SCE Guide Trainer Packages
Siemens Automation Cooperates with Education (SCE) | 10/2019
The SCE program offers a system for sustainable educational support which is unique worldwide.

As a technology leader, we support educational and research and development institutions in the field of automation and drive technology with our industrial know-how and specific services on the way to Industrie 4.0.

Overview of SCE services

- Learning and Training Documents for classes and individual study
- Trainer Packages for practice-oriented education
- Educator Courses for providing up-to-date technical knowledge
- Support for your projects/technical books
- Partnerships with educators, producers of learning systems and WorldSkills
- Information portal for quick access to all SCE offers
Digitalization is changing our world quickly and dramatically

Siemens – as the technology leader in automation engineering – supports educators on the way to Industrie 4.0 through SCE

Digitalization

- Involves a huge number of new possibilities/challenges
- Enables industrial mass production for personalized products
- Requires new employee competencies

Challenges for education and teaching

Keep pace with innovation e.g.
Convey Industrie 4.0 knowledge and additional skills

Video
The SCE digitalization concept
Implemented by Vocational School 2 in Wolfsburg, Germany in a group project

Best Practice: Implementation by BBS 2 Wolfsburg. Not available for purchase!

1. Virtual commissioning with the help of the digital twin using Siemens NX-MCD CAD software
2. Intuitive TIA Portal engineering of the real automation plant with SIMATIC S7-1500 /ET 200SP/RFID/SCALANCE/SINAMICS
3. Cloud connection via IOT2040 for evaluation of production data
SCE Trainer Packages for educators

SCE Trainer Packages are specially-priced hardware and software packages specifically compiled for up-to-date educational content in automation and drive technology.

> 90 Trainer Packages for practice-oriented education

• Innovative hardware/software components incl. complete accessories
• Completely and functionally coordinated with one another in terms of content
• Low-cost original industrial components for classes
• Perfectly coordinated with SCE learning and training documents and aligned with teaching curriculums/content
• Innovative trends taken into account
Assembling individual products requires a lot of know-how and is time-consuming. We have therefore mapped the relevant configurations from practical educational use in SCE packages for you.

Who are these Trainer Packages for?

• For research, development and educational institutions
• For didactic companies (Suppliers of Learning Systems) that integrate these SCE Trainer Packages into a didactic solution
• For industrial and initial corporate training – see special arrangement
• For SinuTrain there are separate approval/order processes, see order information

What should be considered when using Trainer Packages?

• The products listed may be subject to European/German and/or US export regulations.
• The notes on the Trainer Packages must also be observed.
### Overview of Trainer Packages

#### SIMATIC Engineering Software
- Overview structure STEP 7 and HMI
- SIMATIC STEP 7 Professional software for training/for students
- SIMOTION SCOUT Software incl. CamTool for training/for students
- Closed loop control with SIMATIC standard/ SIMATIC modular
- SIMATIC CFC Software for Training/for students
- SIMATIC NET IE Softnet

#### Operator control & monitoring
- Overview structure STEP 7 and HMI
- WinCC Advanced/WinCC flexible
- WinCC Software Advanced/WinCC flexible for students
- TP700/TP1500 Comfort Color Panel
- WinCC Professional with options
- SCADA System SIMATIC WinCC with options – as well as additionally available as ASIA variant

#### Process automation
- Process control system PCS 7 3er license/upgrade
- Process control system PCS 7 6er license
- Process control system PCS 7 AS RTX Box + ET200M

#### Drive technology
- SINAMICS G120 standard drive
- SINAMICS S120 servo drive
- SIMOTION D410 add-on for S120
- SIMANICS S210 servo drive
- SIMOTION SCOUT SW incl. CamTool
- SIMOTION SCOUT SW incl. CamTool for students

#### Industrial Identification
- SIMATIC code reader MV540/MV440
- SIMATIC RFID system RF200/RF300/RF600

#### MindSphere
- Value plan, Developer plan, Operator plan
- MindConnectNano
- MindConnectIoT2040

#### SIMATIC controller
- ET 200SP 1515SP PC F Open Controller
- ET 200SP 1512SP F-1 PN Distributed Controller
- S7-1516F PN/DP, S7-1516 PN/DP
- S7-1512C PN
- Upgrade S7-314C-2PN/DP
- S7-315F-2PN/DP, S7-315T
- S7-300F-Technology

#### Distributed IOs
- ET 200SP digital PROFINET
- ET 200SP with input module
- ET 200SP with communication module
- ET 200SP with communication module
- ET 200SP Expansion Analog
- ET 200SP Expansion Safety

#### Industrial communication
- SINEMA Network Monitoring Software
- CP343-1 Advanced
- FASTCONNECT cable set
- IE SCALANCE switch XC208
- IE SCALANCE SECURITY/LAN router S615
- IWLAN
- Development Kit PROFINET

#### WorldSkills partnership

#### Order information
- for trainer packages incl. SinuTrain and MindSphere

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Overview | Graphic | TIA Portal
System architecture of the Trainer Packages

**Process Automation**
- SIMATIC PCS 7

**Operator control & monitoring**
- WinCC Professional
- WinCC Advanced
- WinCC SCADA
- TP 700
- TP1500

**SIMATIC controller**
- S7-1512C PN
- S7-1516 PN/DP
- S7-1516F PN/DP
- S7-315F PN/DP
- ET 200SP 1515SP PC2 F
- Open Controller
- ET 200SP 1512SP F-1 PN
- Distributed Controller

**Distributed IOs**
- ET 200SP PROFINET with
  - Energy Meter
  - AS-i Master CP
  - IO-Link CP
  - Expansion
  - Analog | Safety
  - ET200M for PCS7 AS RTX Box

**Basic Automation**
- LOGO! 8
- Basic Controller S7-1215C
- Basic Panels KTP400
- Basic Panels KTP700

**MindSphere**
- Value- Developer - Operator Plan
- MindConnectNano
- MindConnectIoT2040

**Drive Technology**
- SINAMICS G120
- SINAMICS S120
- SIMOTION D410 add on for S120
- SIMANICS S210 servo drive
- SIMOTION SCOUT software

**Industrial Communication**
- SINEMA - Network Monitoring Software
- CP343-1 Advanced
- FASTCONNECT cable set
- Switch XC208
- Security/LAN router S615
- IWLAN
- Development Kit PROFINET

**Industrial Controls**
- SIRIUS Low Voltage Devices

**WorldSkills partnership**
- Order information
  - for trainer packages incl. SinuTrain/MindSphere

**SinuTrain software**

**SIMATIC engineering software**

**PLM software**

**TIA Portal**

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<table>
<thead>
<tr>
<th>Product</th>
<th>HW sets</th>
<th>Licenses</th>
<th>SW vers.</th>
<th>MLFB</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIMATIC IOT2020</td>
<td>1</td>
<td>1</td>
<td></td>
<td>124-4037 ¹</td>
<td>Can only be ordered from RS Components rs-components.com</td>
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<tr>
<td>with Intel Quark x1000, 512 MB RAM, 1x 10/100 Mbps ETHERNET RJ45; 1x USB2.0, 1x USB client; SD CARD slot; 24 V DC PS</td>
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<td>SIMATIC IOT2040</td>
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<td>6ES7647-0AA00-1YA2</td>
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<td>with Intel Quark x1020 (+Secure Boot), 1 GB RAM, 2x 10/100 Mbps ETHERNET RJ45; 1x USB2.0, 1x USB client; SD CARD slot; 24 V DC PS, 2 x RS232/485 interfaces, battery-buffered real time clock</td>
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<td>SIMATIC IOT2000EDU</td>
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<td>6ES7671-0LE00-0YB0</td>
<td>NEW O★</td>
<td></td>
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<tr>
<td>S7-Software Controller, can be run on IOT2020 and IOT2040, only for schools, colleges and universities, 100 licenses, R-SW, HSP and docu, license sticker</td>
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<td></td>
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<td>3rd Party IO-Shield</td>
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<td>100301 ²</td>
<td>NEW</td>
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<td>iKHDS-Powershield for IOT2020/2040 with 6 DI, 5 DO (Relay), 1 DO (PWM), 2 AI, 1 AO</td>
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</tbody>
</table>

¹ Can only be ordered from RS Components rs-components.com
² Can only be ordered from Kaftan media UG kaftan.media.com


Only for schools, colleges and universities

## SIMATIC S7 Software Controller IOT2000EDU

### S7 Software Controller for SIMATIC IOT2000 → extends SIMATIC IOT2020/2040 to become S7 Controller for programming with SIMATIC TIA Portal from V15

#### Required Hardware/Software:

<table>
<thead>
<tr>
<th>SIMATIC IOT2020 or IOT2040</th>
<th>IO-Shields for IOT2000</th>
<th>IOT2000 Online Forum</th>
<th>S7 Software Controller IOT2000EDU ¹)</th>
<th>TIA Portal V15</th>
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<td><img src="simatic_iot2000.png" alt="Image" /></td>
<td><img src="iot2000_shield.png" alt="Image" /></td>
<td><img src="iot2000_forum.png" alt="Image" /></td>
<td><img src="iot2000edu.png" alt="Image" /></td>
<td><img src="tia_portal.png" alt="Image" /></td>
</tr>
</tbody>
</table>

With required accessories e.g. power supply, SD card, ETHERNET cable

e.g. - SIMATIC IOT2000 IO-Module
- IKHDS-Powershield IOT2000

e.g. Download of latest images, drivers... [siemens.com/iot2000-forum](https://siemens.com/iot2000-forum)

1) Only for schools, colleges and universities

1) For Education
- For Industry

** wardrobe : Totally Integrated Automation PORTAL **

e.g. TIA Portal STEP 7
- For Education
- For students (365 Days) ¹

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Overview | Graphic
### SIRIUS Industrial Controls Overview

<table>
<thead>
<tr>
<th>Product</th>
<th>HW sets</th>
<th>Licenses</th>
<th>SW vers.</th>
<th>MLFB</th>
<th>Note</th>
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<tr>
<td>SIRIUS Low Voltage Devices with IO-Link</td>
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<td>3TK3388-0TP00</td>
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</table>
SIRIUS Low Voltage Devices with IO-Link (1/3)

Matching: Trainer Package ET 200SP with IO-Link communication module: 6ES7155-6AU00-0AB2
SIRIUS Low Voltage Devices with IO-Link (2/3)

1 x 3-phase busbar with infeed left, for 2 circuit breakers, size S00 and S0
1 x 3-phase busbar including extension connector for 3 circuit breakers, size S00 and S0
5 x Contactor base, for contactor size S00 with screw/spring-loaded terminal (single-unit pack)
2 x Cable connector, size S00, spring-loaded terminal
2 x Circuit breaker, size S00, for motor protection, class 10, A-release 1.4..2A, N-release 26A, spring-loaded terminal, standard switching capacity
2 x Link module, electrical and mechanical, for 3RV2011 and 3RT2011, spring-loaded terminal
2 x Contactor, AC-3, 3kW/400V, 1NC, 24 V DC, communication-capable, 3-pin, size S00, spring-loaded terminal
3 x Contactor, AC-3 3kW/400V, 1NC, 24 V DC, 3-pin, size S00, spring-loaded terminal

Matching: Trainer Package ET 200SP with IO-Link communication module: 6ES7155-6AU00-0AB2

System requirements: None available
Sales note: Schools, colleges and universities, for in-house vocational training departments
Technical note: See slides below
Order number: 3TK3388-0TP00

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SIRIUS Low Voltage Devices with IO-Link (3/3)

1 x Wiring kit, spring-loaded terminal, electrical and mechanical, including mechanical interlock for reversing starters, size S00

1 x Function module for IO-Link, reverse start, spring-loaded terminal, installation on contactors 3RT2 S00/S0, communication-capable contactor required

1 x Wiring kit, spring-loaded terminal, electrical and mechanical, including mechanical interlock, for star-delta starter, size S00

1 x Function module star-delta consisting of basic module and 2 coupling modules with integrated connecting cable, time range 0.5...60 s 24...240 V AC/DC for contactors 3RT2

1 x Digital monitoring relay cos phi and current monitoring for IO-Link 90 to 690 V AC, 0.2 to 10 A, overshoot and undershoot, On-delay time, tripping delay time, hysteresis 0.1 to 3.0 A, 2 change-over contacts, spring-type connection system

1 x Overload relay 1…4 A for motor protection, size S00, class 5…30, contactor mounting main circuit: sprint-type terminal, auxiliary circuit: spring-type terminal, manual-automatic reset, internal ground fault detection

1 x Operator control block for devices with IO-Link, operator control block for SIRIUS with IO-Link

Matching: Trainer Package ET 200SP with IO-Link communication module: 6ES7155-6AU00-0AB2

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## Engineering Software

### Overview

<table>
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<tr>
<th>Product</th>
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<th>Licenses</th>
<th>SW vers.</th>
<th>MLFB</th>
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<td>Upgrade SIMATIC STEP 7 Prof. SW for Training Combo License 2017 SR1/15.1 as of 2006/2010/V11/V12/V13/V14</td>
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<td>SIMATIC STEP 7 Professional Software for students Combo License 2017 SR1/15.1 – 365 days</td>
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<td>○★</td>
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<tr>
<td>SIMOTION SCOUT Software incl. CamTool exclusively for STEP 7 Professional with V15.1</td>
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<td></td>
<td>V5.3 SP1</td>
<td>6AU1810-1BE53-1YA5</td>
<td>NEW ○★</td>
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<td>Upgrade SIMATIC STEP 7 Basic for S7-1200</td>
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<td>6ES7822-0AA05-4YE5</td>
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<td>SIMATIC closed loop control with SIMATIC Modular</td>
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<td>SIMATIC closed loop control with SIMATIC Standard</td>
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<td>SIMATIC CFC Software for students – 365 days</td>
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<td>6GK1950-0BB01</td>
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</table>

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* Only for schools, colleges and universities
System structure of Trainer Packages
STEP 7 and SIMATIC HMI

SIMATIC software
- STEP 7 as basis
Engineering tools for STEP 7
- S7-PLCSIM simulation of S7 hardware
- S7-SCL high-level language similar to Pascal
- S7-GAPH for sequencers according to DIN 1131-3

SIMATIC HMI software – Human-machine interface
WinCC with
- Advanced level
- Smart Option for Panel/PC
- Smart Access
- OPC interface

Software Engineering Tool for STEP 7
- SIMATIC CFC
- Controlling with SIMATIC
- SIMATIC NET software

S7 controller
Trainer package with PROFINET and PROFIBUS

ET 200SP Open Controller.
ET 200SP ...
Trainer package with PROFINET
For PROFIBUS, only interface has to be ordered separately.

Touch Panel
TP700
TP1500
PROFIBUS and PROFINET connection

ETHERNET connection for engineering
SIMATIC STEP 7 Professional – Software for Training

1er license

1 x combo license for interchangeable usage
  of:  SIMATIC STEP 7 Professional V15.1, STEP 7 Professional V15.1 (LAD, FBD, STL), S7-GRAPH, S7-SCL, S7-PLCSIM
  or:  SIMATIC STEP 7 Professional 2017 SR1, STEP 7 V5.6 SP1 (LAD, FBD, STL), S7-GRAPH V5.6, S7-SCL V5.6, S7-PLCSIM V5.4 SP8

1 x license for TIA Portal Cloud Connector V1.1 SP1
1 x license for Siemens Network Planner – SINETPLAN V1.0 SP1 Update 1

1 x combo license for interchangeable usage
  of:  SIMATIC STEP 7 Safety Advanced V15.1
  or:  SIMATIC S7 Distributed Safety V5.4 SP5 Update 2

1 x SINAMICS Startdrive license V15.1 for SINAMICS G120 Control Unit CU240E-2, CU250S-2, as of firmware V4.6
1 x SIMIT Simulation Platform demo version V10

1 x license for S7-1500 hardware:
  • S7-PLCSIM Advanced V2.0
  • S7-ODK 1500S V2.0 (for Open Controller)
  • S7-ODK 1500S V2.5 (for Open Controller)
  • S7-Target 1500S for Simulink® V3.0 (for Open Controller)

1 x license for S7-300 hardware:
  • S7-Technology V4.2 SP5
  • S7 PID Professional V15.1

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### SIMATIC STEP 7 Professional – Software for Training

**1er license**

**Package:**
- 1 x DVD SIMATIC STEP 7 / WinCC Advanced V15.1
- 1 x DVD SIMATIC S7-PLCSIM V15.1
- 1 x DVD SIMATIC STEP 7 Professional 2017 SR 1
- 1 x DVD Siemens Network Planner – SINETPLAN V1.0 SP1 Update 1
- 1 x DVD SIMATIC STEP 7 Safety Advanced V15.1
- 1 x DVD Distributed Safety V5.4 SP5 Update 2
- 1 x DVD SINAMICS Startdrive V15.1
- 1 x DVD SIMIT Simulation Platform demo version V10
- 1 x DVD S7-PLCSIM Advanced V2.0 SP1
- 1 x DVD S7-ODK 1500S V2.0 (for Open Controller)
- 1 x DVD S7-ODK 1500S V2.5 (for Open Controller)
- 1 x CD S7-Target 1500S for Simulink® V3.0 (for Open Controller)

**System requirements:**
- Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
- Windows 10 (64-bit) Professional 1803/ Enterprise 1803

**Sales note:**
- Schools, colleges and universities, for in-house vocational training departments

**Technical note:**
- Authorization on USB stick (1 stick)

**Order number:**
- 6ES7822-1AA05-4YA5

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**Overview | Graphic**

**TIA Portal**

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**Check HW compatibility for TIA Portal**

**IOT2000**
**Industrial Controls**
**Engineering SW**
**SIMIT Simulation**
**Basic Automation**
**SIMATIC Controller**
**Distributed I/Os**
**Operator control & monitoring**
**Process Automation**
**Industrial Communication**
**Industrial Identification**
**Drive Technology**
**MindSphere**
**SinuTrain SW**
**PLM Software**
**WorldSkills**
**WorldSkills**

**Trial/SP/HF downloads**
SIMATIC STEP 7 Professional – Software for Training
6er classroom license

6 x combo license for interchangeable usage
of: SIMATIC STEP 7 Professional V15.1, STEP 7 Professional V15.1 (LAD, FBD, STL), S7-GRAPH, S7-SCL, S7-PLCSIM
or: SIMATIC STEP 7 Professional 2017 SR 1, STEP 7 V5.6 SP1 (LAD, FBD, STL), S7-GRAPH V5.6, S7-SCL V5.6, S7-PLCSIM V5.4 SP8
6 x license for TIA Portal Cloud Connector V1.1 SP1
6 x license for Siemens Network Planner – SINETPLAN V1.0 SP1 Update 1

6 x combo license for interchangeable usage
of: SIMATIC STEP 7 Safety Advanced V15.1
or: SIMATIC S7 Distributed Safety V5.4 SP5 Update 2

6 x SINAMICS Startdrive license V15.1 for SINAMICS G120 Control Unit CU240E-2, CU250S-2, as of firmware V4.6
6 x SIMIT Simulation Platform demo version V10

6 x license for S7-1500 hardware:
• S7-PLCSIM Advanced V2.0
• S7-ODK 1500S V2.0 (for Open Controller)
• S7-ODK 1500S V2.5 (for Open Controller)
• S7-Target 1500S for Simulink® V3.0 (for Open Controller)

6 x license for S7-300 hardware:
• S7-Technology V4.2 SP5
• S7 PID Professional V15.1

1 x SCE Trainer Packages: SIMATIC STEP 7 Professional software for students
Software limited to 365 days through authorization

6er classroom license

6 x license for S7-1500 hardware:
• S7-PLCSIM Advanced V2.0
• S7-ODK 1500S V2.0 (for Open Controller)
• S7-ODK 1500S V2.5 (for Open Controller)
• S7-Target 1500S for Simulink® V3.0 (for Open Controller)

6 x license for S7-300 hardware:
• S7-Technology V4.2 SP5
• S7 PID Professional V15.1

1 x SCE Trainer Packages: SIMATIC STEP 7 Professional software for students
Software limited to 365 days through authorization
**SIMATIC STEP 7 Professional – Software for Training**

**Package:**
- 1 x DVD SIMATIC STEP 7 / WinCC Advanced V15.1
- 1 x DVD SIMATIC S7-PLCSIM V15.1
- 1 x DVD SIMATIC STEP 7 Professional 2017 SR 1
- 1 x DVD Siemens Network Planner – SINETPLAN V1.0 SP1 Update 1
- 1 x DVD SIMATIC STEP 7 Safety Advanced V15.1
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- 1 x CD S7-Target 1500S for Simulink® V3.0 (for Open Controller)

**1 x Trainer Packages:** SIMATIC STEP 7 Professional software for students

**System requirements:**
- Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
- Windows 10 (64-bit) Professional 1803 / Enterprise 1803

**Sales note:**
- Schools, colleges and universities, for in-house vocational training departments

**Technical note:**
- Authorization on USB stick (1 stick + 1 stick with 20 software for students)

**Order number:**
- 6ES7822-1BA05-4YA5
- 6ES7822-1AA05-4YE5

**Order number:**
- 6ES7822-1AC05-4YA5
SIMATIC STEP 7 Professional Software for students
Single-user licenses – limited to 365 days

