Software for Power Distribution

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Technical Information

can be found at
www.siemens.com/lowvoltage/support

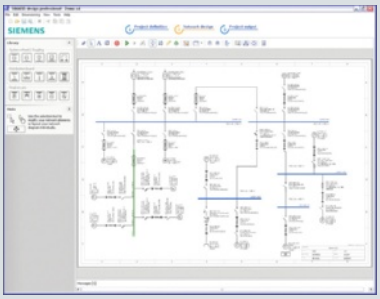
under Product List:
- Technical Specifications

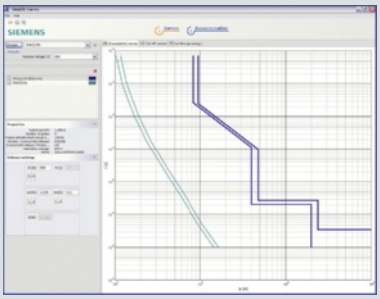
under Entry List:
- Updates
- Downloads
- FAQ
- Manuals
- Characteristic curves
- Certificates

and at
www.siemens.com/lowvoltage/configurators
- Configurators

Introduction

Overview





SIMARIS design

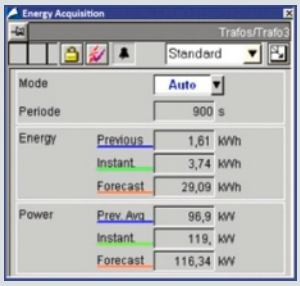
Software tool for the quick and effective dimensioning of power distribution for non-residential and industrial buildings:

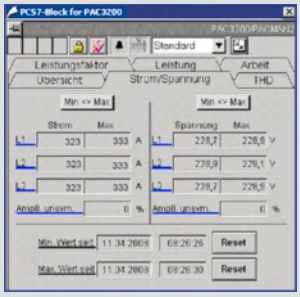
- Dimensioning on the basis of real products according to acknowledged technical rules and standards (VDE, IEC)
- Automatic access to an integrated product database
- Easy implementation and modification in the planning and realization concept
- Reduction of routine work

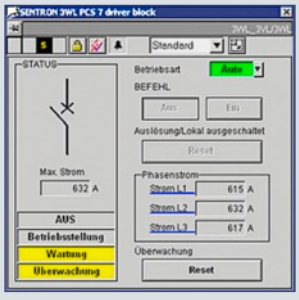
SIMARIS curves

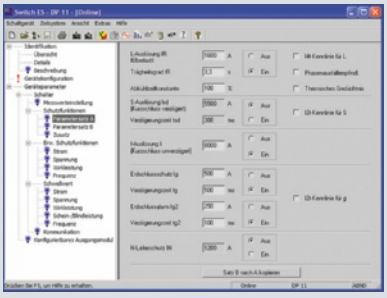
Software tool for quick and easy comparison of the tripping characteristics of Siemens low-voltage controls:

- Characteristic curve display and overview
- Device selection via order number or selection aid
- Saving of selected devices as favorites
- Saving of several characteristic curves, incl. settings, as overall project









SIMATIC PCS 7 powerrate, SIMATIC WinCC powerrate

SIMATIC PCS 7 and WinCC powerrate are add-ons to PCS 7 and WinCC respectively and throw light on power consumption from the infeed to the load.

- Identification of power-intensive consumer devices and processes in order to introduce measures for improving power efficiency
- Comparison of consumption profiles for greater efficiency of process design
- Optimizing the company according to energy parameters based on an assessment of consumption and costs
- Complying with the contractually agreed power limit, thus preventing higher power supply costs or penalty payments

SIMATIC PCS 7 Library PAC3200 and SENTRON PAC3200 function block library for SIMATIC WinCC

The SENTRON PAC3200 function block libraries enable the seamless integration of the SENTRON PAC3200 multifunction measuring instrument in the PSC 7 process world or in WinCC.

3WL/3VL function block library for SIMATIC PCS 7

The 3WL/3VL function block library enables the seamless integration of the 3WL/3VL circuit breakers in the PCS 7 process world.

