Number of configurable Traces Nemony size per trace, max. 1000 Traces Nemony size per trace, max. Nemony size per trace, max. Nemony size per trace, max. 1000 Traces Nemony size per trace, max. 1000 Traces Nemony size per trace, max. No Connection display LINK TX/RX Yes Supported technology objects No Ambient conditions No Ambient emperature during operation No No Ambient temperature during operation, max. No No Ambient temperature during storagetransportation No No Configuration / programming / header Programming language No No No No No No No No No N | Status/control | |
| Number of variables, max. — of which control variables, max. — of which control variables, max. — of which control variables, max. Forcing Forcing Forcing Forcing Forcing Forcing Forcing, Forcing Forc | Status/control variable | Yes |
| of which status variables, max. 200; per job of which control variables, max. 200; per job Forcing Forcing Forcing | Variables | Inputs/outputs, memory bits, DBs, distributed I/Os, timers, counters |
| Forcing Forcing Forcing Forcing, variables, max. Forcing, variables, max. Peripheral inputs/outputs Number of variables, max. Forwhich powerfail-proof Number of configurable Traces Memory size per trace, max. Formal Status Information Diagnostics butter Number of configurable Traces Number of configurable Number of valves Number of configurable Number of valves Number of valves Number of configurable Number of valves Number of configurable Number of valves Number of valves Number of valves Number of configurable Number of valves Numb | Number of variables, max. | |
| Forcing Forcing Forcing Forcing, variables Forcing, variables Number of variables, max. Of which powerfall-proof Forcing Number of entiries, max. Of which powerfall-proof Forcing Number of configurable Traces Number of variety Number of Number | of which status variables, max. | 200; per job |
| Forcing | — of which control variables, max. | 200; per job |
| Forcing, variables Number of variables, max. Number of variables, max. Of which powerfail-proof Number of configurable Traces Number of configurable Traces Nemory size per trace, max. For Number of configurable Traces Nemory size per trace, max. Nessendants in the size per size | Forcing | |
| Diagnostic buffer present Number of entries, max. 1000 Traces Number of configurable Number of typically 50 °C, the display is switched off Number of configurable Number of typically 40 °C, the display is switched off Number of configuration Number of typically 40 °C, the display is switched off Number of configuration Number of typically 50 °C, the display is switched off Number of configuration Number of typically 50 °C, the display is switched off Number of configuration Number of typically 50 °C, the display is switched off Number of configuration Number of typically 50 °C, the display is switched off Number of configuration Number of typically 50 °C, the display is switched off Number of configuration Number of typically 50 °C, the display is switched off Number of configuration Number of typically 50 °C, the display is switched off Number of configuration Number of typically 50 °C, the display is switched off Number of configuration Number of typically 50 °C, the display is switched off Number of configuration Number of typically 50 | Forcing | Yes |
| Diagnostic buffer • present • Number of entries, max. — of which powerfall-proof 1 000 Traces • Number of configurable Traces • Number of configuration Pleader configuration / Programming / header configuration / programming / header Programming Ianguage — LAD — FBD — STL Yes * St. ** Yes ** ** ** ** ** ** ** ** ** | Forcing, variables | Peripheral inputs/outputs |
| Present Number of entries, max. Owhich powerfail-proof 1000 Traces Number of configurable Traces Number of configurable Of Number of Configurable Of Number of Configuration (Number of Configura | Number of variables, max. | 200 |
| Number of entries, max. — of which powerfall-proof 1000 Traces Number of configurable Traces 8 8 512 kbyte Interrupts/Gliagnostics/status information Diagnostics indication LED RUN/STOP LED Yes RAINT LED Yes MAINT LED Yes Connection display LINK TX/RX Yes Supported technology objects Molion Control Controller PID_Compact Yes; Universal PID controller with integrated optimization for valves Yes; PID controller with integrated optimization for temperature Ves; PID controller with integrated optimization for vesters and the Ves; PID controller with integrated optimization for vesters and the Ves; PID controller with integrated optimization for vesters and the Ves; PID controller with integrated optimization for vesters and the | Diagnostic buffer | |
| Traces Number of configurable Traces Number of Configurable Traces Number of Configurable Traces Number of Configurable Number of Numbe | • present | Yes |
| Number of configurable Traces 8 Memory size per trace, max 512 kbyte | Number of entries, max. | 3 200 |
| Number of configurable Traces 8 Memory size per trace, max 512 kbyte | — of which powerfail-proof | 1 000 |