20 x combo license for interchangeable usage for students
  of: SIMATIC STEP 7 Professional V15.1, STEP 7 Professional V15.1 (LAD, FBD, STL), S7-GRAPH, S7-SCL, S7-PLCSIM
  or: SIMATIC STEP 7 Professional 2017 SR 1, STEP 7 V5.6 SP1 (LAD, FBD, STL), S7-GRAPH V5.6, S7-SCL V5.6, S7-PLCSIM V5.4 SP8

20 x combo license for interchangeable usage
  of: SIMATIC STEP 7 Safety Advanced V15.1
  or: SIMATIC S7 Distributed Safety V5.4 SP5 Update 2

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20 x license for S7-1500 hardware:
  • S7-PLCSIM Advanced V2.0
  • S7-ODK 1500S V2.0 (for Open Controller)
  • S7-ODK 1500S V2.5 (for Open Controller)
  • S7-Target 1500S for Simulink® V3.0 (for Open Controller)

Software is limited to 365 days through authorization
**Package for students:**
- 1 x DVD SIMATIC STEP 7 / WinCC Advanced V15.1
- 1 x DVD SIMATIC S7-PLCSIM V15.1
- 1 x DVD SIMATIC STEP 7 Professional 2017 SR 1
- 1 x DVD Siemens Network Planner – SINETPLAN V1.0 SP1 Update 1
- 1 x DVD SIMATIC STEP 7 Safety Advanced V15.1
- 1 x DVD Distributed Safety V5.4 SP5 Update 2
- 1 x DVD SINAMICS Startdrive V15.1
- 1 x DVD SIMIT Simulation Platform demo version V10
- 1 x DVD S7-PLCSIM Advanced V2.0 SP1
- 1 x DVD S7-ODK 1500S V2.0 (for Open Controller)
- 1 x DVD S7-ODK 1500S V2.5 (for Open Controller)
- 1 x CD S7-Target 1500S for Simulink® V3.0 (for Open Controller)

**System requirements:**
- Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
- Windows 10 (64-bit) Professional 1803/ Enterprise 1803

**Sales note:**
Use only for students for self-study at home. Schools, colleges and universities, Not for in-house vocational training departments

**Technical note:**
Authorization on USB stick (1 stick)

**Order number:**
6ES7822-1AC05-4YA5

**Technical note:**
Authorization on USB stick (1 stick)
SIMOTION SCOUT V5.3 SP1 incl. CamTool V4.2 – Software for Training – 6er classroom license

6 x license for SIMOTION SCOUT V5.3 SP1
6 x license for CamTool V4.2
6 x license for DCC SIMOTION V3.2 SP1

1x package for 20 students (6AU1810-1BE52-1YA5)
  1 x 20 licenses for SIMOTION SCOUT V5.3 SP1 – for students
  1 x 20 licenses for CamTool V4.2 – for students
  1 x 20 licenses for DCC SIMOTION V3.2 SP1 – for students

Software limited in time to 365 days with authorization

Content: Software and documentation on a DVD

Please note:
Exclusively for STEP 7 Professional 15.1 (!)

System requirements: Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
                      Windows 10 (64-bit) Professional 1803/ Enterprise 1803
Sales note: Schools, colleges and universities, for in-house vocational training departments
Technical note: Authorization on USB stick (1 stick)
Order number: 6AU1810-1BC53-1YA5
### SIMOTION SCOUT V5.3 SP1 incl. CamTool V4.2 – for students / limited to 365 days

**1x package for 20 students**
- 1 x 20 licenses for SIMOTION SCOUT V5.3 SP1 – for students
- 1 x 20 licenses for V4.2 – for students
- 1 x 20 licenses for DCC SIMOTION V3.2 SP1 – for students

Software licensed in time to 365 days with authorization

**Content**: Software and documentation on a DVD

**Please note:**
Exclusively for STEP 7 Professional 15.1 (!)

| System requirements: | Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1  
Windows 10 (64-bit) Professional 1803/ Enterprise 1803 |
|----------------------|----------------------------------------------------------|
| Sales note:          | Use only for students for self-study at home.  
Schools, colleges and universities, Not for in-house vocational training departments |
| Technical note:      | Authorization on USB stick (1 stick) |
| Order number:        | 6AU1810-1BE53-1YA5 |
## SIMATIC Controlling with SIMATIC
### Standard and Modular

### Standard control 6ES7860-2AA00-4YX0

<table>
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<th>Quantity</th>
<th>Description</th>
<th>Order Number</th>
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<tr>
<td>1 x</td>
<td>PID Self Tuner V5.1, single license for 1 installation R-SW, SW and documentation on CD</td>
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### Modular control 6ES7860-1AA00-4YX0

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### System requirements:
- Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
- Windows 10 (64-bit) Professional 1803/ Enterprise 1803

### Sales note:
Schools, colleges and universities, for in-house vocational training departments

### Technical note:
None available

### Order number:
- 6ES7860-2AA00-4YX0 Standard
- 6ES7860-1AA00-4YX0 Modular
SIMATIC Controlling with SIMATIC
Standard and Modular

SIMATIC S7 PID Control for 6 licenses

**Standard Control consisting of:**
- 6 x parameterization software version 5.2
- 6 x function block version 5.2
Integration of continuous PID controller, pulse controller, step controller into the user program starting from SIMATIC S7-313 CPU.

**Modular Control consisting of:**
- 6 x commissioning tool version 5.1
- 6 x function block version 5.1
Extended features when used with the standard module starting from SIMATIC S7-313 CPU.

**Each package contains additionally**
- 6 x PID Self-Tuner V5.1 for online initial parameter assignment and online adaptation while the application is running.
SIMATIC CFC Software
12er classroom license

12 x SIMATIC CFC V9.0

3 x 20 Software for students SIMATIC CFC V9.0
SW limited to 365 days through authorization
20 licenses per USB stick.

System requirements:
Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
Windows 10 (64-bit) Professional 1803/ Enterprise 1803

Sales note:
Schools, colleges and universities, for in-house vocational training departments

Technical note:
Authorization on USB stick (1 stick)

Order number: 6ES7658-1EX58-0YS5
### SIMATIC CFC Software for students

**Single-user licenses – limited to 365 days**

**20 x** SIMATIC CFC V9.0 for students
- SW limited to 365 days through authorization
- 20 licenses per USB stick

| System requirements: | Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1  
|                       | Windows 10 (64-bit) Professional 1803 / Enterprise 1803 |
| Sales note:          | Schools, colleges and universities, for in-house vocational training departments |
| Technical note:      | Authorization on USB stick (1 stick) |
| Order number:        | 6ES7658-1EX58-0YS6 |
12 x SIMATIC NET IE SOFTNET-S7 V15.1
SIMATIC NET SOFTNET-IE S7 V15.1 SP2 Software for S7 communication, S5-compatible communication, OPC; PG/OP communication, configuring software, single license for 1 installation; R-SW, SW + electronic manual on DVD; license key on USB stick; Class A; 2 languages (EN, DE)

System requirements:
Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
Windows 10 (64-bit) Professional 1803/ Enterprise 1803

Sales note:
Schools, colleges and universities, for in-house vocational training departments

Technical note:
None available

Order number:
6GK1950-0BB01
## Virtual commissioning with SIMIT Simulation Platform

### Overview

<table>
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<tr>
<th>Product</th>
<th>HW sets</th>
<th>Licenses</th>
<th>SW vers.</th>
<th>MLFB</th>
<th>Note</th>
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<tr>
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<td>1</td>
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<td>Upgrade SIMIT Simulation Platform (includes SIMIT S &amp; CTE, FLOWNET, CONTEC libraries) – from V8.x/V9.x</td>
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<td>1</td>
<td>V10.0</td>
<td>Download</td>
<td>NEW</td>
<td></td>
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</table>
SIMIT Simulation Platform – Full version V10 with dongle

- SIMIT 10 Trainer Package has the range of functions of SIMIT Model S
- SIMIT 10 cannot be installed “side by side” with older SIMIT versions
- SIMIT 10 has a new licensing procedure (with new dongle)

- The limitations in demo mode of SIMIT Runtime V10 demo mode are the same as for SIMIT Runtime V8.x and V9.x

Full version with one dongle (dongle owner = single license)

1. Creating/changing/testing/upgrading of virtual plant models with full range of functions of SIMIT Version SMALL: with max. 2500 simulation tags and CTE and FLOWNET as well as CONTEC libraries

2. The following IO quantity restrictions apply to SIMIT models that are to be used in the demo version (without dongle): 30 bytes each for the input and output area (coupling area), independent of the absolute address. A byte is considered “occupied” when at least one bit of the byte has been used. Max. 2500 simulation tags are usable.

| System requirements: | Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
Windows 10 (64-bit) Professional 1803 / Enterprise 1803
(Not for PRODAVE MPI/IE V6.2) |
<table>
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<tr>
<td>Sales note:</td>
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<td>Technical note:</td>
<td>Hardware USB dongle</td>
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<td>6DL8913-0AK00-0AS5 Upgrade: 6DL8913-0AK00-0AS6 from V8.0/V8.1/V9.x to V10</td>
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</table>

Coupling with S7-1200 not possible
### Demo version:
SIMIT simulation platform – Full version V10 without dongle

#### SIMIT V10 Demo version
- The demo version is based on SIMIT S and can be used with max. 2500 simulation tags

#### The following restrictions apply for this demo version:
- The simulation will only run for 45 minutes and then has to be restarted
- Only one coupling can be added to the project
- The address space is limited to 30 bytes each for the input and output area (coupling area), independent of the absolute address. A byte is considered “occupied” when at least one bit of the byte has been used
- The FLOWNET and CONTEC libraries are not supported
- The editor for dynamic graphics, the component type editor (CTE), the trend and message function, the macro component editor, the SMD Typical import and the interface for automatic control are available for test purposes in demo mode
- Projects created in demo mode cannot be executed in regular mode and are limited to the SIMIT installation in which they were created

#### Discover SIMIT
SIMIT Simulation Media Systems (incl. Videos) → Download for Offline Usage

| System requirements: | Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1  
Windows 10 (64-bit) Professional 1803 / Enterprise 1803 (Not for PRODAVE MPI/IE V6.2)  
For S7-1500 coupling: TIA Portal as of V14 SP1 |
<table>
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<td>Technical note:</td>
<td>None available</td>
</tr>
<tr>
<td>Order number:</td>
<td>Download</td>
</tr>
</tbody>
</table>
SIMIT Simulation Platform V10
Application versions

Educator (dongle owner):
- Creation, adaptation and transfer of models without restrictions
- Creation, adaptation and transfer of models for demo version within restrictions of demo version

students (demo version without dongle):
- Use of the models within the restrictions of the demo version
- Creation of own models with address space restriction
- Projects created in the demo version are restricted to the SIMIT installation in which they were created

Test of PLC user program
**SIMIT Simulation Platform V10**  
Application versions

**SIMIT V10 with SIMIT dongle A**

Educators/students:
- Creation and exchange of SIMIT models

**SIMIT demo version**

- Use the models of any dongle owner within the restrictions of the demo version
- Simulation limited to 45 minutes
- Creation of own models within the restrictions of the demo version
- Projects created in demo mode are restricted to the SIMIT installation in which they were created

Students (demo version without dongle):
- Use the models of any dongle owner within the restrictions of the demo version
- Simulation limited to 45 minutes
- Creation of own models within the restrictions of the demo version
- Projects created in demo mode are restricted to the SIMIT installation in which they were created

Created SIMIT models

**SIMIT V10 with SIMIT dongle B**

Educators/students:
- Creation and exchange of SIMIT models with restrictions

Created SIMIT models
### Basic Automation Overview

<table>
<thead>
<tr>
<th>Product</th>
<th>HW sets</th>
<th>Licen-ses</th>
<th>SW vers.</th>
<th>MLFB</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOGO! 8 12/24V ETHERNET-0BA8 with digital modules DM8 12/24R</td>
<td>6</td>
<td>6</td>
<td></td>
<td>6ED1057-3SA20-0YA1</td>
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<tr>
<td>LOGO! 8 230V ETHERNET-0BA8 with digital modules DM8 230R</td>
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<td>6ED1057-3SA20-0YB1</td>
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<tr>
<td>LOGO! 8 12/24V ETHERNET-0BA8 without digital modules DM8 ...R</td>
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<td>6ED1057-3SA30-0YA1</td>
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<tr>
<td>Basic Controller SIMATIC S7-1200, CPU 1215C; DC/DC/DC</td>
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<td>6</td>
<td>V15.1</td>
<td>6ES7215-1AG40-4AB1</td>
<td>NEW</td>
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<td>Basic Controller SIMATIC S7-1200, CPU 1215C; AC/DC/RELAIS</td>
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<td>6</td>
<td>V15.1</td>
<td>6ES7215-1BG40-4AB1</td>
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<td>Basic Controller SIMATIC S7-1200, CPU 1215C; DC/DC/RELAIS</td>
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<td>6</td>
<td>V15.1</td>
<td>6ES7215-1HG40-4AB1</td>
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<td>SIMATIC KTP400 Basic Color Panel for LOGO! 7/8</td>
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<td>SIMATIC KTP700 Basic Color Panel for S7-1200</td>
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<td>SIMATIC KTP700 Basic Color Panel for S7-1200</td>
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</tbody>
</table>

LOGO! 8 12/24V or 230V
with ETHERNET interface and digital modules DM8

LOGO! 12/24V
6x LOGO! 12/24 RCE  6ED1052-1MD08-0BA0
6x LOGO! DM8 12/24R expansion module  6ED1055-1MB00-0BA2
6x LOGO! Soft Comfort V8  6ED1058-0BA08-0YA1

LOGO! 230V
6x LOGO! 230 RCE  6ED1052-1FB08-0BA0
6x LOGO! DM8 230R expansion module  6ED1055-1FB00-0BA2
6x LOGO! Soft Comfort V8  6ED1058-0BA08-0YA1

Recommended accessories
6AV2123-2DB03-0AA1; 6AV2123-2DB03-0AA0
Trainer Package: SIMATIC Basic Panel KTP400

6XV1870-3RH60
SIMATIC NET Industrial ETHERNET, TP XP Cord RJ45/RJ45,
CAT 6 A, crossed TP cable 4x2, length 6 m

6GK1950-0BB00
Trainer Package: FastConnect cable set

Perfectly tailored to the current examinations for:
• Electronics Technician for Building and Infrastructure Systems (EGI)
  Occupation No. 3160
An additional Micro SDHC memory card must be available for the examinations

System requirements: WINXP, WIN7, WIN8, WIN10 all versions, 32/64-bit MAC OS X 10.6 to 10.9 LINUX SUSE 11.3, SP3, K 3.0.76
Sales note: Schools, colleges and universities, for in-house vocational training departments
Technical note: ETHERNET cable required
Order number: 12/24V: 6ED1057-3SA20-0YA1
230V: 6ED1057-3SA20-0YB1

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Overview  |  Graphic
**LOGO! 8 12/24V**
with ETHERNET interface without digital modules DM8

**LOGO! 9 set**
- 9x LOGO! 12/24 RCE 6ED1052-1MD08-0BA0
- 9x LOGO! Soft Comfort V8 6ED1058-0BA08-0YA1

**Recommended accessories**
- 6AV2123-2DB03-0AA1; 6AV2123-2DB03-0AA0
  Trainer Package: SIMATIC Basic Panel KTP400
- 6XV1870-3RH60
  SIMATIC NET Industrial ETHERNET, TP XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m
- 6GK1950-0BB00
  Trainer Package: FastConnect cable set

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<thead>
<tr>
<th>System requirements:</th>
<th>WINXP, WIN7, WIN8, WIN10 all versions, 32/64-bit MAC OSX 10.6 to 10.9 LINUX SUSE 11.3, SP3, K 3.0.76</th>
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# Basic Controller SIMATIC S7-1200, CPU 1215C
DC/DC/DC, AC/DC/RELAY, DC/DC/RELAY

## Package contains 6 of each

- Compact CPU S7-1215C
  - Type depends on package
- ETHERNET cable
- STEP 7 Basic V15.1

### Recommended accessories

- 6EP1332-1SH71
- SIMATIC S7-1200 Power Module PM1207, stabilized power supply input: 120/230 V AC, output: DC 24 V/2.5 A

### System requirements:
- Windows 7 (64-bit) Home Premium / Professional / Enterprise / Ultimate SP1
- Windows 10 (64-bit) Professional 1803/ Enterprise 1803

### Sales note:
- Schools, colleges and universities, for in-house vocational training departments

### Technical note:
- Authorization for STEP 7 Basic on USB stick

### Order number:

<table>
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<th>Package</th>
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<td>AC/DC/RELAIM Package</td>
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</table>

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Basic Controller SIMATIC S7-1200, CPU 1215C
DC/DC/DC, AC/DC/RELAY, DC/DC/RELAY

6 x **Alternative 1: → DC/DC/DC Package:**
SIMATIC S7-1200, CPU 1215C, compact CPU, DC/DC/DC, 2 PROFINET ports,
onboard IO: 14 DI 24 V DC; 10 DQ 24 V DC; 0.5A; 2 AI 0-10 V DC; 2 AQ 0-20 mA DC,
Power supply: 20.4-28.8 V DC, program/data memory 125 KB

6 x **Alternative 2: → AC/DC/RELAY Package:**
SIMATIC S7-1200, CPU 1215C, compact CPU, AC/DC/relay, 2 PROFINET ports,
onboard IO: 14 DI 24 V DC; 10 DQ relay 2A, 2 AI 0-10 V DC, 2 AQ 0-20 mA DC,
Power supply: 85-264 V AC at 47-63 Hz, program/data memory 125 KB

6 x **Alternative 3: → DC/DC/RELAY Package:**
SIMATIC S7-1200, CPU 1215C, compact CPU, DC/DC/relay, 2 PROFINET ports,
onboard IO: 14 DI 24 V DC; 10 DQ relay 2 A, 2 AI 0-10 V DC, 2 AQ 0-20 mA DC,
Power supply: 20.4-28.8 V DC, program/data memory 125 KB

6 x SIMATIC S7, STEP 7 Basic V15.1 floating license, E-SW, SW and documentation on DVD,
Class A., license key on USB stick, 2 languages (EN, DE), reference HW: S7-1200

6 x SIMATIC NET Industrial ETHERNET, TP XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m
Upgrade SIMATIC STEP 7 Basic for S7-1200 V15.1
Software for Training

6 x STEP 7 Basic V15.1 Upgrade Version V10.5/V11/V12/V13/V14 to V15.1
SIMATIC STEP 7 Basic V15.1 Trainer Package Upgrade V15.1
Engineering software; upgrade for 6 V10.5/V11/V12/V13/V14
Single floating → V15.1 floating; software and documentation on DVD
License keys on USB; 6 languages (EN, DE, IT, FR, ES, ZH)
For configuration of SIMATIC S7-1200, SIMATIC Basic Panels

6 x SINAMICS Startdrive license V15.1 for SINAMICS G120 Control Unit CU240E-2, CU250S-2, as of firmware V4.6
Package with:
1 x DVD SIMATIC STEP 7 Basic V15.1
1 x DVD PLCSIM V15.1
1 x DVD SINAMICS Startdrive V15.1

NOTE for SIMATIC STEP 7 basic software: Only one hardware S7-1200, Basic Panel KTP400 and Basic Panel KTP700

System requirements: Windows 7 (64-bit) Home Premium / Professional / Enterprise / Ultimate SP1
Windows 10 (64-bit) Professional 1803/Enterprise 1803
Sales note: Schools, colleges and universities, for in-house vocational training departments
Technical note: Authorization on USB stick
Order number: 6ES7822-0AA05-4YE5

Technical note:

Check HW compatibility for TIA Portal

License keys on USB; 6 languages (EN, DE, IT, FR, ES, ZH)
For configuration of SIMATIC S7-1200, SIMATIC Basic Panels

Sales note:
Schools, colleges and universities, for in-house vocational training departments
Technical note:
Authorization on USB stick
Order number: 6ES7822-0AA05-4YE5

Upgrade SIMATIC STEP 7 Basic for S7-1200 V15.1
Software for Training

6 x STEP 7 Basic V15.1 Upgrade Version V10.5/V11/V12/V13/V14 to V15.1
SIMATIC STEP 7 Basic V15.1 Trainer Package Upgrade V15.1
Engineering software; upgrade for 6 V10.5/V11/V12/V13/V14
Single floating → V15.1 floating; software and documentation on DVD
License keys on USB; 6 languages (EN, DE, IT, FR, ES, ZH)
For configuration of SIMATIC S7-1200, SIMATIC Basic Panels

6 x SINAMICS Startdrive license V15.1 for SINAMICS G120 Control Unit CU240E-2, CU250S-2, as of firmware V4.6
Package with:
1 x DVD SIMATIC STEP 7 Basic V15.1
1 x DVD PLCSIM V15.1
1 x DVD SINAMICS Startdrive V15.1

NOTE for SIMATIC STEP 7 basic software: Only one hardware S7-1200, Basic Panel KTP400 and Basic Panel KTP700

System requirements: Windows 7 (64-bit) Home Premium / Professional / Enterprise / Ultimate SP1
Windows 10 (64-bit) Professional 1803/Enterprise 1803
Sales note: Schools, colleges and universities, for in-house vocational training departments
Technical note: Authorization on USB stick
Order number: 6ES7822-0AA05-4YE5

Technical note:
SIMATIC KTP400 Basic Color Panel for LOGO!

