

# SIEMENS



# Products for Totally Integrated Automation

SIMATIC

Catalog  
extract  
LOGO!


Edition  
Decem-  
ber 2014

[siemens.com/simatic](http://siemens.com/simatic)

## Related catalogs


**SIMATIC** ST 70  
Products for  
Totally Integrated Automation

E86060-K4670-A101-B4-7600




**SIMATIC** ST 70 N  
Products for  
Totally Integrated Automation

E86060-K4670-A151-A7-7600




**Industrial Communication** IK PI  
SIMATIC NET

E86060-K6710-A101-B8-7600




**SIMATIC HMI / PC-based Automation** ST 80/ST PC  
Human Machine Interface Systems  
PC-based Automation

E86060-K4680-A101-C2-7600




**SIMATIC** ST PCS 7  
SIMATIC PCS 7  
Process Control System

E86060-K4678-A111-B9-7600




**SITOP** KT 10.1  
Power supply  
SITOP

E86060-K2410-A111-A9-7600



**SIMATIC Ident** ID 10  
Industrial Identification Systems

E86060-K8310-A101-A9-7600



**SITRAIN** ITC  
Training for Industry


Only available in German

E86060-K6850-A101-C4




**Products for Automation and Drives** CA 01  
Interactive Catalog, DVD

E86060-D4001-A510-D4-7600




**Industry Mall**  
Information and Ordering Platform  
in the Internet:

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## LOGO! logic module



## Extract December 2014 from Catalog ST 70

Refer to the Industry Mall for current updates of this catalog:

[www.siemens.com/industrymall](http://www.siemens.com/industrymall)

The products contained in this catalog can also be found in the Interactive Catalog CA 01.

Article No.: E86060-D4001-A510-D4-7600

Please contact your local Siemens branch.

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## LOGO! logic module

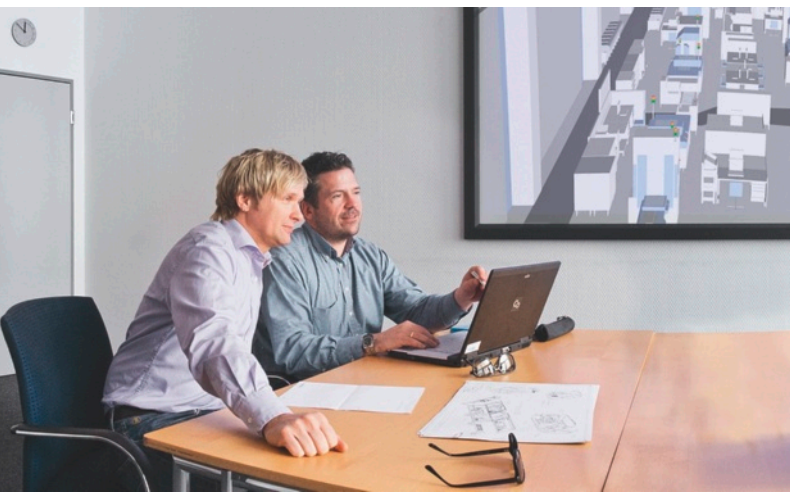
1

## Appendix

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The products and systems described in this catalog are manufactured/distributed under application of a certified quality management system in accordance with DIN EN ISO 9001 (Certified Registration No. 1323-QM08). The certificate is recognized by all IQNet countries.





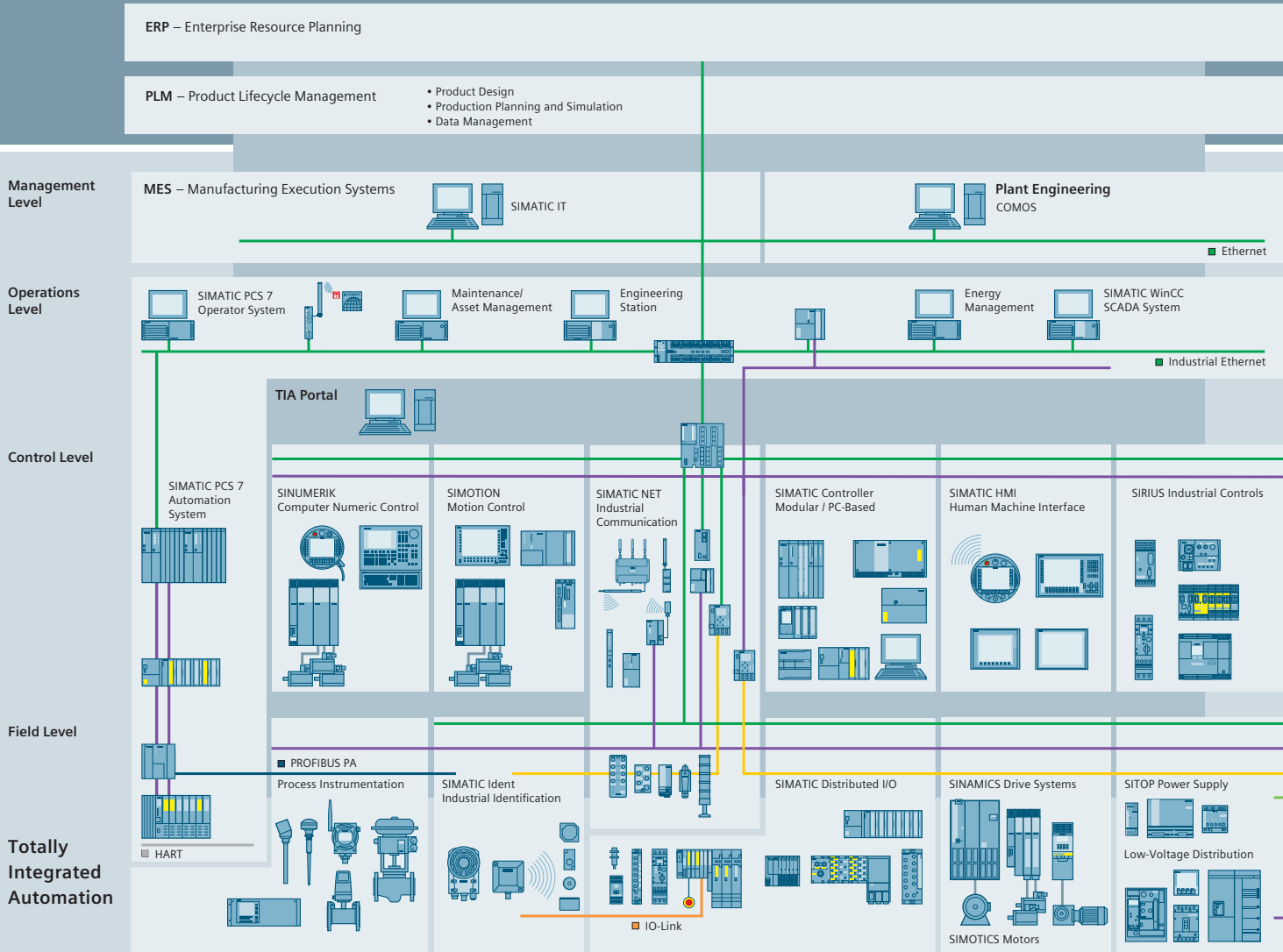
## Answers for industry.

Integrated technologies, vertical market expertise and services for greater productivity, energy efficiency, and flexibility.

Siemens is the world's leading supplier of innovative and environmentally friendly products and solutions for industrial companies. End-to-end automation technology and industrial software, solid market expertise, and technology-based services are the levers we use to increase our customers' productivity, efficiency and flexibility.

We consistently rely on integrated technologies and, thanks to our bundled portfolio, we can respond more quickly and flexibly to our customers' wishes. With our globally unmatched range of automation technology, industrial control and drive technology as well as industrial software, we equip companies with exactly what they need over their entire value chain – from product design and development to production, sales and service. Our industrial customers benefit from our comprehensive portfolio, which is tailored to their market and their needs.

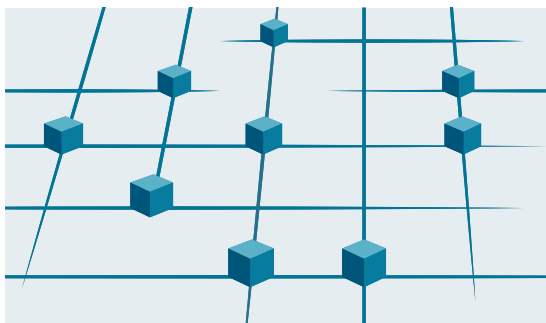
Market launch times can be reduced by up to 50% due to the combination of powerful automation technology and industrial software from Siemens Industry. At the same time, the costs for energy or waste water for a manufacturing company can be reduced significantly. In this way, we increase our customers' competitive strength and make an important contribution to environmental protection with our energy-efficient products and solutions.



## Efficient automation starts with efficient engineering.

**Totally Integrated Automation: Efficiency driving productivity.**

Efficient engineering is the first step toward better production that is faster, more flexible, and more intelligent. With all components interacting efficiently, Totally Integrated Automation (TIA) delivers enormous time savings right from the engineering phase. The result is lower costs, faster time-to-market, and greater flexibility.



Totally Integrated Automation  
Efficient interoperability of all automation components



■ PROFINET  
■ Industrial Ethernet  
■ PROFIBUS  
■ AS-Interface  
■ KNX GAMMA instabus

Totally  
Integrated  
Power

## A unique complete approach for all industries

As one of the world's leading automation suppliers, Siemens provides an integrated, comprehensive portfolio for all requirements in process and manufacturing industries. All components are mutually compatible and system-tested. This ensures that they reliably perform their tasks in industrial use and interact efficiently, and that each automation solution can be implemented with little time and effort based on standard products. The integration of many separate individual engineering tasks into a single engineering environment, for example, provides enormous time and cost savings.

With its comprehensive technology and industry-specific expertise, Siemens is continuously driving progress in manufacturing industries – and Totally Integrated Automation plays a key role.

Totally Integrated Automation creates real value added in all automation tasks, especially for:

- **Integrated engineering**  
Consistent, comprehensive engineering throughout the entire product development and production process
- **Industrial data management**  
Access to all important data occurring in productive operation – along the entire value chain and across all levels
- **Industrial communication**  
Integrated communication based on international cross-vendor standards that are mutually compatible
- **Industrial security**  
Systematic minimization of the risk of an internal or external attack on plants and networks
- **Safety Integrated**  
Reliable protection of personnel, machinery, and the environment thanks to seamless integration of safety technologies into the standard automation

## Making things right with Totally Integrated Automation

Totally Integrated Automation, industrial automation from Siemens, stands for the efficient interoperability of all automation components. The open system architecture covers the entire production process and is based on end-to-end shared characteristics: consistent data management, global standards, and uniform hardware and software interfaces.

Totally Integrated Automation lays the foundation for comprehensive optimization of the production process:

- Time and cost savings due to efficient engineering
- Minimized downtime due to integrated diagnostic functions
- Simplified implementation of automation solutions due to global standards
- Better performance due to interoperability of system-tested components



## Totally Integrated Power We bring power to the point – safely and reliably.



Comprehensive answers for power distribution in complex energy systems – from Siemens

Efficient, reliable, safe: These are the demands placed on electrification and especially power distribution. And our answer – for all application areas of the energy system – is Totally Integrated Power (TIP). It's based on our comprehensive range of products, systems, and solutions for low and medium voltage, rounded out by our support throughout the entire lifecycle – from planning with our own software tools to installation, operation, and services.

Smart interfaces allow linking to industrial or building automation, making it possible to fully exploit all the optimization potential of an integrated solution. This is how we provide our customers around the world with answers to their challenges. With highly efficient, reliable, and safe power distribution, we lay the foundation for sustainable infrastructure and cities, buildings, and industrial plants. We bring power to the point – wherever and whenever it is needed.

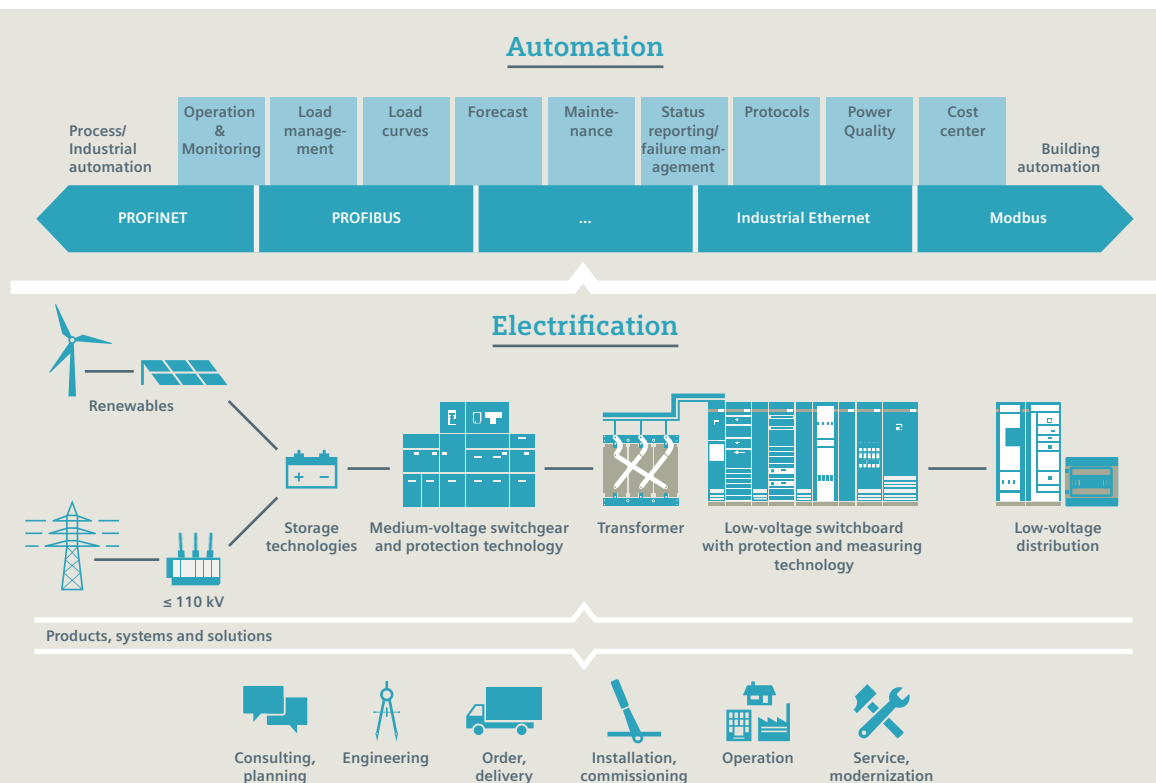
More information: [www.siemens.com/tip](http://www.siemens.com/tip)



# Totally Integrated Power offers more:

- **Consistency:**  
For simplified plant engineering and commissioning as well as smooth integration into automation solutions for building or production processes
- **One-stop-shop:**  
A reliable partner with a complete portfolio for the entire process and lifecycle – from the initial idea to after-sales service
- **Safety:**  
A comprehensive range of protection components for personnel safety and line and fire protection, safety by means of type testing
- **Reliability:**  
A reliable partner who works with customers to develop long-lasting solutions that meet the highest quality standards
- **Efficiency:**  
Bringing power to the point means greater plant availability and maximum energy efficiency in power distribution
- **Flexibility:**  
End-to-end consistency and modular design of Totally Integrated Power for any desired expansions and adaptation to future requirements
- **Advanced technology:**  
Reliable power distribution especially for applications in which supply is critical, continuous refinement of the technology

## Challenges are our speciality





## LOGO! logic module



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# LOGO! logic module

## Introduction

### LOGO! logic module

#### Overview



#### LOGO!

- The compact, easy-to-use and low-cost solution for simple control tasks
- Compact, easy to operate, universally applicable without accessories
- "All in one": Integrated display and operator panel
- 36 different functions can be connected at the click of a button or by means of PC software; up to 130 times over
- LOGO! 8: 38/43 different functions can be linked at the press of a button or using PC software; up to 200/400 times
- Functions are easily changed at the press of a key. No more time-consuming rewiring

#### SIPLUS LOGO!

- The controller for use in the toughest environmental conditions
- With extended temperature range from -40/-25 °C to +70 °C
- Suitable for medial exposure (harmful gas atmosphere)
- Condensation permissible
- With the proven PLC technology of LOGO!
- Easy to handle, program, maintain, and service
- Ideal for use in automotive engineering, environmental engineering, mining, chemical plants, material handling, food industry, etc.

#### Accessories:

- The front panel mounting set also allows simple and reliable installation of the logic modules in front panels; IP65 protection is thus possible.
- In order to ensure dependable operation of SIPLUS devices supplied by the battery in conjunction with combustion engines, it is necessary to put in a SIPLUS upmiter upstream device between the battery and the SIPLUS LOGO!.

For further information, please go to:

<http://www.siemens.com/siplus-extreme>

#### General technical data of the SIPLUS LOGO!

##### General technical data of the SIPLUS LOGO!

Ambient temperature range	-40/-25 ... +70 °C
Conformal coating	Coating of the printed circuit boards and the electronic components
Technical data	The technical data of the standard product applies except for the ambient conditions.

##### Ambient conditions

Relative humidity	100%, condensation/frost permissible. No commissioning if condensation present.
Biologically active substances, compliance with EN 60721-3-3	Class 3B2 mold and fungal spores (excluding fauna). The supplied plug covers must remain in place over the unused interfaces during operation!
Chemically active substances, compliance with EN 60721-3-3	Class 3C4 incl. salt spray in accordance with EN60068-2-52 (degree of severity 3). The supplied plug covers must remain in place over the unused interfaces during operation!
Mechanically active substances, compliance with EN 60721-3-3	Class 3S4 incl. sand, dust. The supplied plug covers must remain in place over the unused interfaces during operation!
Air pressure (depending on the highest positive temperature range specified)	1080 ... 795 hPa (-1000 ... +2000 m) see ambient temperature range 795 ... 658 hPa (+2000 ... 3500 m) derating 10 K 658 ... 540 hPa (+3500 ... +5000 m) derating 20 K

## Overview



- The space-saving basic variants
- Interface for the connection of expansion modules, up to 24 digital inputs, 20 (16) digital outputs, 8 analog inputs and 8 (2) analog outputs can be addressed
- With connection option for LOGO! TD text display (can be connected to all LOGO! 0BA6 and 0BA7 basic versions); LOGO! TDE can be connected with LOGO! 8 or higher

### New for LOGO! 8

- All basic units with integrated web server
- Same enclosure width as LOGO! 0BA6 (4 MW)
- All basic units with Ethernet interface for communication with LOGO!, SIMATIC Controllers, SIMATIC Panels and PCs
- Use of standard micro CF cards

### LOGO! 0BA7 versions:

- Ethernet interface for communication with SIMATIC Controller, SIMATIC Panel and PC
- Networking of max. 8 LOGO! devices
- Use of standard CF card or SIMATIC memory card

## Technical specifications

	6ED1 052-1CC01-0BA8	6ED1 052-1MD00-0BA8	6ED1 052-1HB00-0BA8	6ED1 052-1FB00-0BA8
<b>Installation type/mounting</b>				
Mounting	on 35 mm DIN rail, 4 spacing units wide	on 35 mm DIN rail, 4 spacing units wide	on 35 mm DIN rail, 4 spacing units wide	on 35 mm DIN rail, 4 spacing units wide
<b>Supply voltage</b>				
12 V DC		Yes		
24 V DC	Yes	Yes	Yes	
115 V DC				Yes
230 V DC				Yes
permissible range, lower limit (DC)	20.4 V	10.8 V	20.4 V	100 V
permissible range, upper limit (DC)	28.8 V	28.8 V	28.8 V	253 V
24 V AC			Yes	
115 V AC				Yes
230 V AC				Yes
<b>Time of day</b>				
Time switching clocks				
• Power reserve	480 h	480 h	480 h	480 h
<b>Digital inputs</b>				
Number of digital inputs	8; Of which 4 can be used in analog mode (0 to 10 V)	8; Of which 4 can be used in analog mode (0 to 10 V)	8	8
<b>Digital outputs</b>				
Number of digital outputs	4; Transistor	4; Relays	4; Relays	4; Relays
short-circuit protection	Yes; electrical (1 A)	No; external fusing necessary	No; external fusing necessary	No; external fusing necessary
Output current				
• for signal "1" permissible range for 0 to 55 °C, max.	0.3 A	10 A		
Relay outputs				
• Switching capacity of contacts				
- with inductive load, max.		3 A	3 A	3 A
- with resistive load, max.		10 A	10 A	10 A
<b>EMC</b>				
Emission of radio interference acc. to EN 55 011				
• Limit class B, for use in residential areas	Yes; Radio interference suppression according to EN55011, Limit Value Class B	Yes	Yes	Yes

**LOGO! logic module**

LOGO! modular

**LOGO! modular basic variants**

1

**Technical specifications (continued)**

	<b>6ED1 052-1CC01-0BA8</b>	<b>6ED1 052-1MD00-0BA8</b>	<b>6ED1 052-1HB00-0BA8</b>	<b>6ED1 052-1FB00-0BA8</b>
<b>Degree and class of protection</b>				
• IP20	Yes	Yes	Yes	Yes
<b>Standards, approvals, certificates</b>				
CSA approval	Yes	Yes	Yes	Yes
UL approval	Yes	Yes	Yes	Yes
FM approval	Yes	Yes	Yes	Yes
Developed in accordance with IEC 61131	Yes	Yes	Yes	Yes
according to VDE 0631	Yes	Yes	Yes	Yes
Marine approval				
• Marine approval	Yes	Yes	Yes	Yes
<b>Ambient conditions</b>				
Operating temperature				
• Min.	0 °C	0 °C	0 °C	0 °C
• max.	55 °C	55 °C	55 °C	55 °C
<b>Dimensions</b>				
Width	71.5 mm	71.5 mm	71.5 mm	71.5 mm
Height	90 mm	90 mm	90 mm	90 mm
Depth	60 mm	60 mm	60 mm	60 mm
	<b>6ED1052-1MD00-0BA7</b>		<b>6ED1052-1FB00-0BA7</b>	
<b>Installation type/mounting</b>				
Mounting	on 35mm DIN rail, 6 spacing units wide		on 35mm DIN rail, 6 spacing units wide	
<b>Supply voltage</b>				
12 V DC	Yes			
24 V DC	Yes			
115 V DC			Yes	
230 V DC			Yes	
permissible range, lower limit (DC)	10.8 V		100 V	
permissible range, upper limit (DC)	28.8 V		253 V	
115 V AC			Yes	
230 V AC			Yes	
<b>Time of day</b>				
Time switching clocks				
• Power reserve	480 h		480 h	
<b>Digital inputs</b>				
Number of digital inputs	8; Of which 4 can be used in analog mode (0 to 10 V)		8	
<b>Digital outputs</b>				
Number of digital outputs	4; Relays		4; Relays	
short-circuit protection	No; external fusing necessary		No; external fusing necessary	
Relay outputs				
• Switching capacity of contacts				
- with inductive load, max.	3 A		3 A	
- with resistive load, max.	10 A		10 A	
<b>EMC</b>				
Emission of radio interference acc. to EN 55 011				
• Limit class B, for use in residential areas	Yes; Radio interference suppression according to EN55011, Limit Value Class B		Yes; Radio interference suppression according to EN55011, Limit Value Class B	
<b>Degree and class of protection</b>				
• IP20	Yes		Yes	
<b>Standards, approvals, certificates</b>				
CSA approval	Yes		Yes	
UL approval	Yes		Yes	
FM approval	Yes		Yes	