| Memory size per trace, max. Interrupts/diagnostics/status information Diagnostics indication LED RUN/STOP LED REROR LED MAINT LED Connection display LINK TX/RX Yes Supported technology objects Motion Control Controller PID_Compact PID_Compact PID_Temp Counting and measuring High-speed counter No Ambient conditions Ambient temperature during operation No Cortical installation, min. No O °C O °C Vertical installation, min. Vertical installation, max. Authorized installation, max. Profit installation, max. Authorized installation, max. In the presume of typically 40 °C, the display is switched off Ambient temperature during operation Installation max. Authorized installation, max. O °C No Ambient temperature during storage/transportation In max. Authorized installation, max. O °C Allitude during operation relating to sea level Installation allitude above sea level, max. Find D Programming I header Programming I header Programming I anguage Programming I anguage Programming I paguage Pres STL Yes Suphis Statistics in Find Statistics | Traces | |
| Diagnostics indication LED | Number of configurable Traces | 8 |
| Diagnostics indication LED RUN/STOP LED FROR LED FROR LED MAINT LED Connection display LINK TX/RX Yes Connection display LINK TX/RX Yes Supported technology objects Motion Control Controller PID_Compact PID_Compact PID_Temp For PID_Temp Counting and measuring High-speed counter Ambient conditions Ambient temperature during operation horizontal installation, min. horizontal installation, min. horizontal installation, min. vertical installation installation, min. Vertical installation installation, min. Vertical installation installation installation, min. Vertical installation installation installation installation, min. Vertical installation installation, min. Vertical installation installation, min. Vertical reprint in the representation of temperature of typically of ° | Memory size per trace, max. | 512 kbyte |
| Diagnostics indication LED RUN/STOP LED FROR LED FROR LED MAINT LED Connection display LINK TX/RX Yes Connection display LINK TX/RX Yes Supported technology objects Motion Control Controller PID_Compact PID_Compact PID_Temp For PID_Temp Counting and measuring High-speed counter Ambient conditions Ambient temperature during operation horizontal installation, min. horizontal installation, min. horizontal installation, min. vertical installation installation, min. Vertical installation installation, min. Vertical installation installation installation, min. Vertical installation installation installation installation, min. Vertical installation installation, min. Vertical installation installation, min. Vertical reprint in the representation of temperature of typically of ° | Interrupts/diagnostics/status information | |
| RUN/STOP LED ERROR LED Yes MAINT LED Yes Onnection display LINK TX/RX Yes Supported technology objects Motion Control Controller PID_Compact PID_Compact PID_Step Yes; PID controller with integrated optimization for valves PID-Temp Yes; PID controller with integrated optimization for valves PID-Temp Yes; PID controller with integrated optimization for temperature Counting and measuring High-speed counter Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, min. • horizontal installation, max. • vertical installation, max. • no "C • max. Ad "C; Display: 40 "C, at an operating temperature of typically 40 "C, the display is switched off • min. • min. • max. 70 "C Altitude during operation relating to sea level • Installation altitude above sea level, max. configuration / header configuration / programming / header Programming language — LAD — FBD — STL Yes Yes Yes Yes | | |
| ERROR LED MAINT LED Yes Yes Yes Connection display LINK TX/RX Yes Supported technology objects Motion Control Ontroller PID_Compact PID_Compact PID_Temp Yes; PID controller with integrated optimization for valves PID_Temp Yes; PID controller with integrated optimization for valves PID_Temp Counting and measuring Pigs, PID controller with integrated optimization for temperature Counting and measuring Pigs, PID controller with integrated optimization for temperature Counting and measuring Pigs, PID controller with integrated optimization for temperature No Ambient conditions Ambient temperature during operation Phorizontal installation, min. Phorizontal installation, min. Phorizontal installation, min. Proceedings in the stallation, min. Procedure of typically 50 °C, the display is switched off Procedure of typically 40 °C, the display is switched off Ambient temperature during storage/transportation The min. Procedure of typically 40 °C, the display is switched off Ambient temperature during storage/transportation The min. Procedure of typically 40 °C, the display is switched off Ambient temperature during storage/transportation The min. Procedure of typically 40 °C, the display is switched off Ambient temperature during storage/transportation The min. Procedure of typically 40 °C, the display is switched off Ambient temperature during storage/transportation The min. Procedure of typically 40 °C, the display is switched off Ambient temperature during storage/transportation The min of the min | - | Yes |
| | | |
| Connection display LINK TX/RX Supported technology objects Motion Control Controller PID_Compact PID_Step PID_Temp PID_Temp Pigh-speed counter Ambient conditions Ambient temperature during operation Pertical installation, min. Pertical installation, max. Verical installation, max. Authorization installation, max. Authorization installation, max. Por C Counted installation, max. Authorization installation, min. Pertical installation, min. Pertical installation, max. Authorization installation, max. Pertical installation, max. Authorization installation, max. Pertical in | | |