ETHERNET

SIMATIC KTP400 Basic Color PN
6AV2123-2DB03-0AX0

SCALANCE XB005
6GK5005-0BA00-1AB2

SIMATIC WinCC Basic V15.1 Engineering SW
6AV2100-0AA05-0AA5

ETHERNET cable
6XV1870-3RH60

Package 6AV2123-2DB03-0AA1 contains 1 x

Package 6AV2123-2DB03-0AA0 contains 6 x

Package 6AV2123-2DB03-0AA0 contains 2 x

Package 6AV2123-2DB03-0AA0 contains 12 x

TIA Portal

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SIMATIC KTP400 Basic Color Panel for LOGO!
ETHERNET 1er

1 x SIMATIC KTP400 Basic Color PN, key and touch operation, 4" TFT display, 65536 colors, PROFINET interface configurable as of WinCC Basic V13/STEP 7 Basic V13

1 x SCALANCE XB005, unmanaged Industrial ETHERNET switch for 10/100 Mbps; with 5 x 10/100 Mbps twisted pair ports with RJ45 sockets; for configuring small star and line topologies; LED diagnostics, IP20, 24 V DC power supply, including manual

2 x SIMATIC NET Industrial ETHERNET, TP XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m

1 x SIMATIC WinCC Basic V14 Engineering SW, floating license, SW and documentation on DVD, for configuring SIMATIC Basic Panels

System requirements:
- Windows 7 (64-bit) Home Premium / Professional / Enterprise / Ultimate SP1
- Windows 10 (64-bit) Professional 1803/Enterprise 1803

Sales note:
Schools, colleges and universities, for in-house vocational training departments

Technical note:
Authorization for WinCC basic on USB stick

Order number:
6AV2123-2DB03-0AX0
6GK5005-0BA00-1AB2
6XV1870-3RH60
6AV2100-0AA05-0AA5

Technical note:
Authorization for WinCC basic on USB stick

Order number:
6AV2123-2DB03-0AA1
SIMATIC KTP400 Basic Color Panel for LOGO!
ETHERNET 6er

6 x SIMATIC KTP400 Basic Color PN, basic panel, key and touch operation, 4” TFT display, 65536 colors, PROFINET interface configurable as of WinCC Basic V13/STEP 7 Basic V13

6 x SCALANCE XB005, unmanaged Industrial ETHERNET switch for 10/100 Mbps; with 5 x 10/100 Mbps twisted pair ports with RJ45 sockets; for configuring small star and line topologies; LED diagnostics, IP20, 24 V DC power supply, including manual

12 x SIMATIC NET Industrial ETHERNET, TP XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m

6 x SIMATIC WinCC Basic V14 Engineering Software, floating license, Software and documentation on DVD, for configuration of SIMATIC Basic Panels

System requirements: Windows 7 (64-bit) Home Premium / Professional / Enterprise / Ultimate SP1
Windows 10 (64-bit) Professional 1803/Enterprise 1803

Sales note: Schools, colleges and universities, for in-house vocational training departments

Technical note: Authorization for WinCC BASIC on USB stick

Order number: 6AV2123-2DB03-0AX0

6AV2123-2DB03-0AX0

6AV2100-0AA05-0AA5

6AV2123-2DB03-0AX0

6GK5005-0BA00-1AB2

6XV1870-3RH60

6GK5005-0BA00-1AB2

6AV2100-0AA05-0AA5

6AV2123-2DB03-0AX0

Check HW compatibility for TIA Portal
SIMATIC KTP700 Basic Color Panel for S7-1200

**SIMATIC KTP700**
Basic Color PN
6AV2123-2GB03-0AX0

**SCALANCE XB005**
6GK5005-0BA00-1AB2

**ETHERNET cable**
6XV1870-3RH60

Package 6AV2123-2GB03-0AA1 contains 1 x

Package 6AV2123-2GB03-0AA0 contains 6 x

Package 6AV2123-2GB03-0AA1 contains 2 x

Package 6AV2123-2GB03-0AA0 contains 12 x

**NOTE:** SIMATIC STEP 7/WinCC ≥ V13 is absolutely necessary for configuration! Upgrade, [see Basic Automation](#)

---

**Overview** | **Graphic**
---|---

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SIMATIC KTP700 Basic Color Panel 1er

1 x SIMATIC KTP700, basic color panel, key and touch operation, 7" TFT display, 65536 colors, PROFINET interface, configurable as of WinCC Basic V13/STEP 7 Basic V13

6AV2123-2GB03-0AX0

1 x SCALANCE XB005, unmanaged Industrial ETHERNET switch for 10/100 Mbps; with 5 x 10/100 Mbps twisted pair ports with RJ45 sockets; for configuring small star and line topologies; LED diagnostics, IP20, 24 V DC power supply, including manual

6GK5005-0BA00-1AB2

2 x SIMATIC NET Industrial ETHERNET, TP XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m

6XV1870-3RH60

NOTE: SIMATIC STEP 7/WinCC ≥ V13 is absolutely necessary for configuration – Upgrade, see Basic Automation

System requirements: Windows 7 (64-bit) Home Premium / Professional / Enterprise / Ultimate SP1
Windows 10 (64-bit) Professional 1803/Enterprise 1803

Sales note: Schools, colleges and universities, for in-house vocational training departments

Technical note: Configuration software required

Order number: 6AV2123-2GB03-0AA1

NOTE: SIMATIC STEP 7/WinCC ≥ V13 is absolutely necessary for configuration – Upgrade, see Basic Automation
6 x SIMATIC KTP700, basic color panel, key and touch operation, 7” TFT display, 65536 colors, PROFINET interface, configurable as of WinCC Basic V13/STEP 7 Basic V13

6 x SCALANCE XB005, unmanaged Industrial ETHERNET switch for 10/100 Mbps; with 5 x 10/100 Mbps twisted pair ports with RJ45 sockets; for configuring small star and line topologies; LED diagnostics, IP20, 24 V DC power supply, including manual

12 x SIMATIC NET Industrial ETHERNET, TP XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m

NOTE: SIMATIC STEP 7/WinCC ≥ V13 is absolutely necessary for configuration! Upgrade, see Basic Automation

System requirements: Windows 7 (64-bit) Home Premium / Professional / Enterprise / Ultimate SP1
Windows 10 (64-bit) Professional 1803/Enterprise 1803

Sales note: Schools, colleges and universities, for in-house vocational training departments

Technical note: Configuration software required

Order number: 6AV2123-2GB03-0AA0
## Product Overview

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ET 200SP Open Controller – Second Generation
CPU 1515SP PC2 F with S7-1500 SW Controller and WinCC RT Advanced 512 PTs

ET 200SP Open Controller, CPU 1515SP PC2 F  
+ HMI 512PT

**Recommended accessories**

- 6ES7134-6PA20-0BD0  
  Analog Input Module, A1 Energy Meter

- 6ES7193-6BP00-0BD0  
  BaseUnit

- 6ES7193-6SC00-1AM0  
  5 Shielding Terminals

- 6ES7137-6BA00-0BA0  
  Communication Module IO-Link Master

- 6ES7193-6BP00-0DA0  
  BaseUnit

- 3RK7137-6SA00-0BC1  
  Communication Module ASI Master

- 6ES7193-6BP20-0DC0  
  BaseUnit

- 6GK1950-0BB00  
  Trainer Package: FastConnect cable set

- 6EP7133-6AE00-0BN0  
  Power Supply  
  Input: 120/230 V AC  
  Output: 24 V DC/10 A

- 6EP7133-6AB00-0BN0  
  Power Supply  
  Input: 120/230 V AC  
  Output: 24 V DC/5A

**Expansions:** ET 200SP analog modules: 6ES7155-6AU00-0AB6

**NOTE:** SIMATIC STEP 7 Professional ≥ V14 is absolutely necessary for configuration

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ET 200SP Open Controller – Second Generation
CPU 1515SP PC2 F with S7-1500 SW Controller and WinCC RT Advanced 512 PTs

1 x Standard mounting rail, length: 483 mm, for 19" cabinets
1 x SIMATIC ET 200SP Open Controller, CPU 1515SP PC2 F + HMI 512PT, 8 GB RAM, 30 GB CFast with
Windows 10 IoT Enterprise 64 bit, S7-1500 Failsafe Software Controller CPU 1505SP F and WinCC Runtime
Advanced pre-installed, with 512 PowerTags license, interfaces: 1x slot CFast, 1x slot SD/MMC, 1x connection
for ET 200SP bus adapter PROFINET, 1x 10/100/1000 Mbit/s ETHERNET, 2x USB 3.0; 2x USB 2.0,
1x DisplayPort, documentation on USB stick, restore USB stick

2 x DI 8x24VDC/0.5A HF
2 x DQ 8x24VDC/0.5A HF
1 x Bus adapter 2x RJ45
4 x BU type A0, push-in, 2 infeed terminal separated (digital/analog, max. 24 V DC/10 A)
1 x Color-coded labels, 16 process terminals, gray/red, CC01, 10 units
1 x 1000 labeling strips, light gray, 10 sheets DIN A4, perforated, paper
1 x Color-coded labels, 16 process terminals, gray/blue, CC02, 10 units
1 x SIMATIC NET Industrial ETHERNET, TP XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, Length 6 m
1 x SIMATIC STEP 7 Professional – SW for training incl. SIMATIC ODK, Target 1500S for Simulink, 1er license
1 x SIMATIC WinCC Advanced V15.1 – Software for Training, 1er License

System requirements:
Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
Windows 10 (64-bit) Professional 1803/Enterprise 1803

Sales note:
Schools, colleges and universities, for in-house vocational training departments

Technical note:
SIMATIC STEP 7 Professional from V15 required

Order number:
6ES7677-2SB42-4AB1
ET 200SP Distributed Controller
CPU 1512SP F-1 PN Safety

1 x ET 200SP Distributed Controller
Bus adapter
2 x DI 8x24 VDC/0.5A HF
2 x DQ 8x24 VDC/0.5A HF
4 x BaseUnits
1 x ETHERNET cable
Color-coded labels, Labeling strips
1 x Memory Card 24 MB

Recommended accessories
6ES7134-6PA20-0BD0
Analog Input Module, AI Energy Meter
6ES7193-6BP00-0BD0
BaseUnit
6ES7193-6SC00-1AM0
5 Shielding Terminals

6ES7137-6BD00-0BA0
Communication Module IO-Link Master
6ES7193-6BP00-0DA0
BaseUnit
3RK7137-6SA00-0BC1
Communication Module ASI Master
6ES7193-6BP20-0DC0
BaseUnit
6GK1950-0BB00
Trainer Package: FastConnect cable set
6EP7133-6AE00-0BN0
Power Supply Input: 120/230 V AC Output: 24 V DC/10 A
6EP7133-6AB00-0BN0
Power Supply Input: 120/230 V AC Output: 24 V DC/5 A

STEP 7 Professional SW for training – 1er license

NOTE: SIMATIC STEP 7 Professional and Safety Advanced ≥ V13 SP1 Update 4 are absolutely necessary for configuration

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Overview | Graphic

TIA Portal
ET 200SP Distributed Controller
CPU 1512SP F-1 PN Safety

1 x Standard mounting rail, length: 483 mm, for 19” cabinets
1 x CPU 1512SP F-1 PN for ET 200SP, central processing unit with work memory 300 KB for program and 1 MB for data, 1st interface, PROFINET IRT with 3-port switch, 48 ns bit performance, Memory Card required
1 x SIMATIC S7, Memory Card for S7-1X00 CPU/SINAMICS, 3.3 V Flash, 24 MB
2 x DI 8x24VDC/0.5A HF
2 x DQ 8x24VDC/0.5A HF
1 x Bus adapter 2x RJ45
4 x BU type A0, push-in, 2 infeed terminal separated (digital/analog, max. 24 V DC/10 A)
1 x Color-coded labels, 16 process terminals, gray/red, CC01, 10 units
1 x 1000 labeling strips, light gray, 10 sheets DIN A4, perforated, paper
1 x Color-coded labels, 16 process terminals, gray/blue, CC02, 10 units
1 x SIMATIC NET Industrial ETHERNET, TP XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, Length 6 m
1 x SIMATIC STEP 7 Professional – Software for Training 1er license, see slide

Expansions: ET 200SP F-technology 6ES7136-6BA00-0AB1 and/or ET 200SP analog modules: 6ES7155-6AU00-0AB600

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Technical note:
SIMATIC STEP 7 Professional and Safety Advanced as of V13 SP1 Update 4 required

Order number:
6ES7512-1SK00-4AB2

Order number:
6ES7512-1SK00-4AB2

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SIMATIC CPU 1516F PN/DP Safety with Software

1 x CPU 1516 F PN/DP
1 x Digital Input module DI 32 x 24VDC
1 x Digital Output module DQ 32 x 24VDC/0.5 A
1 x Analog Input module AI 8 x U/I/RTD/TC
1 x Analog Output module AQ 4 x U/I ST
1 x Power supply Input: 120/230 V AC Output: 24 V DC, 8 A

4 x Front connector 40-pin
1 x Memory Card 24 MB
1 x ETHERNET cable, 6 m
1 x S7-1500, mounting rail 482 mm
STEP 7 Professional SW for training – 1er license

NOTE: SIMATIC STEP 7 Professional and Safety Advanced ≥ V13 SP1 Update 4 are absolutely necessary for configuration
SIMATIC CPU 1516F PN/DP Safety with Software

1 x SIMATIC PM 1507 24 V/8 A stabilized power supply, input: 120/230 V AC, output: 24 V DC/8 A 6EP1333-4BA00
1 x SIMATIC S7-1500F, CPU 1516F-3 PN/DP, with work memory 1.5 MB for program, 5 MB for data, 1st interface, PROFINET IRT with 2-port switch, 2nd interface, ETHERNET, 3rd interface, PROFIBUS, 10 ns bit performance, SIMATIC Memory Card required
1 x SIMATIC S7-1500, Digital Input Module DI 32 x 24V DC, 32 channels in groups of 16 6ES7516-3FN01-0AB0
1 x SIMATIC S7-1500, Digital Output Module DQ 32 X 24VDC/0.5 A; 32 channels 6ES7522-1BL01-0AB0
1 x SIMATIC S7-1500, Analog Input Module AI 8 x U/I/RTD/TC, 16-bit resolution, accuracy 0.3%; 8 channels, in groups of 8 6ES7531-7KF00-0AB0
1 x SIMATIC S7-1500, Analog Output Module AQ 4 x U/I ST; 16-bit resolution, accuracy 0.3%; 4 channels in groups of 4 6ES7532-5HD00-0AB0
1 x SIMATIC S7-1500, mounting rail, 482 mm 6ES7590-1AE0-0AA0
1 x SIMATIC S7, Memory Card for S7-1X00 CPU/SINAMICS, 3.3 V FLASH, 24 MB 6ES7954-8LF03-0AA0
4 x SIMATIC S7-1500, front connector, screw-type, 40-pin 6ES7592-1AM00-0XB0
1 x SIMATIC NET, Industrial ETHERNET XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m 6XV1870-3RH60
1 x SIMATIC STEP 7 Professional – Software for Training, 1er license see slide 6ES7822-1AA05-4YA5

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Sales note: Schools, colleges and universities, for in-house vocational training departments

Technical note: SIMATIC STEP 7 Professional and Safety Advanced V13 SP1 Update 4 required

Order number: 6ES7516-3FN00-4AB2

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**SIMATIC CPU 1516 PN/DP with Software**

1 x CPU 1516 PN/DP
1 x Digital Input module DI 32 X 24V DC
1 x Digital Output module DQ 32 X 24V DC/0.5 A
1 x Analog Input module AI 8 X U/I/RTD/TC
1 x Analog Output module AQ 4 X U/I ST
1 x Power supply Input:120/230 V AC Output: 24 V DC, 8 A

4x Front connector 40-pin
1 x Memory Card 24 MB
1 x ETHERNET cable
1 x SIMATIC S7-1500, mounting rail 482 mm
STEP 7 Professional SW for Training –1er license

**SIMATIC STEP 7 Professional ≥ V13 SP1 Update 4 is absolutely necessary for configuration**
SIMATIC CPU 1516 PN/DP with Software

1 x SIMATIC PM 1507 24 V/8 A stabilized power supply, input: 120/230 V AC, output: 24 V DC/8 A
1 x SIMATIC S7-1500, CPU 1516-3 PN/DP, with work memory 1 MB for program, 5 MB for data, 1st interface, PROFINET IRT with 2-port switch, 2nd interface, ETHERNET, 3rd interface, PROFIBUS, 10 ns bit performance, SIMATIC Memory Card required
1 x SIMATIC S7-1500, Digital Input Module DI32 x 24V DC, 32 channels in groups of 16
1 x SIMATIC S7-1500, Digital Output Module DQ 32 x 24VDC/0.5A; 32 channels
1 x SIMATIC S7-1500, Analog Input Module AI 8 x U/I/RTD/TC; 8 channels in groups of 8
1 x SIMATIC S7-1500, Analog Output Module AQ 4 x U/I ST; 4 channels in groups of 4
1 x SIMATIC S7-1500, mounting rail, 482 mm approx. 19 inches, including grounding screw, integrated DIN rail for mounting
1 x SIMATIC S7, Memory Card for S7-1X00 CPU/SINAMICS, 3.3 V Flash, 24 MB
4 x SIMATIC S7-1500, front connector, screw-type, 40-pin
1 x SIMATIC NET, Industrial ETHERNET XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m
1 x SIMATIC STEP 7 Professional – Software for Training, 1er license see slide

System requirements:
- Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
- Windows 10 (64-bit) Professional 1803/Enterprise 1803

Sales note:
- Schools, colleges and universities, for in-house vocational training departments

Technical note:
- SIMATIC STEP 7 Professional and Safety Advanced V13 SP1 Update 4 required

Order number:
- 6ES7516-3AN00-4AB3
## Trainer Package variants

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<th>1 x Power supply Input: 120/230 V AC; Output: 24 V DC, 8 A</th>
<th>1 x Communication processor (PROFIBUS) CP 1542-5</th>
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### Recommended accessories

- **6XV1870-3RH60**
  Simatic NET Industrial ETHERNET, TP XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m

- **6GK1950-0BB00**
  Trainer Package: FastConnect cable set

---

**SIMATIC STEP 7 Professional ≥ V13 SP1 Update 4 is absolutely necessary for configuration**
SIMATIC S7-1512C-1 PN
without power supply/without CP for PROFIBUS DP

1 x SIMATIC S7-1500 Compact CPU, CPU 1512C-1 PN, central processing unit with work memory 250 KB for program and 1 MB for data, 32 digital inputs, 32 digital outputs, 5 analog inputs, 2 analog outputs, 6 high speed counters, 4 high speed outputs for PTO/PWM/frequency output, 1st interface: PROFINET IRT with 2-port switch, 48 ns bit performance, incl. front connector push-in, SIMATIC Memory Card required

1 x SIMATIC S7-1500, mounting rail, 482 mm (approx. 19 inches) including grounding screw, integrated DIN rail for mounting of components such as terminals, miniature circuit breakers and relays

1 x SIMATIC S7, Memory Card for S7-1X00 CPU/SINAMICS, 3.3 V Flash, 24 MB

1 x SIMATIC NET, Industrial ETHERNET XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m

1 x SIMATIC STEP 7 Professional – Software for Training, 1er license see slide

System requirements:
Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
Windows 10 (64-bit) Professional 1803/Enterprise 1803

Sales note:
Schools, colleges and universities, for in-house vocational training departments

Technical note:
SIMATIC STEP 7 Professional V13 SP1 Update 4 required

Order number:
6ES7512-1CK00-4AB6

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SIMATIC S7-1512C-1 PN
with power supply/without CP for PROFIBUS DP

1 x SIMATIC PM 1507 24 V/8 A stabilized power supply for SIMATIC S7-1500, input: 120/230 V AC, output: 24 V DC/8 A

1 x SIMATIC S7-1500 Compact CPU, CPU 1512C-1 PN, central processing unit with work memory 250 KB for program and 1 MB for data, 32 digital inputs, 32 digital outputs, 5 analog inputs, 2 analog outputs, 6 high speed counters, 4 high speed outputs for PTO/PWM/frequency output 1st interface: PROFINET IRT with 2-port switch, 48 ns bit performance, including front connector push-in, SIMATIC Memory Card required

1 x SIMATIC S7-1500, mounting rail, 482 mm (approx. 19 inches) including grounding screw, integrated DIN rail for mounting of small components such as terminals, miniature circuit breakers and relays