**Technical specifications** (continued)

	6ED1052-1MD00-0BA7	6ED1052-1FB00-0BA7		
Developed in accordance with IEC 61131	Yes	Yes		
according to VDE 0631	Yes	Yes		
Marine approval				
• Marine approval	Yes	Yes		
<b>Ambient conditions</b>				
Operating temperature				
• Min.	0 °C	0 °C		
• max.	55 °C	55 °C		
<b>Dimensions</b>				
Width	107 mm	107 mm		
Height	90 mm	90 mm		
Depth	55 mm	55 mm		
	6ED1052-1CC01-0BA6	6ED1052-1MD00-0BA6	6ED1052-1HB00-0BA6	6ED1052-1FB00-0BA6
<b>Installation type/mounting</b>				
Mounting	on 35 mm DIN rail, 4 spacing units wide	on 35 mm DIN rail, 4 spacing units wide	on 35 mm DIN rail, 4 spacing units wide	on 35 mm DIN rail, 4 spacing units wide
<b>Supply voltage</b>				
12 V DC		Yes		
24 V DC	Yes	Yes	Yes	
115 V DC				Yes
230 V DC				Yes
permissible range, lower limit (DC)	20.4 V	10.8 V	20.4 V	100 V
permissible range, upper limit (DC)	28.8 V	28.8 V	28.8 V	253 V
24 V AC			Yes	
115 V AC				Yes
230 V AC				Yes
<b>Time of day</b>				
Time switching clocks				
• Power reserve	80 h	80 h	80 h	80 h
<b>Digital inputs</b>				
Number of digital inputs	8; Of which 4 can be used in analog mode (0 to 10 V)	8; Of which 4 can be used in analog mode (0 to 10 V)	8	8
<b>Digital outputs</b>				
Number of digital outputs	4; Transistor	4; Relays	4; Relays	4; Relays
short-circuit protection	Yes; electrical (1 A)	No; external fusing necessary	No; external fusing necessary	No; external fusing necessary
Output current				
• for signal "1" permissible range for 0 to 55 °C, max.	0.3 A			
<b>Relay outputs</b>				
• Switching capacity of contacts				
- with inductive load, max.		3 A	3 A	3 A
- with resistive load, max.		10 A	10 A	10 A
<b>EMC</b>				
Emission of radio interference acc. to EN 55 011				
• Limit class B, for use in residential areas	Yes; Radio interference suppression according to EN55011, Limit Value Class B	Yes	Yes	Yes
<b>Degree and class of protection</b>				
• IP20	Yes	Yes	Yes	Yes
<b>Standards, approvals, certificates</b>				
CSA approval	Yes	Yes	Yes	Yes
UL approval	Yes	Yes	Yes	Yes
FM approval	Yes	Yes	Yes	Yes

**LOGO! logic module**

LOGO! modular

**LOGO! modular basic variants**

1

**Technical specifications** (continued)

	6ED1052-1CC01-0BA6	6ED1052-1MD00-0BA6	6ED1052-1HB00-0BA6	6ED1052-1FB00-0BA6
Developed in accordance with IEC 61131	Yes	Yes	Yes	Yes
according to VDE 0631	Yes	Yes	Yes	Yes
Marine approval				
• Marine approval	Yes	Yes	Yes	Yes
<b>Ambient conditions</b>				
Operating temperature				
• Min.	0 °C	0 °C	0 °C	0 °C
• max.	55 °C	55 °C	55 °C	55 °C
<b>Dimensions</b>				
Width	72 mm	72 mm	72 mm	72 mm
Height	90 mm	90 mm	90 mm	90 mm
Depth	55 mm	55 mm	55 mm	55 mm

**Ordering data****Article No.****Article No.****LOGO! 8 logic module****LOGO! 24CE**

Supply voltage 24 V DC,  
8 digital inputs 24 V DC, of which  
4 can be used in analog mode  
(0 to 10 V),  
4 digital outputs 24 V DC, 0.3 A,  
integrated time switch  
Ethernet interface:  
400 function blocks can be inter-  
linked, modular expansion capability

**LOGO! 12/24RCE**

Supply voltage 12...24 V DC,  
8 digital inputs 12/24 V DC,  
of which 4 can be used in analog  
mode (0 to 10 V)  
4 relay outputs 10 A,  
integral time switch  
Ethernet interface:  
400 function blocks can be inter-  
linked, modular expansion capability

**LOGO! 24RCE**

Supply voltage 24 V AC/DC,  
8 digital inputs 24 V AC/DC,  
4 relay outputs 10 A,  
integral time switch  
Ethernet interface:  
400 function blocks can be inter-  
linked, modular expansion capability

**LOGO! 230RCE**

Supply voltage 115...230 V AC/DC,  
8 digital inputs 115...230 V AC/DC,  
4 relay outputs 10 A,  
integral time switch  
Ethernet interface:  
400 function blocks can be inter-  
linked, modular expansion capability

6ED1052-1CC01-0BA8

6ED1052-1MD00-0BA8

6ED1052-1HB00-0BA8

6ED1052-1FB00-0BA8

**LOGO! 7 logic module****LOGO! 12/24RCE logic module**

Supply voltage 12/24 V DC,  
8 digital inputs 12/24 V DC, of  
which 4 can be used in analog  
mode (0 to 10 V)  
4 relay outputs 10 A,  
integral time switch;  
400 function blocks can be inter-  
linked, Ethernet interface,  
modular expansion capability

**LOGO! 230RCE logic module**

115/230 V AC/DC supply voltage,  
8 digital inputs 115/230 V AC/DC,  
4 relay outputs 10 A,  
integral time switch;  
400 function blocks can be inter-  
linked, Ethernet interface,  
modular expansion capability

**LOGO! 6 logic module****LOGO! 24C logic module**

24 V DC supply voltage,  
8 digital inputs 24 V DC,  
of which 4 can be used in analog  
mode (0 to 10 V),  
4 digital outputs 24 V DC, 0.3 A,  
integrated time switch;  
200 function blocks can be inter-  
linked, modular expansion capability

**LOGO! 12/24RC logic module**

12/24 V DC power supply,  
8x 12/24 V DC digital inputs, of  
which 4 can be used in analog  
mode (0 to 10 V)  
4x 10 A relay outputs,  
integral time switch;  
200 function blocks can be inter-  
linked, modular expansion capability

**LOGO! 24RC logic module**

24 V AC/DC power supply,  
8x 24 V AC/DC digital inputs,  
4x 10 A relay outputs,  
integral time switch;  
200 function blocks can be inter-  
linked, modular expansion capability

**LOGO! 230RC logic module**

115/230 V AC/DC power supply,  
8x 115/230 V AC/DC digital inputs,  
4x 10 A relay outputs,  
integral time switch;  
200 function blocks can be inter-  
linked, modular expansion capability

6ED1052-1MD00-0BA7

6ED1052-1FB00-0BA7

6ED1052-1CC01-0BA6

6ED1052-1MD00-0BA6

6ED1052-1HB00-0BA6

6ED1052-1FB00-0BA6



Ordering data	Article No.		Article No.
<b>Accessories for LOGO! 8</b>		<b>LOGO! Memory Card</b>	<b>6ED1056-1DA00-0BA0</b>
<b>LOGO! 8 text display HMI</b>	<b>6ED1055-4MH00-0BA1</b>	Program module for copying, with know-how protection	
6-line text display, can be connected to all LOGO! 8 Basic and Pure versions, with 2 Ethernet interfaces; including installation accessories. Requires additional 12 V DC or 24 V AC/DC power supply		<b>LOGO! battery card</b>	<b>6ED1056-6XA00-0BA0</b>
<b>LOGO!Soft Comfort V8</b>	<b>6ED1058-0BA08-0YA1</b>	Battery module for backing up the integral real-time clock (not LOGO! 24)	
For programming on the PC in LAD/FBD; executes on Windows 8, 7, XP, Linux and Mac OSX; on DVD		<b>LOGO! memory/battery card</b>	<b>6ED1056-7DA00-0BA0</b>
<b>LOGO!Soft Comfort V8 Upgrade</b>	<b>6ED1058-0CA08-0YE1</b>	Combined program and battery module, with know-how protection and backup of the integral real-time clock (not LOGO! 24)	
Upgrade from V1.0 to V8, on DVD		<b>LOGO! PROM</b>	<b>6AG1057-1AA01-0BA6</b>
<b>LOGO! 8 Starter Kits</b>		Programming device used to simultaneously reproduce program module contents on up to 8 program modules	
In TANOS Box, with LOGO! 8, LOGO! Soft Comfort V8, WinCC Basic V13, Ethernet cable,		<b>LOGO!Soft Comfort V8.0</b>	<b>6ED1058-0BA08-0YA1</b>
<b>LOGO! 8 12/24 V Starter Kit</b>	<b>6ED1057-3BA00-0AA8</b>	For programming on the PC in LAD/FBD; executes on Windows 8, 7, XP, Linux and MAC OSX; on DVD	
with LOGO! 12/24RCE, LOGO! Power 24 V 1.3 A		<b>LOGO!Soft Comfort V8.0 upgrade</b>	<b>6ED1058-0CA08-0YE1</b>
<b>LOGO! 8 230V Starter Kit</b>	<b>6ED1057-3BA02-0AA8</b>	Upgrade from V1.0 to V8.0; on DVD	
with LOGO! 230RCE		<b>LOGO! PC cable</b>	<b>6ED1057-1AA00-0BA0</b>
<b>LOGO! 8 TDE Starter Kit</b>	<b>6ED1057-3BA10-0AA8</b>	For program transfer between LOGO! and the PC	
with LOGO! 12/24RCEo, LOGO! Power 24 V, 1,3 A, LOGO! TDE		<b>LOGO! USB PC cable</b>	<b>6ED1057-1AA01-0BA0</b>
<b>Accessories for LOGO! 6, LOGO! 7</b>		For transferring the program between LOGO! and PC, including driver on CD-ROM	
<b>LOGO! TD text display</b>	<b>6ED1055-4MH00-0BA0</b>	<b>LOGO! modem cable</b>	<b>6ED1057-1CA00-0BA0</b>
4-line text display, can be connected to all LOGO! 0BA6 Basic and Pure versions, including connecting cable		Adapter cable for analog modem communication	
<b>SIPLUS LOGO! TD text display</b>	<b>6AG1055-4MH00-2BA0</b>	<b>Front panel mounting set</b>	
(extended temperature range -10 ... +60 °C and medial loading)		Width 4 width units	<b>6AG1057-1AA00-0AA0</b>
4-line text display, can be connected to all LOGO! Basic and Pure versions as of -0BA6, including connecting cable		Width 4 width units, with keys	<b>6AG1057-1AA00-0AA3</b>
		Width 8 width units	<b>6AG1057-1AA00-0AA1</b>
		Width 8 width units, with keys	<b>6AG1057-1AA00-0AA2</b>

**LOGO! logic module**

LOGO! modular

**SIPLUS LOGO! modular basic variants**

1

**Overview**

- The space-saving basic variants
- Interface for the connection of expansion modules, up to 24 digital inputs, 16 digital outputs, 8 analog inputs and 2 analog outputs can be addressed
- With connection option for LOGO! text display TD (can be connected to all LOGO! 0BA6 basic versions)

**New in LOGO! 0BA7 variants:**

- Ethernet interface for communication with SIMATIC Controller, SIMATIC Panel and PC
- Networking of max. 8 LOGO! devices
- Use of standard SD card or SIMATIC memory card

**Note:**

SIPLUS extreme products are based on Siemens Industry standard products. The contents listed here were taken from the respective standard products. SIPLUS extreme-specific information was added.

**Technical specifications**

	<b>6AG1052-1CC01-2BA6</b>	<b>6AG1052-1MD00-2BA6</b>	<b>6AG1052-1HB00-2BA6</b>	<b>6AG1052-1FB00-2BA6</b>
based on	<b>6ED1052-1CC01-0BA6</b>	<b>6ED1052-1MD00-0BA6</b>	<b>6ED1052-1HB00-0BA6</b>	<b>6ED1052-1FB00-0BA6</b>
<b>Ambient conditions</b>				
Operating temperature				
• Min.	-25 °C; = Tmin	-25 °C; = Tmin	-25 °C; = Tmin	-25 °C; = Tmin
• max.	70 °C; = Tmax; 55 °C @ UL/cUL use	70 °C; = Tmax; 55 °C @ UL/cUL use	70 °C; = Tmax; 55 °C @ UL/cUL use	70 °C; = Tmax; 55 °C @ UL/cUL use
<b>Extended ambient conditions</b>				
• Relative to ambient temperature-atmospheric pressure-installation altitude	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m)
• Relative humidity				
- with condensation, maximum	100 %; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)	100 %; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)	100 %; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)	100 %; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)
• Resistance				
- against biologically active substances	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!
- against chemically active substances	Yes; Class 3C4 incl. salt spray. The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3C4 incl. salt spray. The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3C4 incl. salt spray. The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3C4 incl. salt spray. The supplied connector covers must remain on the unused interfaces during operation!
- against mechanically active substances	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!

**Technical specifications (continued)**

	<b>6AG1052-1MD00-2BA7</b>	<b>6AG1052-1FB00-2BA7</b>
based on	<b>6ED1052-1MD00-0BA7</b>	<b>6ED1052-1FB00-0BA7</b>
<b>Ambient conditions</b>		
Operating temperature		
• Min.	-25 °C; = Tmin	-25 °C; = Tmin
• max.	70 °C; = Tmax	70 °C; = Tmax
Extended ambient conditions		
• Relative to ambient temperature-atmospheric pressure-installation altitude	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m)
• Relative humidity		
- with condensation, maximum	100 %; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)	100 %; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)
• Resistance		
- against biologically active substances	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!
- against chemically active substances	Yes; Class 3C4 incl. salt spray according to EN 60068-2-52 (degree of severity 3). The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3C4 incl. salt spray according to EN 60068-2-52 (degree of severity 3). The supplied connector covers must remain on the unused interfaces during operation!
- against mechanically active substances	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!

**Ordering data**
**Article No.**
**Article No.**
**SIPLUS LOGO! 24**

24 V DC supply voltage,  
 8 digital inputs 24 V DC, of which  
 4 can be used in analog mode (0 to  
 10 V),  
 4 digital outputs 24 V DC, 0.3 A;  
 integrated time switch;  
 200 function blocks can be inter-  
 linked, modular expansion capability

Extended temperature range and  
 exposure to media

**6AG1052-1CC01-2BA6**
**SIPLUS LOGO! 230RC**

115/230 V AC/DC supply voltage,  
 8 digital inputs 115/230 V AC/DC,  
 4 relay outputs 10 A,  
 integral time switch;  
 200 function blocks can be inter-  
 linked, modular expansion capability

Extended temperature range and  
 exposure to media

**6AG1052-1FB00-2BA6**
**SIPLUS LOGO! 230RCE**

115/230 V AC/DC supply voltage,  
 8 digital inputs 115/230 V AC/DC,  
 4 relay outputs 10 A,  
 integral time switch;  
 400 function blocks can be inter-  
 linked, Ethernet interface,  
 modular expansion capability

Extended temperature range and  
 exposure to media

**6AG1052-1FB00-2BA7**
**SIPLUS LOGO! 24RC**

24 V AC/DC supply voltage,  
 8 digital inputs 24 V AC/DC,  
 4 relay outputs 10 A,  
 integral time switch;  
 200 function blocks can be inter-  
 linked, modular expansion capability

Extended temperature range and  
 exposure to media

**6AG1052-1HB00-2BA6**
**SIPLUS LOGO! 12/24RC**

12/24 V DC power supply,  
 8x 12/24 V DC digital inputs, of  
 which 4 can be used in analog  
 mode (0 to 10 V)  
 4x 10 A relay outputs,  
 integral time switch;  
 200 function blocks can be inter-  
 linked, modular expansion capability

Extended temperature range and  
 exposure to media

**6AG1052-1MD00-2BA6**
**SIPLUS LOGO! 12/24RCE**

12/24 V DC supply voltage,  
 8 digital inputs 12/24 V DC, of  
 which 4 can be used in analog  
 mode (0 to 10 V)  
 4 relay outputs 10 A,  
 integral time switch;  
 400 function blocks can be inter-  
 linked, Ethernet interface,  
 modular expansion capability

Extended temperature range and  
 exposure to media

**6AG1052-1MD00-2BA7**
**Accessories**
**SIPLUS Upmiter upstream device**

for reliable operation at the battery  
 of combustion engines

**6AG1053-1AA00-2AA0**
**Further accessories**

See LOGO! modular basic  
 versions, page 1/7

**LOGO! logic module**

LOGO! modular

**LOGO! modular pure variants**

1

**Overview**

- Basic variants optimized for costs
- Interface for the connection of expansion modules, up to 24 digital inputs, 16 (20) digital outputs, 8 analog inputs and 2 (8) analog outputs can be addressed
- With connection option for LOGO! TD text display (can be connected to all LOGO! 0BA6 basic variants)

**New LOGO! 8**

- All basic units with integrated web server
- Same enclosure width as LOGO! 0BA6 (4 MW)
- All basic units with Ethernet interface for communication with LOGO!, SIMATIC Controllers, SIMATIC Panels and PCs
- Use of standard micro CF cards

**Technical specifications**

	6ED1052-2CC01-0BA8	6ED1052-2MD00-0BA8	6ED1052-2HB00-0BA8	6ED1052-2FB00-0BA8
<b>Installation type/mounting</b>				
Mounting	on 35 mm DIN rail, 4 spacing units wide	on 35 mm DIN rail, 4 spacing units wide	on 35 mm DIN rail, 4 spacing units wide	on 35 mm DIN rail, 4 spacing units wide
<b>Supply voltage</b>				
12 V DC		Yes		
24 V DC	Yes	Yes	Yes	
115 V DC				Yes
230 V DC				Yes
permissible range, lower limit (DC)	20.4 V	10.8 V	20.4 V	100 V
permissible range, upper limit (DC)	28.8 V	28.8 V	28.8 V	253 V
24 V AC			Yes	
115 V AC				Yes
230 V AC				Yes
<b>Time of day</b>				
Time switching clocks				
• Number	190	8	8	8
• Power reserve	480 h	480 h	480 h	480 h
<b>Digital inputs</b>				
Number of digital inputs	8; Of which 4 can be used in analog mode (0 to 10 V)	8; Of which 4 can be used in analog mode (0 to 10 V)	8	8
<b>Digital outputs</b>				
Number of digital outputs	4; Transistor	4; Relays	4; Relays	4; Relays
short-circuit protection	Yes; electrical (1 A)	No; external fusing necessary	No; external fusing necessary	No; external fusing necessary
Output current				
• for signal "1" permissible range for 0 to 55 °C, max.	0.3 A	10 A		
Relay outputs				
• Switching capacity of contacts				
- with inductive load, max.		3 A	3 A	3 A
- with resistive load, max.		10 A	10 A	10 A
<b>EMC</b>				
Emission of radio interference acc. to EN 55 011				
• Limit class B, for use in residential areas	Yes; Radio interference suppression according to EN55011, Limit Value Class B	Yes	Yes	Yes

## Technical specifications (continued)

	6ED1052-2CC01-0BA8	6ED1052-2MD00-0BA8	6ED1052-2HB00-0BA8	6ED1052-2FB00-0BA8
<b>Degree and class of protection</b>				
• IP20	Yes	Yes	Yes	Yes
<b>Standards, approvals, certificates</b>				
CSA approval	Yes	Yes	Yes	Yes
UL approval	Yes	Yes	Yes	Yes
FM approval	Yes	Yes	Yes	Yes
Developed in accordance with IEC 61131	Yes	Yes	Yes	Yes
according to VDE 0631	Yes	Yes	Yes	Yes
Marine approval				
• Marine approval	Yes	Yes	Yes	Yes
<b>Ambient conditions</b>				
Operating temperature				
• Min.	0 °C	0 °C	0 °C	0 °C
• max.	55 °C	55 °C	55 °C	55 °C
<b>Dimensions</b>				
Width	71.5 mm	71.5 mm	71.5 mm	71.5 mm
Height	90 mm	90 mm	90 mm	90 mm
Depth	58 mm	58 mm	58 mm	58 mm
	6ED1052-2CC01-0BA6	6ED1052-2MD00-0BA6	6ED1052-2HB00-0BA6	6ED1052-2FB00-0BA6
<b>Installation type/mounting</b>				
Mounting	on 35 mm DIN rail, 4 spacing units wide	on 35 mm DIN rail, 4 spacing units wide	on 35 mm DIN rail, 4 spacing units wide	on 35 mm DIN rail, 4 spacing units wide
<b>Supply voltage</b>				
12 V DC		Yes		
24 V DC	Yes	Yes	Yes	
115 V DC				Yes
230 V DC				Yes
permissible range, lower limit (DC)	20.4 V	10.8 V	20.4 V	100 V
permissible range, upper limit (DC)	28.8 V	28.8 V	28.8 V	253 V
24 V AC			Yes	
115 V AC				Yes
230 V AC				Yes
<b>Time of day</b>				
Time switching clocks				
• Number	190	8	8	8
• Power reserve	80 h	80 h	80 h	80 h
<b>Digital inputs</b>				
Number of digital inputs	8; Of which 4 can be used in analog mode (0 to 10 V)	8; Of which 4 can be used in analog mode (0 to 10 V)	8	8
<b>Digital outputs</b>				
Number of digital outputs	4; Transistor	4; Relays	4; Relays	4; Relays
short-circuit protection	Yes; electrical (1 A)	No; external fusing necessary	No; external fusing necessary	No; external fusing necessary
Output current				
• for signal "1" permissible range for 0 to 55 °C, max.	0.3 A			
Relay outputs				
• Switching capacity of contacts				
- with inductive load, max.		3 A	3 A	3 A
- with resistive load, max.		10 A	10 A	10 A
<b>EMC</b>				
Emission of radio interference acc. to EN 55 011				
• Limit class B, for use in residential areas	Yes; Radio interference suppression according to EN55011, Limit Value Class B	Yes	Yes	Yes

**LOGO! logic module**

LOGO! modular

**LOGO! modular pure variants**

1

**Technical specifications** (continued)

	6ED1052-2CC01-0BA6	6ED1052-2MD00-0BA6	6ED1052-2HB00-0BA6	6ED1052-2FB00-0BA6
<b>Degree and class of protection</b>				
• IP20	Yes	Yes	Yes	Yes
<b>Standards, approvals, certificates</b>				
CSA approval	Yes	Yes	Yes	Yes
UL approval	Yes	Yes	Yes	Yes
FM approval	Yes	Yes	Yes	Yes
Developed in accordance with IEC 61131	Yes	Yes	Yes	Yes
according to VDE 0631	Yes	Yes	Yes	Yes
<b>Marine approval</b>				
• Marine approval	Yes	Yes	Yes	Yes
<b>Ambient conditions</b>				
Operating temperature				
• Min.	0 °C	0 °C	0 °C	0 °C
• max.	55 °C	55 °C	55 °C	55 °C
<b>Dimensions</b>				
Width	72 mm	72 mm	72 mm	72 mm
Height	90 mm	90 mm	90 mm	90 mm
Depth	55 mm	55 mm	55 mm	55 mm

**Ordering data****Article No.****Article No.****LOGO! 8 logic module****6ED1052-2CC01-0BA8****LOGO! 24CEo logic module**

24 V DC supply voltage,  
8 digital inputs 24 V DC,  
of which 4 can be used in analog  
mode (0 to 10 V),  
4 digital outputs 24 V DC, 0.3 A,  
integral time switch  
Ethernet interface;  
without display and keyboard;  
400 function blocks can be inter-  
linked, modular expansion capability

**LOGO! 12/24RCEo logic module****6ED1052-2MD00-0BA8**

12...24 V DC supply voltage,  
8 digital inputs 12...24 V DC, of  
which 4 can be used in analog  
mode (0 to 10 V),  
4 relay outputs 10 A,  
integral time switch;  
without display and keyboard;  
400 function blocks can be inter-  
linked, modular expansion capability

**LOGO! 24RCEo logic module****6ED1052-2HB00-0BA8**

24 V AC/DC supply voltage,  
8 digital inputs 24 V AC/DC,  
4 relay outputs 10 A,  
integral time switch;  
without display and keyboard;  
400 function blocks can be inter-  
linked, modular expansion capability

**LOGO! 230RCEo logic module****6ED1052-2FB00-0BA8**

115...230 V AC/DC supply voltage,  
8 digital inputs 115...230 V AC/DC,  
4 relay outputs 10 A,  
integral time switch;  
without display and keyboard;  
400 function blocks can be inter-  
linked, modular expansion capability

**LOGO! 6 logic module****LOGO! 24Co logic module****6ED1052-2CC01-0BA6**

24 V DC power supply,  
8 digital inputs 24 V DC,  
of which 4 can be used in analog  
mode (0 to 10 V),  
4 digital outputs 24 V DC, 0.3 A,  
integrated time switch;  
without display and keyboard;  
200 function blocks can be inter-  
linked, modular expansion capability

**LOGO! 12/24RCo logic module****6ED1052-2MD00-0BA6**

12/24 V DC power supply,  
8 digital inputs 12/24 V DC, of  
which 4 can be used in analog  
mode (0 to 10 V),  
4 relay outputs 10 A,  
integral time switch;  
without display and keyboard;  
200 function blocks can be inter-  
linked, modular expansion capability

**LOGO! 24RCo logic module****6ED1052-2HB00-0BA6**

24 V AC/DC power supply,  
8 digital inputs 24 V AC/DC,  
4 relay outputs 10 A,  
integral time switch;  
without display and keyboard;  
200 function blocks can be inter-  
linked, modular expansion capability

**LOGO! 230RCo logic module****6ED1052-2FB00-0BA6**

115/230 V AC/DC power supply,  
8 digital inputs 115/230 V AC/DC,  
4 relay outputs 10 A,  
integral time clock;  
without display and keyboard;  
200 function blocks can be inter-  
linked, modular expansion capability

