

MANUFACTURER DOCUMENT PACKAGE

# Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

## 6ES7314-6CF01-0AB0

COMPACT PLC CENTRAL PROCESSOR

Used with the applicable SIMATIC S7-300 CPU 314C-2 DP configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens SIMATIC S7-300 CPU 314C-2 DP technical documentation

SIMATIC S7-300, CPU 314C-2DP COMPACT CPU WITH MPI, 24 DI/16 DO, 4AI, 2AO, 1 PT100, 4 FAST COUNTERS (60 KHZ), INTEGRATED DP INTERFACE, INTEGRATED 24V DC POWER SUPPLY, 48 KBYTE WORKING MEMORY, FRONT CONNECTOR ( X 40PIN) AND MICRO MEMORY CARD REQUIRED

| General information                                                                                     |                                                                                        |
|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| HW functional status                                                                                    | 01                                                                                     |
| Firmware version                                                                                        | V2.0.0                                                                                 |
| Engineering with                                                                                        |                                                                                        |
| <ul style="list-style-type: none"> <li>Programming package</li> </ul>                                   | STEP 7 V5.2 SP1 or higher (with STEP 7 V5.1 SP3 or higher, please use predecessor CPU) |
| Supply voltage                                                                                          |                                                                                        |
| Rated value (DC)                                                                                        |                                                                                        |
| <ul style="list-style-type: none"> <li>24 V DC</li> </ul>                                               | Yes                                                                                    |
| permissible range, lower limit (DC)                                                                     | 20.4 V                                                                                 |
| permissible range, upper limit (DC)                                                                     | 28.8 V                                                                                 |
| Load voltage L+                                                                                         |                                                                                        |
| <ul style="list-style-type: none"> <li>Rated value (DC)</li> </ul>                                      | 24 V                                                                                   |
| <ul style="list-style-type: none"> <li>permissible range, lower limit (DC)</li> </ul>                   | 20.4 V                                                                                 |
| <ul style="list-style-type: none"> <li>permissible range, upper limit (DC)</li> </ul>                   | 28.8 V                                                                                 |
| Input current                                                                                           |                                                                                        |
| Current consumption (rated value)                                                                       | 1 000 mA                                                                               |
| Current consumption (in no-load operation), typ.                                                        | 150 mA                                                                                 |
| Inrush current, typ.                                                                                    | 11 A                                                                                   |
| Power loss                                                                                              |                                                                                        |
| Power loss, typ.                                                                                        | 14 W                                                                                   |
| Memory                                                                                                  |                                                                                        |
| Work memory                                                                                             |                                                                                        |
| <ul style="list-style-type: none"> <li>integrated</li> </ul>                                            | 48 kbyte; For program and data                                                         |
| <ul style="list-style-type: none"> <li>expandable</li> </ul>                                            | No                                                                                     |
| Load memory                                                                                             |                                                                                        |
| <ul style="list-style-type: none"> <li>Plug-in (MMC)</li> </ul>                                         | Yes                                                                                    |
| <ul style="list-style-type: none"> <li>Plug-in (MMC), max.</li> </ul>                                   | 8 Mbyte                                                                                |
| <ul style="list-style-type: none"> <li>Data management on MMC (after last programming), min.</li> </ul> | 10 y                                                                                   |
| Backup                                                                                                  |                                                                                        |
| <ul style="list-style-type: none"> <li>present</li> </ul>                                               | Yes; Guaranteed by MMC (maintenance-free)                                              |

- without battery

Yes; Program and data

## CPU processing times

|                                     |        |
|-------------------------------------|--------|
| for bit operations, typ.            | 0.1 µs |
| for word operations, typ.           | 0.2 µs |
| for fixed point arithmetic, typ.    | 2 µs   |
| for floating point arithmetic, typ. | 3 µs   |

## CPU-blocks

|                                  |                          |
|----------------------------------|--------------------------|
| Number of blocks (total)         | 1 024                    |
| <b>DB</b>                        |                          |
| • Number, max.                   | 511; DB 0 reserved       |
| • Size, max.                     | 16 kbyte                 |
| <b>FB</b>                        |                          |
| • Number, max.                   | 512; From FB 0 to FB 511 |
| • Size, max.                     | 16 kbyte                 |
| <b>FC</b>                        |                          |
| • Number, max.                   | 512; from FC 0 to FC 511 |
| • Size, max.                     | 16 kbyte                 |
| <b>OB</b>                        |                          |
| • Number, max.                   | see instruction list     |
| • Size, max.                     | 16 kbyte                 |
| • Number of time alarm OBs       | 1                        |
| • Number of delay alarm OBs      | 1                        |
| • Number of cyclic interrupt OBs | 1                        |
| • Number of process alarm OBs    | 1                        |
| <b>Nesting depth</b>             |                          |
| • per priority class             | 8                        |
| • additional within an error OB  | 4                        |