1 x SIMATIC S7, Memory Card for S7-1X00 CPU/SINAMICS, 3.3 V Flash, 24 MB
1 x SIMATIC NET, Industrial ETHERNET XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m
1 x SIMATIC STEP 7 Professional – Software for Training, 1er license see slide

System requirements:
Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
Windows 10 (64-bit) Professional 1803/Enterprise 1803

Sales note:
Schools, colleges and universities, for in-house vocational training departments

Technical note:
SIMATIC STEP 7 Professional V13 SP1 Update 4 required

Order number:
6ES7512-1CK00-4AB1

6EP1333-4BA00
6ES7512-1CK01-0AB0
6ES7590-1AE80-0AA0
6ES754-8LF03-0AA0
6XV1870-3RH60
6ES7822-1AA05-4YA5

Core product for vocational World Cup Industrial Control
## SIMATIC S7-1512C-1 PN
without power supply/with CP for PROFIBUS DP

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Order Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 x</td>
<td>SIMATIC S7-1500 Compact CPU, CPU 1512C-1 PN, central processing unit with work memory 250 KB for program and 1 MB for data, 32 digital inputs, 32 digital outputs, 5 analog inputs, 2 analog outputs, 6 high speed counters, 4 high speed outputs for PTO/PWM/frequency output, 1st interface: PROFINET IRT with 2-port switch, 48 ns bit performance, including front connector push-in, SIMATIC Memory Card required</td>
<td>6ES7512-1CK01-0AB0</td>
</tr>
<tr>
<td>1 x</td>
<td>Communications Processor CP 1542-5 for connection of SIMATIC S7-1500 to PROFIBUS DP DPV1 master or DP slave, S7 and PG/OP communication, time synchronization, diagnostics, lower configuration limits</td>
<td>6GK7542-5FX00-0XE0</td>
</tr>
<tr>
<td>1 x</td>
<td>SIMATIC S7-1500, mounting rail, 482 mm (approx. 19 inches) including grounding screw, integrated DIN rail for mounting of small components such as terminals, miniature circuit breakers and relays</td>
<td>6ES7590-1AE80-0AA0</td>
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<tr>
<td>1 x</td>
<td>SIMATIC S7, Memory Card for S7-1X00 CPU/SINAMICS, 3.3 V Flash, 24 MB</td>
<td>6ES7954-8LF03-0AA0</td>
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<td>SIMATIC NET, Industrial ETHERNET XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m</td>
<td>6XV1870-3RH60</td>
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<tr>
<td>1 x</td>
<td>SIMATIC STEP 7 Professional – Software for Training, 1er license</td>
<td>6ES7822-1AA05-4YA5</td>
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### System requirements:
- Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
- Windows 10 (64-bit) Professional 1803/Enterprise 1803

### Sales note:
Schools, colleges and universities, for in-house vocational training departments

### Technical note:
SIMATIC STEP 7 Professional V13 SP1 Update 4 required

### Order number:
6ES7512-1CK00-4AB7
SIMATIC S7-1512C-1 PN
with power supply/with CP for PROFIBUS DP

1 x SIMATIC PM 1507 24 V/8 A stabilized power supply for SIMATIC S7-1500, input: 120/230 V AC, output: 24 V DC/8 A

1 x SIMATIC S7-1500 Compact CPU, CPU 1512C-1 PN, central processing unit with work memory 250 KB for program and 1 MB for data, 32 digital inputs, 32 digital outputs, 5 analog inputs, 2 analog outputs, 6 high speed counters, 4 high speed outputs for PTO/PWM/frequency output, 1st interface: PROFINET IRT with 2-port switch, 48 ns bit performance, including front connector push-in, SIMATIC Memory Card required

1 x Communications Processor CP 1542-5 for connection of SIMATIC S7-1500 to PROFIBUS DP DPV1 master or DP slave, S7 and PG/OP communication, time synchronization, diagnostics, lower configuration limits

1 x SIMATIC S7-1500, mounting rail, 482 mm (approx. 19 inches) including grounding screw, integrated DIN rail for mounting of small components such as terminals, miniature circuit breakers and relays

1 x SIMATIC S7, Memory Card for S7-1X00 CPU/SINAMICS, 3.3 V Flash, 24 MB

1 x SIMATIC S7, Memory Card for S7-1X00 CPU/SINAMICS, 3.3 V Flash, 24 MB

1 x SIMATIC NET, Industrial ETHERNET XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m

1 x SIMATIC STEP 7 Professional – Software for Training, 1er license see slide

System requirements:
Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
Windows 10 (64-bit) Professional 1803/Enterprise 1803

Sales note:
Schools, colleges and universities, for in-house vocational training departments

Technical note:
SIMATIC STEP 7 Professional V13 SP1 Update 4 required

Order number:
6ES7512-1CK00-4AB2

Order number:
6EP1333-4BA00

Order number:
6ES7512-1CK01-0AB0

Order number:
6GK7542-5FX00-0XE0

Order number:
6ES7590-1AE80-0AA0

Order number:
6ES7954-8LF03-0AA0

Order number:
6XV1870-3RH60

Order number:
6ES7822-1AA05-4YA5

System requirements:
Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
Windows 10 (64-bit) Professional 1803/Enterprise 1803

Technical note:
SIMATIC STEP 7 Professional V13 SP1 Update 4 required

Order number:
6ES7512-1CK00-4AB2

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Overview | Graphic | TIA Portal
Upgrade SIMATIC S7-314C-2PN/DP for TIA Portal

1 x CPU314C-2 PN/DP with 192 KB work memory
1 x Digital module SM 323, 16 DI and 16 DO, 24 V DC, 0.5 A, 40-pin
1 x Micro Memory Card 512 KB
3x Front connector for SM, 40-pin
1 x ETHERNET cable
Upgrade SIMATIC S7-314C-2PN/DP for TIA Portal

1 x SIMATIC S7-300, CPU 314C-2PN/DP compact CPU with 192 KB work memory, 24 DI/16 DQ, 4AI, 2AQ, 1 PT100, 4 high speed counters (60 kHz), 1st interface MPI/DP 12 Mbps
2nd interface ETHERNET PROFINET, with 2-port switch, integrated 24 VDC power supply, front connector (2 x 40-pin) and Micro Memory Card required

1 x SIMATIC S7, Micro Memory Card for S7-300, 3.3 V NFlash, 512 KB

1 x SIMATIC S7-300, Digital Module SM 323, isolated, 16 DI and 16 DQ, 24 V DC, 0.5 A, total current 4 A, 1 x 40-pin

3 x SIMATIC S7-300, front connector 392 with screw contacts, 40-pin

1 x SIMATIC NET, Industrial ETHERNET XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m

Recommended accessories
6GK1950-0BB00
Trainer Package:
FastConnect cable set

System requirements:
Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
Windows 10 (64-bit) Professional 1803/Enterprise 1803

Sales note:
Schools, colleges and universities, for in-house vocational training departments

Technical note:
SIMATIC STEP 7 Professional V13 SP1 Update 4 required

Order number:
6ES7314-6EH04-0AB4
Available until 31 December 2019

Order number:
6ES7392-1AM00-0AA0

Order number:
6ES7323-1BL00-0AA0

Order number:
6ES7314-6EH04-4AB4

Order number:
6ES7953-8LJ31-0AA0

Order number:
6XV1870-3RH60

Order number:
6ES7314-6EH04-0AB0

Order number:
6ES7392-1AM00-0AA0

Order number:
6ES7323-1BL00-0AA0

Order number:
6ES7314-6EH04-4AB4

Order number:
6ES7953-8LJ31-0AA0

Order number:
6XV1870-3RH60
SIMATIC S7-315F-2PN/DP – PROFINET

1 x Power supply PS 307, 120/230 V AC; 24 V DC, 5 A
1 x CPU315F-2 PN/DP with 512 KB work memory
1 x Micro Memory Card 512 KB
1 x Mounting rail L = 480 mm

2 x Front connector for SM, 40-pin
1 x Digital module SM 323, 16 DI and 16 DQ, 24 V DC, 0.5 A, 40-pin
1 x Analog module SM 334, 4 AI/2 AQ, 20-pin
1 x Front connector for SM, 20-pin
1 x Distributed Safety V5.4, floating license

Recommended accessories
6XV1870-3RH60 SIMATIC NET Industrial ETHERNET, TP XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m
6GK1950-0BB00 Trainer Package: FastConnect cable set

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SIMATIC S7-315F-2PN/DP – PROFINET

1 x Mounting rail, L=480 mm
1 x Power supply PS 307, 120/230 V AC; 24 V DC, 5 A
1 x CPU315F-2 PN/DP with 512 KB work memory
1 x Micro Memory Card 512 KB
1 x Digital module SM 323, 16 DI and 16 DQ, 24 V DC, 0.5 A, 40-pin
1 x Front connector for SM, 40-pin
1 x Analog module SM 334, 4 AI/2 AQ, 20-pin
1 x Front connector for SM, 20-pin
1 x Distributed Safety V5.4, floating license

Recommended accessories
6XV1870-3RH60
SIMATIC NET Industrial ETHERNET, TP XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m

6ES7390-1AE80-0AA0
6ES7307-1EA01-0AA0
6ES7315-2FJ14-0AB0
6ES7953-8LJ30-0AA0
6ES7323-1BL00-0AA0
6ES7392-1AM00-0AA0
6ES7334-0CE01-0AA0
6ES7392-1AJ00-0AA0
6ES7833-1FC02-0YA5

Matching: Trainer Package F-Technology S7-300 – PROFINET 6ES7326-2FS00-4AB1

System requirements: Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
Windows 10 (64-bit) Professional 1803/Enterprise 1803

Sales note: Schools, colleges and universities, for in-house vocational training departments

Technical note: STEP 7 as of V5.5 and as of V13 required

Order number: 6ES7315-2FH14-4AB1 Available until 31 December 2019

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Overview | Graphic | TIA Portal
SIMATIC S7-300 F-Technology

1 x F-digital input
SM 326, 24 DI

1 x F-digital output
SM 326, 8 DQ; 24 V DC, 2 A

2 x Front connector for SM, 40-pin

1 x Separator module
**Matching: Trainer Package S7-mEC – modular embedded:**

<table>
<thead>
<tr>
<th>System requirements</th>
<th>CPU315F-2 PN/DP: 6ES7315-2FH14-4AB1</th>
</tr>
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<tbody>
<tr>
<td>6ES7677-1FD00-4AB1</td>
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- **Order number:** 6ES7326-2FS00-4AB1
- **Order number:** 6ES7326-1BK02-0AB0
- **Order number:** 6ES7326-2BF41-0AB0
- **Order number:** 6ES7195-7KF00-0XA0
- **Order number:** 6ES7392-1AM00-0AA0

---

**SIMATIC S7-300 F-Technology**

**Safety input/output module**

- 1 x F-digital input SM 326, 24 DI
- 1 x F-digital output SM 326, 8 DQ; 24 V DC, 2 A
- 1 x Separator module
- 2 x Front connector for SM, 40-pin

**System requirements:**

- Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
- Windows 10 (64-bit) Professional 1803/Enterprise 1803

**Sales note:**

- Schools, colleges and universities, for in-house vocational training departments

**Technical note:**

- Safety CPU required

**Order number:**

- 6ES7326-2FS00-4AB1
## Distributed IOs Overview

<table>
<thead>
<tr>
<th>Product</th>
<th>HW sets</th>
<th>Licenses</th>
<th>SW vers.</th>
<th>MLFB</th>
<th>Note</th>
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<td>SIMATIC ET 200SP digital PROFINET</td>
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<td>6ES7155-6AU00-0AB0</td>
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<td>SIMATIC ET 200SP digital with input module ENERGY METER PN</td>
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<td>6ES7155-6AU00-0AB1</td>
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<tr>
<td>SIMATIC ET 200SP digital with communication module IO-LINK MASTER V1.1 PN</td>
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<td>SIMATIC ET 200SP digital with communication module CM AS-i MASTER ST PN</td>
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<td>SIMATIC ET 200SP analog expansion module</td>
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<td>SIMATIC ET 200SP safety expansion module</td>
<td>1</td>
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<td>6ES7136-6BA00-0AB1</td>
<td></td>
</tr>
</tbody>
</table>
**SIMATIC ET 200SP digital PROFINET**

- 1 x IM 155-6 PN HF incl. server module
- Bus adapter
- 2 x DI 8x24V DC HF
- 2 x DQ 8x24V DC/0.5A HF
- 4 x BaseUnits

**Recommended accessories**

6XV1870-3RH60
SIMATIC NET Industrial ETHERNET, TP XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m

6GK1950-0BB00
Trainer Package: FastConnect cable set

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**Page 69**
SIMATIC ET 200SP digital PROFINET

1 x Standard mounting rail, length: 483 mm, for 19” cabinets
1 x IM155-6PN HF, including server module
2 x DI 8x24VDC HF
2 x DQ 8x24V DC/0.5 A HF
1 x Bus adapter 2x RJ45
4 x BU type A0, 16 push-in, 2 infeed terminals separated (digital/analog, max. 24V DC/10 A)
1 x Color-coded labels, 16 process terminals, gray/red, CC01, 10 units
1 x Color-coded labels, 16 process terminals, gray/blue, CC02, 10 units
1 x 1000 labeling strips, light gray, 10 sheets DIN A4, perforated, paper

Expansions: ET 200SP F-technology 6ES7136-6BA00-0AB1 and/or ET 200SP analog modules: 6ES7155-6AU00-0AB6

- System requirements: None available
- Sales note: Schools, colleges and universities, for in-house vocational training departments
- Technical note: STEP 7 as of V5.5 and as of V13 required
- Order number: 6ES7155-6AU00-0AB0

Order number:
6ES5710-8MA11
6ES7155-6AU00-0CN0
6ES7131-6BF00-0CA0
6ES7132-6BF00-0CA0
6ES7193-6AR00-0AA0
6ES7193-6BP00-0DA0
6ES7193-6CP01-2MA0
6ES7193-6CP02-2MA0
6ES7193-6LA10-0AA0
SIMATIC ET 200SP digital with Energy Meter input module PN

1 x IM 155-6 PN HF incl. Server module
Bus adapter
2 x DI 8x24V DC HF
2 x DQ 8x24V DC/0,5A HF
4 x BaseUnits
Color-coded labels
Labeling strips

1 x Energy Meter
1 x BaseUnit
1 x shielding terminals

Recommended accessories
6XV1870-3RH60
SIMATIC NET, Industrial ETHERNET, TP XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, Length 6

6GK1950-0BB00
Trainer Package: FASTCONNECT cable set
SIMATIC ET 200SP digital with Energy Meter input module PN

1 x Standard mounting rail 35 mm, length: 483 mm, for 19" cabinets
1 x IM155-6PN HF including server module
2 x DI 8x24VDC HF
2 x DO 8x24VDC/0.5A HF
1 x Bus adapter 2x RJ45
4 x BU type A0, 16 push-in, 2 infeeds terminals separated (digital/analog, max. 24V DC/10 A)
1 x Color-coded labels, 16 process terminals, gray/red, CC01, 10 units
1 x 1000 labeling strips, light gray, 10 sheets DIN A4, perforated, paper
1 x Color-coded labels, 16 process terminals, gray/blue, CC02, 10 units
1 x DI Energy Meter ST
1 x BaseUnit Push-in terminals, without AUX terminals, jumpered to left
1 x Shielding terminals, 5 units

Expansions: ET 200SP F-technology 6ES7136-6BA00-0AB1 and/or ET 200SP analog modules: 6ES7155-6AU00-0AB6

System requirements: None available
Sales note: Schools, colleges and universities, for in-house vocational training departments
Technical note: STEP 7 as of V13 required
Order number: 6ES7155-6AU00-0AB1

Expansions: ET 200SP F-technology 6ES7136-6BA00-0AB1 and/or ET 200SP analog modules: 6ES7155-6AU00-0AB6

- IOT2000
- Industrial Controls
- Engineering SW
- SIMIT SW
- Basic Automation
- SIMATIC Controller
- Distributed I/Os
- Operator control & monitoring
- Process Automation
- Industrial Communication
- Industrial Identification
- Drive Technology
- MindSphere
- SinuTrain SW
- PLM Software
- WorldSkills
- Ordering Inform.
SIMATIC ET 200SP digital with IO-Link communication module

1 x IM 155-6 PN HF incl. Server module
1 x CM 4xIO-Link ST
1 x BaseUnit

Bus adapter
2 x DI 8x24V DC HF
1 x BaseUnit

2 x DQ 8x24V DC/0.5A HF
4 x BaseUnits

Color-coded labels
Labeling strips

Recommended accessories

6XV1870-3RH60
SIMATIC NET Industrial ETHERNET, TP XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, Length 6 m

6GK1950-0BB00
Trainer Package: FASTCONNECT cable set
**SIMATIC ET 200SP digital with IO-Link communication module**

1 x Standard mounting rail 35 mm, length: 483 mm, for 19" cabinets  
1 x IM155-6PN HF including Server module  
2 x DI 8x24VDC HF  
2 x DQ 8x24VDC/0.5A HF  
1 x Bus adapter 2x RJ45  
4 x BU type A0, 16 push-in, 2 infeed terminals separated (digital/analog, max. 24V DC/10 A)  
1 x Color-coded labels, 16 process terminals, gray/red, CC01, 10 units  
1 x 1000 labeling strips, light gray, 10 sheets DIN A4, perforated, paper  
1 x Color-coded labels, 16 process terminals, gray/blue, CC02, 10 units  
1 x BU type A0, 16 push-in, 2 infeed terminals separated (digital/analog, max. 24V DC/10 A)  
1 x CM 4xIO-Link ST  
1 x Color-coded labels, 16 process terminals, gray/blue, CC04, 10 units

Matching: Trainer Package SIRIUS Industrial Controls 3TK3388-0TP00

Expansions: ET 200SP F-technology 6ES7136-6BA00-0AB1 and/or ET 200SP analog modules: 6ES7155-6AU00-0AB6

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<td>IM155-6PN HF</td>
<td>6ES7155-6AU00-0CN0</td>
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<tr>
<td>DI 8x24VDC HF</td>
<td>6ES7131-6BF00-0CA0</td>
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<tr>
<td>DQ 8x24VDC/0.5A HF</td>
<td>6ES7132-6BF00-0CA0</td>
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<tr>
<td>Bus adapter 2x RJ45</td>
<td>6ES7193-6AR00-0AA0</td>
</tr>
<tr>
<td>BU type A0, 16 push-in, 2 infeed terminals separated (digital/analog, max. 24V DC/10 A)</td>
<td>6ES7193-6BP00-0DA0</td>
</tr>
<tr>
<td>Color-coded labels, 16 process terminals, gray/red, CC01, 10 units</td>
<td>6ES7193-6CP01-2MA0</td>
</tr>
<tr>
<td>1000 labeling strips, light gray, 10 sheets DIN A4, perforated, paper</td>
<td>6ES7193-6LA10-0AA0</td>
</tr>
<tr>
<td>Color-coded labels, 16 process terminals, gray/blue, CC02, 10 units</td>
<td>6ES7193-6CP02-2MA0</td>
</tr>
<tr>
<td>BU type A0, 16 push-in, 2 infeed terminals separated (digital/analog, max. 24V DC/10 A)</td>
<td>6ES7193-6BP00-0DA0</td>
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<tr>
<td>CM 4xIO-Link ST</td>
<td>6ES7137-6BD00-0BA0</td>
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<tr>
<td>Color-coded labels, 16 process terminals, gray/blue, CC04, 10 units</td>
<td>6ES7193-6CP04-2MA0</td>
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</tbody>
</table>

System requirements: None available  
Sales note: Schools, colleges and universities, for in-house vocational training departments  
Technical note: STEP 7 as of V13 required  
Order number: 6ES7155-6AU00-0AB2

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**SIMATIC ET 200SP digital with AS-i Master communication module**

1 x IM 155-6 PN HF incl. server module

Bus adapter

2 x DI 8x24V DC HF

2 x DQ 8x24V DC/0.5A HF

4 x BaseUnits

Color-coded labels
Labeling strips

1 x CM 4xI-O-Link ST

1 x BaseUnit

---

**Recommended accessories**

6XV1870-3RH60
SIMATIC NET Industrial ETHERNET, TP XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, Length 6 m

6GK1950-0BB00
Trainer Package: FastConnect cable set

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Overview | Graphic | TIA Portal
SIMATIC ET 200SP digital with AS-i Master communication module

1 x Standard mounting rail. 35 mm, length 483 mm, for 19" cabinets
1 x IM155-6PN HF including server module
2 x DI 8x24V DC HF
2 x DQ 8x24V DC/0.5A HF
1 x Bus adapter 2x RJ45
4 x BU type A0, 16 push-in, 2 infeed terminals separated (digital/analog max 24V DC/10 A)
1 x Color-coded labels, 16 process terminals, gray/red, CC01, 10 units
1 x 1000 labeling strips, light gray, 10 sheets DIN A4, perforated, paper
1 x Color-coded labels, 16 process terminals, gray/blue, CC02, 10 units
1 x CM AS-i Master ST ET 200SP (AS-i V3.0)
1 x BU type C0, BU20-P6+A2+4D