Ordering data	Article No.		Article No.
<b>Accessories for LOGO! 8</b>		<b>LOGO! Memory Card</b>	<b>6ED1056-1DA00-0BA0</b>
<b>LOGO! TDE text display</b>	<b>6ED1055-4MH00-0BA1</b>	Program module for copying, with know-how protection	
6-line text display, can be connected to all LOGO! 8 Basic and Pure versions, with 2 Ethernet interfaces; including installation accessories.		<b>LOGO! battery card</b>	<b>6ED1056-6XA00-0BA0</b>
Requires additional 12 V DC or 24 V AC/DC power supply		Battery module for backing up the integral real-time clock (not LOGO! 24)	
<b>LOGO!Soft Comfort V8</b>	<b>6ED1058-0BA08-0YA1</b>	<b>LOGO! memory/battery card</b>	<b>6ED1056-7DA00-0BA0</b>
For programming on the PC in LAD/FBD; executes on Windows 8, 7, XP, Linux and Mac OSX; on DVD		Combined program and battery module, with know-how protection and backup of the integral real-time clock (not LOGO! 24o)	
<b>LOGO!Soft Comfort V8 Upgrade</b>	<b>6ED1058-0CA08-0YE1</b>	<b>LOGO! PROM</b>	<b>6AG1057-1AA01-0BA6</b>
Upgrade from V1.0 to V8, on DVD		Programming device used to simultaneously reproduce program module contents on up to 8 program modules	
<b>LOGO! 8 Starter Kits</b>		<b>LOGO!Soft Comfort V8</b>	<b>6ED1058-0BA08-0YA1</b>
In TANOS Box, with LOGO! 8, LOGO! Soft Comfort V8, WinCC Basic V13, Ethernet cable,		For programming on the PC in LAD/FBD; executes on Windows 8, 7, XP, Linux and Mac OSX; on DVD	
<b>LOGO! 8 12/24 V Starter Kit</b>	<b>6ED1057-3BA00-0AA8</b>	<b>LOGO!Soft Comfort V8 Upgrade</b>	<b>6ED1058-0CA08-0YE1</b>
with LOGO! 12/24RCE, LOGO! Power 24 V 1.3 A		Upgrade from V1.0 to V8, on DVD	
<b>LOGO! 8 230V Starter Kit</b>	<b>6ED1057-3BA02-0AA8</b>	<b>LOGO! PC cable</b>	<b>6ED1057-1AA00-0BA0</b>
with LOGO! 230RCE		For program transfer between LOGO! and the PC	
<b>LOGO! 8 TDE Starter Kit</b>	<b>6ED1057-3BA10-0AA8</b>	<b>LOGO! USB PC cable</b>	<b>6ED1057-1AA01-0BA0</b>
with LOGO! 12/24RCEo, LOGO! Power 24 V, 1.3 A, LOGO! TDE		For transferring the program between LOGO! and PC, including driver on CD-ROM	
<b>Accessories</b>		<b>LOGO! modem cable</b>	<b>6ED1057-1CA00-0BA0</b>
<b>LOGO! TD text display</b>	<b>6ED1055-4MH00-0BA0</b>	Adapter cable for analog modem communication	
4-line text display, can be connected to all LOGO! 0BA6 Basic and Pure versions, including connecting cable			
<b>SIPLUS LOGO! TD text display</b>	<b>6AG1055-4MH00-2BA0</b>		
(extended temperature range -10 ... +60 °C and medial loading)			
4-line text display, can be connected to all LOGO! 0BA6 Basic and Pure versions, including connecting cable			

**LOGO! logic module**

LOGO! modular

**SIPLUS LOGO! modular pure variants**

1

**Overview**

- Basic variants optimized for costs
- Interface for the connection of expansion modules, up to 24 digital inputs, 16 digital outputs, 8 analog inputs and 2 analog outputs can be addressed
- With connection option for LOGO! text display TD (can be connected to all LOGO! 0BA6 basic versions)

**Note:**

SIPLUS extreme products are based on Siemens Industry standard products. The contents listed here were taken from the respective standard products. SIPLUS extreme-specific information was added.

**Technical specifications**

	<b>6AG1052-2CC01-2BA6</b>	<b>6AG1052-2MD00-2BA6</b>	<b>6AG1052-2HB00-2BA6</b>	<b>6AG1052-2FB00-2BA6</b>
based on	<b>6ED1052-2CC01-0BA6</b>	<b>6ED1052-2MD00-0BA6</b>	<b>6ED1052-2HB00-0BA6</b>	<b>6ED1052-2FB00-0BA6</b>
<b>Ambient conditions</b>				
Operating temperature				
• Min.	-40 °C; = Tmin	-40 °C; = Tmin	-40 °C; = Tmin	-40 °C; = Tmin
• max.	70 °C; = Tmax; 55 °C @ UL/cUL use	70 °C; = Tmax; 55 °C @ UL/cUL use	70 °C; = Tmax; 55 °C @ UL/cUL use	70 °C; = Tmax; 55 °C @ UL/cUL use
Extended ambient conditions				
• Relative to ambient temperature-atmospheric pressure-installation altitude	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m)
• Relative humidity				
- with condensation, maximum	100 %; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)	100 %; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)	100 %; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)	100 %; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)
• Resistance				
- against biologically active substances	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!
- against chemically active substances	Yes; Class 3C4 incl. salt spray. The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3C4 incl. salt spray. The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3C4 incl. salt spray. The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3C4 incl. salt spray. The supplied connector covers must remain on the unused interfaces during operation!
- against mechanically active substances	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!



Ordering data	Article No.	Accessories	Article No.
<b>SIPLUS LOGO! 24o</b> 24 V DC supply voltage, 8 digital inputs 24 V DC, of which 4 can be used in analog mode (0 to 10 V), 4 digital outputs 24 V DC, 0.3 A, integrated time switch; without display and keyboard; 200 function blocks can be inter- linked, modular expansion capability  Extended temperature range and exposure to media	<b>6AG1052-2CC01-2BA6</b>	<b>SIPLUS Upmiter upstream device</b> for reliable operation at the battery of combustion engines	<b>6AG1053-1AA00-2AA0</b>
<b>SIPLUS LOGO! 230RCo</b> 115/230 V AC/DC supply voltage, 8 digital inputs 115/230 V AC/DC, 4 relay outputs 10 A, integral time switch; without display and keyboard; 200 function blocks can be inter- linked, modular expansion capability  Extended temperature range and exposure to media	<b>6AG1052-2FB00-2BA6</b>	<b>Further accessories</b> See LOGO! Modular Pure versions, page 1/13	
<b>SIPLUS LOGO! 24RCo</b> 24 V AC/DC supply voltage, 8 digital inputs 24 V AC/DC, 4 relay outputs 10 A, integral time switch; without display and keyboard; 200 function blocks can be inter- linked, modular expansion capability  Extended temperature range and exposure to media	<b>6AG1052-2HB00-2BA6</b>		
<b>SIPLUS LOGO! 12/24RCo</b> 12/24 V DC supply voltage, 8 digital inputs 12/24 V DC, of which 4 can be used in analog mode (0 to 10 V), 4 relay outputs 10 A, integral time switch; without display and keyboard; 200 function blocks can be inter- linked, modular expansion capability  Extended temperature range and exposure to media	<b>6AG1052-2MD00-2BA6</b>		

**LOGO! logic module**

LOGO! modular

**LOGO! modular expansion modules**

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**Overview**

- Expansion modules for connection to LOGO! Modular
- With digital inputs and outputs, analog inputs, or analog outputs

**Technical specifications**

	6ED1055-1CB00-0BA2	6ED1055-1HB00-0BA2	6ED1055-1MB00-0BA2	6ED1055-1FB00-0BA2
<b>Installation type/mounting</b>				
Mounting	on 35 mm DIN rail, 2 spacing units wide	on 35 mm DIN rail, 2 spacing units wide	on 35 mm DIN rail, 2 spacing units wide	on 35 mm DIN rail, 2 spacing units wide
<b>Supply voltage</b>				
12 V DC			Yes	
24 V DC	Yes	Yes	Yes	
115 V DC				Yes
230 V DC				Yes
permissible range, lower limit (DC)	20.4 V	20.4 V	10.8 V	100 V
permissible range, upper limit (DC)	28.8 V	28.8 V	28.8 V	253 V
24 V AC		Yes		
115 V AC				Yes
230 V AC				Yes
Line frequency				
• permissible frequency range, upper limit		63 Hz		63 Hz
<b>Digital inputs</b>				
Number of digital inputs	4	4	4	4
Input voltage				
• Type of input voltage	DC	AC/DC	DC	AC/DC
• for signal "0"	< 5 V DC		< 5 V DC	< 40 V AC; < 30 V DC
• for signal "1"	> 12 V DC			> 79 V AC, > 79 V DC
Input current				
• for signal "0", max. (permissible quiescent current)	0.88 mA	1.1 mA	0.88 mA	0.06 mA
• for signal "1", typ.	4 mA	5.5 mA	4.2 mA	0.37 mA
Input delay (for rated value of input voltage)				
• for standard inputs				
- at "0" to "1", max.	1.5 ms	1.5 ms	1.5 ms	40 ms
- at "1" to "0", max.	1.5 ms	15 ms	1.5 ms	75 ms
<b>Digital outputs</b>				
Number of digital outputs	4	4; Relays	4; Relays	4; Relays
short-circuit protection	Yes	No	No	No
Controlling a digital input		Yes	Yes	Yes
Switching capacity of the outputs				
• Lamp load, max.		1 000 W	1 000 W	1 000 W; 500 W at 115 V AC
Parallel switching of 2 outputs				
• for increased power	No	No	No	No

**Technical specifications (continued)**

	6ED1055-1CB00-0BA2	6ED1055-1HB00-0BA2	6ED1055-1MB00-0BA2	6ED1055-1FB00-0BA2
Switching frequency				
• with resistive load, max.	10 Hz	2 Hz	2 Hz	2 Hz
• with inductive load, max.	0.5 Hz	0.5 Hz	0.5 Hz	0.5 Hz
• mechanical, max.		10 Hz	10 Hz	10 Hz
Relay outputs				
• Switching capacity of contacts				
- with inductive load, max.		3 A	3 A	3 A
- with resistive load, max.		5 A	5 A	5 A
- Thermal continuous current, max.	0.3 A			
<b>EMC</b>				
Emission of radio interference acc. to EN 55 011				
• Limit class B, for use in residential areas	Yes	Yes	Yes	Yes
<b>Degree and class of protection</b>				
• IP20	Yes	Yes	Yes	Yes
<b>Standards, approvals, certificates</b>				
CSA approval	Yes	Yes	Yes	Yes
UL approval	Yes	Yes	Yes	Yes
FM approval	Yes	Yes	Yes	Yes
Developed in accordance with IEC 61131	Yes	Yes	Yes	Yes
according to VDE 0631	Yes	Yes		Yes
Marine approval				
• Marine approval	Yes	Yes	Yes	Yes
<b>Ambient conditions</b>				
Operating temperature				
• Min.	0 °C	0 °C	0 °C	0 °C
• max.	55 °C	55 °C	55 °C	55 °C
<b>Dimensions</b>				
Width	35.5 mm	35.5 mm	35.5 mm	35.5 mm
Height	90 mm	90 mm	90 mm	90 mm
Depth	58 mm	58 mm	58 mm	58 mm
	6ED1055-1CB10-0BA2	6ED1055-1NB10-0BA2	6ED1055-1FB10-0BA2	
<b>Installation type/mounting</b>				
Mounting	on 35 mm DIN rail, 4 spacing units wide	on 35 mm DIN rail, 4 spacing units wide	on 35 mm DIN rail, 4 spacing units wide	
<b>Supply voltage</b>				
24 V DC	Yes	Yes		
115 V DC			Yes	
230 V DC			Yes	
permissible range, lower limit (DC)	20.4 V	20.4 V	100 V	
permissible range, upper limit (DC)	28.8 V	28.8 V	253 V	
115 V AC			Yes	
230 V AC			Yes	
Line frequency				
• permissible frequency range, upper limit			63 Hz	
<b>Digital inputs</b>				
Number of digital inputs	8	8	8	
Input voltage				
• Type of input voltage	DC	DC	AC/DC	
• for signal "0"	< 5 V DC	< 5 V DC	< 40 V AC; < 30 V DC	
• for signal "1"	> 12 V DC	> 12 V DC	> 79 V AC, > 79 V DC	
Input current				
• for signal "0", max. (permissible quiescent current)	0.85 mA	0.85 mA	0.06 mA	
• for signal "1", typ.	3.5 mA	3.5 mA	0.37 mA	

**LOGO! logic module**

## LOGO! modular

## LOGO! modular expansion modules

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**Technical specifications (continued)**

	<b>6ED1055-1CB10-0BA2</b>	<b>6ED1055-1NB10-0BA2</b>	<b>6ED1055-1FB10-0BA2</b>
Input delay (for rated value of input voltage)			
• for standard inputs			
- at "0" to "1", max.	1.5 ms	1.5 ms	40 ms
- at "1" to "0", max.	1.5 ms	1.5 ms	75 ms
<b>Digital outputs</b>			
Number of digital outputs	8	8; Relays	8
short-circuit protection	Yes	No	No
Controlling a digital input	Yes	Yes	Yes
Switching capacity of the outputs			
• Lamp load, max.		1 000 W	1 000 W; 500 W at 115 V AC
Parallel switching of 2 outputs			
• for increased power	No	No	No
Switching frequency			
• with resistive load, max.	10 Hz	2 Hz	2 Hz
• with inductive load, max.	0.5 Hz	0.5 Hz	0.5 Hz
• mechanical, max.		10 Hz	10 Hz
Relay outputs			
• Switching capacity of contacts			
- with inductive load, max.		3 A	3 A
- with resistive load, max.		5 A	5 A
<b>EMC</b>			
Emission of radio interference acc. to EN 55 011			
• Limit class B, for use in residential areas	Yes	Yes	Yes
<b>Degree and class of protection</b>			
• IP20	Yes	Yes	Yes
<b>Standards, approvals, certificates</b>			
CSA approval	Yes	Yes	Yes
UL approval	Yes	Yes	Yes
FM approval	Yes	Yes	Yes
Developed in accordance with IEC 61131	Yes	Yes	Yes
according to VDE 0631	Yes	Yes	Yes
Marine approval			
• Marine approval	Yes	Yes	Yes
<b>Ambient conditions</b>			
Operating temperature			
• Min.	0 °C	0 °C	0 °C
• max.	55 °C	55 °C	55 °C
<b>Dimensions</b>			
Width	71.5 mm	71.5 mm	71.5 mm
Height	90 mm	90 mm	90 mm
Depth	58 mm	58 mm	58 mm
	<b>6ED1055-1MA00-0BA2</b>	<b>6ED1055-1MD00-0BA2</b>	
<b>Installation type/mounting</b>			
Mounting	on 35 mm DIN rail, 2 spacing units wide	on 35 mm DIN rail, 2 spacing units wide	
<b>Supply voltage</b>			
12 V DC	Yes; 10.8V DC to 28.8V DC	Yes; 10.8V DC to 28.8V DC	
24 V DC	Yes; 10.8V DC to 28.8V DC	Yes; 10.8V DC to 28.8V DC	
<b>Analog inputs</b>			
Number of analog inputs	2	2; 2 or 3 wire connection	
Input ranges			
• Voltage	Yes	No	
• Current	Yes	No	
• Resistance thermometer	No	Yes; For PT100/PT1000 sensors	
Input ranges (rated values), voltages			
• 0 to +10 V	Yes	No	

**Technical specifications (continued)**

	6ED1055-1MA00-0BA2	6ED1055-1MD00-0BA2
Input ranges (rated values), currents • 0 to 20 mA	Yes	No
Input ranges (rated values), resistance thermometer • Pt 100	No	Yes
<b>EMC</b> Emission of radio interference acc. to EN 55 011 • Limit class B, for use in residential areas	Yes	Yes
<b>Degree and class of protection</b> • IP20	Yes	Yes
<b>Standards, approvals, certificates</b> CSA approval	Yes	Yes
UL approval	Yes	Yes
FM approval	Yes	Yes
Developed in accordance with IEC 61131	Yes	Yes
according to VDE 0631	Yes	
Marine approval • Marine approval	Yes	Yes
<b>Ambient conditions</b> Operating temperature • Min. • max.	0 °C 55 °C	0 °C 55 °C
<b>Dimensions</b> Width	35.5 mm	35.5 mm
Height	90 mm	90 mm
Depth	58 mm	58 mm

	6ED1055-1MM00-0BA2
<b>Installation type/mounting</b> Mounting	on 35 mm DIN rail, 2 spacing units wide
<b>Supply voltage</b> 12 V DC	No
24 V DC	Yes
<b>Analog outputs</b> Number of analog outputs	2
Output ranges, voltage • 0 to 10 V	Yes
<b>EMC</b> Emission of radio interference acc. to EN 55 011 • Limit class B, for use in residential areas	Yes
<b>Degree and class of protection</b> • IP20	Yes

	6ED1055-1MM00-0BA2
<b>Standards, approvals, certificates</b> CSA approval	Yes
UL approval	Yes
FM approval	Yes
Developed in accordance with IEC 61131	Yes
according to VDE 0631	Yes
Marine approval • Marine approval	Yes
<b>Ambient conditions</b> Operating temperature • Min. • max.	0 °C 55 °C
<b>Dimensions</b> Width	35.5 mm
Height	90 mm
Depth	58 mm

**LOGO! logic module**

LOGO! modular

**LOGO! modular expansion modules****Technical specifications (continued)**

	<b>6ED1055-1CB00-0BA0</b>	<b>6ED1055-1HB00-0BA0</b>	<b>6ED1055-1MB00-0BA1</b>	<b>6ED1055-1FB00-0BA1</b>
<b>Installation type/mounting</b>				
Mounting	on 35 mm DIN rail, 2 spacing units wide	on 35 mm DIN rail, 2 spacing units wide	on 35 mm DIN rail, 2 spacing units wide	on 35 mm DIN rail, 2 spacing units wide
<b>Supply voltage</b>				
12 V DC			Yes	
24 V DC	Yes	Yes	Yes	
115 V DC				Yes
230 V DC				Yes
permissible range, lower limit (DC)	20.4 V	20.4 V	10.8 V	100 V
permissible range, upper limit (DC)	28.8 V	28.8 V	28.8 V	253 V
24 V AC		Yes		
115 V AC				Yes
230 V AC				Yes
<b>Digital inputs</b>				
Number of digital inputs	4	4	4	4
Input voltage				
• Type of input voltage	DC	AC/DC	DC	AC/DC
<b>Digital outputs</b>				
Number of digital outputs	4	4; Relays	4; Relays	4; Relays
short-circuit protection	Yes	No	No	No
Relay outputs				
• Switching capacity of contacts				
- with inductive load, max.		3 A	3 A	3 A
- with resistive load, max.		5 A	5 A	5 A
- Thermal continuous current, max.	0.3 A			
<b>EMC</b>				
Emission of radio interference acc. to EN 55 011				
• Limit class B, for use in residential areas	Yes	Yes	Yes	Yes
<b>Degree and class of protection</b>				
• IP20	Yes	Yes	Yes	Yes
<b>Standards, approvals, certificates</b>				
CSA approval	Yes	Yes	Yes	Yes
UL approval	Yes	Yes	Yes	Yes
FM approval	Yes	Yes	Yes	Yes
Developed in accordance with IEC 61131	Yes	Yes	Yes	Yes
according to VDE 0631	Yes	Yes	Yes	Yes
Marine approval				
• Marine approval	Yes	Yes	Yes	Yes
<b>Ambient conditions</b>				
Operating temperature				
• Min.	0 °C	0 °C	0 °C	0 °C
• max.	55 °C	55 °C	55 °C	55 °C
<b>Dimensions</b>				
Width	36 mm; 2 DU	36 mm; 2 DU	36 mm; 2 DU	36 mm; 2 DU
Height	90 mm	90 mm	90 mm	90 mm
Depth	55 mm	55 mm	55 mm	55 mm

**Technical specifications** (continued)

	6ED1055-1CB10-0BA0	6ED1055-1NB10-0BA0	6ED1055-1FB10-0BA0
<b>Installation type/mounting</b>			
Mounting	on 35 mm DIN rail, 4 spacing units wide	on 35 mm DIN rail, 4 spacing units wide	on DIN rail 25 mm, 4 module spaces wide
<b>Supply voltage</b>			
24 V DC	Yes	Yes	
115 V DC			Yes
230 V DC			Yes
permissible range, lower limit (DC)	20.4 V	20.4 V	100 V
permissible range, upper limit (DC)	28.8 V	28.8 V	253 V
115 V AC			Yes
230 V AC			Yes
Line frequency			
• permissible frequency range, upper limit			63 Hz
<b>Digital inputs</b>			
Number of digital inputs	8	8	8
Input voltage			
• Type of input voltage	DC	DC	AC/DC
• for signal "0"	< 5 V DC	< 5 V DC	< 40 V AC; < 30 V DC
• for signal "1"	> 12 V DC	> 12 V DC	> 79 V AC, > 79 V DC
Input current			
• for signal "0", max. (permissible quiescent current)	1 mA	1 mA	0.03 mA
• for signal "1", typ.	2 mA	2 mA	0.08 mA
Input delay (for rated value of input voltage)			
• for standard inputs			
- at "0" to "1", max.	1.5 ms	1.5 ms	50 ms
- at "1" to "0", max.	1.5 ms	1.5 ms	50 ms
<b>Digital outputs</b>			
Number of digital outputs	8	8; Relays	8; Relays
short-circuit protection	Yes	No	No
Controlling a digital input	Yes	Yes	Yes
Switching capacity of the outputs			
• Lamp load, max.		1 000 W; 500 W at 115 V AC	1 000 W; 500 W at 115 V AC
Parallel switching of 2 outputs			
• for increased power	No	No	No
Switching frequency			
• with resistive load, max.	10 Hz	2 Hz	2 Hz
• with inductive load, max.	0.5 Hz	0.5 Hz	0.5 Hz
• mechanical, max.		10 Hz	10 Hz
Relay outputs			
• Switching capacity of contacts			
- with inductive load, max.		3 A	3 A
- with resistive load, max.		5 A	5 A
- Thermal continuous current, max.	0.3 A		
<b>EMC</b>			
Emission of radio interference acc. to EN 55 011			
• Limit class B, for use in residential areas	Yes	Yes	Yes
<b>Degree and class of protection</b>			
• IP20	Yes	Yes	Yes
<b>Standards, approvals, certificates</b>			
CSA approval	Yes	Yes	Yes
UL approval	Yes	Yes	Yes
FM approval	Yes	Yes	Yes
Developed in accordance with IEC 61131	Yes	Yes	Yes

**LOGO! logic module**

LOGO! modular

**LOGO! modular expansion modules**

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**Technical specifications (continued)**

	<b>6ED1055-1CB10-0BA0</b>	<b>6ED1055-1NB10-0BA0</b>	<b>6ED1055-1FB10-0BA0</b>
according to VDE 0631	Yes	Yes	Yes
Marine approval			
• Marine approval	Yes	Yes	Yes
<b>Ambient conditions</b>			
Operating temperature			
• Min.	0 °C	0 °C	0 °C
• max.	55 °C	55 °C	55 °C
<b>Dimensions</b>			
Width	72 mm; 4 WU	72 mm; 4 WU	72 mm; 4 WU
Height	90 mm	90 mm	90 mm
Depth	53 mm	53 mm	53 mm
	<b>6ED1055-1MA00-0BA0</b>	<b>6ED1055-1MD00-0BA1</b>	
<b>Installation type/mounting</b>			
Mounting	on 35 mm DIN rail, 2 spacing units wide		
<b>Supply voltage</b>			
12 V DC	Yes	Yes; 10.8V DC to 28.8V DC	
24 V DC	Yes	Yes; 10.8V DC to 28.8V DC	
<b>Analog inputs</b>			
Number of analog inputs	2	2; 2 or 3 wire connection	
Input ranges			
• Voltage	Yes	No	
• Current	Yes	No	
• Resistance thermometer	No	Yes; For PT100/PT1000 sensors	
Input ranges (rated values), voltages			
• 0 to +10 V	Yes		
Input ranges (rated values), currents			
• 0 to 20 mA	Yes		
<b>EMC</b>			
Emission of radio interference acc. to EN 55 011			
• Limit class B, for use in residential areas	Yes	Yes; Radio interference suppression according to EN55011, Limit Value Class B	
<b>Degree and class of protection</b>			
• IP20	Yes	Yes	
<b>Standards, approvals, certificates</b>			
CSA approval	Yes	Yes; C22.2 Number 142	
UL approval	Yes	Yes; UL 508	
FM approval	Yes	Yes; FM-Standards No. 3611, 3600, 3810 Class I, Division 2, Group A, B, C, D	
Developed in accordance with IEC 61131	Yes	Yes; EN 61131-2 (IEC 1131-2)	
according to VDE 0631	Yes		
Marine approval			
• Marine approval	Yes	Yes; ABS, BV, DNV, GL, LRS, Class NK	
<b>Ambient conditions</b>			
Operating temperature			
• Min.	0 °C	0 °C	
• max.	55 °C	55 °C	
<b>Dimensions</b>			
Width	36 mm	36 mm	
Height	90 mm	90 mm	
Depth	55 mm	53 mm	