## Counters, timers and their retentivity

|                       |     |
|-----------------------|-----|
| <b>S7 counter</b>     |     |
| • Number              | 256 |
| <b>Retentivity</b>    |     |
| — adjustable          | Yes |
| — lower limit         | 0   |
| — upper limit         | 256 |
| <b>Counting range</b> |     |
| — lower limit         | 0   |
| — upper limit         | 999 |
| <b>IEC counter</b>    |     |
| • present             | Yes |
| • Type                | SFB |
| <b>S7 times</b>       |     |

|                                              |                     |
|----------------------------------------------|---------------------|
| • Number                                     | 256                 |
| Retentivity                                  |                     |
| — adjustable                                 | Yes                 |
| — lower limit                                | 0                   |
| — upper limit                                | 256                 |
| — preset                                     | No retentivity      |
| Time range                                   |                     |
| — lower limit                                | 10 ms               |
| — upper limit                                | 9 990 s             |
| IEC timer                                    |                     |
| • present                                    | Yes                 |
| • Type                                       | SFB                 |
| Data areas and their retentivity             |                     |
| Flag                                         |                     |
| • Number, max.                               | 256 byte            |
| • Retentivity available                      | Yes; MB 0 to MB 255 |
| • Retentivity preset                         | MB 0 to MB 15       |
| • Number of clock memories                   | 8                   |
| Local data                                   |                     |
| • per priority class, max.                   | 510 byte            |
| Address area                                 |                     |
| I/O address area                             |                     |
| • Inputs                                     | 1 kbyte             |
| • Outputs                                    | 1 kbyte             |
| Process image                                |                     |
| • Inputs                                     | 128 byte            |
| • Outputs                                    | 128 byte            |
| Default addresses of the integrated channels |                     |
| — Digital inputs                             | 124.0 to 126.7      |
| — Digital outputs                            | 124.0 to 125.7      |
| — Analog inputs                              | 752 to 761          |
| — Analog outputs                             | 752 to 755          |
| Digital channels                             |                     |
| • Inputs                                     | 992                 |
| — of which central                           | 992                 |
| • Outputs                                    | 992                 |
| — of which central                           | 992                 |
| Analog channels                              |                     |
| • Inputs                                     | 512                 |
| — of which central                           | 248                 |
| • Outputs                                    | 124                 |

— of which central

248

## Hardware configuration

|                                              |                     |
|----------------------------------------------|---------------------|
| Number of expansion units, max.              | 3                   |
| Number of DP masters                         |                     |
| • integrated                                 | 1                   |
| • via CP                                     | 4                   |
| Number of operable FMs and CPs (recommended) |                     |
| • FM                                         | 8                   |
| • CP, PtP                                    | 8                   |
| • CP, LAN                                    | 10                  |
| Rack                                         |                     |
| • Racks, max.                                | 4                   |
| • Modules per rack, max.                     | 8; In rack 3 max. 7 |

## Time of day

|                                |                                                 |
|--------------------------------|-------------------------------------------------|
| Clock                          |                                                 |
| • Hardware clock (real-time)   | Yes                                             |
| • retentive and synchronizable | Yes                                             |
| • Backup time                  | 6 wk                                            |
| • Deviation per day, max.      | 10 s                                            |
| Operating hours counter        |                                                 |
| • Number                       | 1                                               |
| • Number/Number range          | 0                                               |
| • Range of values              | 0 to 2 <sup>31</sup> hours (when using SFC 101) |
| • Granularity                  | 1 h                                             |
| • retentive                    | Yes                                             |
| Clock synchronization          |                                                 |
| • supported                    | Yes                                             |
| • to MPI, master               | Yes                                             |
| • to MPI, slave                | Yes                                             |
| • in AS, master                | Yes                                             |