Expansions: ET 200SP F-technology 6ES7136-6BA00-0AB1 and/or ET 200SP analog modules: 6ES7155-6AU00-0AB6

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<th>System requirements:</th>
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<tr>
<td>Sales note:</td>
<td>Schools, colleges and universities, for in-house vocational training departments</td>
</tr>
<tr>
<td>Technical note:</td>
<td>STEP 7 as of V13 required</td>
</tr>
<tr>
<td>Order number:</td>
<td>6ES7155-6AU00-0AB3</td>
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</tbody>
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SIMATIC ET 200SP – Analog module expansion

SIMATIC ET 200SP analog module expansion consisting of:

- 2 x AI 2xU/I 2-/4-wire HS
- 1 x AQ 2xU/I HS
- 3 x BU type A0, 16 push-in, 2 infeed terminals (digital/analog, max. 24 V DC/10A)
- 1 x Shielding terminals, 5 units
- 1 x Color-coded labels, 16 process terminals, gray/red/blue, CC03, 10 units

System requirements:

None available

Sales note:

Schools, colleges and universities, for in-house vocational training departments

Technical note:

STEP 7 as of V13 required

Order number:

6ES7155-6AU00-0AB6

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SIMATIC ET 200SP – Safety module expansion

SIMATIC ET 200SP safety module expansion consisting of:

1 x Electronic module F-DI 8x24V DC HF
6ES7136-6BA00-0CA0
1 x Electronic module F-DQ 4x24V DC/2A PM HF
6ES7136-6DB00-0CA0
1 x Electronic module F-RQ 24VDC/24...230V AC/5A
6ES7136-6RA00-0BF0
2 x BaseUnits BU type A0, 16 push-in, 2 infeed terminals separated (digital/analog, max. 24V DC/10 A)
6ES7193-6BP00-0DA0
1 x BaseUnits BU type F0, push-in terminals, with 4 AUX terminals
6ES7193-6BP20-0BF0
1 x SIMATIC ET 200SP, 1000 labeling strips, yellow
6ES7193-6LA10-0AG0

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<tr>
<td>F-DQ 4x24V DC/2A PM HF</td>
<td>6ES7136-6DB00-0CA0</td>
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<tr>
<td>F-RQ 24VDC/24...230V AC/5A</td>
<td>6ES7136-6RA00-0BF0</td>
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</table>

1 x F-DI 8x24VDC HF
1 x F-DQ 4x24VDC/2A PM HF
1 x F-RQ 24VDC/24...230VAC/5A
Labeling strips
3 x BaseUnits

System requirements: None available

Sales note: Schools, colleges and universities, for in-house vocational training departments

Technical note: STEP 7 as of V13 required

Order number: 6ES7136-6BA00-0AB1
## Operator control & monitoring

### Overview

#### Product

<table>
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<th>MLFB</th>
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<tbody>
<tr>
<td>SIMATIC WinCC Advanced/WinCC flexible 2008 SP5</td>
<td>6+20</td>
<td>V15.1</td>
<td>6AV2102-0AA05-0AS5</td>
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<tr>
<td>Upgrade SIMATIC WinCC Advanced/WinCC flexible from 2008/V11/V12/V13/V14</td>
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<td>V15.1</td>
<td>6AV2102-4AA05-0AS5</td>
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<td>Upgrade SIMATIC WinCC flexible from 2004, 2005, 2006, 2007 → 2008 SP5</td>
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<td>2008</td>
<td>6AV6613-1AX01-3CS0</td>
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<td>SIMATIC WinCC Advanced/WinCC flexible 2008 SP5 for students – 365 days</td>
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<td>SIMATIC TP700 Comfort Color Panel</td>
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<tr>
<td>SIMATIC WinCC Professional with options</td>
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<td>6AV2105-0HA05-0AS0</td>
<td>NEW</td>
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<tr>
<td>Upgrade SIMATIC WinCC Professional with options from V13/V14 →</td>
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<td>V15.1</td>
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<td>SCADA system SIMATIC WinCC with options</td>
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<td>V7.5</td>
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<tr>
<td>Only WIN10 (64-bit) Professional 1803/Enterprise 1803</td>
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<tr>
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<td>V7.4 SP1</td>
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<tr>
<td>Upgrade SCADA system SIMATIC WinCC with options from V1.0 →</td>
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<td>V7.4</td>
<td>6AV6381-1BP07-4AX3</td>
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</tr>
</tbody>
</table>

**Only for schools, colleges and universities**  

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SW functionally identical to the industrial version
System structure of Trainer Packages
STEP 7 and SIMATIC HMI

SIMATIC software
- STEP 7 as basis

Engineering tools for STEP 7
- S7-PLCSIM simulation of S7 hardware
- S7-SCL high-level language similar to Pascal
- S7-GRAPH for sequencers according to DIN 1131-3

SIMATIC HMI software - Human-machine interface
WinCC with
- Advanced level
- Smart Option for Panel / PC
- Smart Access
- OPC interface

Software Engineering Tool for STEP 7
- SIMATIC CFC
- Control with SIMATIC
- SIMATIC NET SOFTWARE

Touch Panel
TP700
TP1500
PROFIBUS and PROFINET connection

S7 controller
Trainer package with PROFINET and PROFIBUS

ET 200SP Open Controller.
ET 200SP ...
Trainer package with PROFINET
For PROFIBUS, only interface has to be ordered separately.
## SIMATIC WinCC Advanced/WinCC flexible 2008 SP5
### 6er classroom license

**6 x combo license for freely interchangeable usage of engineering software**
- of: SIMATIC WinCC Advanced V15.1
- or: SIMATIC WinCC flexible 2008 SP5

**6 x license for use of engineering software of** SIMATIC Energy Suite Engineering V15.1

**6 x Option and Runtime software, see next slide**

**Package with:**
- 1 x DVD SIMATIC STEP 7 / WinCC Advanced V15.1
- 1 x CD SIMATIC Energy Suite
- 1 x DVD SIMATIC WinCC Legacy Panel Images
- 1 x CD WinCC flexible 2008 SP5 Comfort/Standard/Advanced

**Additionally included in the package 6AV2102-0AA04-0AS5:**
- 1 x 20 SIMATIC WinCC Advanced V15.1 / WinCC flexible 2008 SP5 for students, see slide after next

**Software is limited to 365 days through authorization**

<table>
<thead>
<tr>
<th>System requirements:</th>
<th>Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Windows 10 (64-bit) Professional 1803/Enterprise 1803</td>
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</table>

**Sales note:** Schools, colleges and universities, for in-house vocational training departments

**Technical note:** Authorization on USB stick (1 stick)

**Order number:**
- 6AV2102-0AA05-0AS5
- 6AV6613-1XA01-3CS0
- 6AV2102-4AA05-0AS5

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**SIMATIC WinCC Advanced/WinCC flexible 2008 SP5**

**Option and Runtime software**

**WinCC Advanced V15.1**
- WinCC RT Advanced (128 Power Tags)
- WinCC Recipes for RT Advanced
- WinCC Logging for RT Advanced
- WinCC Sm@rtServer for RT Advanced
  - WinCC Sm@rtServer for SIMATIC Comfort/Mobile Panels
  - WinCC Sm@rtServer for SIMATIC Basic Panels
- ProDiag for WinCC RT Advanced
- ProDiag for SIMATICComfort/Mobile Panels

**WinCC flexible 2008 SP5**
- WinCC flexible Runtime (128 Power Tags)
- WinCC flexible/Sm@rtAccess for Panels
- WinCC flexible/Sm@rtAccess for PC
- WinCC flexible/Sm@rtService for Panels
- WinCC flexible/Sm@rtService for PC
- WinCC flexible/OPC-Server for PC
- WinCC flexible/Archives for PC
- WinCC flexible/Recipes for PC
SIMATIC WinCC Advanced/WinCC flexible 2008 SP5
for students – limited to 365 days

20 x combo license for interchangeable usage of engineering software with
time limit of 365 days for students
of: SIMATIC WinCC Advanced V15.1
or: SIMATIC WinCC flexible 2008 SP5

Runtime licenses with time limit to 365 days for students
20 x SIMATIC WinCC Runtime Advanced V15.1 – 128 PowerTags
20 x SIMATIC WinCC flexible 2008 SP5 Runtime SP5 – 128 PowerTags

Package with:
1 x DVD SIMATIC STEP 7 / WinCC Advanced V15.1
1 x DVD SIMATIC WinCC Legacy Panel Images
1 x CD WinCC flexible 2008 SP5 Comfort/Standard/Advanced

System requirements: Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
Windows 10 (64-bit) Professional 1803/Enterprise 1803

Sales note: Schools, colleges and universities, for in-house vocational training departments

Technical note: Authorization on USB stick (1 stick)

Order number: 6AV2102-0AA05-0AS7

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SIMATIC TP700/TP1500 Comfort Panel
with PROFINET and MPI/PROFIBUS DP Interface

1 x 7"
SIMATIC TP700 Comfort, Touch Panel with PROFINET and MPI/PROFIBUS DP interface (panel with integrated switch with 2x RJ45 ports)

6AV2124-0GC01-0AX0

TP 700 can be configured with WinCC Comfort, Advanced, Prof. as of V11 SP2

alternative:
1 x 15"
SIMATIC TP1500 Comfort, Touch Panel with PROFINET and MPI/PROFIBUS DP interface (panel with integrated switch for 2 x RJ45 ports)

6AV2124-0QC02-0AX1

TP 1500 can be configured with WinCC Comfort, Advanced, Prof. as of V14 SP1

In addition, the package contains
1 x Engineering, Option and Runtime Software and license WinCC Advanced V15
1 x SIMATIC NET Industrial ETHERNET, TP XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m

6XV1870-3RH60

System requirements:
Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
Windows 10 (64-bit) Professional 1803/Enterprise 1803

Sales note:
Schools, colleges and universities, for in-house vocational training departments

Technical note:
Authorization on USB stick

Order number:
6AV2133-4AF00-0AA0 (with TP700) 6AV2133-4BF00-0AA0 (with TP1500)
SIMATIC WinCC Professional with options
6er classroom license

6 x license for use of engineering software of SIMATIC WinCC Professional V15.1
6 x license for use of engineering software of SIMATIC Energy Suite Engineering V15.1

6 x Option and Runtime software:
- WinCC RT Professional (4096 Power Tags)
- WinCC WebNavigator
- WinCC DataMonitor
- WinCC recipes for RT Professional

Package with:
- 1 x DVD SIMATIC STEP 7 / WinCC Professional V15.1
- 1 x DVD WinCC Runtime Professional V15.1
- 1 x CD SIMATIC Energy Suite
- 1 x DVD SIMATIC WinCC Legacy Panel Images

System requirements:
- Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
- Windows 10 (64-bit) Professional 1803/Enterprise 1803

Sales note:
Schools, colleges and universities, for in-house vocational training departments

Technical note:
Authorization on USB stick

Order number:
6AV2105-0HA05-0AS0
Upgrade from V13/V14 to V15.1
6AV2105-4HA05-0AS0
SCADA System SIMATIC WinCC 7.5 with options
6er classroom license

SCADA system SIMATIC WinCC V7.5 with options as well as additionally available as ASIA variant
6 x WinCC Systemsoftware, RC 2048 (2048 Power-Tags), Runtime/Configuration-Software
6 x WinCC/User-Archives
6 x WinCC/Connectivity Pack
6 x SIMATIC WinCC/Web Navigator, 3 Client Licenses (countable)
6 x SIMATIC WinCC/DataMonitor, 1 Client Licenses (countable)
6 x SIMATIC WinCC/Cloud Connect V7.5

Upgrade SCADA system SIMATIC WinCC with options from V1.0 to V7.5
6 x Upgrade WinCC Systemsoftware, RC 2048 (2048 Power-Tags), Runtime/Configuration-Software
6 x Upgrade WinCC/User-Archives
6 x Upgrade WinCC/Connectivity Pack
6 x Upgrade SIMATIC WinCC/Web Navigator, 3 Client Licenses (countable)
6 x Upgrade SIMATIC WinCC/DataMonitor, 1 Client Licenses (countable)
6 x SIMATIC WinCC/Cloud Connect V7.5

System requirements:
Only Windows 10 (64-bit) Professional 1803/Enterprise 1803

Sales note:
Schools, colleges and universities, for in-house vocational training departments

Technical note:
Authorization on USB stick

Order number:
6AV6371-1DH07-4AX5
ASIA
6AV6371-1DH07-4AV5
Upgrade from V1.0… to V7.5
6AV6381-1BP07-5AX3
SCADA System SIMATIC WinCC 7.4 SP1 with options
6er classroom license

SCADA system SIMATIC WinCC V7.4 SP1 with options as well as additionally available as ASIA variant
6 x WinCC Systemsoftware, RC 2048 (2048 Power-Tags), Runtime/Configuration-Software
6 x WinCC/User-Archives
6 x WinCC/Connectivity Pack
6 x SIMATIC WinCC/Web Navigator, 3 Client Licenses (countable)
6 x SIMATIC WinCC/DataMonitor, 1 Client Licenses (countable)

Upgrade SCADA system SIMATIC WinCC with options from V1.0 to V7.4 SP1
6 x Upgrade WinCC Systemsoftware, RC 2048 (2048 Power-Tags), Runtime/Configuration-Software
6 x Upgrade WinCC/User-Archives
6 x Upgrade WinCC/Connectivity Pack
6 x Upgrade SIMATIC WinCC/Web Navigator, 3 Client Licenses (countable)
6 x Upgrade SIMATIC WinCC/DataMonitor, 1 Client Licenses (countable)

System requirements:
Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
Windows 10 (64-bit) Professional 1803/Enterprise 1803

Sales note:
Schools, colleges and universities, for in-house vocational training departments

Technical note:
Authorization on USB stick

Order number:
6AV6371-1DH07-4AX5 6AV6371-1DH07-4AV5 6AV6381-1BP07-3AX3
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<td>SIMATIC PCS 7</td>
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<td>3</td>
<td>V9.0</td>
<td>6ES7650-0XX58-0YS5</td>
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<td>Upgrade SIMATIC PCS 7 V8.X →</td>
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<td>V9.0</td>
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<td>V9.0</td>
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<td>SIMATIC PCS 7 AS RTX Box (PROFIBUS) only in combination with ET 200M for RTX – Deliverable by 30 September 2019</td>
<td>1</td>
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<td>ET 200M for RTX Box (PROFIBUS) only in combination with PCS 7 AS RTX Box – Deliverable by 30 September 2019</td>
<td>1</td>
<td>6ES7153-2BA10-4AB1</td>
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</table>
## Process control system SIMATIC PCS 7
### Software licenses

#### 3er license / 3er upgrade:
- 1 x DVD: PCS 7 software V9.0 SP1
- 1 x paper: Certificate of license (A5E00276662)
- 1 x stick: License key USB stick with 3 * floating licenses

#### 6er license:
- 2 x SIMATIC PCS 7 – 3er license

#### System requirements:
- Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
- Windows 10 (64-bit) Enterprise 2015 LTSB

#### Sales note:
- Schools, colleges and universities, for in-house vocational training departments

#### Technical note:
- Authorization on USB stick

#### Order number:
<table>
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<tr>
<th>3er license</th>
<th>3er upgrade from V7.1 to V8.0</th>
<th>3er upgrade from V8.x to 9.0 SP1</th>
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<td>6ES7650-0XX08-0YE5</td>
<td>6ES7650-0XX58-0YE5</td>
<td>6ES7650-0XX58-2YS5</td>
</tr>
</tbody>
</table>
Process control system SIMATIC PCS 7 AS RTX Box

Package with:
- 1 x SIMATIC PCS 7 AS RTX Box 427D...
- 1 x ET 200M – Station with 7DI (144), 3DQ (64), 1AI(8), 1AQ (8) modules
- 1 x SITOP power supply 20A with front connector and communication cable

Details: see the following slides

Please note:
PCS 7 software licenses can be obtained separately, see previous slide
- Trainer Package adapted to PCS 7 Training documents

Note: The PCS7 AS RTX Box Trainer Package consists of two sub-packages. They must and can only be ordered together. The split into two order numbers is due to logistical reasons.

System requirements:
- Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
- Windows 10 (64-bit) Enterprise 2015 LTSB

Sales note:
Schools, colleges and universities, for in-house vocational training departments

Technical note:
See above

Order number:
6ES7654-0UE23-0XS1 + 6ES7153-2BA10-4AB1  Deliverable until 30 September 2019
SIMATIC PCS 7 AS RTX Box (PROFIBUS) 6ES7654-0UE23-0XS1 only in combination with ET 200M 6ES7153-2BA10-4AB1 for RTX (see next slide)

1 x SIMATIC PCS 7 AS RTX - PROFIBUS automation system based on IPC427D Core I7-3517UE, 2x1.7GHz; 4GB DDR3 RAM; SSD 80 GB MLC internal; 2 x GB LAN (RJ45) onboard; CP5622 onboard 4 x USB V3.0 (high current); 24 V DC power supply; w/o opt. drive, FDD, mouse, keyboard and monitor; Windows 7 Ultimate, MUI (EN/DE/FR/IT/SP/CH), 32-bit; WINAC RTX 2010 software controller; WINAC RTX 2010, PCS 7 RTX and AS PO 100 license integrated; preinstalled for PCS 7 operating

6ES7654-0UE23-0XX1

1 x SIMATIC DP, HART analog input SM 331, 8 AI, 0/4 – 20mA HART, for ET200M with IM153-2, 1 x 20-pin, features: FW update, HART secondary variables, redundancy, local diagnostic buffer with time stamp

6ES7331-7TF01-0AB0

2 x SIMATIC S7/PCS7, SM 322 DO module, 16 DO, 24 V DC/0.5A, capable of diagnostics, wire break detection at 0 and signal, 1 x 40-pin, interface module IM 153-X HF necessary

6ES7322-8BH10-0AB0

1 x SIMATIC S7-300, front connector for signal modules with screw contacts, 20-pin

6ES7392-1AJ00-0AA0

2 x SIMATIC S7-300, front connector with screw contacts, 40-pin

6ES7392-1AM00-0AA0

1 x SIMATIC, standard mounting rail width 35 mm, length 483 mm for 19 in. cabinets

6ES5710-8MA11

1 x SIMATIC NET, conn. cable 830-2 for PROFIBUS, preassembled cable with 2 D-sub

6XV1830-2AH50

1 x SIMATIC NET Industrial ETHERNET, TP XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m

6XV1870-3RH60

1 x SITOP PSU8200 20A stabilized power supply input: 120-230 V AC 110-220 V DC; output: 24 V DC/20 A

6EP1336-3BA10

Note: The PCS7 AS RTX Box Package has to be ordered in combination with ET 200M for RTX.
ET 200M 6ES7153-2BA10-4AB1 for RTX Box (PROFIBUS) only in combination with PCS 7 AS RTX Box 6ES7654-0UE23-0XS1 (see previous slide)

1 x SIMATIC DP, ET 200M Interface Module IM 153-2 High Feature for max. 12 S7-300 modules, with redundancy capability, time stamping suitable for isochronous mode, new features: 12 modules / station, slave initiative for Drive ES and Switch ES, expanded quantity structure for HART secondary variables, operation of 64 channel modules 32 signals / slot – see compatibility notes in the manual!