## Technical specifications (continued)

6ED1055-1MM00-0BA1	
<b>Installation type/mounting</b>	
Mounting	on 35 mm DIN rail, 2 spacing units wide
<b>Supply voltage</b>	
12 V DC	No
24 V DC	Yes
<b>Analog outputs</b>	
Number of analog outputs	2
Output ranges, voltage	
• 0 to 10 V	Yes
<b>EMC</b>	
Emission of radio interference acc. to EN 55 011	
• Limit class B, for use in residential areas	Yes; Radio interference suppression according to EN55011, Limit Value Class B
<b>Degree and class of protection</b>	
• IP20	Yes

6ED1055-1MM00-0BA1	
<b>Standards, approvals, certificates</b>	
CSA approval	Yes
UL approval	Yes
FM approval	Yes
Developed in accordance with IEC 61131	Yes
according to VDE 0631	Yes
Marine approval	
• Marine approval	Yes
<b>Ambient conditions</b>	
Operating temperature	
• Min.	0 °C
• max.	55 °C
<b>Dimensions</b>	
Width	36 mm
Height	90 mm
Depth	55 mm

## Ordering data

## Article No.

## Article No.

LOGO! 8 expansion modules	Article No.
<b>LOGO! DM8 24</b> Supply voltage 24 V DC, 4 digital inputs 24 V DC, 4 digital outputs 24 V DC, 0.3 A	6ED1055-1CB00-0BA2
<b>LOGO! DM16 24</b> Supply voltage 24 V DC, 8 digital inputs 24 V DC, 8 digital outputs 24 V DC, 0.3 A	6ED1055-1CB10-0BA2
<b>LOGO! DM8 12/24R</b> Supply voltage 12...24 V DC, 4 digital inputs 12...24 V DC, 4 relay outputs 5 A	6ED1055-1MB00-0BA2
<b>LOGO! DM8 24R</b> Supply voltage 24 V AC/DC, 4 digital inputs 24 V AC/DC, 4 relay outputs 5 A	6ED1055-1HB00-0BA2
<b>LOGO! DM16 24R</b> Supply voltage 24 V DC, 8 digital inputs 24 V DC, 8 relay outputs 5 A	6ED1055-1NB10-0BA2
<b>LOGO! DM8 230R</b> Supply voltage 115...230 V AC/DC, 4 digital inputs 115...230 V AC/DC, 4 relay outputs 5 A	6ED1055-1FB00-0BA2
<b>LOGO! DM16 230R</b> Supply voltage 115...230 V AC/DC, 8 digital inputs 115...230 V AC/DC, 8 relay outputs 5 A	6ED1055-1FB10-0BA2
<b>LOGO! AM2</b> Supply voltage 12...24 V DC, 2 analog inputs 0 to 10 V or 0 to 20 mA, resolution 10 bits	6ED1055-1MA00-0BA2

<b>LOGO! AM2 PT 100</b> Supply voltage 12...24 V DC, 2 analog inputs Pt100, temperature range -50 °C to 200 °C	6ED1055-1MD00-0BA2
<b>LOGO! AM2 AQ</b> Supply voltage 24 V DC, 2 analog outputs 0 to 10 V, 0/4 to 20 mA	6ED1055-1MM00-0BA2
<b>LOGO! 6 expansion modules</b>	
<b>LOGO! DM8 24</b> Supply voltage 24 V DC, 4 digital inputs 24 V DC, 4 digital outputs 24 V DC, 0.3 A	6ED1055-1CB00-0BA0
<b>LOGO! DM16 24</b> Supply voltage 24 V DC, 8 digital inputs 24 V DC, 8 digital outputs 24 V DC, 0.3 A	6ED1055-1CB10-0BA0
<b>LOGO! DM8 12/24R</b> Supply voltage 12/24 V DC, 4 digital inputs 12/24 V DC, 4 relay outputs 5 A	6ED1055-1MB00-0BA1
<b>LOGO! DM8 24R</b> Supply voltage 24 V AC/DC, 4 digital inputs 24 V AC/DC, 4 relay outputs 5 A	6ED1055-1HB00-0BA0
<b>LOGO! DM16 24R</b> Supply voltage 24 V DC, 8 digital inputs 24 V DC, 8 relay outputs 5 A	6ED1055-1NB10-0BA0
<b>LOGO! DM8 230R</b> Supply voltage 115/230 V AC/DC, 4 digital inputs 115/230 V AC/DC, 4 relay outputs 5 A	6ED1055-1FB00-0BA1

**LOGO! logic module**

LOGO! modular

**LOGO! modular expansion modules**

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<b>Ordering data</b>	<b>Article No.</b>	<b>Ordering data</b>	<b>Article No.</b>
<b>LOGO! DM16 230R</b> Supply voltage 115/230 V AC/DC, 8 digital inputs 115/230 V AC/DC, 8 relay outputs 5 A	<b>6ED1055-1FB10-0BA0</b>	<b>Accessories for LOGO! 8</b>	
<b>LOGO! AM2</b> Supply voltage 12/24 V DC, 2 analog inputs 0 ... 10 V or 0 ... 20 mA, 10-bit resolution	<b>6ED1055-1MA00-0BA0</b>	<b>LOGO!Soft Comfort V8</b> For programming on the PC in LAD/ FBD; executes on Windows 8, 7, XP, Linux and Mac OSX; on DVD	<b>6ED1058-0BA08-0YA1</b>
<b>LOGO! AM2 PT 100</b> Supply voltage 12/24 V DC, 2 analog inputs Pt100, temperature range -50 °C ... 200 °C	<b>6ED1055-1MD00-0BA1</b>	<b>LOGO!Soft Comfort V8 Upgrade</b> Upgrade from V1.0 to V8, on DVD	<b>6ED1058-0CA08-0YE1</b>
<b>LOGO! AM2 AQ</b> Supply voltage 24 V DC, 2 analog outputs 0 to 10 V, 0/4 to 20 mA	<b>6ED1055-1MM00-0BA1</b>	<b>Accessories for LOGO! 6</b>	
		<b>LOGO! Memory Card</b> for copying, with know-how protec- tion	<b>6ED1056-1DA00-0BA0</b>
		<b>LOGO!Soft Comfort V8</b> For programming on the PC in LAD/ FBD; executes on Windows 8, 7, XP, Linux and Mac OSX; on DVD	<b>6ED1058-0BA08-0YA1</b>
		<b>LOGO!Soft Comfort V8 Upgrade</b> Upgrade from V1.0 to V8, on DVD	<b>6ED1058-0CA08-0YE1</b>
		<b>LOGO! PC cable</b> For program transfer between LOGO! and the PC	<b>6ED1057-1AA00-0BA0</b>

## Overview



- Expansion modules for connection to LOGO! Modular
- With digital inputs and outputs, analog inputs, or analog outputs

**Note:**

SIPLUS extreme products are based on Siemens Industry standard products. The contents listed here were taken from the respective standard products. SIPLUS extreme-specific information was added.

## Technical specifications

	6AG1055-1CB00-2BY0	6AG1055-1PB00-2BY0	6AG1055-1HB00-2BY0	6AG1055-1MB00-2BY1
Based on	6ED1055-1CB00-0BA0	6ED1055-1PB00-0BA0	6ED1055-1HB00-0BA0	6ED1055-1MB00-0BA1
<b>Ambient conditions</b>				
Operating temperature				
• Min.	-40 °C; = Tmin	-40 °C; = Tmin	-40 °C; = Tmin	-40 °C; = Tmin
• max.	70 °C; = Tmax; 55 °C @ UL/cUL use	70 °C; = Tmax; 55 °C @ UL/cUL use	70 °C; = Tmax; 55 °C @ UL/cUL use	70 °C; = Tmax; 55 °C @ UL/cUL use
Extended ambient conditions				
• Relative to ambient temperature-atmospheric pressure-installation altitude	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)
• Relative humidity - with condensation, maximum	100 %; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)	100 %; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)	100 %; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)	100 %; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)
• Resistance				
- against biologically active substances	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!
- against chemically active substances	Yes; Class 3C4 incl. salt spray. The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3C4 incl. salt spray. The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3C4 incl. salt spray. The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3C4 incl. salt spray. The supplied connector covers must remain on the unused interfaces during operation!
- against mechanically active substances	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!

# LOGO! logic module

## LOGO! modular

### SIPLUS LOGO! modular expansion modules

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#### Technical specifications (continued)

	<b>6AG1055-1FB00-2BY1</b>	<b>6AG1055-1NB10-2BA0</b>
Based on	<b>6ED1055-1FB00-0BA1</b>	<b>6ED1055-1NB10-0BA0</b>
<b>Ambient conditions</b>		
Operating temperature		
• Min.	-40 °C; = Tmin	-25 °C; = Tmin
• max.	70 °C; = Tmax; 55 °C @ UL/cUL use	70 °C; = Tmax; 55 °C @ UL/cUL use
Extended ambient conditions		
• Relative to ambient temperature-atmospheric pressure-installation altitude	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m)	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)
• Relative humidity		
- with condensation, maximum	100 %; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)	100 %; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)
• Resistance		
- against biologically active substances	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!
- against chemically active substances	Yes; Class 3C4 incl. salt spray. The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3C4 incl. salt spray. The supplied connector covers must remain on the unused interfaces during operation!
- against mechanically active substances	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!

	<b>6AG1055-1MA00-2BY0</b>
Based on	<b>6ED1055-1MA00-0BA0</b>
<b>Ambient conditions</b>	
Operating temperature	
• Min.	-40 °C; = Tmin
• max.	70 °C; = Tmax; 55 °C @ UL/cUL use
Extended ambient conditions	
• Relative to ambient temperature-atmospheric pressure-installation altitude	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)
• Relative humidity	
- with condensation, maximum	100 %; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)
• Resistance	
- against biologically active substances	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!
- against chemically active substances	Yes; Class 3C4 incl. salt spray. The supplied connector covers must remain on the unused interfaces during operation!
- against mechanically active substances	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!

	<b>6ED1055-1MM00-2BY1</b>
Based on	<b>6ED1055-1MM00-0BA1</b>
<b>Ambient conditions</b>	
Operating temperature	
• Min.	-40 °C; = Tmin
• max.	70 °C; = Tmax; 55 °C @ UL/cUL use
Extended ambient conditions	
• Relative to ambient temperature-atmospheric pressure-installation altitude	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)
• Relative humidity	
- with condensation, maximum	100 %; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)
• Resistance	
- against biologically active substances	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!
- against chemically active substances	Yes; Class 3C4 incl. salt spray. The supplied connector covers must remain on the unused interfaces during operation!
- against mechanically active substances	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!

Ordering data	Article No.	Ordering data	Article No.
<b>SIPLUS LOGO! DM8 24</b> 24 V DC supply voltage, 4 digital inputs 24 V DC, 4 digital outputs 24 V DC, 0.3 A  Extended temperature range and exposure to media	<b>6AG1055-1CB00-2BY0</b>	<b>SIPLUS LOGO! DM16 24R</b> 24 V DC supply voltage, 8 digital outputs 24 V DC, 8 relay outputs 5 A  Extended temperature range and exposure to media	<b>6AG1055-1NB10-2BA0</b>
<b>SIPLUS LOGO! DM8 12/24</b> 12/24 V DC supply voltage, 4 digital inputs 12/24 V DC, 4 digital outputs 24 V DC, 0.3 A  Extended temperature range and exposure to media	<b>6AG1055-1PB00-2BY0</b>	<b>SIPLUS LOGO! AM2</b> 12/24 V DC supply voltage, 2 analog inputs 0 ... 10 V or 0 ... 20 mA, 10-bit resolution  Extended temperature range and exposure to media	<b>6AG1055-1MA00-2BY0</b>
<b>SIPLUS LOGO! DM8 230R</b> 115/230 V AC/DC supply voltage, 4 digital inputs 115/230 V AC/DC, 4 relay outputs 5 A  Extended temperature range and exposure to media	<b>6AG1055-1FB00-2BY1</b>	<b>SIPLUS LOGO! AM2 AQ</b> 24 V DC supply voltage, 2 analog inputs 0 ... 10 V, 0/4 ... 20 mA, 10-bit resolution  Extended temperature range and exposure to media	<b>6AG1055-1MM00-2BY1</b>
<b>SIPLUS LOGO! DM8 24R</b> 24 V AC/DC supply voltage, 4 digital inputs 24 V AC/DC, 4 relay outputs 5 A  Extended temperature range and exposure to media	<b>6AG1055-1HB00-2BY0</b>	<b>Accessories</b> <b>SIPLUS Upmiter upstream device</b> for reliable operation at the battery of combustion engines	<b>6AG1053-1AA00-2AA0</b>
<b>SIPLUS LOGO! DM8 12/24R</b> 12/24 V DC supply voltage, 4 digital inputs 12/24 V DC, 4 relay outputs 5 A  Extended temperature range and exposure to media	<b>6AG1055-1MB00-2BY1</b>	<b>Further accessories</b> See LOGO! modular pure versions, page 1/24	

**LOGO! logic module**

LOGO! modular communication modules

**LOGO! modular communication modules**

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**Overview**

- Communication modules for connecting LOGO! Modular to different bus systems.

Note on compatibility:

Communication module	can be used with
LOGO! CM EIB/KNX communication module	LOGO! up to ...0BA7
LOGO! CSM 12/24	LOGO! ...0BA7/...0BA8
LOGO! CSM 230	LOGO! ...0BA7
LOGO! CMR2020	LOGO! ...0BA8
AS-Interface Connection for LOGO!	LOGO! up to ...0BA7

**LOGO! CM EIB/KNX communication modules****Overview**

- Expansion module for LOGO! basic versions
- For communication between the LOGO! master and external *EIB* components through *EIB*

**Technical specifications**

CM EIB/KNX	
Supply voltage	24 V AC/DC
Inputs, max.	16 DI/12 DO/8 AI/2 AO
Outputs, max.	16 digital
Continuous current	25 mA
Short-circuit protection	External fuse protection is required
Integrated time switches/power reserve	-
Ambient temperature	0 ... +55°C
RI specification	To EN 55 011 (limit class B)
Degree of protection	IP20
Certification	to VDE 0631, IEC61131-2, cULus, FM
Mounting	On DIN rail 35 mm, 2 module widths wide
Dimensions (W x H x D) in mm	36 (2 MW) x 90 x 55

**Ordering data****Article No.****LOGO! communication module  
CM EIB KNX****6BK1700-0BA00-0AA2**

for connection to *EIB*,  
supply voltage 24 V DC,  
for LOGO! up to ...0BA7

## Overview



The module is used to connect a LOGO! and up to three other nodes to an Industrial Ethernet network with 10/100 Mbit/s in an electrical linear, tree or star topology.

The essential features of the LOGO! CSM are:

- Unmanaged 4-port switch, of which one port is on the front for easy diagnostics access
- Two versions for the voltage ranges 12/24 V DC or 230 V AC/DC
- Problem-free connection using four RJ45 standard connectors
- Space-saving, optimized for connection to LOGO!
- Low-cost solution for implementing small, local Ethernet networks
- Stand-alone use for networking any Ethernet devices

## Technical specifications

Article No.	6GK7 177-1FA10-0AA0	6GK7 177-1MA20-0AA0
Product-type designation	LOGO! CSM 230	LOGO! CSM 12/24
<b>Transmission rate</b>		
Transfer rate 1	10 Mbit/s	10 Mbit/s
Transfer rate 2	100 Mbit/s	100 Mbit/s
<b>Interfaces</b>		
Number of electrical/optical connections for network components or terminal equipment maximum	4	4
Number of electrical connections		
• for network components and terminal equipment	4	4
• for signaling contact	-	-
• for power supply	1	1
Design of electrical connection		
• for network components and terminal equipment	RJ45 port / 1 connection on front of module	RJ45 port / 1 connection on front of module
• for signaling contact	-	-
• for power supply	3-pole terminal block	3-pole terminal block
<b>Supply voltage, current consumption, power loss</b>		
Type of supply voltage	AC/DC 115...240 V	DC 12/24 V
Supply voltage external	230 V	24 V
• minimum	100 V	10.2 V
• maximum	240 V	30.2 V
Product component fusing at power supply input	Yes	Yes
Type of fusing at input for supply voltage	-	-
Consumed current maximum	0.02 A	0.15 A
Active power loss at 24 V for DC	-	1.5 W
<b>Permitted ambient conditions</b>		
Ambient temperature		
• during operating	0 ... 55 °C	0 ... 55 °C
• during storage	-40 °C 70 °C	-40 °C 70 °C
• during transport	-40 °C 70 °C	-40 °C 70 °C
Relative humidity at 25 °C without condensation during operating maximum	90 %	90 %
Protection class IP	IP20	IP20

**LOGO! logic module**

LOGO! modular communication modules

**LOGO! CSM unmanaged****Technical specifications** (continued)

Article No.	6GK7 177-1FA10-0AA0	6GK7 177-1MA20-0AA0
<b>Product-type designation</b>	<b>LOGO! CSM 230</b>	<b>LOGO! CSM 12/24</b>
<b>Design, dimensions and weight</b>		
Design	LOGO! module	LOGO! module
Width	72 mm	71.5 mm
Height	90 mm	90 mm
Depth	55 mm	58.2 mm
Net weight	0.155 kg	0.15 kg
Mounting type		
• 35 mm DIN rail mounting	Yes	Yes
• wall mounting	Yes	Yes
• S7-300 rail mounting	No	No
Mounting type	-	-
<b>Product properties, functions, components general</b>		
Cascading in cases of star structuring	-	-
<b>Product functions management, configuration</b>		
Product function switch-managed	No	No
<b>Standards, specifications, approvals</b>		
Standard		
• for EMC from FM		
• for hazardous zone		
• for safety of CSA and UL		UL 508, CSA C22.2 No. 142
• for hazardous area of CSA and UL	-	
• for emitted interference	-	-
• for interference immunity	-	-
Verification of suitability		
• CE mark	Yes	Yes
• C-Tick	Yes	Yes
• KC approval	No	No

**Ordering data****Article No.****Article No.****LOGO! CSM compact switch modules**

Unmanaged switch for connection of one LOGO! (...0BA7) and up to three further nodes on Industrial Ethernet with 10/100 Mbps; 4 x RJ45 ports; LED diagnostics, LOGO! module

- **LOGO! CSM 12/24**  
external 12 V DC or 24 V DC power supply,
- **LOGO! CSM 230**  
external 115 ... 240 V AC power supply

**6GK7177-1MA20-0AA0****6GK7177-1FA10-0AA0****Accessories****IE TP Cord RJ45/RJ45**

TP cable 4 x 2 with 2 RJ45 connectors

- 0.5 m
- 1 m
- 2 m
- 6 m
- 10 m

**6XV1870-3QE50**  
**6XV1870-3QH10**  
**6XV1870-3QH20**  
**6XV1870-3QH60**  
**6XV1870-3QN10**

**IE FC Outlet RJ45**

For connecting Industrial Ethernet FC cables and TP cords; graduated prices for 10 and 50 units or more

**6GK1901-1FC00-0AA0**



**Overview**


LOGO! CMR in combination with the LOGO! module is a cost-efficient communication system for monitoring and controlling distributed plants and systems via text message.

LOGO! CMR can send text messages to predefined mobile network numbers and it can also receive text messages from predefined mobile network numbers.

Sending a text message can be initiated by events in the LOGO! basic module as well as by the two digital alarm inputs of the LOGO! CMR. The values in the LOGO! basic module can be directly influenced by receiving a text message.

The two digital outputs can also be switched remotely by incoming text messages/emails.

LOGO! CMR determines the current position of the module based on the GPS signal received by the GPS antenna. In addition, LOGO! BM can be time-synchronized by means of the time included in the GPS signal.

Determining the time by means of an NTP server or from the data of the mobile network provider, offers more options for synchronization of the LOGO! BM with the current time of day.

**Product version:**

- LOGO! CMR2020 for use in GSM/GPRS mobile networks

Warning! The country-specific mobile network approvals must be observed:

DE: [www.siemens.de/mobilfunkzulassungen](http://www.siemens.de/mobilfunkzulassungen)

EN: [www.siemens.com/mobilenetwork-approvals](http://www.siemens.com/mobilenetwork-approvals)

**Ordering data**
**Article No.**
**Communication Module Radio  
LOGO! CMR**
**LOGO! CMR2020**
**6GK7142-7BX00-0AX0**

Communication module for connection of LOGO! 0BA8 to GSM/GPRS network;  
 1x RJ45 port for Industrial Ethernet connection;  
 2x digital input; 2x digital output;  
 read/write access to LOGO! tags;  
 sending/receiving text messages;  
 position detection GPS; time-of-day synchronization/forwarding with real time clock; configuration and diagnostics per Web interface; observe country approval

**Accessories**
**Mobile radio antennas**
**ANT794-4MR**
**6NH9860-1AA00**

For indoor and outdoor use;  
 5 m connecting cable permanently connected to antenna;  
 SMA connector; incl. installation bracket, screws, wall plugs

**ANT896-4MA**
**6GK5896-4MA00-0AA3**

Rod antenna for direct mounting on device; SMA male connector

**ANT896-4ME**
**6GK5896-4ME00-0AA0**

Cylinder-shaped antenna for remote installation, e.g. on a control cabinet; N-Connect female connector

**GPS antenna**
**ANT895-6ML**
**6GK5895-6ML00-0AA0**

GPS/Glonass antenna for remote installation indoor and outdoor, magnet or screw mounting, 30cm cable with N-Connect female connector

**Antenna adapter cable**

N-Connect/SMA male/male Flexible Connection Cable, pre-fabricated, connection cable; suitable for 0 ... 6 GHz, IP68

- 0.3 m
- 1 m
- 2 m
- 5 m

**6XV1875-5LE30**  
**6XV1875-5LH10**  
**6XV1875-5LH20**  
**6XV1875-5LH50**
**IWLAN RCoax/antenna  
N-Connect male/male  
Flexible connection cable**

Flexible connecting cable for connecting an RCoax cable or antenna to a SCALANCE W-700 access point with N-Connect connections; pre-assembled with two N-Connect male connections; suitable from 0 ... 6 GHz, IP68

- 1 m
- 2 m
- 5 m
- 10 m

**6XV1875-5AH10**  
**6XV1875-5AH20**  
**6XV1875-5AH50**  
**6XV1875-5AN10**

**LOGO! logic module**

LOGO! modular communication modules

**LOGO! CMR**

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**Ordering data****Article No.****Cabinet feedthrough**

IWLAN RCOAX  
N-Connect/N-Connect  
female/female Panel Feedthrough;  
control cabinet feedthrough for wall  
thickness max. 4.5 mm;  
2.4 GHz and 5 GHz, suitable for  
0 ... 6 GHz, IP67

**6GK5798-2PP00-2AA6****Lightning protector LP798-2N**

Lightning protector with N/N  
female/female connection for  
ANT 790 antennas,  
IP67 (-40 to +85 °C),  
frequency range: 0 ... 6 GHz

**6GK5798-2LP00-2AA6****Article No.****Patch cable****IE TP Cord RJ45/RJ45**

TP cable 4 x 2 with 2 RJ45 plugs

- 0.5 m
- 1 m
- 2 m
- 6 m
- 10 m

**6XV1870-3QE50**  
**6XV1870-3QH10**  
**6XV1870-3QH20**  
**6XV1870-3QH60**  
**6XV1870-3QN10**

**IE FC Outlet RJ45**

For connection of Industrial  
Ethernet FC cables and TP cords;  
graduated prices for 10 and  
50 units or more

**6GK1901-1FC00-0AA0**

## Overview

**Every LOGO! can now be connected to the AS-Interface system**



Using the AS-Interface connection for LOGO!, an intelligent slave can be integrated in the AS-Interface system. With the modular interface it becomes possible to integrate the different basic units in the system according to their functionality. Similarly, functionalities can be quickly and easily adapted to new requirements by exchanging the basic unit.