## Digital inputs

|                                                |             |
|------------------------------------------------|-------------|
| Number of digital inputs                       | 24          |
| integrated channels (DI)                       | 24          |
| Input voltage                                  |             |
| • Rated value (DC)                             | 24 V        |
| • for signal "0"                               | -3 to +5V   |
| • for signal "1"                               | +15 to +30V |
| Input current                                  |             |
| • for signal "1", typ.                         | 8 mA        |
| Input delay (for rated value of input voltage) |             |
| for standard inputs                            |             |

|                                                                       |                                                    |
|-----------------------------------------------------------------------|----------------------------------------------------|
| — parameterizable                                                     | Yes; 0.1 / 0.3 / 3 / 15 ms                         |
| for technological functions                                           |                                                    |
| — at "0" to "1", max.                                                 | 8 µs                                               |
| Cable length                                                          |                                                    |
| • shielded, max.                                                      | 1 000 m; 100 m for technological functions         |
| • unshielded, max.                                                    | 600 m                                              |
| <b>Digital outputs</b>                                                |                                                    |
| Number of digital outputs                                             | 16                                                 |
| integrated channels (DO)                                              | 16                                                 |
| Short-circuit protection                                              | Yes; Clocked electronically                        |
| Limitation of inductive shutdown voltage to                           | L+ (-48 V)                                         |
| Output voltage                                                        |                                                    |
| • for signal "1", min.                                                | L+ (-0.8 V)                                        |
| Output current                                                        |                                                    |
| • for signal "1" permissible range, max.                              | 500 mA                                             |
| • for signal "1" permissible range for 0 to 60 °C, max.               | 500 mA                                             |
| • for signal "1" minimum load current                                 | 5 mA                                               |
| • for signal "0" residual current, max.                               | 0.5 mA                                             |
| Switching frequency                                                   |                                                    |
| • with resistive load, max.                                           | 100 Hz                                             |
| • with inductive load, max.                                           | 0.5 Hz                                             |
| Total current of the outputs (per group)                              |                                                    |
| all mounting positions                                                |                                                    |
| — up to 40 °C, max.                                                   | 8 A                                                |
| — up to 60 °C, max.                                                   | 4 A                                                |
| Cable length                                                          |                                                    |
| • shielded, max.                                                      | 1 000 m                                            |
| • unshielded, max.                                                    | 600 m                                              |
| <b>Analog inputs</b>                                                  |                                                    |
| Number of analog inputs                                               |                                                    |
| • For voltage/current measurement                                     | 4                                                  |
| • For resistance/resistance thermometer measurement                   | 1                                                  |
| integrated channels (AI)                                              | 4+1                                                |
| permissible input voltage for current input (destruction limit), max. | 5 V; Permanent                                     |
| permissible input current for voltage input (destruction limit), max. | 0.5 mA; Permanent                                  |
| Technical unit for temperature measurement adjustable                 | Yes; Degrees Celsius / degrees Fahrenheit / Kelvin |
| Input ranges                                                          |                                                    |

|                                                        |                         |
|--------------------------------------------------------|-------------------------|
| • Current                                              | Yes                     |
| • Resistance thermometer                               | Yes                     |
| • Resistance                                           | Yes                     |
| Input ranges (rated values), voltages                  |                         |
| • 0 to +10 V                                           | Yes                     |
| • Input resistance (0 to 10 V)                         | 100 k $\Omega$          |
| Input ranges (rated values), currents                  |                         |
| • 0 to 20 mA                                           | Yes                     |
| • Input resistance (0 to 20 mA)                        | 100 $\Omega$            |
| • -20 mA to +20 mA                                     | Yes                     |
| • Input resistance (-20 mA to +20 mA)                  | 100 $\Omega$            |
| • 4 mA to 20 mA                                        | Yes                     |
| • Input resistance (4 mA to 20 mA)                     | 100 $\Omega$            |
| Input ranges (rated values), resistance thermometer    |                         |
| • Pt 100                                               | Yes                     |
| • Input resistance (Pt 100)                            | 10 M $\Omega$           |
| Input ranges (rated values), resistors                 |                         |
| • 0 to 600 ohms                                        | Yes                     |
| • Input resistance (0 to 600 ohms)                     | 10 M $\Omega$           |
| Cable length                                           |                         |
| • shielded, max.                                       | 100 m                   |
| Analog outputs                                         |                         |
| Number of analog outputs                               | 2                       |
| integrated channels (AO)                               | 2                       |
| Output ranges, voltage                                 |                         |
| • 0 to 10 V                                            | Yes                     |
| • -10 V to +10 V                                       | Yes                     |
| Output ranges, current                                 |                         |
| • 0 to 20 mA                                           | Yes                     |
| • -20 mA to +20 mA                                     | Yes                     |
| • 4 mA to 20 mA                                        | Yes                     |
| Analog value generation for the inputs                 |                         |
| Integration and conversion time/resolution per channel |                         |
| • Resolution with overrange (bit including sign), max. | 12 bit                  |
| • Integration time, parameterizable                    | Yes; 2,5 / 16,6 / 20 ms |
| Analog value generation for the outputs                |                         |
| Integration and conversion time/resolution per channel |                         |
| • Resolution with overrange (bit including sign), max. | 12 bit                  |
| • Conversion time (per channel)                        | 1 ms                    |