6ES7153-2BA10-0XB0

2 x SIMATIC S7-300, Digital input SM 321, galvanically isolated, 32DI, 24 V DC, 1 x 40-pin

6ES7321-1BL00-0AA0

6ES7321-7BH01-0AB0

4 x SIMATIC S7-300, Digital input SM 321, galvanically isolated, 16 DI, 24 V DC, 1 x 20-pin hardware interrupt, diagnostics, suitable for isochronous mode

6ES7322-1BL00-0AA0

6ES7331-7HF01-0AB0

1 x SIMATIC S7-300, Analog input SM 331, galvanically isolated, 8 AI, 14-bit, 0.052 ms/channel, current diagnostics

6ES7332-5HF00-0AB0

6ES7392-1AJ00-0AA0

5 x SIMATIC S7-300, Front connector for signal modules with screw contacts, 20-pin

6ES7392-1AM00-0AA0

6ES7195-1GG30-0XA0

4 x SIMATIC S7-300, Front connector with screw contacts, 40-pin

6ES7195-7HB00-0XA0

1 x SIMATIC DP, Rail for ET 200M 620 mm long for bus modules for holding bus modules for removal and insertion function

6ES7195-7HA00-0XA0

NOTE: The Trainer Package ET 200M for RTX must be ordered in combination with RTX-Box. See →
### Product Overview

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<th>HW sets</th>
<th>Licenses</th>
<th>SW vers.</th>
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<th>Note</th>
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</thead>
<tbody>
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<td>SINEMA Network Monitoring Software</td>
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<td>6</td>
<td>V14 SP1</td>
<td>6GK1950-0BB06</td>
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<td>FASTCONNECT cable set</td>
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<td>IE SCALANCE S615 LAN router</td>
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</tbody>
</table>

SINEMA Network Monitoring Software V14 SP1

6 x SINEMA Server Basic-50 V14 SP1

SINEMA Server 50 V14 Type of delivery DVD Monitoring for industrial networks incl. PROFINET automatic inventory, determination of topology, continuous diagnostics reporting, statistics, alarms, adaptable device profiles can be integrated in HMI web server-web client architecture, license type single, monitorable IP devices 50

System requirements:  
Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1  
Windows 10 (64-bit) Professional 1803/Enterprise 1803

Sales note:  
Schools, colleges and universities, for in-house vocational training departments

Technical note:  
Authorization on USB stick

Order number:  
6GK1950-0BB06

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SIMATIC CP343-1 Advanced

1 x SIMATIC CP 343-1 Advanced
SIMATIC NET CP 343-1 Advanced; for connecting SIMATIC S7-300 CPU to Industrial ETHERNET;
PROFINET IO controller and/or IO device; RT and IRT MRP, PROFINET CBA; TCP/IP;
ISO, UDP, S7 communication, S5-compatible communication, (Send/Receive) with Fetch/Write with and without RFC 1006,
multicast diagnostics extension, SNMP, DHCP, FTP client/server, email, Gigabit-SS1
x RJ45 (10/100/1000) PROFINET-SS 2X RJ45(10/100MB) PROFINET

Recommended accessories

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<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
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<tbody>
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<td>6XV1870-3RH60</td>
<td>SIMATIC NET Industrial ETHERNET, TP XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m</td>
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<tr>
<td>6GK1950-0BB00</td>
<td>Trainer Package: FastConnect cable set</td>
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System requirements: None available
Sales note: Schools, colleges and universities, for in-house vocational training departments
Technical note: Authorization on USB stick
Order number: 6GK1950-0AA07

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FastConnect cable set

1 x FastConnect Stripping tool

2 x SIMATIC NET IE FC RJ45 Plug Connector

4 x SIMATIC NET IE FC RJ45 PLUG 90 2X2, RJ45 Plug connector

1 x SIMATIC NET IE FC M12 PLUG PRO M12 Plug connector

1 x M12 Cable connector

1 x 50 Meter, GP 2X2 TP Installation cable

2 x SIMATIC NET, Industrial ETHERNET

SIEMENS
Ingenuity for life

IOT2000
Industrial Controls
Engineering SW
SIMIT Simulation
Basic Automation
SIMATIC Controller
Distributed IOs
Operator control & monitoring
Process Automation
Industrial Communication
Industrial Identification
Drive Technology
MindSphere
SinuTrain SW
PLM Software
WorldSkills
Ordering Inform.
# FastConnect cable set

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Order Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 x FastConnect stripping tool</td>
<td>6GK1901-1GA00</td>
</tr>
<tr>
<td>2 x SIMATIC NET IE FC RJ45 plug connector (10/100 MBPS) with rugged metal housing and FC connecting method for IE FC cable 2x2, 180 degree cable outlet, 1 pack = 10 pcs</td>
<td>6GK1901-1BB10-2AB0</td>
</tr>
<tr>
<td>4 x SIMATIC NET IE FC RJ45 Plug 90 2x2, RJ45 plug connector (10/100 MBPS) with rugged metal housing and FC connecting method for IE FC cable 2X2 90 degree cable outlet , 1 pack = 1 pcs</td>
<td>6GK1901-1BB20-2AA0</td>
</tr>
<tr>
<td>1 x SIMATIC NET IE FC M12 Plug Pro M12 plug connector with axial cable outlet</td>
<td>6GK1901-0DB20-6AA8</td>
</tr>
<tr>
<td>1 x M12 cable connection per socket for connection of SCALANCE W-700/X208PRO for 24V DC voltage supply, 3 pcs.</td>
<td>6GK1907-0DC10-6AA3</td>
</tr>
<tr>
<td>1 x 50 m flexible cable, GP 2x2 TP installation cable with flexible strand, PROFINET Type B, 4-wire</td>
<td>6XV1870-2B</td>
</tr>
<tr>
<td>2 x SIMATIC NET Industrial ETHERNET, TP XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m</td>
<td>6XV1870-3RH60</td>
</tr>
</tbody>
</table>

**Sales note:** Schools, colleges and universities, for in-house vocational training departments

**Technical note:** None available

**Order number:** 6GK1950-0BB00
**IE SCALANCE switch XC208 / SIMATIC NET**

1 x SCALANCE XC208
SCALANCE XC208 manageable layer 2 IE switch; 8x 10/100 Mbps Rj45 ports; 1 x console port;
Diagnostic LED; redundant power supply; temp. range -40°C to +70 °C
Mounting: standard mounting rail/S7 profile rail/wall; Redundancy functions, Office features (RSTP, VLAN,...);
PROFINET IO device ETHERNET/IP-compliant C-PLUG shaft

1 x SIMATIC NET, C-PLUG
C-plug, removable data storage medium for simple device replacement in case of fault, for recording configuration or project engineering and application data

**Recommended accessories**

| 6XV1870-3RH60 | 6GK1950-0BB00 |
| SIMATIC NET Industrial ETHERNET, TP XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m | Trainer Package: FastConnect cable set |

**System requirements:**
Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
Windows 10 (64-bit) Professional 1803/Enterprise 1803

**Sales note:**
Schools, colleges and universities, for in-house vocational training departments

**Technical note:**
None available

**Order number:**
6GK1950-0BB12

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SIMATIC NET Industrial Security Switch Technologies –
IE SCALANCE S615 with SINEMA RC basic software

1 x SIMATIC NET SCALANCE S615 LAN ROUTER
   For protection of devices/networks in automation technology and for protection of industrial
   communication by VPN and firewall; additional functions: address conversion
   (NAT/NAPT), connection to SINEMA RC, 5-port switch, 1 x digital input, 1 x digital output
6GK5615-0AA00-2AA2

1 x SINEMA Remote Connect Virtual Appliance; basic software package for 4 VPN connections.
   User, device, group management; certificate management; autoconfiguration interface SINEMA
   RC client: for 1 installation. SW, docu on DVD; license key on USB flash drive;
   2 languages (EN, DE)
6GK1720-1AH01-0BV0

8 x SINEMA RC client for 1 installation. Software, documentation on DVD, license key on
   USB flash drive; 2 languages (EN, DE)
6GK1721-1XG01-0AA0

1 x SINEMA RC Upgrade 64 Upgrade by 64 VPN connections, only license
6GK1722-1JH01-0BV0

1 x KEY-PLUG SINEMA RC, removable data storage medium for enabling the connection
   to SINEMA Remote Connect for S615 and SCALANCE M for simple device replacement
   in the event of a fault and for recording configuration data
6GK5908-0PB00

1 x SIMATIC NET Industrial ETHERNET, TP XP Cord RJ45/RJ45, CAT 6 A, crossed TP
cable 4X2, length 6 m
6XV1870-3RH60

| System requirements:          | Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1          |
|                               | Windows 10 (64-bit) Professional 1803                               |
| Sales note:                   | Schools, colleges and universities, for in-house vocational training departments |
| Technical note:               | None available                                                      |
| Order number:                 | 6GK1950-0BB13                                                       |

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Overview | Graphic

TIA Portal
SIMATIC NET Industrial Security Switch Technologies – IE SCALANCE S615 LAN router

2 x **SIMATIC NET SCALANCE S615 LAN ROUTER**
SCALANCE S615 LAN router; for protection of devices/networks in automation technology and for protection of industrial communication by VPN and firewall; additional functions: address conversion (NAT/NAPT), connection to SINEMA RC, 5-port switch, 1 x digital input, 1 x digital output

2 x **KEY-PLUG SINEMA RC**, removable data storage medium for enabling the connection to SINEMA Remote Connect for S615 and SCALANCE M for simple device replacement in the event of fault and for recording configuration data

**System requirements:**
Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
Windows 10 (64-bit) Professional 1803

**Sales note:**
Schools, colleges and universities, for in-house vocational training departments

**Technical note:**
None available

**Order number:**
6GK1950-0BB23
### SIMATIC NET – IWLAN

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<th>Item</th>
<th>Description</th>
<th>Order Number</th>
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<tbody>
<tr>
<td>1 x</td>
<td>IWLAN Access Point, SCALANCE W774-1 RJ45, 1 radio, 2 R-SMA antenna connectors, features only with key plug, IEEE 802.11A/B/G/H/N, 2.4/5GHZ, gross data rate 300 Mbps, 2 x RJ45 (max. 100 Mbps), POE integrated 2-port switch</td>
<td>6GK5774-1FX00-0AA0 (ROW version) or 6GK5774-1FX00-0AB0 (USA version)</td>
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<tr>
<td>2 x</td>
<td>IWLAN Client, SCALANCE W734-1 RJ45, 1 radio, 2 R-SMA antenna connectors, features only with key plug, IEEE 802.11A/B/G/H/N, 2.4/5GHZ, gross data rate 300 Mbps, 2 x RJ45 (max.100 Mbps), POE integrated 2-port switch, 2x24 VDC, IP20</td>
<td>6GK5734-1FX00-0AA0 (ROW version) or 6GK5734-1FX00-0AB0 (USA version)</td>
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<td>6 x</td>
<td>IWLAN Antenna ANT 795-4MA with omnidirectional characteristic, radial rotation with additional joint, antenna gain: 3/5DBI, incl. RSMA connector, IP30 (-20 to +60 degrees C), 2.4/5 GHz; direct mounting to SCALANCE W with RSMA connection technology, incl.: 1 x ANT795-4MA Compact Instructions on paper (DE/EN)</td>
<td>6GK5795-4MA00-0AA3</td>
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<tr>
<td>1 x</td>
<td>Key Plug W780, replaceable medium for activating features for SCALANCE W in Access Point and Client mode and for easy replacement of device in case of failure, and for storage of configuration data</td>
<td>6GK5907-8PA00</td>
</tr>
<tr>
<td>2 x</td>
<td>Key Plug W740, replaceable medium for activating features for SCALANCE W in Client Mode</td>
<td>6GK5907-4PA00</td>
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</tbody>
</table>

**Recommended accessories**

- 6GK1950-0BB00
- Trainer Package: FastConnect cable set

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**System requirements:**

- Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
- Windows 10 (64-bit) Professional 1803/Enterprise 1803

**Sales note:**

- Schools, colleges and universities, for in-house vocational training departments

**Technical note:**

- None available

**Order number:**

- 6GK1950-0BB14 (ROW version)
- 6GK1950-0BB15 (USA version)
Development Kit – PROFINET & PROFISAFE

1 x EK-ERTEC 200P PN IO evaluation kit for PN IO, device based on ERTEC 200P Evaluation Board EB 200P, example software, docu

1 x PROFINET driver for controller Development package for PROFINET IO controller V2.1, on CD-ROM, source code with example implementation, IRT controller in connection with CP1625 Dev. (to be ordered separately)

1 x PROFIsafe starter kit V3.5 according to PROFIsafe profile V2.6.1

1 x SIMATIC NET Industrial ETHERNET, TP XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m

Sales note: Schools, colleges and universities, for in-house vocational training departments

Technical note: Support by ComDeC – Communication, Development & Certification

Order number: 6ES7195-3BE00-4AB1

1 x EK-ERTEC 200P PN IO evaluation kit for PN IO, device based on ERTEC 200P Evaluation Board EB 200P, example software, docu

1 x PROFINET driver for controller Development package for PROFINET IO controller V2.1, on CD-ROM, source code with example implementation, IRT controller in connection with CP1625 Dev. (to be ordered separately)

1 x PROFIsafe starter kit V3.5 according to PROFIsafe profile V2.6.1

1 x SIMATIC NET Industrial ETHERNET, TP XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m
Development Kit – PROFINET & PROFISAFE
The PROFINET stack

1. TCP/IP (IEEE802.3)
   - Parameter assignment and configuration
   - Diagnostic data
   - Send authorization for user data channel

2. Real-time (RT)
   - Cyclic high-performance transfer (up to 1 ms cycle time) of user data
   - Event-dependent messages/warnings

3. ISOchronous real-time (IRT)
   - Cyclic synchronous transfer of user data
   - Hardware support from ERTEC
   - Jitter < 1 μs

IT applications e.g.
- HTTP
- SNMP
- DHCP...

PROFINET applications
- Configuration diagnostics
- Process data

TCP/UDP
- Non-Real-time
- Real-time

IP

ETHERNET

1. RT
2. IRT
Development Kit – PROFINET & PROFISAFE
Evaluation Kit for ERTEC 200P-2

High speed with the ERTEC 200P-2

- Support of performance upgrade from PROFINET according to specification V2.3
  → Cycle times as fast as 31.25 µs achievable (Eval Kit V4.5 enables 125 µs)
- ISOchronous connection of applications to PROFINET
- ARM 926 with 250 MHz for demanding applications

Fast start in development with Evaluation Kit

- Complete PROFINET stack in source code
- Evaluation board for ERTEC 200P-2 (EB 200P)
- Application examples based on ERTEC 200P-2
- License-free development tools and real-time operating system eCos
Development Kit – PROFINET & PROFISAFE
PROFIsafe Starter Kit

Advantages
- The Development Kit supports the development of a PROFIsafe field device based on PROFINET.
- The PROFIsafe Starter Kit V3.5 complies with V2.6.1 of the PROFIsafe profile, specified in IEC 61784-3.
- Meets a range of user requirements such as signal-specific passivation and watchdog expansion for configuration in run.

Contents
- Current PROFIsafe specification
- PROFIsafe driver software (PSD) with PROFIsafe certificate
- CRC calculation tools
- iPar Server function block (software and instructions)
- Verify code
- Programming manual and PROFIsafe manual
- Sample application
Development Kit – PROFINET & PROFISAFE

The PROFINET Driver for Controllers

Key features

• Support of PROFINET with RT (cycle time down to 1 ms) when using a real-time operating system
• Example implementation for Windows (cycle time down to 32 ms)
• Example implementation for SIMATIC IPC hardware
• XML interface for configuration

Scope of delivery

Product CD

• Source code of the PROFINET driver for controllers on CD
• Documentation

Customer Support Portal

• HSP for TIA Portal
• Further tools for development tools (including trace)
## Industrial Identification
### Overview

<table>
<thead>
<tr>
<th>Product</th>
<th>HW sets</th>
<th>Licenses</th>
<th>SW vers.</th>
<th>MLFB</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIMATIC MV540 HR code reader PROFINET – no shape recognition</td>
<td>1</td>
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<td></td>
<td>6GF3500-0TP02</td>
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<td>SIMATIC RF200 RFID system PROFINET</td>
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<td>6GT2096-3AA00-0AA0</td>
<td>○</td>
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<td></td>
<td>6GT2096-5AA00-0AA0</td>
<td>○</td>
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<td></td>
<td>6GT2811-6CC10-0XB0</td>
<td>NEW</td>
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</tbody>
</table>

SIMATIC MV540 HR optical reader PROFINET

- 1 x MV440 optical reader
- 1 x Lens 25mm
- Built-in ring light
- 1 x Text-Genius Plus OCR License *)
- 1 x PAT-Genius License
  Note: Licenses can only be used from mid-2019
- 1 x Power-Data Cable
- 1 x IE Cable
- 1 x Mounting plate
- 1 x Protection housing
- 1 x Protection housing
- 1 x RFID System SW & Doku

Note: Licenses can only be used from mid-2019
SIMATIC MV540 HR optical reader PROFINET

1 x SIMATIC MV540 H optical reader
- Resolution: 1280 x 1024 pixels
- Function: 1D/2D code reading
- Image field and distance: variable, (ABH lens object)
- PoE

1 x MV440-MV500 mounting plate;
- Material: stainless steel (4 mm), versatile use

1 x E-focus lens 25 mm, only for MV500 devices

1 x D65 lens protection metal-glass, degree of protection IP67 for MV440 and MV540 devices

1 x Built-in ring light MV540 red multi for MV540 devices; incl. cross-polarization filter
- Illuminant: Lighting range up to 120 cm

1 x Power-IO-DATA cable MV500 10 m
- For MV540 devices M12 – 12-pole socket pre-assembled at one end, length 10 m

1x IE Connecting Cable M12-90/IE FastConnect RJ45 plug 145, length 10 m

1 x Industrial ETHERNET FastConnect RJ45 plug 90 2x2, RJ45 Steckverbinder (10/100Mbit/s) with rugged metal enclosure and FC connection system, for IE FC Cable 2x 2; 180° cable outlet

1 x RFID systems software & documentation on DVD, FB/FC for SIMATIC, RFID PC libraries, RFID tools

1 x OCR license for MV440/MV540 code reading systems; Single License

1 x Pat-Genius; Object detection license for MV440 Code reading devices; Single license, single license

Sales note: Schools, colleges and universities, for in-house vocational training departments

Technical note: Parameter assignment with Web-based user interface with browser (as of IE5.5), JAVA-VM (MS, SUN)

Order number: 6GF3500-0TP02

*) Licenses can only be used from mid-2019

[Application example]
SIMATIC MV440 HR optical reader PROFINET

1 x MV440 optical reader
1 x Lens 12mm
Built-in ring light
1 x Text-Genius Plus OCR License
1 x PAT-Genius License

1 x Mounting plate
1 x Intermediate ring
1 x Protection housing
1 x Power Data Cable
1 x IE Cable

Application example

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Overview | Graphic
SIMATIC MV440 HR optical reader PROFINET

1 x SIMATIC MV440 HR Optical Reader, resolution: 1024 x 768 pixels; for 1D/2D codes and OCR
1 x Text-Genius plus; reading of 1D bar codes and 2D matrix codes, text recognition;
OCR license for MV440 code reading systems; single license
1 x Pat-Genius shape recognition, object recognition license for MV440 code readers
1 x MV440 reader mounting plate, very sturdy (4 mm material)
1 x Power-IO-RS232 cable for MV 400 readers, length: 10m
1 x Mini-lens 16 mm, 1:1.4 Pentax C1614-M (KP)
1 x D65 lens protection metal-glass IP67 degree of protection for MV440 readers
1 x Intermediate ring set 0.5/1/1 mm
1 x Built-in red ring light for all MV440 readers
1 x Built-in white ring light for all MV440 readers
1 x IE connecting cable M12-180/IE FC RJ45 Plug-145; length 10.0 m

Order number: 6GF3400-0TP03

Sales note: Schools, colleges and universities, for in-house vocational training departments
Technical note: Parameter assignment with Web-based user interface with browser (as of IE5.5), JAVA-VM (MS, SUN)

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SIMATIC RF200 RFID system PROFINET

- 2 x RF200 Reader RF40R
- 1 x Communication Module RF180C
- 1 x PROFINET/ETHERNET Connection Block
- 1 x Power Plug PRO
- 1 x PUSH Pull Plug

- 5 x Transponder MDS D100 ISO-Card
- 5 x Mobile Data Storage
- 5 x Spacer
- 5 x Transponder
- 2 x Connecting Cable
- 1 x RFID System SW & Doku
SIMATIC RF200 RFID system PROFINET

2 x SIMATIC RF200 Reader RF240R; RS422 interface (3964R); with integrated antenna
1 x RFID Communication Module RF180C for PN; 2 readers can be connected; without connection block for PROFINET
1 x RFID PROFINET/ETHERNET connection block, push-pull RJ45 for RF180C, RF182C
1 x Power plug PRO, 5-pole push-pull power connector for on-site assembly
1 x IE FC RJ45 plug PRO; IP65; FastConnect; IE; RJ45 push-pull plug for on-site assembly with IE FC TP cable 2x2
2 x SIMATIC RF, MV connecting cable, preassembled, between ASM 456, RF160C, RF170C, RF18XC and reader or extension cable for ASM 456, RF160C, RF170C, RF18XC with RF, MV, MOBY PUR, CMG, length 2 m
1 x RFID systems SW & Document DVD, FB/FC for SIMATIC, RFID PC libraries, RFID tools
5 x Transponder MDS D100 for RF200/RF300 ISO/MOBY D ISO Card PETix up to +80° ISO 15693 Chip type, NXP ICODE SLI, 112 byte user memory
5 x MOBY D / RF300 ISO Mobile data storage MDS D460, according to ISO 15693; 2000 bytes FRAM
5 x MOBY D / RF300 ISO Spacer for MDS D160 / MDS D460; diameter 20 mm; height 15 mm
5 x RF200 / RF300 ISO Transponder MDS D423; transponder in and on metal, according to ISO 15693; 2000 bytes FRAM, user memory 30x8mm DXH; IP 68, IPX9K

System requirements: Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
Sales note: Schools, colleges and universities, for in-house vocational training departments
Technical note: None available
Order number: 6GT2096-3AA00-0AA0

Ordering Inform.: 6GT2821-4AC10
6GT2002-0JD00
6GT2002-2JD00
6GT1907-0AB10-6AA0
6GT1901-1BB20-6AA0
6GT2891-4FH20
6GT2080-2AA20
6GT2600-0AD10
6GT2600-4AB00
6GT2690-0AG00
6GT2600-4AA00