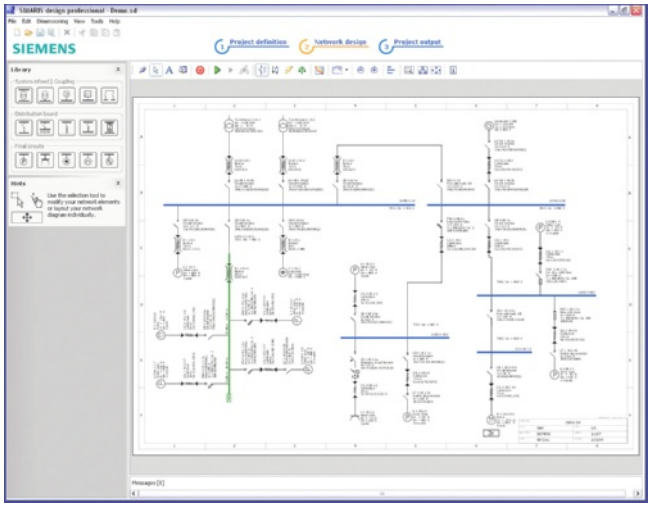
Switch ES Power

Shared software platform for communication-capable SENTRON 3WL and SENTRON 3VL circuit breakers:

- Parameterization, documentation, operation and monitoring in one software
- Clear representation of all available parameters
- All the available status information and measured values are displayed in dialog boxes
- Software for SENTRON 3WL and SENTRON 3VL

SIMARIS design

Overview



SIMARIS design is a software tool for the quick and effective dimensioning of power distribution for non-residential and industrial buildings.

In the planning phase already, the complete circuit can be dimensioned on the basis of real products. This avoids additional costs due to uncoordinated systems in the implementation phase. The right components and distribution systems for the case in question are selected automatically in the light of the product data stored in SIMARIS design.

Every configuration of the electric power distribution is subject to frequent change and adaptation in the implementation phase as well as in the planning phase. SIMARIS design incorporates each change into the supply concept and automatically checks its reliability in terms of the regulations and standards currently in force.

Even an analysis of selectivity, for example for safety power supply elements, can be simply performed with SIMARIS design. All these steps are precisely documented in SIMARIS design.

More information and order options can be found on the Internet at: www.siemens.com/simarisdesign

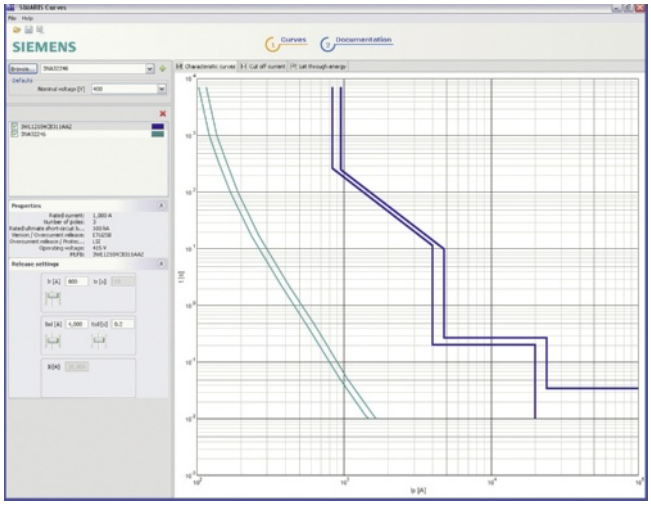
Benefits

- Reduction of routine work
- Dimensioning on the basis of real products according to acknowledged technical rules and standards
- Integrated product database
- Detailed knowledge of products and systems not required
- Easy implementation and modification in the planning and realization concept
- Clear-cut presentation of changes with specification of the revision date
- Detailed parts lists with exact product descriptions
- Easy adaptation to changes in use or expansions
- Comprehensive documentation with simple data transfer (Office, CAD etc.)

Application

SIMARIS design is suitable for dimensioning electric power distribution systems in all industrial and non-residential buildings. From shopping centers to hospitals and production buildings – with SIMARIS design it is possible to reduce the amount of work required for the overall planning of power distribution systems and hence the time spent on selecting and dimensioning the necessary equipment.