The interface module provides four inputs and four outputs on the system. These inputs and outputs do not actually exist in hardware terms, however, but are only virtually present through the interface on the bus.

## Ordering data

## Article No.

AS-Interface connection for LOGO!

3RK1400-0CE10-0AA2

**LOGO! logic module**

LOGO!Power

LOGO!Power

**Übersicht****The flat power supply unit for distribution boards**

Our new miniature power supply units in the same design as the logic modules offer great performance in the smallest space: Efficiency has been improved across the entire load range, and the low power losses in no-load operation ensure efficient operation. The wide-range input for 1-phase networks as well as

operation with direct voltage, the wide operating temperature range, comprehensive certifications as well as the switch-on behavior optimized for capacitive loads makes them suitable for universal use. These reliable power supplies with their flat, stepped profile can be used extremely flexibly in numerous applications such as in distribution boards, for example.

To further increase the 24 V availability, the LOGO!Power power supplies can be combined with **DC UPS, redundancy** and **selectivity modules**.

**Main product highlights**

- 5 V DC/ 3 A and 6.3 A, 12 V DC/ 1.9 A and 4.5 A, 15 V DC/ 1.9 A and 4 A as well as 24 V DC/ 1.3 A, 2.5 A and 4 A
- 1-phase, wide-range input for 85 V to 264 V AC or 110 V to 300 V DC
- Flat LOGO! design with an installation depth of only 55 mm
- High efficiency across the entire load range, low no-load losses
- Power reserve on starting up through 1.5 times the rated current for capacitive loads
- Wide temperature range from -20 to +70 °C
- Comprehensive certifications, such as cULus, CB, FM, ATEX, cCSAus Class I Div. 2, GL and ABS

**Technical specifications**

Article No.	6EP1311-1SH03	6EP1311-1SH13
<b>Technical specifications</b>		
<b>Product</b>	<b>LOGO!Power</b>	<b>LOGO!Power</b>
<b>Power supply, type</b>	<b>5 V/3 A</b>	<b>5 V/6.3 A</b>
<b>Input</b>		
Input	1-phase AC or DC	1-phase AC or DC
Rated voltage value $V_{in}$ rated	100 ... 240 V	100 ... 240 V
Voltage range AC	85 ... 264 V	85 ... 264 V
Input voltage at DC	110 ... 300 V	110 ... 300 V
Overvoltage resistance	$2.3 \times V_{in}$ rated, 1.3 ms	$2.3 \times V_{in}$ rated, 1.3 ms
Mains buffering at $I_{out}$ rated, min.	40 ms	40 ms
Mains buffering	at $V_{in} = 187$ V	at $V_{in} = 187$ V
Rated line frequency		
• 1	50 Hz	50 Hz
• 2	60 Hz	60 Hz
Rated line range	47 ... 63 Hz	47 ... 63 Hz
Input current		
• at nominal level of the input voltage 120 V nominal value	0.36 A	0.71 A
• at nominal level of the input voltage 230 V nominal value	0.22 A	0.37 A
Switch-on current limiting (+25 °C), max.	26 A	50 A
$I^2t$ , max.	0.8 A <sup>2</sup> ·s	3 A <sup>2</sup> ·s
Built-in incoming fuse	internal	internal
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: from 16 A characteristic B or from 10 A characteristic C	Recommended miniature circuit breaker: from 16 A characteristic B or from 10 A characteristic C

## Technical specifications (continued)

Article No.	6EP1311-1SH03	6EP1311-1SH13
<b>Technical specifications</b>		
<b>Product</b>	<b>LOGO!Power</b>	<b>LOGO!Power</b>
<b>Power supply, type</b>	<b>5 V/3 A</b>	<b>5 V/6.3 A</b>
<b>Output</b>		
Output	Controlled, isolated DC voltage	Controlled, isolated DC voltage
Rated voltage Vout DC	5 V	5 V
Total tolerance, static ±	3 %	3 %
Static mains compensation, approx.	0.2 %	0.1 %
Static load balancing, approx.	1.5 %	2 %
Residual ripple peak-peak, max.	100 mV	100 mV
Residual ripple peak-peak, typ.	10 mV	15 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	100 mV	100 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	20 mV	70 mV
Adjustment range	4.6 ... 5.4 V	4.6 ... 5.4 V
Product feature output voltage adjustable	Yes	Yes
Output voltage setting	via potentiometer	via potentiometer
Status display	Green LED for output voltage OK	Green LED for output voltage OK
On/off behavior	No overshoot of Vout (soft start)	No overshoot of Vout (soft start)
Startup delay, max.	0.5 s	0.5 s
Voltage rise, typ.	20 ms	10 ms
Rated current value Iout rated	3 A	6.3 A
Current range	0 ... 3 A	0 ... 6.3 A
• Note	+55 ... +70 °C: Derating 2%/K	+55 ... +70 °C: Derating 2%/K
delivered active power typ.	15 W	30 W
Parallel switching for enhanced performance	Yes	Yes
Numbers of parallel switchable units for enhanced performance	2	2
<b>Efficiency</b>		
Efficiency at Vout rated, Iout rated, approx.	77 %	83 %
Power loss at Vout rated, Iout rated, approx.	4 W	6 W
Effective power loss at idle maximum	1.5 W	1.5 W
<b>Closed-loop control</b>		
Dynamic mains compensation (Vin rated ±15 %), max.	0.2 %	0.2 %
Dynamic load smoothing (Iout: 10/90/10 %), Uout ± typ.	3 %	3 %
Load step setting time 10 to 90%, typ.	2 ms	2 ms
Load step setting time 90 to 10%, typ.	2 ms	2 ms
<b>Protection and monitoring</b>		
Output overvoltage protection	Yes, according to EN 60950-1	Yes, according to EN 60950-1
Current limitation, typ.	3.8 A	8.2 A
Characteristic feature of the output short-circuit protected	Yes	Yes
Short-circuit protection	Constant current characteristic	Constant current characteristic
Enduring short circuit current Effective level maximum	5 A	10 A
Overload/short-circuit indicator	-	-
<b>Safety</b>		
Primary/secondary isolation	Yes	Yes
Potential separation	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178
Protection class	Class II (without protective conductor)	Class II (without protective conductor)
CE mark	Yes	Yes
UL/CSA approval	Yes	Yes
UL/cUL (CSA) approval	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310)	cULus-listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-recognized (UL 60950, CSA C22.2 No. 60950), File E151273
Explosion protection	ATEX (EX) II 3G Ex nA IIC T3; cCSAus (CSA C22.2 No. 213-M1987, ANSI/ISA-12.12.01-2007) Class I, Div. 2, Group ABCD, T4	ATEX (EX) II 3G Ex nA IIC T3; cCSAus (CSA C22.2 No. 213-M1987, ANSI/ISA-12.12.01-2007) Class I, Div. 2, Group ABCD, T4
FM approval	Yes	Yes
FM approval	Class I, Div. 2, Group ABCD, T4	Class I, Div. 2, Group ABCD, T4
CB approval	Yes	Yes
Marine approval	GL, ABS	GL, ABS
Degree of protection (EN 60529)	IP20	IP20

**LOGO! logic module**

## LOGO!Power

## LOGO!Power

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**Technical specifications (continued)**

Article No.	6EP1311-1SH03	6EP1311-1SH13
<b>Technical specifications</b>		
<b>Product</b>	<b>LOGO!Power</b>	<b>LOGO!Power</b>
<b>Power supply, type</b>	<b>5 V/3 A</b>	<b>5 V/6.3 A</b>
<b>EMC</b>		
Emitted interference	EN 55022 Class B	EN 55022 Class B
Supply harmonics limitation	not applicable	not applicable
Noise immunity	EN 61000-6-2	EN 61000-6-2
<b>Operating data</b>		
Ambient temperature		
• in operation	-20 ... +70 °C	-20 ... +70 °C
- Note	with natural convection	with natural convection
• on transport	-40 ... +85 °C	-40 ... +85 °C
• in storage	-40 ... +85 °C	-40 ... +85 °C
Humidity class according to EN 60721	Climate class 3K3, no condensation	Climate class 3K3, no condensation
<b>Mechanics</b>		
Connection technology	screw-type terminals	screw-type terminals
Connections		
• Supply input	L, N: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> single-core/finely stranded	L, N: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> single-core/finely stranded
• Output	+, -: 2 screw terminals each for 0.5 ... 2.5 mm <sup>2</sup>	+, -: 2 screw terminals each for 0.5 ... 2.5 mm <sup>2</sup>
Connections Auxiliary	-	-
Width of the housing	54 mm	72 mm
Height of the housing	90 mm	90 mm
Depth of the housing	52.6 mm	52.6 mm
Installation width	54 mm	72 mm
Installation height	130 mm	130 mm
Weight, approx.	0.17 kg	0.25 kg
Product feature of the housing housing for side-by-side mounting	Yes	Yes
Type of mounting		
• wall mounting	No	No
• standard rail mounting	Yes	Yes
• S7 rail mounting	No	No
Installation	Snaps onto DIN rail EN 60715 35x7.5/15	Snaps onto DIN rail EN 60715 35x7.5/15
<b>Article No.</b>	<b>6EP1321-1SH03</b>	<b>6EP1322-1SH03</b>
<b>Technical specifications</b>		
<b>Product</b>	<b>LOGO!Power</b>	<b>LOGO!Power</b>
<b>Power supply, type</b>	<b>12 V/1.9 A</b>	<b>12 V/4.5 A</b>
<b>Input</b>		
Input	1-phase AC or DC	1-phase AC or DC
Rated voltage value $V_{in}$ rated	100 ... 240 V	100 ... 240 V
Supply voltage		
• at AC	85 ... 264 V	85 ... 264 V
Input voltage at DC	110 ... 300 V	110 ... 300 V
Oversvoltage resistance	$2.3 \times V_{in}$ rated, 1.3 ms	$2.3 \times V_{in}$ rated, 1.3 ms
Mains buffering at $I_{out}$ rated, min.	40 ms	40 ms
Mains buffering	at $V_{in} = 187$ V	at $V_{in} = 187$ V
Rated line frequency		
• 1	50 Hz	50 Hz
• 2	60 Hz	60 Hz
Rated line range	47 ... 63 Hz	47 ... 63 Hz
Input current		
• at nominal level of the input voltage 120 V nominal value	0.53 A	1.13 A
• at nominal level of the input voltage 230 V nominal value	0.3 A	0.61 A

**Technical specifications** (continued)

Article No.	6EP1321-1SH03	6EP1322-1SH03
<b>Technical specifications</b>		
<b>Product</b>	<b>LOGO!Power</b>	<b>LOGO!Power</b>
<b>Power supply, type</b>	<b>12 V/1.9 A</b>	<b>12 V/4.5 A</b>
Switch-on current limiting (+25 °C), max.	25 A	55 A
$I^2t$ , max.	0.8 A <sup>2</sup> ·s	3 A <sup>2</sup> ·s
Built-in incoming fuse	internal	internal
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: from 16 A characteristic B or from 10 A characteristic C	Recommended miniature circuit breaker: from 16 A characteristic B or from 10 A characteristic C
<b>Output</b>		
Output	Controlled, isolated DC voltage	Controlled, isolated DC voltage
Rated voltage Vout DC	12 V	12 V
Total tolerance, static ±	3 %	3 %
Static mains compensation, approx.	0.1 %	0.1 %
Static load balancing, approx.	1.5 %	1.5 %
Residual ripple peak-peak, max.	200 mV	200 mV
Residual ripple peak-peak, typ.	10 mV	10 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	300 mV	300 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	20 mV	70 mV
Adjustment range	10.5 ... 16.1 V	10.5 ... 16.1 V
Product feature output voltage adjustable	Yes	Yes
Output voltage setting	via potentiometer	via potentiometer
Status display	Green LED for output voltage OK	Green LED for output voltage OK
On/off behavior	No overshoot of Vout (soft start)	No overshoot of Vout (soft start)
Startup delay, max.	0.5 s	0.5 s
Voltage rise, typ.	10 ms	10 ms
Rated current value Iout rated	1.9 A	4.5 A
Current range	0 ... 1.9 A	0 ... 4.5 A
• Note	+55 ... +70 °C: Derating 2%/K	+55 ... +70 °C: Derating 2%/K
delivered active power typ.	23 W	50 W
Parallel switching for enhanced performance	Yes	Yes
Numbers of parallel switchable units for enhanced performance	2	2
<b>Efficiency</b>		
Efficiency at Vout rated, Iout rated, approx.	80 %	85 %
Power loss at Vout rated, Iout rated, approx.	5 W	10 W
Effective power loss at idle maximum	1.8 W	1.9 W
<b>Closed-loop control</b>		
Dynamic mains compensation (Vin rated ±15 %), max.	0.2 %	0.2 %
Dynamic load smoothing (Iout: 10/90/10 %), Uout ± typ.	3 %	4 %
Load step setting time 10 to 90%, typ.	1 ms	1 ms
Load step setting time 90 to 10%, typ.	1 ms	1 ms
<b>Protection and monitoring</b>		
Output overvoltage protection	Yes, according to EN 60950-1	Yes, according to EN 60950-1
Current limitation, typ.	2.8 A	5.8 A
Characteristic feature of the output short-circuit protected	Yes	Yes
Short-circuit protection	Constant current characteristic	Constant current characteristic
Enduring short circuit current Effective level maximum	3.6 A	7 A
Overload/short-circuit indicator	-	-
<b>Safety</b>		
Primary/secondary isolation	Yes	Yes
Potential separation	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178
Protection class	Class II (without protective conductor)	Class II (without protective conductor)
CE mark	Yes	Yes
UL/CSA approval	Yes	Yes
UL/cUL (CSA) approval	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310)	cULus-listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-recognized (UL 60950, CSA C22.2 No. 60950), File E151273

**LOGO! logic module**

## LOGO!Power

## LOGO!Power

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**Technical specifications (continued)**

Article No.	6EP1321-1SH03	6EP1322-1SH03
<b>Technical specifications</b>		
<b>Product</b>	<b>LOGO!Power</b>	<b>LOGO!Power</b>
<b>Power supply, type</b>	<b>12 V/1.9 A</b>	<b>12 V/4.5 A</b>
<b>Safety (continued)</b>		
Explosion protection	ATEX (EX) II 3G Ex nA IIC T3; cCSAus (CSA C22.2 No. 213-M1987, ANSI/ISA-12.12.01-2007) Class I, Div. 2, Group ABCD, T4	ATEX (EX) II 3G Ex nA IIC T3; cCSAus (CSA C22.2 No. 213-M1987, ANSI/ISA-12.12.01-2007) Class I, Div. 2, Group ABCD, T4
FM approval	Yes	Yes
FM approval	Class I, Div. 2, Group ABCD, T4	Class I, Div. 2, Group ABCD, T4
CB approval	Yes	Yes
Marine approval	GL, ABS	GL, ABS
Degree of protection (EN 60529)	IP20	IP20
<b>EMC</b>		
Emitted interference	EN 55022 Class B	EN 55022 Class B
Supply harmonics limitation	not applicable	not applicable
Noise immunity	EN 61000-6-2	EN 61000-6-2
<b>Operating data</b>		
Ambient temperature		
• in operation	-20 ... +70 °C	-20 ... +70 °C
- Note	with natural convection	with natural convection
• on transport	-40 ... +85 °C	-40 ... +85 °C
• in storage	-40 ... +85 °C	-40 ... +85 °C
Humidity class according to EN 60721	Climate class 3K3, no condensation	Climate class 3K3, no condensation
<b>Mechanics</b>		
Connection technology	screw-type terminals	screw-type terminals
Connections		
• Supply input	L, N: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> single-core/finely stranded	L, N: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> single-core/finely stranded
• Output	+, -: 2 screw terminals each for 0.5 ... 2.5 mm <sup>2</sup>	+, -: 2 screw terminals each for 0.5 ... 2.5 mm <sup>2</sup>
• Auxiliary	-	-
Width of the housing	54 mm	72 mm
Height of the housing	90 mm	90 mm
Depth of the housing	52.6 mm	52.6 mm
Installation width	54 mm	72 mm
Installation height	130 mm	130 mm
Weight, approx.	0.17 kg	0.25 kg
Product feature of the housing housing for side-by-side mounting	Yes	Yes
Type of mounting		
• wall mounting	No	No
• standard rail mounting	Yes	Yes
• S7 rail mounting	No	No
Installation	Snaps onto DIN rail EN 60715 35x7.5/15	Snaps onto DIN rail EN 60715 35x7.5/15
<b>Article No.</b>	<b>6EP1351-1SH03</b>	<b>6EP1352-1SH03</b>
<b>Technical specifications</b>		
<b>Product</b>	<b>LOGO!Power</b>	<b>LOGO!Power</b>
<b>Power supply, type</b>	<b>15 V/1.9 A</b>	<b>15 V/4 A</b>
<b>Input</b>		
Input	1-phase AC or DC	1-phase AC or DC
Rated voltage value $V_{in}$ rated	100 ... 240 V	100 ... 240 V
Supply voltage		
• at AC	85 ... 264 V	85 ... 264 V
Input voltage at DC	110 ... 300 V	110 ... 300 V
Overvoltage resistance	2.3 × $V_{in}$ rated, 1.3 ms	2.3 × $V_{in}$ rated, 1.3 ms
Mains buffering at $I_{out}$ rated, min.	40 ms	40 ms
Mains buffering	at $V_{in}$ = 187 V	at $V_{in}$ = 187 V
Rated line frequency		
• 1	50 Hz	50 Hz
• 2	60 Hz	60 Hz
Rated line range	47 ... 63 Hz	47 ... 63 Hz



**Technical specifications** (continued)

Article No.	6EP1351-1SH03	6EP1352-1SH03
<b>Technical specifications</b>		
<b>Product</b>	<b>LOGO!Power</b>	<b>LOGO!Power</b>
<b>Power supply, type</b>	<b>15 V/1.9 A</b>	<b>15 V/4 A</b>
Input current		
• at nominal level of the input voltage 120 V nominal value	0.63 A	1.24 A
• at nominal level of the input voltage 230 V nominal value	0.33 A	0.68 A
Switch-on current limiting (+25 °C), max.	25 A	55 A
I <sup>2</sup> t, max.	0.8 A <sup>2</sup> ·s	3 A <sup>2</sup> ·s
Built-in incoming fuse	internal	internal
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: from 16 A characteristic B or from 10 A characteristic C	Recommended miniature circuit breaker: from 16 A characteristic B or from 10 A characteristic C
<b>Output</b>		
Output	Controlled, isolated DC voltage	Controlled, isolated DC voltage
Rated voltage V <sub>out</sub> DC	15 V	15 V
Total tolerance, static ±	3 %	3 %
Static mains compensation, approx.	0.1 %	0.1 %
Static load balancing, approx.	1.5 %	1.5 %
Residual ripple peak-peak, max.	200 mV	200 mV
Residual ripple peak-peak, typ.	10 mV	10 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	300 mV	300 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	30 mV	70 mV
Adjustment range	10.5 ... 16.1 V	10.5 ... 16.1 V
Product feature output voltage adjustable	Yes	Yes
Output voltage setting	via potentiometer	via potentiometer
Status display	Green LED for output voltage OK	Green LED for output voltage OK
On/off behavior	No overshoot of V <sub>out</sub> (soft start)	No overshoot of V <sub>out</sub> (soft start)
Startup delay, max.	0.5 s	0.5 s
Voltage rise, typ.	15 ms	15 ms
Rated current value I <sub>out</sub> rated	1.9 A	4 A
Current range	0 ... 1.9 A	0 ... 4 A
• Note	+55 ... +70 °C: Derating 2%/K	+55 ... +70 °C: Derating 2%/K
delivered active power typ.	23 W	50 W
Parallel switching for enhanced performance	Yes	Yes
Numbers of parallel switchable units for enhanced performance	2	2
<b>Efficiency</b>		
Efficiency at V <sub>out</sub> rated, I <sub>out</sub> rated, approx.	81 %	85 %
Power loss at V <sub>out</sub> rated, I <sub>out</sub> rated, approx.	7 W	11 W
Effective power loss at idle maximum	2 W	2.3 W
<b>Closed-loop control</b>		
Dynamic mains compensation (V <sub>in</sub> rated ±15 %), max.	0.2 %	0.2 %
Dynamic load smoothing (I <sub>out</sub> : 10/90/10 %), U <sub>out</sub> ± typ.	2.8 %	3 %
Load step setting time 10 to 90%, typ.	1 ms	1 ms
Load step setting time 90 to 10%, typ.	1 ms	1 ms
<b>Protection and monitoring</b>		
Output overvoltage protection	Yes, according to EN 60950-1	Yes, according to EN 60950-1
Current limitation, typ.	2.7 A	5.7 A
Characteristic feature of the output short-circuit protected	Yes	Yes
Short-circuit protection	Constant current characteristic	Constant current characteristic
Enduring short circuit current Effective level maximum	3.6 A	7 A
Overload/short-circuit indicator	-	-
<b>Safety</b>		
Primary/secondary isolation	Yes	Yes
Potential separation	Safety extra-low output voltage U <sub>out</sub> acc. to EN 60950-1 and EN 50178	Safety extra-low output voltage U <sub>out</sub> acc. to EN 60950-1 and EN 50178
Protection class	Class II (without protective conductor)	Class II (without protective conductor)
CE mark	Yes	Yes
UL/CSA approval	Yes	Yes
UL/cUL (CSA) approval	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310)	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310)

# LOGO! logic module

## LOGO!Power

### LOGO!Power

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#### Technical specifications (continued)

Article No.	6EP1351-1SH03	6EP1352-1SH03	
<b>Technical specifications</b>			
<b>Product</b>	<b>LOGO!Power</b>	<b>LOGO!Power</b>	
<b>Power supply, type</b>	<b>15 V/1.9 A</b>	<b>15 V/4 A</b>	
<b>Safety (continued)</b>			
Explosion protection	ATEX (EX) II 3G Ex nA IIC T3; cCSAus (CSA C22.2 No. 213-M1987, ANSI/ISA-12.12.01-2007) Class I, Div. 2, Group ABCD, T4	ATEX (EX) II 3G Ex nA IIC T3; cCSAus (CSA C22.2 No. 213-M1987, ANSI/ISA-12.12.01-2007) Class I, Div. 2, Group ABCD, T4	
FM approval	Yes	Yes	
FM approval	Class I, Div. 2, Group ABCD, T4	Class I, Div. 2, Group ABCD, T4	
CB approval	Yes	Yes	
Marine approval	GL, ABS	GL, ABS	
Degree of protection (EN 60529)	IP20	IP20	
<b>EMC</b>			
Emitted interference	EN 55022 Class B	EN 55022 Class B	
Supply harmonics limitation	not applicable	not applicable	
Noise immunity	EN 61000-6-2	EN 61000-6-2	
<b>Operating data</b>			
Ambient temperature			
• in operation	-20 ... +70 °C	-20 ... +70 °C	
- Note	with natural convection	with natural convection	
• on transport	-40 ... +85 °C	-40 ... +85 °C	
• in storage	-40 ... +85 °C	-40 ... +85 °C	
Humidity class according to EN 60721	Climate class 3K3, no condensation	Climate class 3K3, no condensation	
<b>Mechanics</b>			
Connection technology	screw-type terminals	screw-type terminals	
Connections			
• Supply input	L, N: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> single-core/finely stranded	L, N: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> single-core/finely stranded	
• Output	+, -: 2 screw terminals each for 0.5 ... 2.5 mm <sup>2</sup>	+, -: 2 screw terminals each for 0.5 ... 2.5 mm <sup>2</sup>	
Connections Auxiliary	-	-	
Width of the housing	54 mm	72 mm	
Height of the housing	90 mm	90 mm	
Depth of the housing	52.6 mm	52.6 mm	
Installation width	54 mm	72 mm	
Installation height	130 mm	130 mm	
Weight, approx.	0.17 kg	0.25 kg	
Product feature of the housing housing for side-by-side mounting	Yes	Yes	
Type of mounting			
• wall mounting	No	No	
• standard rail mounting	Yes	Yes	
• S7 rail mounting	No	No	
Installation	Snaps onto DIN rail EN 60715 35x7.5/15	Snaps onto DIN rail EN 60715 35x7.5/15	
<b>Article No.</b>	<b>6EP1331-1SH03</b>	<b>6EP1332-1SH43</b>	<b>6EP1332-1SH52</b>
<b>Technical specifications</b>			
<b>Product</b>	<b>LOGO!Power</b>	<b>LOGO!Power</b>	<b>LOGO!Power</b>
<b>Power supply, type</b>	<b>24 V/1.3 A</b>	<b>24 V/2.5 A</b>	<b>24 V/4 A</b>
<b>Input</b>			
Input	1-phase AC or DC	1-phase AC or DC	1-phase AC or DC
Rated voltage value $V_{in}$ rated	100 ... 240 V	100 ... 240 V	100 ... 240 V
Supply voltage			
• at AC	85 ... 264 V	85 ... 264 V	85 ... 264 V
Input voltage at DC	110 ... 300 V	110 ... 300 V	110 ... 300 V
Overvoltage resistance	2.3 × $V_{in}$ rated, 1.3 ms	2.3 × $V_{in}$ rated, 1.3 ms	2.3 × $V_{in}$ rated, 1.3 ms
Mains buffering at $I_{out}$ rated, min.	40 ms	40 ms	40 ms
Mains buffering	at $V_{in} = 187$ V	at $V_{in} = 187$ V	at $V_{in} = 187$ V
Rated line frequency			
• 1	50 Hz	50 Hz	50 Hz
• 2	60 Hz	60 Hz	60 Hz