|                                                                                                                                                                                                                                                                                                                                                                                |                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| <b>Encoder</b>                                                                                                                                                                                                                                                                                                                                                                 |                                                |
| <b>Connectable encoders</b>                                                                                                                                                                                                                                                                                                                                                    |                                                |
| <ul style="list-style-type: none"> <li>• 2-wire sensor <ul style="list-style-type: none"> <li>— permissible quiescent current (2-wire sensor), max.</li> </ul> </li> </ul>                                                                                                                                                                                                     | Yes<br><br>1.5 mA                              |
| <b>Errors/accuracies</b>                                                                                                                                                                                                                                                                                                                                                       |                                                |
| <b>Basic error limit (operational limit at 25 °C)</b>                                                                                                                                                                                                                                                                                                                          |                                                |
| <ul style="list-style-type: none"> <li>• Voltage, relative to input range, (+/-)</li> <li>• Current, relative to input range, (+/-)</li> <li>• Resistance, relative to input range, (+/-)</li> <li>• Resistance thermometer, relative to input range, (+/-)</li> <li>• Voltage, relative to output range, (+/-)</li> <li>• Current, relative to output range, (+/-)</li> </ul> | 0.7 %<br>0.7 %<br>3 %<br>3 %<br>0.7 %<br>0.7 % |
| <b>Interfaces</b>                                                                                                                                                                                                                                                                                                                                                              |                                                |
| <b>MPI</b>                                                                                                                                                                                                                                                                                                                                                                     |                                                |
| <ul style="list-style-type: none"> <li>• Cable length, max.</li> </ul>                                                                                                                                                                                                                                                                                                         | 50 m; without repeater                         |
| <b>1. Interface</b>                                                                                                                                                                                                                                                                                                                                                            |                                                |
| Interface type                                                                                                                                                                                                                                                                                                                                                                 | Integrated RS 485 interface                    |
| Physics                                                                                                                                                                                                                                                                                                                                                                        | RS 485                                         |
| Isolated                                                                                                                                                                                                                                                                                                                                                                       | No                                             |
| Power supply to interface (15 to 30 V DC), max.                                                                                                                                                                                                                                                                                                                                | 200 mA                                         |
| <b>Protocols</b>                                                                                                                                                                                                                                                                                                                                                               |                                                |
| <ul style="list-style-type: none"> <li>• MPI</li> <li>• PROFIBUS DP master</li> <li>• PROFIBUS DP slave</li> <li>• Point-to-point connection</li> </ul>                                                                                                                                                                                                                        | Yes<br>No<br>No<br>No                          |
| <b>MPI</b>                                                                                                                                                                                                                                                                                                                                                                     |                                                |
| <ul style="list-style-type: none"> <li>• Number of connections</li> <li>• Transmission rate, max.</li> </ul>                                                                                                                                                                                                                                                                   | 12<br>187.5 kbit/s                             |
| <b>Services</b>                                                                                                                                                                                                                                                                                                                                                                |                                                |
| <ul style="list-style-type: none"> <li>— PG/OP communication</li> <li>— Routing</li> <li>— Global data communication</li> <li>— S7 basic communication</li> <li>— S7 communication</li> <li>— S7 communication, as client</li> <li>— S7 communication, as server</li> </ul>                                                                                                    | Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>No<br>Yes   |
| <b>2. Interface</b>                                                                                                                                                                                                                                                                                                                                                            |                                                |
| Interface type                                                                                                                                                                                                                                                                                                                                                                 | Integrated RS 485 interface                    |