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Overview | Graphic
SIMATIC RF200 RFID system IO-Link

2 x SIMATIC RF200 reader RF210R IO-Link interface V1.1; IP67, -25 to +70 °C; M18x 83 mm; with integrated antenna 32 bytes IO; 230 Kbps 6GT2821-1BC32
2 x SIMATIC RF IO-Link connecting cable, pre-assembled, between IO-Link master and reader, M12 4-pin and open end, PUR, length 5m 6GT2891-4LH50
5 x Transponder MDS D428 for RF200/RF300 ISO/MOBY D screw transponder M8 long; ISO 15693, chip type FUJITSU MB89R118, 2000 bytes FRAM user memory 24x 20 mm (DxH); SW22 6GT2600-4AK00-0AX0
1 x RFID systems software & documentation on DVD, FB/FC for SIMATIC, RFID PC libraries, RFID tools 6GT2080-2AA20

System requirements:
Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
Windows 10 (64-bit) Professional 1803/Enterprise 1803

Sales note:
Schools, colleges and universities, for in-house vocational training departments

Technical note:
None available

Order number:
6GT2096-5AA00-0AA0

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SIMATIC RF300 RFID system PROFINET

1 x SIMATIC RF310R reader 55x75x30
1 x SIMATIC RF340R reader 75x75x41
5 x SIMATIC RF340T transponder 8 KB memory
10x SIMATIC RF360T transponder 8 KB memory
20x MDS D124 mobile data memory 112 bytes EEPROM

1 x PROFINET communication module RF180C with RJ45 connector terminal block in IP67

1 x SW & Docu
1 x Power supply cable for RF180C
2x connecting cable between reader RF340R and interface module RF180C

Tank monitoring by RFID nameplates, documentation of process data

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Overview | Graphic
SIMATIC RF300 RFID system PROFINET

1 x RFID Communication Module RF180C for PROFINET; 2 readers can be connected
1 x RFID PROFINET/ETHERNET connection block
2 x RF300/600 connecting cable, preassembled, length: 2 m
1 x RFID systems software package and documentation on CD
1 x RF300 Reader RF340R (RF300 +ISO15693) with RS422 and integrated antenna
1 x Power plug PRO, 5-pole push-pull power connector
1 x RF300 Reader RF310R (RF300 +ISO15693) with RS422 and integrated antenna
5 x Transponder RF340T 8 KB FRAM
10 x Transponder RF360T EPOXY card, 8 KB FRAM
20 x MOBY D / RF300 ISO Mobile data memory MDS D124, 112 bytes EEPROM

System requirements:
- Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
- Windows 10 (64-bit) Professional 1803/Enterprise 1803

Sales note:
Schools, colleges and universities, for in-house vocational training departments

Technical note:
None available

Order number: 6GT2096-1AA00-0AA0

6GT2002-0JD00
6GT2002-2JD00
6GT2891-4FH20
6GT2080-2AA20
6GT2801-2BA10
6GT2801-BA10
6GT2800-4BB00
6GT2800-4AC00
6GT2600-0AC10

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Overview | Graphic
SIMATIC RF600 RFID system PROFINET

2x SIMATIC RF615R
Reader 133x155x45mm
with internal antenna

2x SIMATIC RF642A
Antenna 185x185x47mm

20x SIMATIC RF645T
Transponder with mounting cover

1x Wide-range power supply for connecting up to 2 readers, EU power cable

1x SW and docu (enclosed with readers)

2x Power supply cable to reader, 24V, 5 m
2x Industrial ETHERNET cable, 5 m
2x Antenna cable, 5 m

Application: Identification of similar goods in conveyor systems; local reaction to read events
SIMATIC RF600 RFID system PROFINET

2 x UHF RFID Reader RF615R ETSI with internal antenna
2 x UHF RFID antenna RF642A
4 x Mounting for RF600 readers and antennas
1 x Wide range power supply for connecting 2 RF600 readers
1 x Power cable for wide-range power supply
2 x Power supply cable for RF600 reader, 24V, 5 m
2 x Industrial ETHERNET line, M12, RJ45, 5 m
2 x Antenna cable UHF RFID, 5 m, drag chain compatible
20 x UHF RFID transponder RF645T, mountable directly on metal
20 x Mounting cover for RF645T

System requirements:
Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
Windows 10 (64-bit) Professional 1803/Enterprise 1803

Sales note:
Schools, colleges and universities, for in-house vocational training departments

Technical note:
None available

Order number:
6GT2811-6CC10-0XB0
<table>
<thead>
<tr>
<th>Product</th>
<th>HW sets</th>
<th>Licenses</th>
<th>SW vers.</th>
<th>MLFB</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>SINAMICS S210 servo drive for 230V AC single phase with PROFINET, exclusively with S7-1500</td>
<td>1</td>
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<td>Available soon</td>
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<td>SINAMICS G120 standard drive for 230V AC single phase with PROFINET</td>
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<td>SIMOTION D410 add on for SINAMICS S120</td>
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<td>SIMOTION SCOUT Software incl. CamTool for STEP 7 Professional exclusively with V15.1</td>
<td>see</td>
<td></td>
<td>V5.3 SP1</td>
<td>6AU1810-1BC53-1YA5</td>
<td>NEW</td>
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<td>SIMOTION SCOUT Software incl. CamTool for students for STEP 7 Professional exclusively with V15.1 – 365 days</td>
<td>see</td>
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<td>V5.3 SP1</td>
<td>6AU1810-1BE53-1YA5</td>
<td>NEW</td>
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</tbody>
</table>

SINAMICS G120 standard drive 1 AC 230 V

Software
Startdrive/STARTER

Control Unit
PROFINET CU250S-2 PN
with OPERATOR PANEL (IOP)

Power module
PM240-2 – 0.55kW without EMC filter

Asynchronous motor
i.e. 1LE1 with power: 0.55kW

Circuit breaker

PC converter connection kit

Power line

G120 Trainer Package 1AC 230 V – 0.55 kW PROFINET

System requirements:
Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
Windows 10 (64-bit) Professional 1803/Enterprise 1803

Sales note:
Schools, colleges and universities, for in-house vocational training departments

Technical note:
See next slides

Order number:
6SL3200-3AX00-0UL1

Note: Your local technical consultant will support you in selecting a motor

校外技术顾问将支持您选择电机

Download STARTER
Download Startdrive
1 x SINAMICS power module PM240-2 unfiltered with integrated braking chopper 200-240 V 1/3AC+10/-10% 47-63Hz power high overload: 0.55kW at 200% 3 s, 150% 57 s, 100% 240 s; Ambient temperature -10 to +50 °C; power low overload: 0.75kW at 150% 3 s, 110% 57 s, 100% 240 s; Ambient temperature -10 to +40 °C 196x 73x 165 (HxWxD), FSA degree of protection IP20 without control unit and operating unit released as of CU firmware V4.6

1 x SINAMICS G120 Control Unit CU250S-2 PN integrated PROFINET support of vector control, easy positioning EPOS via extended function license 4 configurable DI/DQ, 6 DI (3 F-DI), 5 DI, 3 DQ (1 F-DQ), 2 AI, 2 AQ Safety Integrated STO, SBC, SS1 further Safety functions via extended safety license encoder: D-CLIQ + HTL/TTL/SSI, resolver/HTL VIA terminal protection IP20 USB and SD/MMC interface

1 x SINAMICS SD CARD 512 MB empty

1 x SINAMICS G120 shield connection kit 4 incl. shield plate and mounting elements for control units CU250S-2 variant: USS, CAN, DP, PN

1 x SINAMICS G Intelligent Operator Panel IOP-2 for SINAMICS G120, G120P G110M, G110D, G120D, G120C ET 200PRO FC-2

1 x SINAMICS G120 PC inverter connection kit 2 3 m USB cable for control units CU230P-2 CU240B-2, CU240E-2, CU250S-2 G110M and SINAMICS G120C

1 x SINAMICS License Safety Integrated extended functions for memory card

1 x SINAMICS G120 license extended functions for CU250S-2 VECTOR memory card for functionality: EPos
SINAMICS G120 standard drive 1 AC 230 V

Optional motors

SIMOTICS GP Low-voltage motor without encoder
SIMOTICS GP Motor Type: 1AV3082B Low-voltage motor, IEC squirrel-cage rotor, self-ventilated, IP55, temp. class 155(F) to 130(B), aluminum housing, Premium efficiency, 4-pole, * FS80M * 0.55kW (50Hz) 0.63kW (60Hz) 3 AC 50Hz 230VD/400VY * 3 AC 60Hz 460VY IM B 3, motor protection, 1 PTC thermistor for disconnection, terminal box at top

SIMOTICS GP Low-voltage motor with HTL encoder
Z = G01 with HTL encoder SIMOTICS GP Motor Type: 1AV3082B Low-voltage motor, IEC squirrel cage, self-ventilated, IP55, temp. class 155(F) to 130(B), aluminum housing, Premium efficiency, 4-pole, * FS80M * 0.55kW (50Hz) 0.63kW (60Hz) 3 AC 50Hz 230VD/400VY * 3 AC 60Hz 460VY IM B 3, motor protection with 1 PTC thermistor for disconnection G01 = Built-on rotary pulse encoder 1XP8012-10 (HTL) 1024 pulses, with external fan (F70) 1XP8032-10 is used

SIMOTICS GP Low-voltage motor with TTL encoder
SIMOTICS GP Motor Type: 1AV3082B Low-voltage motor, IEC squirrel-cage, self-ventilated, IP55, temp. class 155(F) to 130(B), aluminum housing, Premium efficiency, 4-pole * FS80M * 0.55kW (50Hz) 0.63kW (60Hz) 3 AC 50Hz 230VD/400VY * 3 AC 60Hz 460VY IM B 3, motor protection with 1 PTC thermistor for disconnection, terminal box at top, G02 = Built-on rotary pulse encoder 1XP8012-20 (TTL) 1024 pulses, with external fan (F70) 1XP8032-20 is used
SINAMICS G120 standard drive 1 AC 230 V

Optional software

STARTER
Commissioning tool for SINAMICS and MICROMASTER Version V5.1 SP1

6SL3072-0AA00-0AG0

STARTDRIVE
Engineering and commissioning tool for SINAMICS Version 15.1

6SL3072-4FA02-0XA0

SIZER
Configuration tool for Siemens drives

6SL3070-0AA00-0AG0

See also: Trainer Package SIRIUS switchgear – 3TK3388-0TP00

Note: STARTDRIVE is contained in the Trainer Package SIMATIC STEP 7 Professional Software for Training, see →

Download STARTER ➤ Download Startdrive
SINAMICS G120 standard drive 3 AC 400 V

G120 Trainer Package 3AC 400 V – 0.55 kW PROFINET

System requirements:
- Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
- Windows 10 (64-bit) Professional 1803/Enterprise 1803

Sales note:
Schools, colleges and universities, for in-house vocational training departments

Technical note:
See next slides

Order number:
6SL3200-3AX00-0UL2

Note: Your local technical consultant will support you in selecting a motor

Download STARTER
Download Startdrive

Not part of the package

Asynchronous motor
i.e. 1LE1
with power: 0.55kW

Power module
PM240-2 – 0.55kW without EMC filter

PC converter connection kit

Control Unit
PROFINET CU250S-2 PN with OPERATOR PANEL (IOP)

S7 controller

Software
Startdrive/STARTER

Circuit breaker

Power line

Not part of the package

Asynchronous motor
i.e. 1LE1
with power: 0.55kW

Download TIA Portal
SINAMICS G120 standard drive 3 AC 400 V

1 x SINAMICS Power Module PM240-2 unfiltered with integrated braking chopper 380-480 V 3 AC +10/-10% 47-63 Hz power high overload: 0.55kW at 200% 3 s, 150% 57 s, 100% 240 s; Ambient temperature -10 to +50 °C; power low overload: 0.75kW at 150% 3 s, 110% 57 s, 100% 240 s; Ambient temperature -10 to +40 °C 196x 73x 165 (HxWxD), FSA degree of protection IP20 without control unit and operating unit released as of CU firmware version V4.6

1 x SINAMICS G120 Control Unit CU250S-2 PN, integrated PROFINET supports vector control, basic positioner EPos via Extended Function license, 4 configurable DI/DQ, 6 DI (3 F-DI), 5 DI, 3 DQ (1 F-DQ), 2 AI, 2 AQ Safety Integrated STO, SBC, SS1, further safety functions via Extended Function license, encoder: D-CLiQ + HTL/TTL/SSI, resolver/HTL via terminal protection IP20, USB and SD/MMC interface

1 x SINAMICS SD CARD 512 MB empty

1 x SINAMICS G120 Shield connection kit 4 incl. shield plate and mounting elements for control units CU250S-2 variant: USS, CAN, DP, PN

1 x SINAMICS G Intelligent Operator Panel IOP-2 für SINAMICS G120, G120P G110M, G110D, G120D, G120C ET 200PRO FC-2

1 x SINAMICS G120 PC inverter connection kit 2 3 m USB cable for control units CU230P-2 CU240B-2, CU240E-2, CU250S-2 G110M and SINAMICS G120C

1 x SINAMICS License Safety Integrated Extended Functions for memory card

1 x SINAMICS G120 License Extended Functions for CU250S-2 Vector memory card for functionality: EPos
SINAMICS G120 standard drive 3 AC 400 V

Optional motors

SIMOTICS GP Low-voltage motor without encoder
SIMOTICS GP Motor Type: 1AV3082B Low-voltage motor, IEC squirrel cage, self-ventilated, IP55, temp. class 155(F) to 130(B), aluminum housing, Premium efficiency, 4-pole, * FS80M * 0.55kW (50Hz) 0.63kW (60Hz) 3 AC 50Hz 230VD/400VY * 3 AC 60Hz 460VY IM B 3, motor protection with 1 PTC thermistor for disconnection, terminal box at top

SIMOTICS GP Low-voltage motor with HTL encoder
Z=G01 with HTL encoder SIMOTICS GP Motor Type: 1AV3082B Low-voltage motor, IEC squirrel cage, self-ventilated, IP55, temp. class 155(F) to 130(B), aluminum housing, Premium efficiency, 4-pole, * FS80M * 0.55kW (50Hz) 0.63kW (60Hz) 3 AC 50Hz 230VD/400VY * 3 AC 60Hz 460VY IM B 3, motor protection with 1 PTC thermistor for disconnection, G01=Built-on rotary pulse encoder 1XP8012-10 (HTL), 1024 pulses, with external fan (F70) 1XP8032-10 is used

SIMOTICS GP Low-voltage motor with TTL encoder
SIMOTICS GP Motor Type: 1AV3082B Low-voltage motor, IEC squirrel-cage, self-ventilated, IP55, temp. class 155(F) to 130(B), aluminum housing, Premium efficiency, 4-pole, * FS80M * 0.55kW (50Hz) 0.63kW (60Hz) 3 AC 50Hz 230VD/400VY * 3 AC 60Hz 460VY IM B 3, motor protection with 1 PTC thermistor for disconnection, terminal box at top, G02=Built-on rotary pulse encoder 1XP8012-20 (TTL) 1024 pulses, with external fan (F70) 1XP8032-20 is used

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SINAMICS G120 standard drive 3 AC 400 V

Optional software

**STARTER**
Commissioning tool for SINAMICS and MICROMASTER Version V5.1 SP1

6SL3072-0AA00-0AG0

**STARTDRIVE**
Engineering and commissioning tool for SINAMICS Version 15.1

6SL3072-4FA02-0XA0

**SIZER**
Configuration tool for Siemens drives

6SL3070-0AA00-0AG0

See also: Trainer Package SIRIUS switchgear 3TK3388-0TP00

Note: STARTDRIVE is contained in the Trainer Package SIMATIC STEP 7 Professional Software for Training, see ↓

Download STARTER  ➤ Download Startdrive

TIA Portal
SINAMICS S120 servo drive 1 AC 230 V

System requirements:
Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
Windows 10 (64-bit) Professional 1803/Enterprise 1803

Sales note:
Schools, colleges and universities, for in-house vocational training departments

Technical note:
None available

Order number:
6SL3080-8AB01-0AA0

Note: Your local technical consultant will support you in selecting a motor

Download STARTER
Download Startdrive

Overview | Graphic | TIA Portal
1 x SINAMICS power module PM240-2 unfiltered with integrated braking chopper 200-240 V 1/3AC+10/-10%
47-63Hz power high overload: 0.55kW at 200% 3 s, 150% 57 s, 100% 240 s; Ambient temperature -10 to +50
°C; power low overload: 0.75kW at 150% 3 s, 110% 57 s, 100% 240 s; Ambient temperature -10 to +40 °C
196x 73x 165 (HxWxD), FSA degree of protection IP20 without control unit and operating unit released as of
CU firmware V4.6

1 x SINAMICS S120 Control Unit CU310-2 PN with PN interface without CompactFlash card
1 x License Safety Integrated extended functions

1 x SINAMICS S120 Basic Operator Panel BOP20 for electronic controls,
6 keys for parameter setting and diagnostic information, suitable for control units CU305, CU310, CU320

1 x Software on DVD: STARTER commissioning tool for SINAMICS and MICROMASTER
V5.1 SP1 DVD for Windows Server 2008 R2 SP1 (64-bit), Windows 10 pro/Enterprise (64-bit), Windows 7 (64-
bit) Professional, Ultimate and Enterprise (Standard) DE, EN, ES, FR, and IT already contains the SSP for
SINAMICS G120 V4.7 SP9, SINAMICS S120 V5.1, SINAMICS MV V4.7 SP7

1 x SINAMICS Engineering System SINAMICS DCC V3.1 SP1, full license DCC for SINAMICS, option for
STARTER V5.1 SP1, delivery on DVD, incl. floating license
SINAMICS S120 servo drive 1 AC 230 V
Optional hardware and software

Power supply
SIMATIC ET 200SP PS 24V/5A Stabilized power supply, input: 120/230V AC, output: 24V DC/5 A

Power supply
LOGO!POWER 24V/4 A Stabilized power supply, input: 100-240V AC, output: 24V DC/4 A

Power supply
SITOP PSU200M 5 A Stabilized power supply, input: 120/230-500V AC, output: 24V DC/5 A

Power supply
SIMATIC ET 200SP PS 24V/10A Stabilized power supply, input: 120/230V AC, output: 24V DC/10 A

Cable
SIMATIC NET Industrial ETHERNET, TP XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m

Terminal module TM31 IO expansion
For the SINAMICS S120; 12 DI, 2 DQ, 2 AI, 2 AQ

Terminal module TM54F Safety IO
For devices S120; fail-safe digital inputs and outputs

Signal line
DRIVE-CLiQ cable IP20/IP20 length: 0.95 meters

Sizer
Configuration tool for Siemens drives

Power supply
SIMATIC ET 200SP PS 24V/5A Stabilized power supply, input: 120/230V AC, output: 24V DC/5 A

Power supply
LOGO!POWER 24V/4 A Stabilized power supply, input: 100-240V AC, output: 24V DC/4 A

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SIMATIC ET 200SP PS 24V/10A Stabilized power supply, input: 120/230V AC, output: 24V DC/10 A

Cable
SIMATIC NET Industrial ETHERNET, TP XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m

Terminal module TM31 IO expansion
For the SINAMICS S120; 12 DI, 2 DQ, 2 AI, 2 AQ

Terminal module TM54F Safety IO
For devices S120; fail-safe digital inputs and outputs

Signal line
DRIVE-CLiQ cable IP20/IP20 length: 0.95 meters

Sizer
Configuration tool for Siemens drives
SINAMICS S120 servo drive 3 AC 400 V

S120 Trainer Package 3AC 400V – 0.55kW PROFINET

- Control Unit PROFINET CU310 PN
- Compact Flash card
- Basic Operator Panel
- Power module PM240-2 – 0.55kW without EMC filter
- PC converter connection kit
- Circuit breaker
- Asynchronous motor i.e. 1LE1 with power: 0.55kW
- Servo motor i.e. 1FK7
- Power line
- Not part of the package

System requirements:
- Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
- Windows 10 (64-bit) Professional 1803/Enterprise 1803

Sales note:
- Schools, colleges and universities, for in-house vocational training departments

Technical note:
- None available

Order number:
- 6SL3080-8AE01-0AA0

Note: Your local technical consultant will support you in selecting a motor

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Download Startdrive

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Overview | Graphic | TIA Portal
1 x SINAMICS power module PM240-2 unfiltered with integrated braking chopper 380-480 V 3 AC +10/-10% 47-63 Hz power high overload: 0.55kW at 200% 3 s, 150% 57 s, 100% 240 s; Ambient temperature -10 to +50 °C; power low overload: 0.75kW at 150% 3 s, 110% 57 s, 100% 240 s; Ambient temperature -10 to +40 °C 196x 73x 165 (HxWxD), FSA degree of protection IP20 without control unit and operating unit released as of CU firmware V4.6

1 x SINAMICS S120 Control Unit CU310-2 PN with PN interface without Compact Flash card

1 x SINAMICS S120 Compact Flash card without performance extension including Certificate of License V5.1 F01: 1 x License Safety Integrated extended functions

1 x SINAMICS S120 Basic Operator Panel BOP20 for electronic controls, two-line display, 6 keys for parameter setting and diagnostic information, suitable for control units CU305, CU310, CU320

1 x Software on DVD: STARTER commissioning tool for SINAMICS and MICROMASTER V5.1 SP1 DVD for Windows Server 2008 R2 SP1 (64-bit), Windows 10 Pro/Enterprise (64-bit), Windows 7 (64-bit) Professional, Ultimate and Enterprise (Standard) DE, EN, ES, FR and IT already contains the SSP for SINAMICS G120 V4.7 SP9, SINAMICS S120 V5.1, SINAMICS MV V4.7 SP7

1 x SINAMICS Engineering System SINAMICS DCC V3.1 SP1, full license DCC for SINAMICS, option for STARTER V5.1 SP1, delivery on DVD, including floating license
**SINAMICS S120 servo drive 3 AC 400 V**

Optional hardware and software

**Power supply**
- SIMATIC ET 200SP PS 24V/5A Stabilized power supply, input: 120/230V AC, output: 24V DC/5 A
- LOGO!POWER 24V/4A stabilized power supply, input: 100-240V AC, output: DC 24V/4 A
- SITOP PSU200M 5A Stabilized power supply, input: 120/230-500V AC, output: 24V DC/5 A
- SIMATIC ET 200SP PS 24V/10A stabilized power supply, input: 120/230V AC, output: 24V DC/10 A

**Power supply**
- LOGO!POWER 24V/4A stabilized power supply, input: 100-240V AC, output: DC 24V/4 A
- SITOP PSU200M 5A Stabilized power supply, input: 120/230-500V AC, output: 24V DC/5 A
- SIMATIC ET 200SP PS 24V/10A stabilized power supply, input: 120/230V AC, output: 24V DC/10 A

**Cable**
- SIMATIC NET Industrial ETHERNET, TP XP Cord RJ45/RJ45, CAT 6 A, crossed TP cable 4x2, length 6 m

**Terminal module TM31 IO expansion**
- For the SINAMICS S120; 12 DI, 2 DQ, 2 AI, 2 AQ

**Terminal module TM54F Safety IO**
- For SINAMICS devices S120; fail-safe digital inputs and outputs

**Signal line**
- DRIVE-CLiQ cable IP20 / IP20 length: 0.95 meters

**SIZER**
- Configuration tool for Siemens drives
SIMOTION D410-2 add-on for SINAMICS S120
1- and 3-phase

SIMOTION D410-2 is a single-axis system which can be used in combination with SINAMICS S120 AC/AC power module.