## Technical specifications (continued)

Article No.	6EP1331-1SH03	6EP1332-1SH43	6EP1332-1SH52
<b>Technical specifications</b>			
<b>Product</b>	<b>LOGO!Power</b>	<b>LOGO!Power</b>	<b>LOGO!Power</b>
<b>Power supply, type</b>	<b>24 V/1.3 A</b>	<b>24 V/2.5 A</b>	<b>24 V/4 A</b>
Rated line range	47 ... 63 Hz	47 ... 63 Hz	47 ... 63 Hz
Input current			
• at nominal level of the input voltage 120 V nominal value	0.7 A	1.22 A	1.95 A
• at nominal level of the input voltage 230 V nominal value	0.35 A	0.66 A	0.97 A
Switch-on current limiting (+25 °C), max.	25 A	46 A	30 A
I <sup>2</sup> t, max.	0.8 A <sup>2</sup> ·s	3 A <sup>2</sup> ·s	2.5 A <sup>2</sup> ·s
Built-in incoming fuse	internal	internal	internal
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: from 16 A characteristic B or from 10 A characteristic C	Recommended miniature circuit breaker: from 16 A characteristic B or from 10 A characteristic C	Recommended miniature circuit breaker: from 16 A characteristic B or from 10 A characteristic C
<b>Output</b>			
Output	Controlled, isolated DC voltage	Controlled, isolated DC voltage	Controlled, isolated DC voltage
Rated voltage V <sub>out</sub> DC	24 V	24 V	24 V
Total tolerance, static ±	3 %	3 %	3 %
Static mains compensation, approx.	0.1 %	0.1 %	0.1 %
Static load balancing, approx.	1.5 %	1.5 %	1.5 %
Residual ripple peak-peak, max.	0.2 V	200 mV	200 mV
Residual ripple peak-peak, typ.	0.01 V	10 mV	30 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	0.3 V	300 mV	300 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	0.02 V	50 mV	60 mV
Adjustment range	22.2 ... 26.4 V	22.2 ... 26.4 V	22.2 ... 26.4 V
Product feature output voltage adjust- able	Yes	Yes	Yes
Output voltage setting	via potentiometer	via potentiometer	via potentiometer
Status display	Green LED for output voltage OK	Green LED for output voltage OK	Green LED for output voltage OK
On/off behavior	No overshoot of V <sub>out</sub> (soft start)	No overshoot of V <sub>out</sub> (soft start)	No overshoot of V <sub>out</sub> (soft start)
Startup delay, max.	0.5 s	0.5 s	0.5 s
Voltage rise, typ.	0.015 s	10 ms	15 ms
Rated current value I <sub>out</sub> rated	1.3 A	2.5 A	4 A
Current range	0 ... 1.3 A	0 ... 2.5 A	0 ... 4 A
• Note	+55 ... +70 °C: Derating 2%/K	+55 ... +70 °C: Derating 2%/K	+55 ... +70 °C: Derating 2%/K
delivered active power typ.	30 W	60 W	96 W
Parallel switching for enhanced perfor- mance	Yes	Yes	Yes
Numbers of parallel switchable units for enhanced performance	2	2	2
<b>Efficiency</b>			
Efficiency at V <sub>out</sub> rated, I <sub>out</sub> rated, approx.	85 %	88 %	89 %
Power loss at V <sub>out</sub> rated, I <sub>out</sub> rated, approx.	6 W	8 W	12 W
Effective power loss at idle maximum	2 W	1.8 W	2 W
<b>Closed-loop control</b>			
Dynamic mains compensation (V <sub>in</sub> rated ±15 %), max.	0.2 %	0.2 %	0.2 %
Dynamic load smoothing (I <sub>out</sub> : 10/90/ 10 %), U <sub>out</sub> ± typ.	1 %	2 %	1.5 %
Load step setting time 10 to 90%, typ.	1 ms	1 ms	1 ms
Load step setting time 90 to 10%, typ.	1 ms	1 ms	1 ms
<b>Protection and monitoring</b>			
Output overvoltage protection	Yes, according to EN 60950-1	Yes, according to EN 60950-1	Yes, according to EN 60950-1
Current limitation, typ.	1.7 A	3.3 A	5.2 A
Characteristic feature of the output short-circuit protected	Yes	Yes	Yes
Short-circuit protection	Constant current characteristic	Constant current characteristic	Constant current characteristic
Enduring short circuit current Effective level maximum	2.4 A	4.8 A	7.9 A
Overload/short-circuit indicator	-	-	-

# LOGO! logic module

## LOGO!Power

### LOGO!Power

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#### Technical specifications (continued)

Article No.	6EP1331-1SH03	6EP1332-1SH43	6EP1332-1SH52
<b>Technical specifications</b>			
<b>Product</b>	<b>LOGO!Power</b>	<b>LOGO!Power</b>	<b>LOGO!Power</b>
<b>Power supply, type</b>	<b>24 V/1.3 A</b>	<b>24 V/2.5 A</b>	<b>24 V/4 A</b>
<b>Safety</b>			
Primary/secondary isolation	Yes	Yes	Yes
Potential separation	Safety extra-low output voltage U <sub>out</sub> acc. to EN 60950-1 and EN 50178	Safety extra-low output voltage U <sub>out</sub> acc. to EN 60950-1 and EN 50178	Safety extra-low output voltage U <sub>out</sub> acc. to EN 60950-1 and EN 50178
Protection class	Class II (without protective conductor)	Class II (without protective conductor)	Class II (without protective conductor)
CE mark	Yes	Yes	Yes
UL/CSA approval	Yes	Yes	Yes
UL/cUL (CSA) approval	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310)	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310)	cULus-listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-recognized (UL 60950, CSA C22.2 No. 60950), File E151273
Explosion protection	ATEX (EX) II 3G Ex nA IIC T3; cCSAus (CSA C22.2 No. 213-M1987, ANSI/ISA-12.12.01-2007) Class I, Div. 2, Group ABCD, T4	ATEX (EX) II 3G Ex nA IIC T3; cCSAus (CSA C22.2 No. 213-M1987, ANSI/ISA-12.12.01-2007) Class I, Div. 2, Group ABCD, T4	ATEX (EX) II 3G Ex nA IIC T3; cCSAus (CSA C22.2 No. 213-M1987, ANSI/ISA-12.12.01-2007) Class I, Div. 2, Group ABCD, T4
FM approval	Yes	Yes	Yes
FM approval	Class I, Div. 2, Group ABCD, T4	Class I, Div. 2, Group ABCD, T4	Class I, Div. 2, Group ABCD, T4
CB approval	Yes	Yes	Yes
Marine approval	GL, ABS, BV, DNV, LRS	GL, ABS, BV, DNV, LRS	GL, ABS, BV, DNV, LRS
Degree of protection (EN 60529)	IP20	IP20	IP20
<b>EMC</b>			
Emitted interference	EN 55022 Class B	EN 55022 Class B	EN 55022 Class B
Supply harmonics limitation	not applicable	not applicable	EN 61000-3-2
Noise immunity	EN 61000-6-2	EN 61000-6-2	EN 61000-6-2
<b>Operating data</b>			
Ambient temperature			
• in operation	-20 ... +70 °C	-20 ... +70 °C	-20 ... +70 °C
- Note	with natural convection	with natural convection	with natural convection
• on transport	-40 ... +85 °C	-40 ... +85 °C	-40 ... +85 °C
• in storage	-40 ... +85 °C	-40 ... +85 °C	-40 ... +85 °C
Humidity class according to EN 60721	Climate class 3K3, no condensation	Climate class 3K3, no condensation	Climate class 3K3, no condensation
<b>Mechanics</b>			
Connection technology	screw-type terminals	screw-type terminals	screw-type terminals
Connections			
• Supply input	L, N: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> single-core/finely stranded	L, N: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> single-core/finely stranded	L, N: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> single-core/finely stranded
• Output	+, -: 2 screw terminals each for 0.5 ... 2.5 mm <sup>2</sup>	+, -: 2 screw terminals each for 0.5 ... 2.5 mm <sup>2</sup>	+, -: 2 screw terminals each for 0.5 ... 2.5 mm <sup>2</sup>
• Auxiliary	-	-	-
Width of the housing	54 mm	72 mm	90 mm
Height of the housing	90 mm	90 mm	90 mm
Depth of the housing	52.6 mm	52.6 mm	52.6 mm
Installation width	54 mm	72 mm	90 mm
Installation height	130 mm	130 mm	130 mm
Weight, approx.	0.17 kg	0.25 kg	0.34 kg
Product feature of the housing for side-by-side mounting	Yes	Yes	Yes
Type of mounting			
• wall mounting	No	No	No
• standard rail mounting	Yes	Yes	Yes
• S7 rail mounting	No	No	No
Installation	Snaps onto DIN rail EN 60715 35x7.5/15	Snaps onto DIN rail EN 60715 35x7.5/15	Snaps onto DIN rail EN 60715 35x7.5/15

Ordering data	Article No.	Ordering data	Article No.
<b>LOGO!Power 1-phase, 5 V DC/3 A</b> Stabilized power supply Input: 100 ... 240 V AC Output: 5 V DC/3 A	<b>6EP1311-1SH03</b>	<b>LOGO!Power 1-phase, 15 V DC/1.9 A</b> Stabilized power supply Input: 100 ... 240 V AC Output: 15 V DC/1.9 A	<b>6EP1351-1SH03</b>
<b>LOGO!Power 1-phase, 5 V DC/6.3 A</b> Stabilized power supply Input: 100 ... 240 V AC Output: 5 V DC/6.3 A	<b>6EP1311-1SH13</b>	<b>LOGO!Power 1-phase, 15 V DC/4 A</b> Stabilized power supply Input: 100 ... 240 V AC Output: 15 V DC/4 A	<b>6EP1352-1SH03</b>
<b>LOGO!Power 1-phase, 12 V DC/1.9 A</b> Stabilized power supply Input: 100 ... 240 V AC Output: 12 V DC/1.9 A	<b>6EP1321-1SH03</b>	<b>LOGO!Power 1-phase, 24 V DC/1.3 A</b> Stabilized power supply Input: 100 ... 240 V AC Output: 24 V DC/1.3 A	<b>6EP1331-1SH03</b>
<b>LOGO!Power 1-phase, 12 V DC/4.5 A</b> Stabilized power supply Input: 100 ... 240 V AC Output: 12 V DC/4.5 A	<b>6EP1322-1SH03</b>	<b>LOGO!Power 1-phase, 24 V DC/2.5 A</b> Stabilized power supply Input: 100 ... 240 V AC Output: 24 V DC/2.5 A	<b>6EP1332-1SH43</b>
		<b>LOGO!Power 1-phase, 24 V DC/4 A</b> Stabilized power supply Input: 100 ... 240 V AC Output: 24 V DC/4 A	<b>6EP1332-1SH52</b>

### More information

In addition to various power supply product lines, the perfectly coordinated complete SITOP range offers a unique range of add-on modules with which the 24 V power supply can be additionally protected against interference on the primary and secondary side – right up to all-round protection:

- Redundancy module for setting up a redundant power supply
- Uninterruptible 24 V power supplies with batteries or maintenance-free capacitors for continued operation in the event of power failure
- Selectivity modules for electronic protection of 24 V branches from overload and short-circuit

You can find more information in Catalog KT 10.1 and in the Internet at

[www.siemens.com/sitop](http://www.siemens.com/sitop)

Select the appropriate power supply quickly and easily with the SITOP Selection Tool:

[www.siemens.com/sitop-selection-tool](http://www.siemens.com/sitop-selection-tool)

# LOGO! logic module

## SIPLUS LOGO!Power

### SIPLUS LOGO!Power

1

#### Overview

##### Note:

SIPLUS extreme products are based on Siemens Industry standard products. The contents listed here were taken from the respective standard products. SIPLUS extreme-specific information was added.

SIPLUS LOGO!Power 1.3 A	
Article No.	<b>6AG1331-1SH03-7AA0</b>
Article No. based on	<b>6EP1331-1SH03</b>
Ambient temperature range	-25 °C to +70 °C
Conformal coating	Coating of the printed circuit boards and the electronic components
Technical data	The technical data of the standard product applies except for the ambient conditions.

#### Ambient conditions

Relative humidity	100%, condensation/frost permissible. No commissioning if condensation present.
Biologically active substances, compliance with EN 60721-3-3	Class 3B2 mold spores, fungal spores (excluding fauna). The supplied plug covers must remain in place over the unused interfaces during operation!
Chemically active substances, compliance with EN 60721-3-3	Class 3C4 incl. salt spray in accordance with EN60068-2-52 (degree of severity 3). The supplied plug covers must remain in place over the unused interfaces during operation!
Mechanically active substances, compliance with EN 60721-3-3	Class 3S4 incl. sand, dust. The supplied plug covers must remain in place over the unused interfaces during operation!
Air pressure (depending on the highest positive temperature range specified)	1080 ... 795 hPa (-1000 ... +2000 m) see ambient temperature range 795 ... 658 hPa (+2000 ... +3500 m) derating 10 K 658 ... 540 hPa (+3500 ... +5000 m) derating 20 K

For technical documentation on SIPLUS, see:

<http://www.siemens.com/siplus-extreme>

#### Ordering data

#### Article No.

##### SIPLUS LOGO!Power 24 V 1.3 A

Input 100 ... 240 V AC  
Output 24 V DC, 1.3 A

Extended temperature range and exposure to media

**6AG1331-1SH03-7AA0**

##### SIPLUS LOGO!Power 24 V 2.5 A

Input 100 ... 240 V AC  
Output 24 V DC, 2.5 A

Extended temperature range and exposure to media

**6AG1332-1SH43-7AA0**

##### SIPLUS LOGO!Power 24 V 4 A

Input 100 ... 240 V AC  
Output 24 V DC, 4 A

Extended temperature range and exposure to media

**6AG1332-1SH52-7AA0**

## Overview



- Switching module for the direct switching of resistive loads and motors

## Technical specifications

	6ED1057-4CA00-0AA0	6ED1057-4EA00-0AA0
<b>Weights</b>		
Weight, approx.	160 g	160 g

## Ordering data

## Article No.

### LOGO!Contact

Switching module for direct switching of resistive loads up to 20 A and motors up to 4 kW

Switching voltage 24 V

Switching voltage 230 V

**6ED1057-4CA00-0AA0**

**6ED1057-4EA00-0AA0**

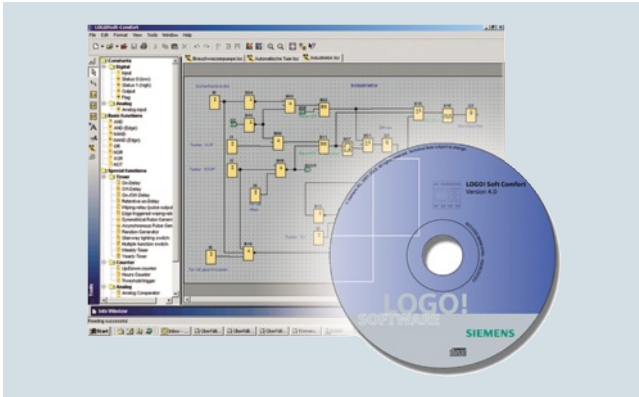
# LOGO! logic module

LOGO! Software

## LOGO! Software

1

### Overview



- The user-friendly software for generating switching programs on the PC for single-user mode and network mode
- Generation of switching programs in a function block diagram (FBD) or ladder logic (LAD)
- Furthermore, testing, simulation, online testing and archiving of the switching programs
- Professional documentation due to manifold comment and print functions

#### **Minimum system requirements**

Windows XP (32-bit), 7 (32/64-bit) or 8 (32/64-bit)

- PC Pentium IV.
- 150 MB free disk capacity.
- 256 MB RAM.
- SVGA graphics card with minimum resolution 800 x 600 (256 colors).
- DVD-ROM

Mac OS X

- Mac OS X 10.4

Linux

- Tested with SUSE Linux 11.3 SP2, kernel 3.0.76
- Runs on all Linux distributions on which Java 2 runs.
- Please refer to your relevant Linux distribution for the necessary hardware requirements.

### Ordering data

### Article No.

**LOGO!Soft Comfort V8****6ED1058-0BA08-0YA1**

For programming on the PC in LAD/FBD; executes on Windows 8, 7, XP, Linux and Mac OSX; on DVD

**LOGO!Soft Comfort V8 Upgrade****6ED1058-0CA08-0YE1**

Upgrade from V1.0 to V8, on DVD



## LOGO! logic module

### SIPLUS add-ons

#### SIPLUS LOGO! PROM

1

#### Overview



LOGO! PROM is the programming device for easy reproduction of up to 8 LOGO! program modules. Copying is performed from a master module or via the PC program LOGO! Soft Comfort.

LOGO! PROM supports yellow and red program modules. Only yellow modules can be used as master modules, because red modules cannot be copied due to the know-how protection implemented.

A multi-colored LED on each module slot provides detailed information about the status of the respective program module and the copying procedure.

#### Ordering data

#### Article No.

##### LOGO! PROM

6AG1057-1AA01-0BA6

Programming device used to simultaneously reproduce program module contents on up to 8 program modules

#### LOGO! mounting kits

#### Overview



LOGO! and SIPLUS LOGO! are designed for quick and easy mounting on standard rails. With the mounting kit, these devices can also be easily and safely installed in front panels. If the supplied washer and seals are used, the devices are reliably protected against harsh environmental conditions up to the IP65 degree of protection.

#### Ordering data

#### Article No.

##### Front panel mounting kit

Width 4 width units

6AG1057-1AA00-0AA0

Width 4 width units, with keys

6AG1057-1AA00-0AA3

Width 8 width units

6AG1057-1AA00-0AA1

Width 8 width units, with keys

6AG1057-1AA00-0AA2

#### SIPLUS upmiters

#### Overview



The SIPLUS upmiter upstream device ensures reliable operation of SIPLUS devices connected to the batteries of internal combustion engines. SIPLUS upmiter provides the devices with a constant voltage supply.

#### Ordering data

#### Article No.

##### SIPLUS upmiter upstream device

for reliable operation when connected to the batteries of combustion engines

Output current 1.25 A (LOGO! style)

6AG1053-1AA00-2AA0

Output current 4 A (S7-300 style)

6AG1305-1AA00-2AA0

# LOGO! logic module

## Notes

1

## Appendix



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<b>2/3</b>	<b>Additional Documentation</b>
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<b>2/12</b>	<b>Industry Services</b>
2/12	Your machines and plant can do more – with Industry Services
2/13	Industry Services for the entire life cycle
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<b>2/20</b>	<b>Conditions of sale and delivery</b>

## Appendix

### Siemens Industry Training

#### Faster and more applicable know-how: Hands-on training from the manufacturer

Siemens Industry Training provides you with comprehensive support in solving your tasks.

Training by the market leader in the industry enables you to make independent decisions with confidence. Especially where the optimum and efficient use of products and plants are concerned. You can eliminate deficiencies in existing plants, and exclude expensive faulty planning right from the beginning.



First-class know-how directly pays for itself: In shorter startup times, high-quality end products, faster troubleshooting and reduced downtimes. In other words, increased profits and lower costs.

#### Achieve more with Siemens Industry Training

- Shorter times for startup, maintenance and servicing
- Optimized production operations
- Reliable configuration and startup
- Minimization of plant downtimes
- Flexible plant adaptation to market requirements
- Compliance with quality standards in production
- Increased employee satisfaction and motivation
- Shorter familiarization times following changes in technology and staff

#### Contact

Visit our site on the Internet at:

[www.siemens.com/sitrain](http://www.siemens.com/sitrain)

or let us advise you personally.

#### Siemens Industry Training Customer Support Germany:

Phone: +49 911 895-7575

Fax: +49 911 895-7576

E-Mail: [info@sitrain.com](mailto:info@sitrain.com)

#### Highlights Siemens Industry Training

##### Top trainers

Our trainers are skilled teachers with direct practical experience. Course developers have close contact with product development, and directly pass on their knowledge to the trainers.

##### Practical experience

The practical experience of our trainers enables them to teach theory effectively. But since theory can be pretty drab, we attach great importance to practical exercises which can comprise up to half of the course time. You can therefore immediately implement your new knowledge in practice. We train you on state-of-the-art methodically/didactically designed training equipment. This training approach will give you all the confidence you need.

##### Wide variety

With a total of about 300 local attendance courses, we train the complete range of Siemens Industry products as well as interaction of the products in systems.

##### Tailor-made training

We are only a short distance away. You can find us at more than 50 locations in Germany, and in 62 countries worldwide. You wish to have individual training instead of one of our 300 courses? Our solution: We will provide a program tailored exactly to your personal requirements. Training can be carried out in our Training Centers or at your company.

##### The right mixture: Blended learning

"Blended learning" is a combination of various training media and sequences. For example, a local attendance course in a Training Center can be optimally supplemented by a teach-yourself program as preparation or follow-up. Additional effect: Reduced traveling costs and periods of absence.



### Overview

The SIMATIC manual collection brings together the manuals of Totally Integrated Automation in the smallest possible package. It is eminently suitable for startup and service, replaces the space-consuming paper version in the office and provides fast access to the information.

The manual collection contains manuals in 5 languages for

- LOGO!
- SIMADYN
- SIMATIC bus components
- SIMATIC C7
- SIMATIC Distributed I/O
- SIMATIC HMI
- SIMATIC Sensors
- SIMATIC NET
- SIMATIC PC Based Automation
- SIMATIC PCS 7
- SIMATIC PG/PC
- SIMATIC S7
- SIMATIC Software
- SIMATIC TDC

Manuals that are not yet available in all 5 languages will at least be included in English and German.

There is an update contract for the SIMATIC Manual Collection that encompasses supply of the up-to-date collection and three subsequent updates which is valid for one year. If the update contract is not cancelled, it is automatically extended and the list price will be charged to the customer.

Ordering data	Article No.
<b>SIMATIC Manual Collection</b> Electronic manuals on DVD, multilingual: LOGO!, SIMADYN, SIMATIC Bus components, SIMATIC C7, SIMATIC Distributed IO, SIMATIC HMI, SIMATIC Sensors, SIMATIC NET, SIMATIC PC Based Automation, SIMATIC PCS 7, SIMATIC PG/PC, SIMATIC S7, SIMATIC Software, SIMATIC TDC	<b>6ES7998-8XC01-8YE0</b>
<b>SIMATIC Manual Collection update service for 1 year</b> Current "Manual Collection" DVD and the three subsequent updates	<b>6ES7998-8XC01-8YE2</b>

## Appendix

### Standards and approbations

#### CE marking

##### Overview

The electronic products described in this catalog comply with the requirements and protection objectives of the following EC directives insofar as they relate to the product concerned. They also comply with the corresponding harmonized European standards (EN) published for these products in the Official Journals of the European Community.

- Directive 2004/108/EC of the European Parliament and Council on the approximation of the laws of the Member States relating to electromagnetic compatibility (EMC Directive)
- Directive 2006/95/EC of the European Parliament and of the Council on the harmonization of the laws of Member States relating to electrical equipment designed for use within certain voltage limits (Low Voltage Directive)
- Directive 94/9/EC of the European Parliament and the Council on approximation of the laws of the Member States concerning equipment and protective systems intended for use in potentially explosive atmospheres (ATEX Directive).
- Directive 1999/5/EC of the European Parliament and of the Council on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity (RTTE Directive)

The originals of the declarations of conformity are kept available by us for the responsible supervisory authorities.

##### **Note on the EMC Directive:**

In terms of their interference emissions, SIMATIC products are designed for industrial applications.

If individual products deviate from this specification, it is noted in the catalog with the products.

The installation instructions in the manuals must be adhered to when installing and operating the products described in this catalog. These contain, for example, important information on installation in cabinets and on the use of shielded cables.