Overview



SIMARIS curves is a software tool for quick and easy comparison of the tripping characteristics of Siemens low-voltage controls and fuses.

With SIMARIS curves it is possible to simulate parameter settings on protection equipment in order to obtain an overview of the selectivity conditions in the system. The respective characteristic curve is selected by direct entry of the Siemens order number or with a user-friendly selection tool. Individual products with defined attributes can be saved as favorites and be called up again. Tripping characteristics with tolerance ranges are offered along with let-through current and let-through power characteristic curves. A clearly structured print-out provides documentation of the selected curves and their respective settings.

More information and order options can be found on the Internet at: www.siemens.com/simariscurves

Benefits

- Characteristic curve display and overview
- Overview of selectivity conditions
- Clearly structured catalog selection
- Device selection via order number or selection aid
- Saving of selected devices as favorites
- Saving of several characteristic curves, including settings, as overall project
- User-friendly system documentation

Application

SIMARIS curves is a software tool for displaying tripping characteristics, let-through power curves and let-through current curves of Siemens low-voltage controls and fuses. From shopping centers to hospitals and production buildings – with SIMARIS curves the required curves can be quickly called up and documented in the required output language.

SIMATIC PCS 7 powerrate

Overview

SIMATIC PCS 7 is an add-on to PCS 7 which throws light on power consumption from the infeed to the load. Power data are continuously collected, archived and processed further. With an exact knowledge of the consumption profile it is possible to identify savings potential, optimize your power supply conditions and hence lower your power costs. Monitoring the contractually agreed power limit helps on the one hand to prevent unnecessarily high power prices or penalties and on the other hand to make full use of the fixed power limit.

Batch-related consumption recording enables the exact recording and evaluation of power consumption per batch.

The integration of switches through digital inputs/outputs enables the monitoring or indication of switch status and, with suitable authorization, remote switching. With integration through DPV1, selected measured values and signals of the SENTRON PAC3200 and SENTRON PAC4200 multifunction measuring instruments can be indicated online.

Data recorded and archived by SIMATIC PCS 7 powerrate can be exported to Excel, and they can also be presented in different reports.

Full integration in PCS 7 enables the easy use of standard interfaces or standard functionalities from PCS 7.

Components

SIMATIC PCS 7 powerrate is made up of the following components:

- Function blocks for the acquisition and processing of power data
- Faceplates for the presentation and processing of power data
- Function blocks for implementing load management (calculating trends, monitoring limits, enabling/disabling loads)
- Function blocks for batch-related consumption recording
- Function blocks for the integration of measuring devices and switches
- Other function blocks for example for time synchronization, data buffering or data exchange with archives
- Faceplates for presenting results and for entering values (e. g. for configuration or from manual measured values)
- Excel-based reports for allocating power data to cost centers, for batch-related evaluations and for determining and presenting the duration curve
- Exporting data to Excel

Benefits

- Identification of power-intensive consumer devices and processes in order to introduce measures for improving power efficiency
- Comparison of consumption profiles for greater efficiency of process design
- Optimizing the company according to energy parameters based on an assessment of consumption and costs
- Complying with the contractually agreed power limit, thus preventing higher power supply costs or penalty payments
- Integration of the SENTRON PAC3200 and SENTRON PAC4200 measuring devices, with a quick overview of selected measured values and signals
- Integration of switches, with an overview of switch status and switching possibilities
- Exact assignment and comparison of the consumption data of certain work processes through batch-related consumption recording

Application

SIMATIC PCS 7 powerrate is used in all areas in which PCS 7 is used and energy efficiency considerations play a major role. Full integration in PCS 7 means that there is no need for a special system environment. Predefined function blocks and symbols give you the assurance of building on tested and certified product components, with interfaces which enable customized expandability.