|                                                       |                                                                                                                                                 |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Physics                                               | RS 485                                                                                                                                          |
| Isolated                                              | Yes                                                                                                                                             |
| Power supply to interface (15 to 30 V DC), max.       | 200 mA                                                                                                                                          |
| Number of connection resources                        | 12                                                                                                                                              |
| <b>Protocols</b>                                      |                                                                                                                                                 |
| • MPI                                                 | No                                                                                                                                              |
| • PROFIBUS DP master                                  | Yes                                                                                                                                             |
| • PROFIBUS DP slave                                   | Yes                                                                                                                                             |
| • Point-to-point connection                           | No                                                                                                                                              |
| <b>PROFIBUS DP master</b>                             |                                                                                                                                                 |
| • Number of connections, max.                         | 12; For PG/OP communication                                                                                                                     |
| • Transmission rate, max.                             | 12 Mbit/s                                                                                                                                       |
| • Number of DP slaves, max.                           | 32                                                                                                                                              |
| <b>Services</b>                                       |                                                                                                                                                 |
| — PG/OP communication                                 | Yes                                                                                                                                             |
| — Routing                                             | Yes                                                                                                                                             |
| — Global data communication                           | No                                                                                                                                              |
| — S7 basic communication                              | No                                                                                                                                              |
| — S7 communication                                    | No                                                                                                                                              |
| — S7 communication, as client                         | No                                                                                                                                              |
| — S7 communication, as server                         | No                                                                                                                                              |
| — Equidistance                                        | Yes                                                                                                                                             |
| — SYNC/FREEZE                                         | Yes                                                                                                                                             |
| — Activation/deactivation of DP slaves                | Yes                                                                                                                                             |
| — Direct data exchange (slave-to-slave communication) | Yes                                                                                                                                             |
| — DPV1                                                | Yes                                                                                                                                             |
| <b>Address area</b>                                   |                                                                                                                                                 |
| — Inputs, max.                                        | 1 kbyte                                                                                                                                         |
| — Outputs, max.                                       | 1 kbyte                                                                                                                                         |
| <b>User data per DP slave</b>                         |                                                                                                                                                 |
| — Inputs, max.                                        | 244 byte                                                                                                                                        |
| — Outputs, max.                                       | 244 byte                                                                                                                                        |
| <b>PROFIBUS DP slave</b>                              |                                                                                                                                                 |
| • Number of connections                               | 12                                                                                                                                              |
| • GSD file                                            | The latest GSD file is available at:<br><a href="http://www.ad.siemens.de/support">http://www.ad.siemens.de/support</a> in Product Support area |
| • Transmission rate, max.                             | 12 kbit/s                                                                                                                                       |
| • automatic baud rate search                          | Yes                                                                                                                                             |
| • Address area, max.                                  | 32                                                                                                                                              |
| • User data per address area, max.                    | 32 byte                                                                                                                                         |
| <b>Services</b>                                       |                                                                                                                                                 |

|                                                       |           |
|-------------------------------------------------------|-----------|
| — PG/OP communication                                 | Yes       |
| — Routing                                             | Yes       |
| — Global data communication                           | No        |
| — S7 basic communication                              | No        |
| — S7 communication                                    | No        |
| — Direct data exchange (slave-to-slave communication) | Yes       |
| — DPV1                                                | No        |
| <b>Transfer memory</b>                                |           |
| — Inputs                                              | 244 byte  |
| — Outputs                                             | 244 byte  |
| <b>Communication functions</b>                        |           |
| PG/OP communication                                   | Yes       |
| <b>Global data communication</b>                      |           |
| • supported                                           | Yes       |
| • Number of GD loops, max.                            | 4         |
| • Number of GD packets, max.                          | 4         |
| • Number of GD packets, transmitter, max.             | 4         |
| • Number of GD packets, receiver, max.                | 4         |
| • Size of GD packets, max.                            | 22 byte   |
| • Size of GD packet (of which consistent), max.       | 22 byte   |
| <b>S7 basic communication</b>                         |           |
| • supported                                           | Yes       |
| • User data per job, max.                             | 76 byte   |
| • User data per job (of which consistent), max.       | 76 byte   |
| <b>S7 communication</b>                               |           |
| • supported                                           | Yes       |
| • as server                                           | Yes       |
| • as client                                           | Yes       |
| • User data per job, max.                             | 180 kbyte |
| • User data per job (of which consistent), max.       | 64 byte   |
| <b>S5 compatible communication</b>                    |           |
| • supported                                           | Yes       |
| <b>Number of connections</b>                          |           |
| • overall                                             | 12        |
| • usable for PG communication                         | 11        |
| — reserved for PG communication                       | 1         |
| — adjustable for PG communication, min.               | 1         |
| — adjustable for PG communication, max.               | 11        |
| • usable for OP communication                         | 11        |
| — reserved for OP communication                       | 1         |