##### Notes for machine manufacturers

The SIMATIC automation system is not a machine within the context of the EU machine guidelines. Therefore a declaration of conformity with regard to the EU machine directive 89/392/EEC or 2006/42/EU (new edition, applicable from end of 2009) may not be provided for SIMATIC.

The EU machine directive regulates the requirements placed on a machine or a part thereof. A machine is understood for the purposes of this guideline to be a combination of interconnected parts or mechanisms (see also EN 292-1, Paragraph 3.1).

SIMATIC is part of the electrical equipment of a machine, and must therefore be integrated into the evaluation of the complete machine by the machine manufacturer.

As electrical equipment, SIMATIC is subject to the low-voltage directive which, as a "total safety directive", covers all dangers just like the machine directive.

The EN 60204-1 standard (safety of machines, general requirements for the electrical equipment of machines) is applicable to the electrical equipment of machines.

The following table will help you in the provision of your declaration of conformity, and shows which criteria according to EN60204-1 (2006-06) apply to SIMATIC. You can obtain further information from the enclosed declaration of conformity according to the low-voltage and EMC directives (with list of included standards).

EN 60204-1	Topic/criterion	Notes
Paragraph 4	General requirements	The requirements are met when the equipment is assembled/installed in accordance with the installation guidelines. Please note the relevant information in the manuals.
Paragraph 11.2	Digital input/output interfaces	The requirements are met
Paragraph 12.3	Programmable equipment	The requirements are met when the equipment is installed in lockable cabinets to protect against alteration of the memory contents by unauthorized persons
Paragraph 20.4	Voltage tests	The requirements are met

**Certificates, authorizations, approbations, declarations of conformity**

An overview of the certificates available for SIMATIC products (CE, UL, CSA, FM, shipping authorizations) can be found in the internet at

[www.siemens.com/simatic/certificates](http://www.siemens.com/simatic/certificates)

The lists are continuously updated. The data for products which have not yet been included in the overview is continuously collected and prepared for the subsequent edition.

You can also find certificates, approbations, verification certificates or characteristic curves under Product support "Entry list"

**Quality management**

The quality management system of the Industry Sector, Industry Automation Division, complies with the international standard ISO 9001.

The products and systems described in this catalog are sold under application of a quality management system certified by DQS in accordance with DIN EN ISO 9001.

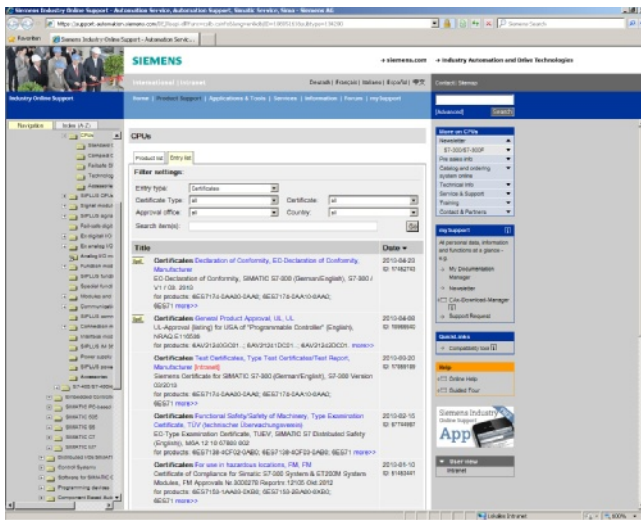
The DQS certificate is recognized in all EQ Net countries.

**DQS Registered Certificate No.:**

Siemens AG

- I IA AS Industrial Automation Systems  
Reg.No.: 001323 QM08

2



or by going directly to the Link Box:



# Appendix Partner

## Siemens contacts worldwide

### Overview



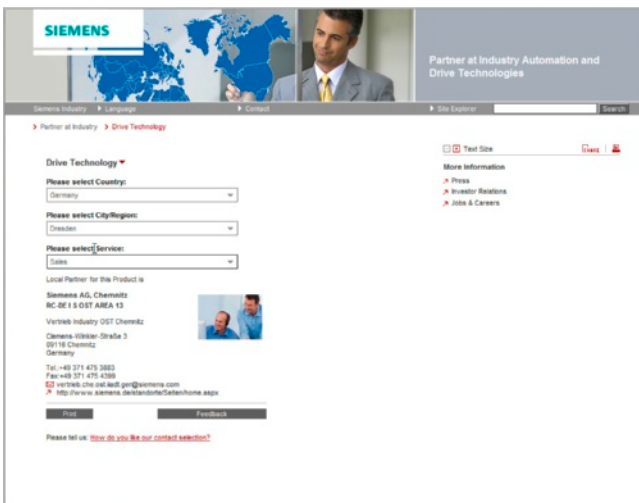
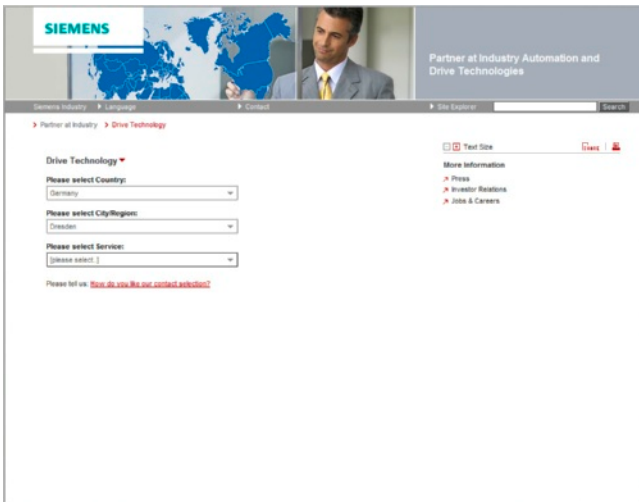
At Siemens Industry we are resolutely pursuing the same goal: long-term improvement of your competitive ability. We are committed to this goal. Thanks to our commitment, we continue to set new standards in automation and drive technology. In all industries – worldwide.

At your service locally, around the globe for consulting, sales, training, service, support, spare parts ... on the entire Industry Automation and Drive Technologies range.

Your personal contact can be found in our Contacts Database at: [www.siemens.com/automation/partner](http://www.siemens.com/automation/partner)

You start by selecting a

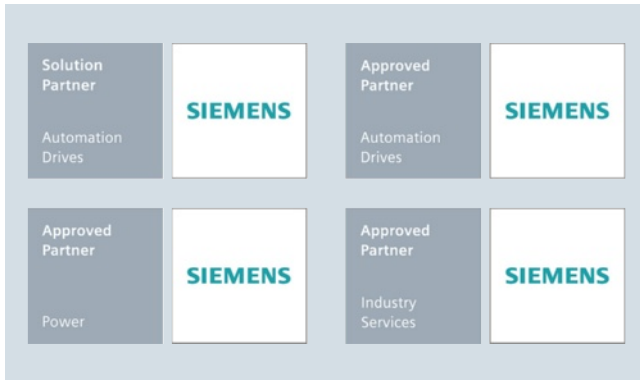
- Product group,
- Country,
- City,
- Service.





## Overview

## Siemens Solution und Approved Partners



### Highest competence in automation and drive technology as well as power distribution

Siemens works closely together with selected partner companies around the world in order to ensure that customer requirements for all aspects of automation and drives as well as power distribution are fulfilled as best as possible - wherever you are and whatever the time. It is for this reason that we systematically train and keep our partners well prepared, as well as certifying them in specific technologies. It is our declared intention and goal to train and prepare our partners to the same standards as our own employees.

This approach is based on contractually agreed quality criteria as well as optimum support for our partners by providing clearly defined processes. This ensures that they possess all the skills necessary to optimally fulfill customer needs. The partner emblem ensures a high level of recognition and is an indicator of proven quality.

### Solution Partners and Approved Partners

The Siemens Partner Program distinguishes between Solution Partners and Approved Partners.

At present we are working with more than 1,400 Solution Partners worldwide. They represent countless tailored and future-proof automation and drive solutions in a wide variety of industries.

In addition to Siemens contract products, Siemens Approved Partners also offer modifications as well as a wide range of services. Our network of Approved Partners is currently being built up/expanded.

## Partner Finder

Within the Siemens Partner Program, customers are sure to find their ideal partner for their specific requirements – and it's so simple! The Partner Finder is basically a comprehensive database that showcases the profiles of all our solution partners.

### Easy selection:

Filter the relevant criteria in the search dialog. You can also directly enter the name of an existing partner.

### Competencies at a glance:

Gain a quick insight into the skills of any particular partner with the reference reports.

### Direct contact:

Use our electronic query form.

[www.siemens.com/automation/partnerfinder](http://www.siemens.com/automation/partnerfinder)

Additional information on the Siemens Solution Partner Program is available online at:

[www.siemens.de/partnerprogramm](http://www.siemens.de/partnerprogramm)

## Appendix

### Siemens Automation Cooperates with Education

#### Applicable practical know-how

#### Comprehensive teaching support for educational institutions

Cooperates  
with Education

Automation

SIEMENS

#### Siemens Automation Cooperates with Education (SCE)

offers a global system for sustained support of technical skills. SCE supports educational institutions in their teaching assignment in the industrial automation sector and offers added value in the form of partnerships, technical expertise, and know-how. As the technological leader, our comprehensive range of services can support you in the knowledge transfer for Industry 4.0.

#### Our services at a glance

- Training curriculums for your lessons
- Trainer packages for hands-on learning
- Courses convey up-to-date, specialist knowledge
- Support for your projects/textbooks
- Complete didactic solutions from our partners
- Personal contact for individual support

#### Training curriculums for your lessons



Use our profound industrial know-how for practice-oriented and individual design of your course. We offer you more than 100 didactically prepared training curriculums on the topics of automation and drives technology free of charge. These materials are perfectly matched to your curricula and syllabuses, and optimally suited for use with our trainer packages. This takes into account all aspects of a modern industrial solution: installation, configuration, programming, and commissioning. All documents, including projects, can be individually matched to your specific requirements.

Particular highlights:

- With the new SIMATIC PCS 7 curriculums and trainer packages, you can pass on basic, practice-oriented PCS 7 knowledge at universities within about 60 hours (= 1 semester), using plant simulation.

- The new TIA Portal training materials for SIMATIC S7-1200 are available in English, German, French, Italian, Spanish and Chinese for download.

[www.siemens.com/sce/documents](http://www.siemens.com/sce/documents)

#### Trainer packages for hands-on learning



Our SCE trainer packages offer a specific combination of original industrial components which are perfectly matched to your requirements and can be conveniently used in your course. These price reduced bundles available exclusively to schools include innovative and flexible hardware and software packages. SCE can currently offer more than 90 SCE trainer packages including related equipment. These cover both the factory and process automation sectors. You can use them to impart the complete course contents on industrial automation at a very low cost.

Trainer packages are available for:

- Introduction to automation technology with LOGO! logic module and SIMATIC S7-1200 compact controller
- PLC engineering with SIMATIC S7 hardware and STEP 7 software (S7-300, S7-1500 and TIA Portal)
- Operator control and monitoring with SIMATIC HMI
- Industrial networking over bus systems with SIMATIC NET (PROFINET, PROFIBUS, IO-Link)
- Sensor systems with VISION, RFID and SIWAREX
- Process automation with SIMATIC PCS 7
- Power Monitoring Devices SENTRON PAC 4200
- Motor Management SIMOCODE
- Networked drive and motion technologies with SINAMICS/SIMOTION
- CNC programming with SinuTrain

#### Important ordering notes:

Only the following institutions are authorized to obtain trainer packages: vocational schools, Colleges and Universities, in-house vocational training departments, non commercial research institutions and non commercial training departments.

To purchase a trainer package, you require a specific end-use certificate, which you can obtain from your regional sales office.

[www.siemens.com/sce/tp](http://www.siemens.com/sce/tp)

**Comprehensive teaching support for educational institutions** (continued)**Courses convey up-to-date specialist knowledge**

Profit from our excellent know-how as the leader in industrial technologies. We offer you specific courses for automation and drive technology worldwide. These support you in the practice-oriented transferring of product and system know-how, are in conformance with curriculums, and derived from the training fields. Compact technical courses especially for use at universities are also available.

Our range of courses comprises a wide variety of training modules based on the principle of Totally Integrated Automation (TIA). The focus is on the same subject areas as with the SCE trainer packages.

Every PLC and drive course is oriented on state-of-the-art technology. Your graduates can thus be prepared optimally for their future professional life.

In some countries we are offering classes based on our training curriculums. Please inquire with your SCE contact partner.

[www.siemens.com/sce/contact](http://www.siemens.com/sce/contact)

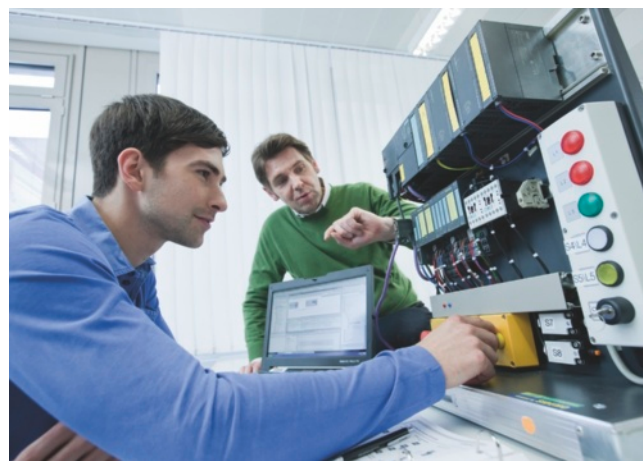
**Support for your projects/textbooks**

Automation and drive technology is characterized by continuous and rapid developments. Service and Support therefore play an important role.

We can provide you with consulting for selected projects and support from your personal SCE contact as well as our web based and regional Customer Support.

As a particular service, SCE supports technical authors with our know-how as well as with intensive technical consulting. Siemens library of special textbooks covering the industrial automation sector provides an additional resource for you and your students. These can be found at the SCE web site.

[www.siemens.com/sce/contact](http://www.siemens.com/sce/contact)  
[www.siemens.com/sce/books](http://www.siemens.com/sce/books)

**Complete didactic solutions**

Our partners for learning systems offer a wide range of training systems and solutions for use in your courses or laboratory.

These models have been designed based on our trainer packages and thus save you the time and cost of self-construction of individual components. The Partner systems provide you with simple and effective help in the fulfillment of your teaching assignment.

[www.siemens.com/sce/partner](http://www.siemens.com/sce/partner)

**Contact for individual support**

You can find your personal SCE contact on our Internet site. Your local SCE Promoter will answer all your questions concerning the complete SCE offering, and provide you with timely and competent information about innovations. When you encounter challenges, you can profit from our global team of excellence.

If a direct SCE contact is not listed for your country, please contact your local Siemens office.

[www.siemens.com/sce/contact](http://www.siemens.com/sce/contact)

**SCE Support Finder for your Internet request**

You are an educator and need support on the topic of industry automation? Send us your request:

[www.siemens.com/sce/supportfinder](http://www.siemens.com/sce/supportfinder)

Scan the QR  
code for further  
information  
(SCE homepage)

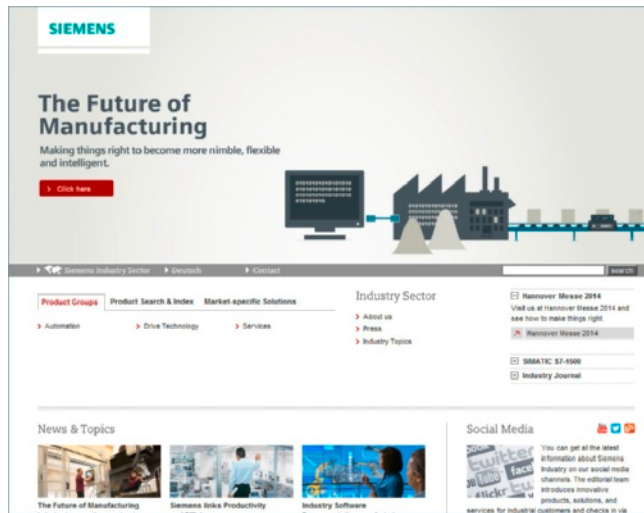


## Appendix

### Online Services

#### Information and Ordering in the Internet and on DVD

#### Siemens Industry Automation and Drive Technologies in the WWW



A detailed knowledge of the range of products and services available is essential when planning and configuring automation systems. It goes without saying that this information must always be fully up-to-date.

Siemens Industry Automation and Drive Technologies has therefore built up a comprehensive range of information in the World Wide Web, which offers quick and easy access to all data required.

Under the address

[www.siemens.com/industry](http://www.siemens.com/industry)

you will find everything you need to know about products, systems and services.

#### Product Selection Using the Interactive Catalog CA 01 of Industry



Detailed information together with convenient interactive functions:

The interactive catalog CA 01 covers more than 80 000 products and thus provides a full summary of the Siemens Industry Automation and Drive Technologies product base.

Here you will find everything that you need to solve tasks in the fields of automation, switchgear, installation and drives. All information is linked into a user interface which is easy to work with and intuitive.

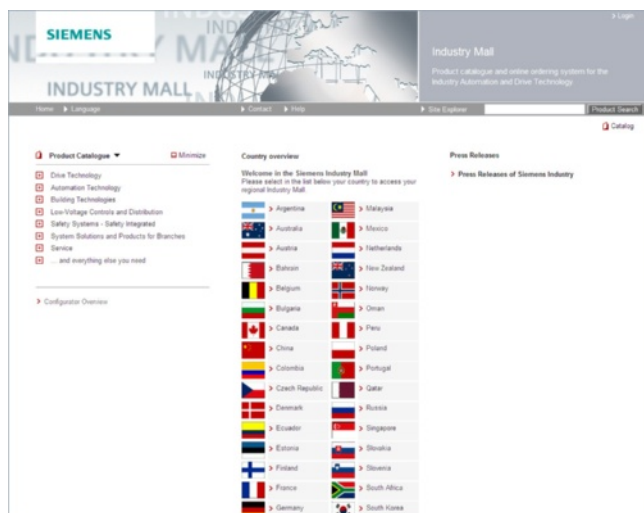
After selecting the product of your choice you can order at the press of a button, by fax or by online link.

Information on the interactive catalog CA 01 can be found in the Internet under

[www.siemens.com/automation/ca01](http://www.siemens.com/automation/ca01)

or on DVD.

#### Easy Shopping with the Industry Mall



The Industry Mall is the electronic ordering platform of Siemens AG on the Internet. Here you have online access to a huge range of products presented in an informative and attractive way.

Data transfer via EDIFACT allows the whole procedure from selection through ordering to tracking and tracing of the order to be carried out. Availability checks, customer-specific discounts and preparation of quotes are also possible.

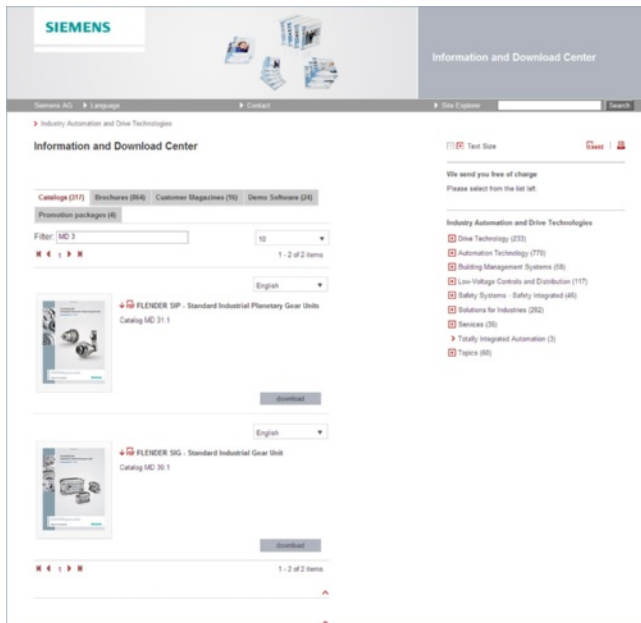
Numerous additional functions are available to support you.

For example, powerful search functions make it easy to select the required products. Configurators enable you to configure complex product and system components quickly and easily. CAx data types are also provided here.

Please visit the Industry Mall on the Internet under:

[www.siemens.com/industrymall](http://www.siemens.com/industrymall)

#### Downloading Catalogs



In addition to numerous other useful documents, you can also find the catalogs listed on the back inside cover of this catalog in the Information and Download Center. Without having to register, you can download these catalogs in PDF format or increasingly as digital page-turning e-books.

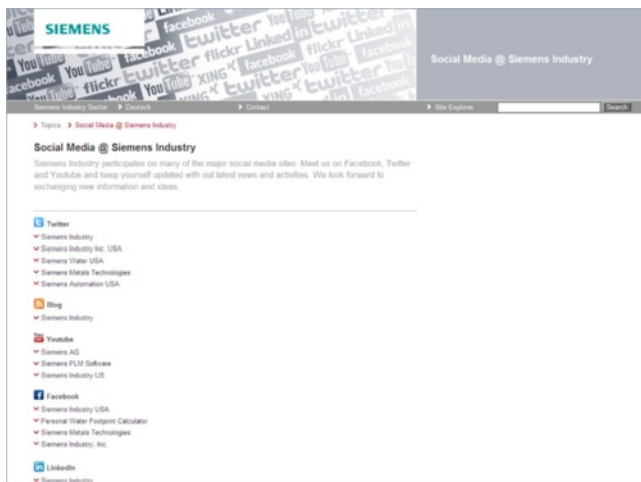
The filter dialog box above the first catalog displayed makes it possible to carry out targeted searches. If you enter "MD 3" for example, you will find both the MD 30.1 and MD 31.1 catalogs. If you enter "ST 70" both the ST 70 catalog and the associated news or add-ons are displayed.

Visit us on the web at:

[www.siemens.com/industry/infocenter](http://www.siemens.com/industry/infocenter)

2

#### Social Media



Connect with Siemens through social media: visit our social networking sites for a wealth of useful information, demos on products and services, the opportunity to provide feedback, to exchange information and ideas with customers and other Siemens employees, and much, much more. Stay in the know and follow us on the ever-expanding global network of social media.

Connect with Siemens Industry at our central access point:

[www.siemens.com/industry/socialmedia](http://www.siemens.com/industry/socialmedia)

Or via our product pages at:

[www.siemens.com/automation](http://www.siemens.com/automation)

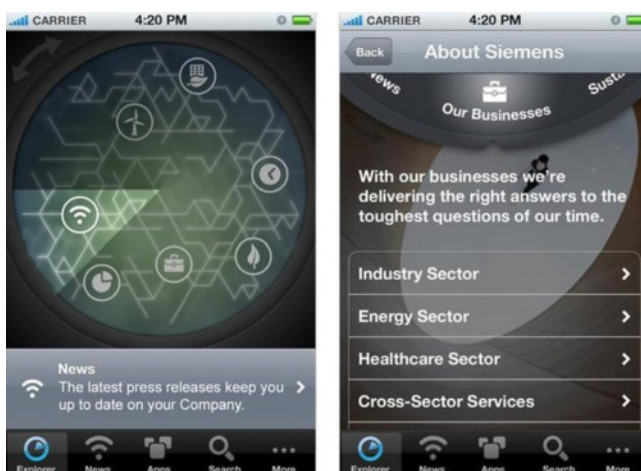
or

[www.siemens.com/drives](http://www.siemens.com/drives)

To find out more about Siemens' current social media activities visit us at:

[www.siemens.com/socialmedia](http://www.siemens.com/socialmedia)

#### Mobile Media



Discover the world of Siemens.

We are also constantly expanding our offering of cross-platform apps for smartphones and tablets. You will find the current Siemens apps at the app store (iOS) or at Google Play (Android).

The Siemens app, for example, tells you all about the history, latest developments and future plans of the company – with informative pictures, fascinating reports and the most recent press releases.

## Appendix Industry Services

Your machines and plant can do more – with Industry Services.