Selection and ordering data

SIMATIC PCS 7 V 6.1 SP1, V 6.1 SP2 and V 7.0 SP1

Version	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
SIMATIC PCS 7 powerrate V 3.0							
• **Trial license** Engineering license limited to 30 days	B	**3ZS2 785-1CC30-0YG7**		1	1 unit	133	0.230
• **Engineering license and unlimited runtime license** for operation on one PCS 7 OS (single workstation system or server) and any number of automation systems (AS). For use on additional PCS 7 OS units you need one engineering license per PCS 7 OS. The PAC3200 and 3VL/3WL function block libraries for SIMATIC PCS 7 are supplied free in addition to the license.	B	**3ZS2 785-1CC30-0YG0**		1	1 unit	133	0.230
Upgrade from SIMATIC PCS 7 powerrate V 2.0 to V 3.0							
• **Engineering license and unlimited runtime license** for operation on one PCS 7 OS (single workstation system or server) and any number of automation systems (AS). For use on additional PCS 7 OS units you need one engineering license per PCS 7 OS. The PAC3200 and 3VL/3WL function block libraries for SIMATIC PCS 7 are supplied free in addition to the license.	B	**3ZS2 785-1CC30-0YE0**		1	1 unit	133	0.230

More information

You can find further general information on the Internet at:
www.siemens.com/powermanagementsystem

Information how to use SIMATIC PCS 7 powerrate can be found under:
support.automation.siemens.com/WW/view/en/38823708

* You can order this quantity or a multiple thereof.

SIMATIC WinCC powerrate

Overview

SIMATIC WinCC powerrate is an add-on to WinCC which throws light on power consumption from the infeed to the load. Power data are continuously collected, archived and processed further. With an exact knowledge of the consumption profile it is possible to identify savings potential, optimize your power supply conditions and hence lower your power costs. Monitoring the contractually agreed power limit helps on the one hand to prevent unnecessarily high power prices or penalties and on the other hand to make full use of the fixed power limit.

Batch-related consumption recording enables the exact recording and evaluation of power consumption per batch.

The integration of switches through digital inputs/outputs enables the monitoring or indication of switch status and, with suitable authorization, remote switching. With integration through DPV1, selected measured values and signals of the SENTRON PAC3200 and SENTRON PAC4200 multifunction measuring instruments can be indicated online.

Data recorded and archived by SIMATIC WinCC powerrate can be exported to Excel, and they can also be presented in different reports.

Full integration in WinCC enables the easy use of standard interfaces or standard functionalities from WinCC.

Components

SIMATIC Win CC powerrate is made up of the following components:

- Function blocks for the acquisition and processing of power data
- Faceplates for the presentation and processing of power data
- Function blocks for implementing load management (calculating trends, monitoring limits, enabling/disabling loads)
- Function blocks for batch-related consumption recording
- Function blocks for the integration of measuring devices and switches
- Other function blocks for example for time synchronization, data buffering or data exchange with archives
- Faceplates for presenting results and for entering values (e. g. for configuration or from manual measured values)
- Excel-based reports for allocating power data to cost centers, for batch-related evaluations and for determining and presenting the duration curve
- Exporting data to Excel

Benefits

- Identification of power-intensive consumer devices and processes in order to introduce measures for improving power efficiency
- Comparison of consumption profiles for greater efficiency of process design
- Optimizing the company according to energy parameters based on an assessment of consumption and costs
- Complying with the contractually agreed power limit, thus preventing higher power supply costs or penalty payments
- Integration of the SENTRON PAC3200 and SENTRON 4200 measuring devices, with a quick overview of selected measured values and signals
- Integration of switches, with an overview of switch status and switching possibilities
- Exact assignment and comparison of the consumption data of certain work processes through batch-related consumption recording

Application

SIMATIC WinCC powerrate is used in all areas in which WinCC is used and energy efficiency considerations play a major role. Full integration in WinCC means that there is no need for a special system environment. Predefined function blocks and symbols give you the assurance of building on tested product components, with interfaces which enable customized expandability. SIMATIC WinCC powerrate V 3.0 can be used with SIMATIC S7-317 and higher.