- adjustable for OP communication, min.
- adjustable for OP communication, max.
- usable for S7 basic communication
  - reserved for S7 basic communication
  - adjustable for S7 basic communication, min.
  - adjustable for S7 basic communication, max.
- usable for routing

1  
11  
8  
8  
0  
8  
4

### S7 message functions

|                                                      |     |
|------------------------------------------------------|-----|
| Number of login stations for message functions, max. | 12  |
| Process diagnostic messages                          | Yes |
| simultaneously active Alarm-S blocks, max.           | 40  |

### Test commissioning functions

|                       |     |
|-----------------------|-----|
| Status block          | Yes |
| Single step           | Yes |
| Number of breakpoints | 2   |

#### Status/control

- Status/control variable
- Variables
- Number of variables, max.
  - of which status variables, max.
  - of which control variables, max.

Yes  
Inputs, outputs, memory bits, DB, times, counters  
30  
30  
14

#### Forcing

- Forcing
- Forcing, variables
- Number of variables, max.

Yes  
Inputs, outputs  
10

### Integrated Functions

|                                   |         |
|-----------------------------------|---------|
| Number of counters                | 4       |
| Counting frequency (counter) max. | 60 kHz  |
| Frequency measurement             | Yes     |
| Number of frequency meters        | 4       |
| controlled positioning            | Yes     |
| PID controller                    | Yes     |
| Number of pulse outputs           | 4       |
| Limit frequency (pulse)           | 2.5 kHz |

### Potential separation

#### Potential separation digital inputs

- Potential separation digital inputs
- between the channels, in groups of
- between the channels and backplane bus

Yes  
16  
Yes

|                                               |                                                                                                |
|-----------------------------------------------|------------------------------------------------------------------------------------------------|
| Potential separation digital outputs          |                                                                                                |
| • Potential separation digital outputs        | Yes                                                                                            |
| • between the channels, in groups of          | 8                                                                                              |
| • between the channels and backplane bus      | Yes                                                                                            |
| Potential separation analog inputs            |                                                                                                |
| • Potential separation analog inputs          | Yes; common for analog I/O                                                                     |
| • between the channels and backplane bus      | Yes                                                                                            |
| Potential separation analog outputs           |                                                                                                |
| • Potential separation analog outputs         | Yes; common for analog I/O                                                                     |
| • between the channels and backplane bus      | Yes                                                                                            |
| Configuration                                 |                                                                                                |
| Configuration software                        |                                                                                                |
| • STEP 7                                      | Yes; V5.1 SP2                                                                                  |
| Programming                                   |                                                                                                |
| • Command set                                 | see instruction list                                                                           |
| • Nesting levels                              | 8                                                                                              |
| • System functions (SFC)                      | see instruction list                                                                           |
| • System function blocks (SFB)                | see instruction list                                                                           |
| Programming language                          |                                                                                                |
| — LAD                                         | Yes                                                                                            |
| — FBD                                         | Yes                                                                                            |
| — STL                                         | Yes                                                                                            |
| — SCL                                         | Yes                                                                                            |
| — CFC                                         | Yes                                                                                            |
| — GRAPH                                       | Yes                                                                                            |
| — HiGraph®                                    | Yes                                                                                            |
| Know-how protection                           |                                                                                                |
| • User program protection/password protection | Yes                                                                                            |
| Dimensions                                    |                                                                                                |
| Width                                         | 120 mm                                                                                         |
| Height                                        | 125 mm                                                                                         |
| Depth                                         | 130 mm                                                                                         |
| Weights                                       |                                                                                                |
| Weight, approx.                               | 676 g                                                                                          |
| <b>last modified:</b>                         | 08/15/2019  |