SIMOTION D410-2 is the entry-level controller in the SIMOTION D family with respect to the axis-quantity frameworks.

SIMOTION D410 is the ideal controller if Motion Control for a single-axis and PLC functionality are required in a compact design.

PROFINET IO with IRT (with D410-2 PN/DP) enables various connectivity options with HMI and distributed IO.
**SIMOTION D410-2 add-on for SINAMICS S120**

1 x SIMOTION drive-based control unit D410-2 DP/PN; programmable single-axis motion controller with multi-axis option; interfaces: 5 DI, 8 DI/Q, 3 F-DI, 1 F-DQ, 1 AI, 1 encoder, 1 DRIVE-CLiQ, 1 PROFIBUS, 2 PROFINET ports, 1 ETHERNET; Note: requires at least SCOUT/Firmware V4.3 SP1 HF3

1 x SIMOTION drive-based 1 GB CompactFlash card D410-2; SINAMICS drive software V4.x and SIMOTION kernel for SIMOTION D410-2; current SW release; Note: not for SIMOTION D410, D4x5 and D4x5-2

1 x SIMOTION Engineering System SCOUT and SCOUT TIA V5.1, full license DVD incl. STARTER, Runtime, technical documentation, free utilities

1 x SIMOTION Engineering System DCC SIMOTION V2.4, full license DCC for SIMOTION and SINAMICS, option for SCOUT V4.5 and for STARTER V4.5 SP1, delivery without data carrier, floating license

1 x SIMOTION IT, comprehensive IT functions with Java virtual machine: runtime environment for Java applications on SIMOTION, license (COL) includes following licenses:
   SIMOTION IT DIAG: 6AU1820-8BA20-0AB0
   SIMOTION IT OPC XML-DA: 6AU1820-8BB20-0AB0

**System requirements:**
- Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
- Windows 10 (64-bit) Professional 1803/Enterprise 1803

**Sales note:** Schools, colleges and universities, for in-house vocational training departments

**Technical note:** See next slides

**Order number:** 6SL3080-8LA00-0AA0

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Overview | Graphic
SIMOTION D410 add-on for SINAMICS S120
Optional hardware and software

SINAMICS Terminal Module **TM31** without DRIVE-CLiQ cable, add-on module for SINAMICS converters with digital and analog inputs and outputs

Signal cable; DRIVE-CLiQ Motion Connect 500 IP20/IP20; length 0.95 m

SIMOTION Engineering System SCOUT, software maintenance service

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<tr>
<td>6AU1810-0BA00-0XL0</td>
<td>SIMIT Simulation</td>
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</table>

**Optional hardware and software**
SIMOTION SCOUT V5.3 SP1 incl. CamTool V4.2
Software for Training – 6er classroom license

6 x license for SIMOTION SCOUT V5.3 SP1
6 x license for CamTool V4.2
6 x license for DCC SIMOTION V3.2 SP1

1x package for 20 students (6AU1810-1BE53-1YA5)
  1 x 20 licenses for SIMOTION SCOUT V5.3 SP1 – for students
  1 x 20 licenses for CamTool V4.2 – for students
  1 x 20 licenses for DCC SIMOTION V3.2 SP1 – for students
Software limited in time to 365 days with authorization

Content: software and documentation on a DVD

Please note:
Exclusively for STEP 7 Professional 15.1 (!)

System requirements:
Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
Windows 10 (64-bit) Professional 1803/ Enterprise 1803

Sales note:
Schools, colleges and universities, for in-house vocational training departments

Technical note:
Authorization on USB stick (1 stick)

Order number:
6AU1810-1BC53-1YA5

Please note:
Exclusively for STEP 7 Professional 15.1 (!)
SIMOTION SCOUT V5.3 SP1 incl. CamTool V4.2 – for **students** / limited to 365 days

1 x package for 20 students
- 1 x 20 licenses for SIMOTION SCOUT V5.3 SP1 – for **students**
- 1 x 20 licenses for V4.2 – for **students**
- 1 x 20 licenses for DCC SIMOTION V3.2 SP1 – for **students**

Software limited in time to 365 days with authorization

Content: software and documentation on a DVD

Please note:
Exclusively for STEP 7 Professional 15.1 (!)

| System requirements: | Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1  
|                       | Windows 10 (64-bit) Professional 1803/ Enterprise 1803 |
| Sales note:          | Use only for students for self-study at home.  
|                      | Schools, colleges and universities, Not for in-house vocational training departments |
| Technical note:      | Authorization on USB stick (1 stick) |
| Order number:        | 6AU1810-1BE53-1YA5 |

Please note:
Exclusively for STEP 7 Professional 15.1 (!)

System requirements:
- Windows 7 (64-bit) Professional / Enterprise / Ultimate SP1
- Windows 10 (64-bit) Professional 1803/ Enterprise 1803

Sales note:
Use only for students for self-study at home. Schools, colleges and universities, Not for in-house vocational training departments

Technical note:
Authorization on USB stick (1 stick)

Order number:
6AU1810-1BE53-1YA5
### SinuTrain Software Overview

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<th>HW sets</th>
<th>Licenses</th>
<th>SW vers.</th>
<th>MLFB</th>
<th>Note</th>
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<tbody>
<tr>
<td>SinuTrain SINUMERIK Operate V4.5/V4.7/V4.8</td>
<td>Basic</td>
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<td></td>
<td>No time limit</td>
<td>NEW</td>
</tr>
<tr>
<td>siemens.com/sinutrain-downloads</td>
<td>Version</td>
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<tr>
<td>SinuTrain Trainer Package for SINUMERIK Operate</td>
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<td>V4.8</td>
<td></td>
<td>MCS40552 / 6FC5870-1TC45-0YA0</td>
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<td>SinuTrain student licenses for SINUMERIK Operate — 300 hours</td>
<td>20</td>
<td>V4.8</td>
<td></td>
<td>MCS40573 / 6FC5870-1SC45-0YA0</td>
<td>NEW ★</td>
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<tr>
<td>SinuTrain Trainer Package for SINUMERIK Operate</td>
<td>6+40</td>
<td>V4.7</td>
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<td>MCS4055 / 6FC5870-1TC43-0YA0</td>
<td>NEW ★</td>
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<td>SinuTrain student licenses for SINUMERIK Operate — 300 hours</td>
<td>20</td>
<td>V4.7</td>
<td></td>
<td>MCS4057 / 6FC5870-1SC43-3YA0</td>
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<tr>
<td>SinuTrain Trainer Package for SINUMERIK Operate</td>
<td>6+40</td>
<td>V4.5</td>
<td></td>
<td>MCS40551 / 6FC5870-1TC41-0YA0</td>
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<tr>
<td>SinuTrain student licenses for SINUMERIK Operate — 300 hours</td>
<td>20</td>
<td>V4.5</td>
<td></td>
<td>MCS40571 / 6FC5870-1SC41-0YA0</td>
<td>NEW ★</td>
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</table>

**SinuTrain software**

- Sale in DE/AT/CN/US/IT/TW only with maintenance
  → Article number MCS405... Requests for offers should be sent to: mcmts.software.plm@siemens.com

- Sale in all other countries without maintenance
  → Article number 6FC5870-1... Requests for offers should be sent to Standard Siemens Sales

★ Only for schools, colleges and universities

⇒ Learning Documents
Download
SinuTrain for SINUMERIK Operate V4.5/V4.7/V4.8 – Basic

The SinuTrain offline programming station brings SINUMERIK Operate, including animated machine control panel, to the PC to create a training situation that is very similar to reality thus facilitating easy transition from a training environment to a practical environment. This powerful tool allows NC programs to be programmed offline on a PC in an environment that is close to reality; these NC programs can then be directly transferred to the CNC.

Using SINUMERIK Operate and the original SINUMERIK CNC kernel, all operating and programming operations can be used and CNC programs executed without any restrictions. SinuTrain for SINUMERIK Operate version V4.5/V4.7/4.8 Basic is based on SINUMERIK CNC software V4.5/V4.7/4.8.

The control-identical NC programming station – as a basic version with no time limit – available as a free download.

System requirements: See siemens.com/sinutrain-downloads
Sales note: Schools, colleges and universities, not for in-house vocational training departments
Technical note: Basic version – with no time limit
Order number: Download siemens.com/sinutrain-downloads

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Page 140 Version 10/2019
Overview | Graphic
## Trainer Package – SinuTrain for SINUMERIK Operate V4.8

**6 x license for SinuTrain Operate V4.8**

**2 x 20 license for SinuTrain Operate V4.8 – for students**
Software subject to time limit of 300 hours with authorization
6FC5870-1SC45-0YA0

The packages contain only the licenses. The software itself must be downloaded as demo version – see [siemens.com/sinutrain-downloads](http://siemens.com/sinutrain-downloads) – and the licenses must then be installed

### Maintenance
Basic maintenance services. The software maintenance services include software updates and phone support for the software. The costs are incurred annually.

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|                      | Depending on the country, the package is sold only with Maintenance (currently in DE, AT, CN, US, IT, TW) or only without Maintenance |
|                      | For quotation requests in general, send email to: mcmts.software.plm@siemens.com       |

| Technical note:      | Suitable for use with SINUMERIK 840D SL, SINUMERIK 828D/828D BASIC with CNC software V4.8 |

| Order number:        | MCS40552 (incl. Maintenance) | 6FC5870-1TC45-0YA0 (without Maintenance) |

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**IOT2000**
**Industrial Controls**
**Engineering SW**
**SIMIT Simulation**
**Basic Automation**
**SIMATIC Controller**
**Distributed IOs**
**Operator control & monitoring**
**Process Automation**
**Industrial Communication**
**Industrial Identification**
**Drive Technology**
**MindSphere**
**SinuTrain SW**
**PLM Software**
**WorldSkills**
**Ordering Inform.**
Student licenses – SinuTrain for SINUMERIK Operate V4.8

1 x 20 licenses for SinuTrain Operate V4.8 – for students
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| Technical note:      | Suitable for use with SINUMERIK 840D SL, SINUMERIK 828D/828D BASIC with CNC software V4.8 |

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## Trainer Package – SinuTrain for SINUMERIK Operate V4.7 SP4

6 x license for **SinuTrain Operate V4.7 SP4**

2 x 20 license for **SinuTrain Operate V4.7 SP4 – for students**

Software subject to time limit of 300 hours with authorization

6FC5870-1SC43-3YA0

<table>
<thead>
<tr>
<th>Packages</th>
<th>1 Package Full Licenses</th>
<th>2 Packages Student Licenses</th>
</tr>
</thead>
</table>

The packages contain only the licenses. The software itself must be downloaded as demo version – see [siemens.com/sinutrain-downloads](http://siemens.com/sinutrain-downloads) – and the licenses must then be installed.

### Maintenance

Basic maintenance services. The software maintenance services include software updates and phone support for the software. The costs are incurred annually.

### System requirements:

Windows 7 SP1 (32-bit and 64-bit; Starter, Web Edition and Embedded are not supported)

Windows 8.1 (32-bit and 64-bit; RT Edition is not supported)

Windows 10 (64-bit; Mobile and Mobile Enterprise are not supported)

### Sales note:

Schools, colleges and universities, not for in-house vocational training departments

Depending on the country, the package is sold only with Maintenance (currently in DE, AT, CN, US, IT, TW) or only without Maintenance

For quotation requests in general, send email to: mcmts.software.plm@siemens.com

### Technical note:

Suitable for use with SINUMERIK 840D SL, SINUMERIK 828D/828D BASIC with CNC software V4.7 SP4

**Order number:**

- MCS4055 (incl. Maintenance)
- 6FC5870-1TC43-0YA0 (without Maintenance)
### Student licenses – SinuTrain for SINUMERIK Operate V4.7 SP4

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The packages contain only the licenses. The software itself must be downloaded as demo version – see [siemens.com/sinutrain-downloads](http://siemens.com/sinutrain-downloads) – and the licenses must then be installed.

### Maintenance

Basic maintenance services. The software maintenance services include software updates and phone support for the software. The costs are incurred annually.

**System requirements:**
- Windows 7 SP1 (32-bit and 64-bit; Starter, Web Edition and Embedded are not supported)
- Windows 8.1 (32-bit and 64-bit; RT Edition is not supported)
- Windows 10 (64-bit; Mobile and Mobile Enterprise are not supported)

**Sales note:**
- Depending on the country, the package is sold only with Maintenance (currently in DE, AT, CN, US, IT, TW) or only without Maintenance
- For quotation requests in general, send email to: mcnts.software.plm@siemens.com

**Technical note:**
- Suitable for use with SINUMERIK 840D SL, SINUMERIK 828D/828D BASIC with CNC-SOFTWARE V4.7 SP4

**Order number:**
- MCS4057 (incl. Maintenance)
- 6FC5870-1SC43-3YA0 (without Maintenance)
Trainer Package – SinuTrain for SINUMERIK Operate V4.5

6 x license for **SinuTrain Operate V4.5**

2 x 20 license for **SinuTrain Operate V4.5 – for students**
Software subject to time limit of 300 hours with authorization

The packages contain only the licenses. The software itself must be downloaded as demo version – see [siemens.com/sinutrain-downloads](http://siemens.com/sinutrain-downloads) – and the licenses must then be installed.

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| System requirements: | Windows 7 SP1 (32-bit and 64-bit; Starter, Web Edition and Embedded are not supported) |
| Sales note: | Windows 8.1 (32-bit and 64-bit; RT Edition is not supported) |
| | Windows 10 (64-bit; Mobile and Mobile Enterprise are not supported) |
| Technical note: | Suitable for use with SINUMERIK 840D SL, SINUMERIK 828D/828D BASIC with CNC software V4.5 |
| Order number: | MCS40551 (incl. Maintenance) |

For quotation requests in general, send email to: mcmts.software.plm@siemens.com

**Order number:** 6FC5870-1SC41-0YA0

**2 Packages**

**Student Licenses**

**1 Package**

**Full Licenses**

**System requirements:**

- Windows 7 SP1 (32-bit and 64-bit; Starter, Web Edition and Embedded are not supported)
- Windows 8.1 (32-bit and 64-bit; RT Edition is not supported)
- Windows 10 (64-bit; Mobile and Mobile Enterprise are not supported)

**Sales note:**

Schools, colleges and universities, not for in-house vocational training departments
Depending on the country, the package is sold only with Maintenance (currently in DE, AT, CN, US, IT, TW) or only without Maintenance
For quotation requests in general, send email to: mcmts.software.plm@siemens.com

**Technical note:**

Suitable for use with SINUMERIK 840D SL, SINUMERIK 828D/828D BASIC with CNC software V4.5

**Order number:**

- MCS40551 (incl. Maintenance)
- 6FC5870-1TC41-0YA0 (without Maintenance)
Student licenses – SinuTrain for SINUMERIK Operate V4.5

1 x 20 license for SinuTrain Operate V4.5 – for students
Software subject to time limit of 300 hours with authorization

The packages contain only the licenses. The software itself must be downloaded as demo version – see siemens.com/sinutrain-downloads – and the licenses must then be installed.

Maintenance
Basic maintenance services. The software maintenance services include software updates and phone support for the software. The costs are incurred annually.

System requirements:
- Windows 7 SP1 (32-bit and 64-bit; Starter, Web Edition and Embedded are not supported)
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Sales note:
- Schools, colleges and universities, not for in-house vocational training departments
- Depending on the country, the package is sold only with Maintenance (currently in DE, AT, CN, US, IT, TW) or only without Maintenance
- For quotation requests in general, send email to: mcmts.software.plm@siemens.com

Technical note:
- Suitable for use with SINUMERIK 840D SL, SINUMERIK 828D/828D BASIC with CNC software V4.5

Order number:
- MCS40571 (incl. Maintenance)
- 6FC5870-1SC41-0YA0 (without Maintenance)
Siemens Product Lifecycle Management (PLM) Software

PLM software

 NX, offers modern tools and technologies for product development. The latest version contains functions for increasing productivity in design, simulation and manufacturing.

 Tecnomatix, software for the "Digital factory", offers highly functional solutions for the entire scope of the life cycle of your products with which companies can quickly find the best strategies for increasing productivity and reducing costs in manufacturing.

 Teamcenter, supports bringing increasingly complex products to the market throughout the entire product life cycle, with simultaneous increases in productivity and optimized worldwide cooperation.

Velocity Series, a family of modular, pre-integrated software solutions for product life cycle management in small and medium-sized manufacturing companies. The 2D/3D CAD software Solid Edge is a component of this software.

 Solid Edge Highschool  Solid Edge students  Solid Edge Academic

Contact partner

Germany: Karl Hermann Dietz karl.dietz@siemens.com
Austria: Fabian Tiringer fabian.tiringer@siemens.com
Switzerland: Ueli Wunderli ueli.wunderli@siemens.com
All other countries: academic.plm@siemens.com

Contact

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Partnership with WorldSkills

WorldSkills (WS) has been increasing the quality of vocational training for > 60 years

Since 2010, Siemens has been a global industry partner and product sponsor and provides the competitors for the WorldSkills competitions disciplines industrial control, electrical installations, polymechanics/automation and manufacturing team challenge with automation products, such as SIMATIC S7-1500 and LOGO!.

Every 2 years a World championship with > 1,000 competitors and > 200,000 visitors takes place.

Siemens supports the world championships as well as selected continental/regional competitions.

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Important ordering information

A specific end-use agreement is required to purchase Trainer Packages

This additional supplementary agreement for classroom use of SIMATIC software at research, development and training institutions must be signed by the respective educational institution and sent to Siemens.

Trainer Packages are released for delivery by SIEMENS AG, SCE Team global: fax: 49 (0)911-895-13392, email Siemens contact partners can find this declaration on the SCE Intranet: additional agreement.

A separate release/ordering process applies to the following products

SinuTrain:

• Sold only with Maintenance in DE/AT/CN/US/IT/TW → Order Number MCS405...
  To request a quotation – send email to: mcmts.software.plm@siemens.com
• Sold without Maintenance in all other countries → Order Number 6FC5870-1...
  To request a quotation – contact Siemens Standard Sales

The following Trainer Packages can only be ordered from schools, colleges and universities:

• SIMATIC S7 Software for students 6ES7822-1AC05-4YA5
• WinCC Advanced for students 6AV2102-0AA05-0AS7
• SIMATIC IOT2000EDU 6ES7671-0LE00-0YB0
• SinuTrain Operate 6FC5870-1T... /MCS405...
• SinuTrain Operate for students 6FC5870-1S... /MCS405...
You can find additional information at SCE on the Internet

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