Selection and ordering data

SIMATIC WinCC V 6.2 SP2 and V 7.0

Version	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
SIMATIC WinCC powerrate V 3.0							
• **Trial license** Engineering license limited to 30 days	B	**3ZS2 795-1CC30-0YG7**		1	1 unit	133	0.230
• **Engineering license and unlimited runtime license** for operation on one WinCC OS (single workstation system or server) and any number of automation systems (AS). For use on additional WinCC OS units you need one engineering license per WinCC OS. The PAC3200 function block library for SIMATIC WinCC is supplied free in addition to the license.	B	**3ZS2 795-1CC30-0YG0**		1	1 unit	133	0.230
Upgrade from SIMATIC WinCC powerrate V 2.0 to V 3.0							
• **Engineering license and unlimited runtime license** for operation on one WinCC OS (single workstation system or server) and any number of automation systems (AS). For use on additional WinCC OS units you need one engineering license per WinCC OS. The PAC3200 function block library for SIMATIC WinCC is supplied free in addition to the license.	B	**3ZS2 795-1CC30-0YE0**		1	1 unit	133	0.230

More information

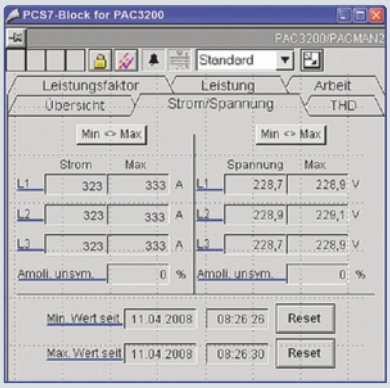
You can find further general information on the Internet at:
www.siemens.com/powermanagementsystem

Information how to use SIMATIC WinCC powerrate can be found under:
support.automation.siemens.com/WW/view/en/38823708

* You can order this quantity or a multiple thereof.

SIMATIC PCS 7 Library PAC3200

Overview



The PCS 7 function block library – SIMATIC PCS 7 Library PAC3200 – for the SENTRON PAC3200 multifunction measuring instrument enables the seamless integration of the multifunction instrument in the PCS 7 process world.

It comprises one driver block, one diagnostics block and the faceplates. The function blocks in the SIMATIC S7 supply energy data to the faceplates in the user interface of the process control system, generate signals and guarantee connection to the maintenance system of PCS 7.

Faceplates

Faceplates serve as a user interface for operating and monitoring and enable technologically important values and functions of the SENTRON PAC3200 to be displayed and performed as a PCS 7 object.

Between the faceplates and the function blocks as well as between the function blocks and the SENTRON PAC3200 there exist on the system side bidirectional communication connections not only for displaying values in the faceplates but also for forwarding input data to the device.

This makes the SENTRON PAC3200 power monitoring device an integral component of PCS 7.

Supported operating systems are the same as for SIMATIC PCS 7.

Benefits

- Full integration of SENTRON PAC3200 in the PCS 7 process control system through PROFIBUS DPV1 using a certified PCS 7 add-on module
- Reading out and displaying device data
- Inputting limit values for monitoring through the driver block
- Resetting values on the device (min/max values)

Application

SIMATIC PCS 7 Library PAC3200 is used in all areas in which PCS 7 is used. Full integration in PCS 7 means that there is no need for a special system environment. Predefined function blocks and symbols give you the assurance of building on tested and certified product components.

Selection and ordering data

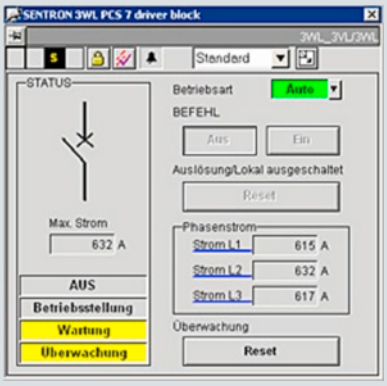
SIMATIC PCS 7 V 6.1 SP1, PCS 7 V 7.0 SP1 and PCS 7 V 7.1

Version	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
							kg
SIMATIC PCS 7 Library PAC3200							
• **Engineering license** for operation on one PCS 7 OS (single workstation system or server) and an automation system (AS). For use on additional PCS 7 OS units you need one engineering license per PCS 7 OS.	B	**3ZS2 781-1CC10-0YG0**		1	1 unit	133	0.250
• **Runtime license** for operation on an additional AS	B	**3ZS2 781-1CC10-6YH0**		1	1 unit	133	0.250

* You can order this quantity or a multiple thereof.