| Motion Control Motion Control PID_Compact PID_Step PID_Temp Yes; PID controller with integrated optimization for valves PID_Temp Yes; PID controller with integrated optimization for valves PID_Temp Yes; PID controller with integrated optimization for temperature Counting and measuring Pigh-speed counter No Ambient conditions Ambient temperature during operation horizontal installation, min. horizontal installation, max. vertical installation, max. vertical installation, max. vertical installation, max. 40 °C; Display: 50 °C, at an operating temperature of typically 50 °C, the display is switched off vertical installation, max. 40 °C; Display: 40 °C, at an operating temperature of typically 40 °C, the display is switched off Ambient temperature during storage/transportation min. vertical installation, max. 40 °C; Display: 40 °C, at an operating temperature of typically 40 °C, the display is switched off Ambient temperature during storage/transportation max. 40 °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 configuration / header configuration / programming / header Programming language — LAD — FBD — Yes — STL — Yes | | |
| Motion Control Controller PID_Compact PID_Step PID_Temp Counting and measuring High-speed counter Ambient conditions Ambient temperature during operation vertical installation, min. vertical installation, max. Pertical installation, max. Ambient temperature during storage/transportation vertical installation altitude above sea level, max. Altitude during operation relating to sea level Installation / hoader Configuration / hoader Configuration / programming / header Programming language — LAD — FBD — STL Yes; PID controller with integrated optimization for valves Yes; PID controll | · · | 100 |
| Controller PID_Compact PID_Step PID-Temp Yes; PID controller with integrated optimization Yes; PID controller with integrated optimization for valves PID-Temp Yes; PID controller with integrated optimization for valves Yes; PID controller with integrated optimization for temperature Yes PID-Temp Counting and measuring High-speed counter No Ambient conditions Ambient temperature during operation horizontal installation, min. horizontal installation, max. 0 °C 00 °C; Display: 50 °C, at an operating temperature of typically 50 °C, the display is switched off vertical installation, max. 40 °C; Display: 40 °C, at an operating temperature of typically 40 °C, the display is switched off Ambient temperature during storage/transportation min. min. min. 140 °C 70 °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 configuration / header configuration / programming / header Programming language — LAD — FBD — Yes — STL Yes | | No |
| PID_Compact PID_Sstep PID_Step PID_Temp Pignate PiD_Temp Pignate Pidn this peed counter Ambient conditions Ambient temperature during operation Portical installation, min. Pertical installation pertical pert | | INO |
| PID_3Step PID-Temp Yes; PID controller with integrated optimization for valves Yes; PID controller with integrated optimization for temperature Yes High-speed counter No Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • horizontal installation, min. • vertical installation, min. • vertical installation, max. • vertical installation, max. • vertical installation, max. • vertical installation, max. • vertical installation, max. • vertical installation, max. • vertical installation max. • vertical installation at temperature during storage/transportation • min. • min. • 40 °C; Display: 40 °C, at an operating temperature of typically 40 °C, the display is switched off Ambient temperature during storage/transportation • min. • max. 70 °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 configuration / header Programming language — LAD — FBD — STL Yes Yes Yes Yes Yes | | Voc. Universal PID controller with integrated entimization |
| PID-Temp Yes; PID controller with integrated optimization for temperature Yes High-speed counter No Ambient conditions Ambient temperature during operation horizontal installation, min. horizontal installation, max. o o C vertical installation, max. vertical installation, max. o o C vertical installation, max. o o C vertical installation, max. do o C; Display: 50 o C, at an operating temperature of typically 50 o C, the display is switched off vertical installation, max. do o C; Display: 40 o C, at an operating temperature of typically 40 o C, the display is switched off Ambient temperature during storage/transportation min. max. do o 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 configuration / programming / header Programming language — LAD — FBD — STL Yes Yes Yes | | |
| Counting and measuring High-speed counter Ambient conditions Ambient temperature during operation horizontal installation, min. horizontal installation, max. overtical installation, min. vertical installation, max. overtical installation overtically 50 °C, at an operating temperature of typically 50 °C, the display is switched off overtical installation overtically 50 °C, at an operating temperature of typically 50 °C, the display is switched off overtical installation, min. overtical installation, min. overtical installation, min. overtical installation, min. overtical installation overtically 50 °C, at an operating temperature of typically 50 °C, the display is switched off overtical installation, min. overtical installation, min. | | |
| High-speed counter Ambient conditions Ambient temperature during operation Installation, min. Installation altitude above sea level. Installation altitude above sea level. Installation / programming language — LAD — FBD — FBD — STL O°C O°C O°C O°C, pisplay: 50 °C, at an operating temperature of typically 50 °C, the display is switched off O°C O°C, pisplay: 40 °C, at an operating temperature of typically 40 °C, the display is switched off Ambient temperature during storage/transportation Installation altitude above sea level Installation altitude above sea level, max. Fess Fess | · | |
| Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • horizontal installation, max. • vertical installation, min. • vertical installation, max. • | | |
| Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • horizontal installation, max. • horizontal installation, max. • vertical installation, min. • vertical installation, max. • vertical installation and perature of typically 40 °C, the display is switched off • vertical installation and perature of typically 40 °C, the display is switched off • vertical installation, max. • | | INU |
| horizontal installation, min. horizontal installation, max. 60 °C; Display: 50 °C, at an operating temperature of typically 50 °C, the display is switched off vertical installation, min. 0 °C vertical installation, max. 40 °C; Display: 40 °C, at an operating temperature of typically 40 °C, the display is switched off Ambient temperature during storage/transportation min. -40 °C max. 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 configuration / header configuration / programming / header Programming language LAD FBD STL Yes Yes Yes Yes Yes | | |
| horizontal installation, max. 60 °C; Display: 50 °C, at an operating temperature of typically 50 °C, the display is switched off vertical installation, min. 0 °C vertical installation, max. 40 °C; Display: 40 °C, at an operating temperature of typically 40 °C, the display is switched off Ambient temperature during storage/transportation min. -40 °C max. 70 °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 configuration / header configuration / programming / header Programming language LAD FBD Yes STL Yes Yes Yes Yes Yes | | |
| vertical installation, min. vertical installation, max. 40 °C; Display: 40 °C, at an operating temperature of typically 40 °C, the display is switched off Ambient temperature during storage/transportation min. -40 °C max. 70 °C Altitude during operation relating to sea level Installation altitude above sea level, max. soon m; Restrictions for installation altitudes > 2 000 m, see manual configuration / header configuration / programming / header Programming language LAD FBD STL Yes Yes Yes Yes | • | |
| vertical installation, min. vertical installation, max. 40 °C; Display: 40 °C, at an operating temperature of typically 40 °C, the display is switched off Ambient temperature during storage/transportation min. -40 °C max. 70 °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 configuration / header Programming language LAD FBD STL Yes Yes Yes Yes Yes Yes Yes Yes | horizontal installation, max. | |
| vertical installation, max. 40 °C; Display: 40 °C, at an operating temperature of typically 40 °C, the display is switched off Ambient temperature during storage/transportation min. -40 °C max. 70 °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 configuration / header Programming language LAD FBD STL Yes Yes Yes Yes Yes | vertical installation, min. | |
| Ambient temperature during storage/transportation • min. • max. 70 °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 configuration / header configuration / programming / header Programming language — LAD — FBD — FBD — STL Yes Yes | | |
| min. max. 70 °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 configuration / header Configuration / programming / header Programming language LAD FBD STL Yes STL Yes Yes Yes | Ambient temperature during storage (france et alice | display is switched off |
| max. 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 configuration / header configuration / programming / header Programming language — LAD — FBD — STL Yes Yes Yes | | 40.00 |
| 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 configuration / header Configuration / programming / header Programming language — LAD — FBD — FBD — STL Yes Yes | | |
| ● Installation altitude above sea level, max. 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual configuration / header configuration / programming / header Programming language — LAD Yes — FBD Yes — STL Yes | | 70 C |
| configuration / header configuration / programming / header Programming language — LAD Yes — FBD Yes — STL Yes | | 5 000 ms Doctrictions for installation altitudes a 0 000 ms and make |
| configuration / programming / header Programming language — LAD Yes — FBD Yes — STL Yes | · | 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual |
| Programming language — LAD Yes — FBD Yes — STL Yes | | |
| — LAD Yes — FBD Yes — STL Yes | | |
| FBDSTLYesYes | Programming language | |
| — STL Yes | — LAD | Yes |
| | — FBD | |
| — SCL Yes | | Yes |
| | — SCL | Yes |

| — CFC | No | |
|---|-------------------------------------|--|
| — GRAPH | Yes | |
| Know-how protection | | |
| User program protection/password protection | Yes | |
| Copy protection | No | |
| Block protection | Yes | |
| Access protection | | |
| protection of confidential configuration data | Yes | |
| Password for display | Yes | |
| Protection level: Write protection | Yes | |
| Protection level: Read/write protection | Yes | |
| Protection level: Complete protection | Yes | |
| programming / cycle time monitoring / header | | |
| lower limit | adjustable minimum cycle time | |
| • upper limit | adjustable maximum cycle time | |
| Dimensions | | |
| Width | 210 mm | |
| Height | 147 mm | |
| Depth | 129 mm | |
| Weights | | |
| Weight, approx. | 2 119 g; Interface modules: 2x 18 g | |

last modified:

4/1/2022