3WL/3VL function block library for SIMATIC PCS 7

Overview



The PCS 7 3WL/3VL function block library for the SENTRON circuit breakers enables the quick and easy integration of the SENTRON circuit breakers in the PCS 7 process world.

It comprises one driver block, one diagnostics block and the faceplates. The function blocks in the SIMATIC S7 supply current, power and energy values to the faceplates in the user interface of the process control system, generate signals and guarantee connection to the maintenance system of PCS 7.

Faceplates

Faceplates serve as a user interface for operating and monitoring and enable the SENTRON circuit breakers to be displayed and operated as a PCS 7 object.

The 3WL/3VL function block library for SIMATIC PCS 7 enables constant system transparency. Critical system conditions are quickly identified and costs due to failures prevented. System availability is permanently increased

This makes the SENTRON circuit breaker an integral component of PCS 7.

Supported operating systems are the same as for SIMATIC PCS 7.

Benefits

- Full integration of SENTRON circuit breakers in the PCS 7 process control system through PROFIBUS DPV1 using a certified PCS 7 add-on module
- Remote switching and monitoring
- Reading out of maintenance information
- Automatic information in case of overload, short-circuit and faults
- Reading out and displaying device data
- Limit monitoring through the driver block
- Resetting values on the device (min/max values)

Application

The 3WL/3VL function block library for SIMATIC PCS 7 is used in all areas in which PCS 7 is used. Full integration in PCS 7 means that there is no need for a special system environment. Predefined function blocks and symbols give you the assurance of building on tested and certified product components.

Selection and ordering data

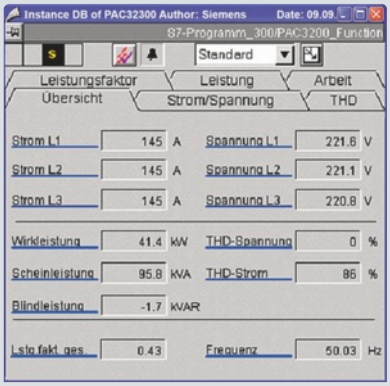
SIMATIC PCS 7 V 6.1 SP1 and PCS 7 V 7.0 SP1

Version	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
3WL/3VL function block library for SIMATIC PCS 7							
• **Engineering license** for operation on one PCS 7 OS (single workstation system or server) and an automation system (AS). For use on additional PCS 7 OS units you need one engineering license per PCS 7 OS.	B	**3ZS2 782-1CC10-0YG0**		1	1 unit	133	0.250
• **Runtime license** for operation on an additional AS	B	**3ZS2 782-1CC10-6YH0**		1	1 unit	133	0.250

* You can order this quantity or a multiple thereof.

PAC3200 function block library for SIMATIC WinCC

Overview



The SENTRON PAC3200 function block library for SIMATIC WinCC enables the seamless integration of the SENTRON PAC3200 multifunction measuring instrument in WinCC.

It comprises one driver block, one diagnostics block and the faceplates. The blocks in the SIMATIC S7 supply energy data to the faceplates in the user interface of WinCC, generate signals and guarantee connection to the maintenance system of WinCC.

Faceplates

The faceplates serve as a user interface for operating and monitoring and enable technologically important values and functions of the SENTRON PAC3200 to be displayed and performed in WinCC.

Between the faceplates and the function blocks as well as between the function blocks and the SENTRON PAC3200 there exist on the system side bidirectional communication connections not only for displaying values in the faceplates but also for forwarding input data to the device.

This makes the SENTRON PAC3200 multifunction measuring instrument an integral component of WinCC.

System requirements

The SENTRON PAC3200 function block library for SIMATIC WinCC is released for

- WinCC V 6.2 SP2
- WinCC V 7.0 and
- WinCC V 7.0 SP1

WinCC options AS-OS Engineering and Basic Process Control must be installed. The function block library is available for both S7-300 and S7-400. At least one S7 CPU317-2DP is required for use in the S7-300 area. At least one S7 CPU414-2 is required for use in the S7-400 area.

Supported operating systems are the same as for SIMATIC WinCC.

Benefits

- Full integration of the SENTRON PAC3200 in SIMATIC WinCC through PROFIBUS DPV1 The function block library is a certified WinCC add-on module
- Reading out and displaying device data
- Inputting limit values for monitoring through the driver block
- Resetting values on the device (min/max values)

Application

The SENTRON PAC3200 function block library for SIMATIC WinCC is used in all areas in which WinCC is used. Full integration in WinCC means that there is no need for a special system environment. Predefined function blocks and symbols give you the assurance of building on tested and certified product components.

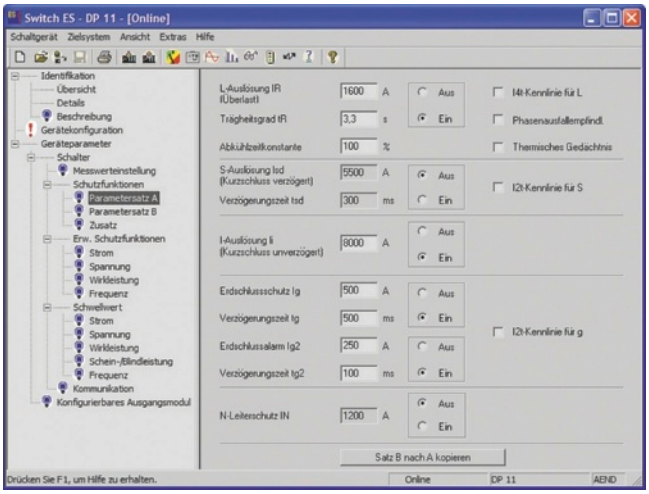
Selection and ordering data

SIMATIC WinCC V 6.2 SP2, WinCC V 7.0 and WinCC V 7.0 SP 1

Version	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
SENTRON PAC3200 function block library for SIMATIC WinCC							
• **Engineering license** for operation on one WinCC OS (single workstation system or server) and an automation system (AS). For use on additional WinCC OS units you need one engineering license per WinCC OS.	B	**3ZS2 791-1CC10-0YG0**		1	1 unit	133	0.250
• **Runtime license** for operation on an additional AS	B	**3ZS2 791-1CC10-6YH0**		1	1 unit	133	0.250

* You can order this quantity or a multiple thereof.

Overview



Adjustment of parameter set A with Switch ES Power

Switch ES Power is the shared software platform for communication-capable SENTRON circuit breakers. This has the advantage that all device-specific setting options are identical in terms of appearance and handling.

Switch ES Power can be used to configure, document, operate and monitor the SENTRON 3WL and SENTRON 3VL circuit breakers through PROFIBUS DP.

More information can be found on the Internet at:
www.siemens.com/sentron

Benefits

- Parameterization, documentation, operation and monitoring in one software
- Documentation of measured values and settings
- Clear representation of all available parameters
- All the available status information and measured values are clearly displayed in dialog boxes
- Software for SENTRON 3WL and SENTRON 3VL
- Easy connection build-up through acyclic PROFIBUS DPV1 data traffic
- Identical storage format for parameters with the Breaker Data Adapter (BDA)
- Easy-to-operate Windows interface
- No programming knowhow is required for operation

Object manager of Switch ES Power

- Uniform data management for circuit breaker parameters
- Automatic parameterization if components are replaced

Selection and ordering data

Version	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
							kg
Switch ES Power							
Calibration, documentation, operation and monitoring of SENTRON 3WL/3VL circuit breakers through PROFIBUS DP; runs under Windows 95/98/NT/2000/XP Professional, including online help, English or German selectable; including Object Manager (OM) for Switch ES Power for integration in STEP7 System requirements: PROFIBUS card: CP5512, CP5611, CP5613 or CP5614 and MPI interface on PG7xx and its driver software, see interactive Catalog CA01, CD-ROM drive System requirements for OM Switch ES Power: SIMATIC: S7, M7, C7, PCS 7 STEP 7: version 5.2 or higher CD-ROM drive	A	**3ZS2 311-0CC10-0YA0**		1	1 unit	133	0.200

* You can order this quantity or a multiple thereof.

Notes