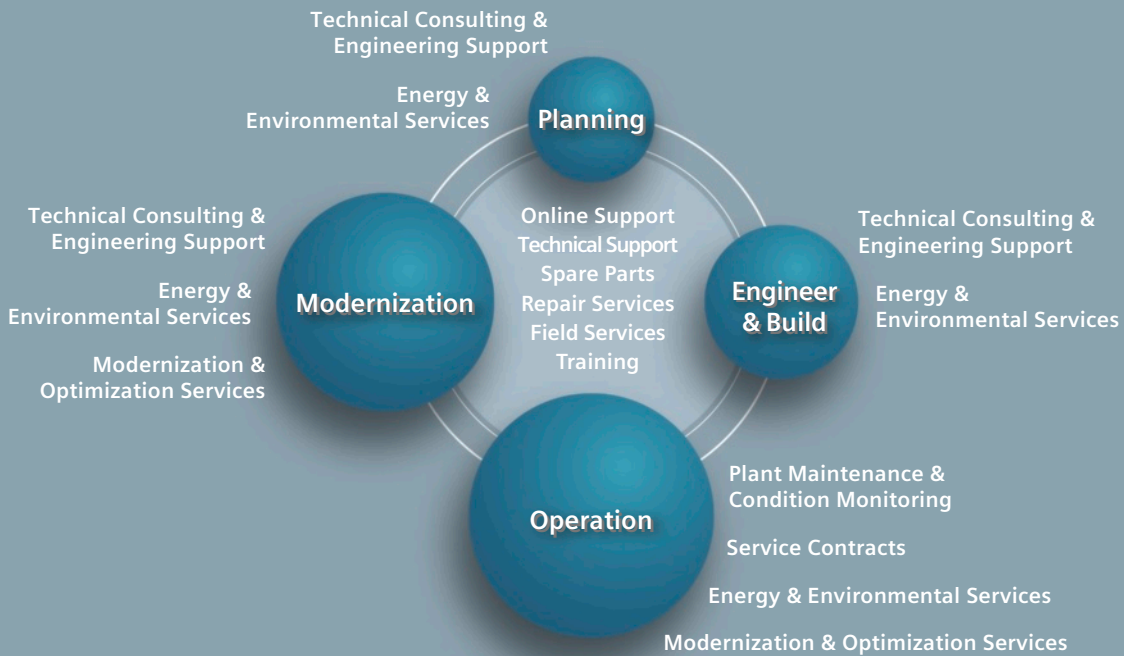


Whether it is production or process industry - in view of rising cost pressure, growing energy costs, and increasingly stringent environmental regulations, services for industry are a crucial competitive factor in manufacturing as well as in process industries.

All over the world Siemens supports its customers with product, system, and application-related services throughout the entire life cycle of a plant. Right from the earliest stages of planning, engineering, and building, all the way to operation and modernization. These services enable customers to benefit from the Siemens experts' unique technological and product knowledge and industry expertise.

Thus downtimes are reduced and the utilization of resources is optimized. The bottom line: increased plant productivity, flexibility, and efficiency, plus reduced overall costs.

Discover all advantages of our service portfolio:  
[www.siemens.com/industry-services](http://www.siemens.com/industry-services)



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Siemens supports its clients with technology based Services across a plants entire life cycle.

### Online Support

Online support is a comprehensive information system for all questions relating to products, systems, and solutions that Siemens has developed for industry over time. With more than 300,000 documents, examples and tools, it offers users of automation and drive technology a way to quickly find up-to-date information. The 24-hour service enables direct, central access to detailed product information as well as numerous solution examples for programming, configuration and application.

The content, in six languages, is increasingly multimediated – and now also available as a mobile app. Online support's "Technical Forum" offers users the opportunity to share information with each other. The "Support Request" option can be used to contact Siemens' technical support experts. The latest content, software updates, and news via newsletters and Twitter ensure that industry users are always up to date.



[www.siemens.com/industry/onlinesupport](http://www.siemens.com/industry/onlinesupport)

### Online Support App



Using the Online Support app, you can access over 300,000 documents covering all Siemens industrial products - anywhere, any time. Regardless of whether you need help implementing your project, fault-finding, expanding your system or are planning a new machine.

You have access to FAQs, manuals, certificates, characteristics curves, application examples, product notices (e.g. announcements of new products) and information on successor products in the event that a product is discontinued.

Just scan the product code printed on the product directly using the camera of your mobile device to immediately see all technical information available on this product at a glance. The graphical CAx information (3D model, circuit diagrams or EPLAN macros) is also displayed. You can forward this information to your workplace using the e-mail function.

The search function retrieves product information and articles and supports you with a personalized suggestion list. You can find your favorite pages – articles you need frequently – under

"mySupport". You also receive selected news on new functions, important articles or events in the News section.

Scan the QR code  
for information on  
our Online Support  
app.

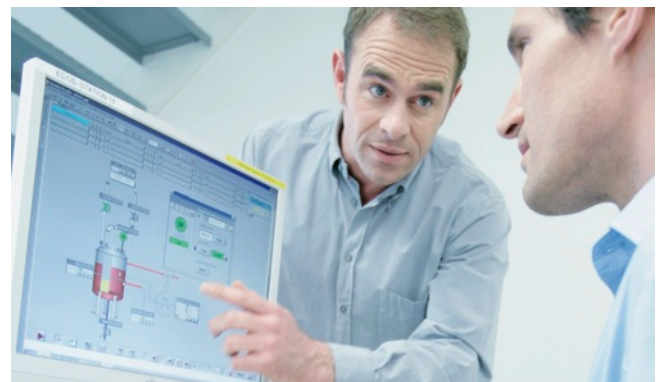


The app is available free of charge from the Apple App Store (iOS) or from Google Play (Android).

[www.siemens.com/industry/onlinesupportapp](http://www.siemens.com/industry/onlinesupportapp)

### Technical Support

The ability to quickly analyze system and error messages and take appropriate action are key factors in ensuring that plants run safely and efficiently. Questions can arise at any time and in any industry, whether it's an individual product or a complete automation solution. Siemens technical support offers individual technical assistance in matters related to functionality, how to operate, applications, and fault clearance in industrial products and systems – at any time and globally, over the phone, by e-mail, or via remote access. Experienced experts from Siemens answer incoming questions promptly. Depending on the requirements, they first consult specialists in the areas of development, on-site services, and sales. Technical support is also available for discontinued products that are no longer available. Using the support request number, any inquiry can be clearly identified and systematically tracked.



## Appendix

### Industry Services

#### Industry Services for the entire life cycle

##### **Spare Parts**

Drive and automation systems must be available at all times. Even a single missing spare part can bring the entire plant to a standstill – and result in substantial financial losses for the operator. The spare parts services from Siemens protect against such losses – with the aid of quickly available, original spare parts that ensure smooth interaction with all other system components. Spare parts are kept on hand for up to ten years; defective parts can be returned. For many products and solutions, individual spare parts packages ensure a preventive stock of spare parts on-site. The spare parts service is available around the world and around the clock. Optimum supply chain logistics ensure that replacement components reach their destination as quickly as possible. Siemens' logistics experts take care of planning and management as well as procurement, transportation, customs handling, warehousing, and complete order management for spare parts.



##### **Repair Services**

Reliable electrical and electronic equipment is crucial for operating continuous processes. That is why it is essential that motors and converters always undergo highly specialized repair and maintenance. Siemens offers complete customer and repair services – on site and in repair centers – as well as technical emergency services worldwide. The repair services include all measures necessary to quickly restore the functionality of defective units. In addition, services such as spare parts logistics, spare parts storage and rapid manufacturing are available to plant operators in all verticals. With a global network of certified repair shops operated by Siemens as well as third parties, Siemens handles the maintenance and overhaul of motors, converters, and other devices as an authorized service partner.



##### **Field Services**

It's a top priority in all industries: the availability of plants and equipment. Siemens offers specialized maintenance services such as inspection and upkeep as well as rapid fault clearance in industrial plants – worldwide, continuously, and even with emergency services as needed. The services include startup as well as maintenance and fault clearance during operation. The startup service includes checking the installation, function tests, parameterization, integration tests for machines and plants, trial operation, final acceptance, and employee training. All services, including remote maintenance of drives, are also available as elements of customized service contracts.





#### **Training**

Increasingly, up-to-date knowledge is becoming a determining factor in success. One of the key resources of any company is well-trained staff that can make the right decision at the right moment and take full advantage of the potential. With SITRAIN – Training for Industry, Siemens offers comprehensive advanced training programs. The technical training courses convey expertise and practical knowledge directly from the manufacturer. SITRAIN covers Siemens' entire product and system portfolio in the field of automation and drives. Together with the customer, Siemens determines the company's individual training needs and then develops an advanced training program tailored to the desired requirements. Additional services guarantee that the knowledge of all Siemens partners and their employees is always up-to-date.



2

#### **Technical Consulting & Engineering Support**

The efficiency of plants and processes leads to sustainable economic success. Individual services from Siemens help save substantial time and money while also guaranteeing maximum safety. Technical consulting covers the selection of products and systems for efficient industrial plants. The services include planning, consulting, and conceptual design as well as product training, application support, and configuration verification – in all phases of a plant's lifecycle and in all questions related to product safety. Engineering support offers competent assistance throughout the entire project, from developing a precise structure for startup to product-specific preparation for implementation as well as support services in areas such as prototype development, testing and acceptance.



#### **Energy & Environmental Services**

Efficient energy use and resource conservation – these top sustainability concerns pay off – both for the environment and for companies. Siemens offers integrated solutions that unlock all technical and organizational potential for successful environmental management. Customized consulting services are aimed at sustainably lowering the cost of energy and environmental protection and thus increasing plant efficiency and availability. The experts provide support in the conceptual design and implementation of systematic solutions in energy and environmental management, enabling maximum energy efficiency and optimized water consumption throughout the entire company. Improved data transparency makes it possible to identify savings potential, reduce emissions, optimize production processes, and thereby noticeably cut costs.



## Appendix

### Industry Services

#### Industry Services for the entire life cycle

##### **Modernization & Optimization Services**

High machine availability, expanded functionality and selective energy savings – in all industries, these are decisive factors for increasing productivity and lowering costs. Whether a company wants to modernize individual machines, optimize drive systems, or upgrade entire plants, Siemens' experts support the projects from planning to commissioning.

Expert consulting and project management with solution responsibility lead to security and make it possible to specifically identify savings potential in production. This secures investments over the long term and increases economic efficiency in operation.



##### **Plant Maintenance & Condition Monitoring**

Modern industrial plants are complex and highly automated. They must operate efficiently in order to ensure the company's competitive strength. In addition, the steadily increasing networking of machines and plants require consistent security concepts. Maintenance and status monitoring as well as the implementation of integrated security concepts by Siemens' experts support optimum plant use and avoid downtime. The services include maintenance management as well as consulting on maintenance concepts, including the complete handling and execution of the necessary measures. Complete solutions also cover remote services, including analysis, remote diagnosis, and remote monitoring. These are based on the Siemens Remote Services platform with certified IT security.



##### **Service Contracts**

Making maintenance costs calculable, reducing interfaces, speeding up response times, and unburdening the company's resources – the reduced downtimes that these measures achieve increase the productivity of a plant. Service contracts from Siemens make maintenance and repairs more cost-effective and efficient. The service packages include local and remote maintenance for a system or product group in automation and drive technology. Whether you need extended service periods, defined response times, or special maintenance intervals, the services are compiled individually and according to need. They can be adjusted flexibly at any time and used independently of each other. The expertise of Siemens' specialists and the capabilities of remote maintenance thus ensure reliable and fast maintenance processes throughout a plant's entire lifecycle.



### Overview

#### Software types

Software requiring a license is categorized into types. The following software types have been defined:

- Engineering software
- Runtime software

#### Engineering software

This includes all software products for creating (engineering) user software, e.g. for configuring, programming, parameterizing, testing, commissioning or servicing.

Data generated with engineering software and executable programs can be duplicated for your own use or for use by third-parties free-of-charge.

#### Runtime software

This includes all software products required for plant/machine operation, e.g. operating system, basic system, system expansions, drivers, etc.

The duplication of the runtime software and executable programs created with the runtime software for your own use or for use by third-parties is subject to a charge.

You can find information about license fees according to use in the ordering data (e.g. in the catalog). Examples of categories of use include per CPU, per installation, per channel, per instance, per axis, per control loop, per variable, etc.

Information about extended rights of use for parameterization/configuration tools supplied as integral components of the scope of delivery can be found in the readme file supplied with the relevant product(s).

#### License types

Siemens Industry Automation & Drive Technologies offers various types of software license:

- Floating license
- Single license
- Rental license
- Rental floating license
- Trial license
- Demo license
- Demo floating license

#### Floating license

The software may be installed for internal use on any number of devices by the licensee. Only the concurrent user is licensed. The concurrent user is the person using the program. Use begins when the software is started. A license is required for each concurrent user.

#### Single license

Unlike the floating license, a single license permits only one installation of the software per license.

The type of use licensed is specified in the ordering data and in the Certificate of License (CoL). Types of use include for example per instance, per axis, per channel, etc.

One single license is required for each type of use defined.

#### Rental license

A rental license supports the "sporadic use" of engineering software. Once the license key has been installed, the software can be used for a specific period of time (the operating hours do not have to be consecutive).

One license is required for each installation of the software.

#### Rental floating license

The rental floating license corresponds to the rental license, except that a license is not required for each installation of the software. Rather, one license is required per object (for example, user or device).

#### Trial license

A trial license supports "short-term use" of the software in a non-productive context, e.g. for testing and evaluation purposes. It can be transferred to another license.

#### Demo license

The demo license support the "sporadic use" of engineering software in a non-productive context, for example, use for testing and evaluation purposes. It can be transferred to another license. After the installation of the license key, the software can be operated for a specific period of time, whereby usage can be interrupted as often as required.

One license is required per installation of the software.

#### Demo floating license

The demo floating license corresponds to the demo license, except that a license is not required for each installation of the software. Rather, one license is required per object (for example, user or device).

#### Certificate of license (CoL)

The CoL is the licensee's proof that the use of the software has been licensed by Siemens. A CoL is required for every type of use and must be kept in a safe place.

#### Downgrading

The licensee is permitted to use the software or an earlier version/release of the software, provided that the licensee owns such a version/release and its use is technically feasible.

#### Delivery versions

Software is constantly being updated. The following delivery versions

- PowerPack
- Upgrade

can be used to access updates.

Existing bug fixes are supplied with the ServicePack version.

#### PowerPack

PowerPacks can be used to upgrade to more powerful software. The licensee receives a new license agreement and CoL (Certificate of License) with the PowerPack. This CoL, together with the CoL for the original product, proves that the new software is licensed.

A separate PowerPack must be purchased for each original license of the software to be replaced.

#### Upgrade

An upgrade permits the use of a new version of the software on the condition that a license for a previous version of the product is already held.

The licensee receives a new license agreement and CoL with the upgrade. This CoL, together with the CoL for the previous product, proves that the new version is licensed.

A separate upgrade must be purchased for each original license of the software to be upgraded.

## Appendix

### Software Licenses

#### Overview

##### **ServicePack**

ServicePacks are used to debug existing products. ServicePacks may be duplicated for use as prescribed according to the number of existing original licenses.

##### **License key**

Siemens Industry Automation & Drive Technologies supplies software products with and without license keys.

The license key serves as an electronic license stamp and is also the "switch" for activating the software (floating license, rental license, etc.).

The complete installation of software products requiring license keys includes the program to be licensed (the software) and the license key (which represents the license).

##### **Software Update Service (SUS)**

As part of the SUS contract, all software updates for the respective product are made available to you free of charge for a period of one year from the invoice date. The contract will automatically be extended for one year if it is not canceled three months before it expires.

The possession of the current version of the respective software is a basic condition for entering into an SUS contract.

You can download explanations concerning license conditions from [www.siemens.com/automation/salesmaterial-as/catalog/en/terms\\_of\\_trade\\_en.pdf](http://www.siemens.com/automation/salesmaterial-as/catalog/en/terms_of_trade_en.pdf)



## Appendix

### Conditions of sale and delivery

#### 1. General Provisions

By using this catalog you can acquire hardware and software products described therein from Siemens AG subject to the following Terms and Conditions of Sale and Delivery (hereinafter referred to as "T&C"). Please note that the scope, the quality and the conditions for supplies and services, including software products, by any Siemens entity having a registered office outside Germany, shall be subject exclusively to the General Terms and Conditions of the respective Siemens entity. The following T&C apply exclusively for orders placed with Siemens Aktiengesellschaft, Germany.

##### 1.1 For customers with a seat or registered office in Germany

For customers with a seat or registered office in Germany, the following applies subordinate to the T&C:

- the "General Terms of Payment"<sup>1)</sup> and,
- for software products, the "General License Conditions for Software Products for Automation and Drives for Customers with a Seat or Registered Office in Germany"<sup>1)</sup> and,
- for other supplies and services, the "General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry"<sup>1)</sup>.

##### 1.2 For customers with a seat or registered office outside Germany

For customers with a seat or registered office outside Germany, the following applies subordinate to the T&C:

- the "General Terms of Payment"<sup>1)</sup> and,
- for software products, the "General License Conditions for Software Products for Automation and Drives for Customers with a Seat or Registered Office outside of Germany"<sup>1)</sup> and
- for other supplies and/or services, the "General Conditions for Supplies of Siemens Industry for Customers with a Seat or Registered Office outside of Germany"<sup>1)</sup>.

#### 2. Prices

The prices are in € (Euro) ex point of delivery, exclusive of packaging.

The sales tax (value added tax) is not included in the prices. It shall be charged separately at the respective rate according to the applicable statutory legal regulations.

Prices are subject to change without prior notice. We will charge the prices valid at the time of delivery.

To compensate for variations in the price of raw materials (e.g. silver, copper, aluminum, lead, gold, dysprosium and neodym), surcharges are calculated on a daily basis using the so-called metal factor for products containing these raw materials. A surcharge for the respective raw material is calculated as a supplement to the price of a product if the basic official price of the raw material in question is exceeded.

The metal factor of a product indicates the basic official price (for those raw materials concerned) as of which the surcharges on the price of the product are applied, and with what method of calculation.

An exact explanation of the metal factor can be downloaded at: [www.siemens.com/automation/salesmaterial-as/catalog/en/terms\\_of\\_trade\\_en.pdf](http://www.siemens.com/automation/salesmaterial-as/catalog/en/terms_of_trade_en.pdf)

To calculate the surcharge (except in the cases of dysprosium and neodym), the official price from the day prior to that on which the order was received or the release order was effected is used.

To calculate the surcharge applicable to dysprosium and neodym ("rare earths"), the corresponding three-month basic average price in the quarter prior to that in which the order was received or the release order was effected is used with a one-month buffer (details on the calculation can be found in the explanation of the metal factor).

#### 3. Additional Terms and Conditions

The dimensions are in mm. In Germany, according to the German law on units in measuring technology, data in inches apply only to devices for export.

Illustrations are not binding.

Insofar as there are no remarks on the individual pages of this catalog - especially with regard to data, dimensions and weights given - these are subject to change without prior notice.

#### 4. Export regulations

We shall not be obligated to fulfill any agreement if such fulfillment is prevented by any impediments arising out of national or international foreign trade or customs requirements or any embargoes and/or other sanctions.

Export of goods listed in this catalog may be subject to licensing requirements. We will indicate in the delivery details whether licenses are required under German, European and US export lists. Goods labeled with "AL" not equal to "N" are subject to European or German export authorization when being exported out of the EU. Goods labeled with "ECCN" not equal to "N" are subject to US re-export authorization.

The export indications can be viewed in advance in the description of the respective goods on the Industry Mall, our online catalog system. Only the export labels "AL" and "ECCN" indicated on order confirmations, delivery notes and invoices are authoritative.

Even without a label, or with label "AL:N" or "ECCN:N", authorization may be required i .a. due to the final disposition and intended use of goods.

If you transfer goods (hardware and/or software and/or technology as well as corresponding documentation, regardless of the mode of provision) delivered by us or works and services (including all kinds of technical support) performed by us to a third party worldwide, you must comply with all applicable national and international (re-)export control regulations.

If required for the purpose of conducting export control checks, you (upon request by us) shall promptly provide us with all information pertaining to the particular end customer, final disposition and intended use of goods delivered by us respectively works and services provided by us, as well as to any export control restrictions existing in this relation.

The products listed in this catalog may be subject to European/German and/or US export regulations. Any export requiring approval is therefore subject to authorization by the relevant authorities.

Errors excepted and subject to change without prior notice.

1) The text of the Terms and Conditions of Siemens AG can be downloaded at [www.siemens.com/automation/salesmaterial-as/catalog/en/terms\\_of\\_trade\\_en.pdf](http://www.siemens.com/automation/salesmaterial-as/catalog/en/terms_of_trade_en.pdf)

Further information can be obtained from our branch offices listed at [www.siemens.com/automation/partner](http://www.siemens.com/automation/partner)

<b>System Solutions for Industry</b> <b>Interactive Catalog on DVD</b>	<i>Catalog</i>		
Products for Automation and Drives, Low-Voltage Power Distribution and Electrical Installation Technology	<b>CA 01</b>		
<b>Building Control</b>			
GAMMA Building Control	ET G1		
<b>Drive Systems</b>			
SINAMICS G130 Drive Converter Chassis Units	D 11		
SINAMICS G150 Drive Converter Cabinet Units			
SINAMICS GM150, SINAMICS SM150 Medium-Voltage Converters	D 12		
SINAMICS PERFECT HARMONY GH180 Medium-Voltage Air-Cooled Drives Germany Edition	D 15.1		
SINAMICS G180 Converters – Compact Units, Cabinet Systems, Cabinet Units Air-Cooled and Liquid-Cooled	D 18.1		
SINAMICS S120 Chassis Format Units and Cabinet Modules	D 21.3		
SINAMICS S150 Converter Cabinet Units			
SINAMICS DCM DC Converter, Control Module	D 23.1		
SINAMICS DCM Cabinet	D 23.2		
SINAMICS Inverters for Single-Axis Drives and SIMOTICS Motors	D 31		
SINAMICS G120P and SINAMICS G120P Cabinet pump, fan, compressor converters	D 35		
Three-Phase Induction Motors SIMOTICS HV, SIMOTICS TN	D 84.1		
• Series H-compact			
• Series H-compact PLUS			
Asynchronous Motors Standardline	D 86.1		
Synchronous Motors with Permanent-Magnet Technology, HT-direct	D 86.2		
DC Motors	DA 12		
SIMOREG DC MASTER 6RA70 Digital Chassis Converters	DA 21.1		
SIMOREG K 6RA22 Analog Chassis Converters	DA 21.2		
<i>Digital: SIMOREG DC MASTER 6RM70 Digital Converter Cabinet Units</i>	DA 22		
SIMOVERT PM Modular Converter Systems	DA 45		
SIEMOSYN Motors	DA 48		
MICROMASTER 420/430/440 Inverters	DA 51.2		
MICROMASTER 411/COMBIMASTER 411	DA 51.3		
SIMODRIVE 611 universal and POSMO	DA 65.4		
<i>Note: Additional catalogs on SIMODRIVE or SINAMICS drive systems and SIMOTICS motors with SINUMERIK and SIMOTION can be found under Motion Control</i>			
<u>Low-Voltage Three-Phase-Motors</u>			
SIMOTICS Low-Voltage Motors	D 81.1		
SIMOTICS FD Flexible Duty Motors	D 81.8		
LOHER Low-Voltage Motors	D 83.1		
MOTOX Geared Motors	D 87.1		
SIMOGEAR Geared Motors	MD 50.1		
SIMOGEAR Gearboxes with adapter	MD 50.11		
<u>Mechanical Driving Machines</u>			
FLENDER Standard Couplings	MD 10.1		
FLENDER High Performance Couplings	MD 10.2		
FLENDER SIG Standard industrial gear units	MD 30.1		
FLENDER SIP Standard industrial planetary gear units	MD 31.1		
<b>Process Instrumentation and Analytics</b>			
Field Instruments for Process Automation	FI 01		
<i>Digital: SIPART Controllers and Software</i>	MP 31		
Products for Weighing Technology	WT 10		
<i>Digital: Process Analytical Instruments</i>	PA 01		
<i>Digital: Process Analytics, Components for the System Integration</i>	PA 11		
<i>Digital: These catalogs are only available as a PDF.</i>			
<b>Low-Voltage Power Distribution and Electrical Installation Technology</b>	<i>Catalog</i>		
SENTRON · SIVACON · ALPHA Protection, Switching, Measuring and Monitoring Devices, Switchboards and Distribution Systems	LV 10		
Standards-Compliant Components for Photovoltaic Plants	LV 11		
Electrical Components for the Railway Industry	LV 12		
TÜV-certified Power Monitoring System	LV 14		
3WT Air Circuit Breakers up to 4000 A	LV 35		
3VT Molded Case Circuit Breakers up to 1600 A	LV 36		
<i>Digital: SIVACON System Cubicles, System Lighting and System Air-Conditioning</i>	LV 50		
<i>Digital: ALPHA Distribution Systems</i>	LV 51		
ALPHA FIX Terminal Blocks	LV 52		
SIVACON S4 Power Distribution Boards	LV 56		
<i>Digital: SIVACON 8PS Busbar Trunking Systems</i>	LV 70		
<i>Digital: DELTA Switches and Socket Outlets</i>	ET D1		
<b>Motion Control</b>			
SINUMERIK & SIMODRIVE Automation Systems for Machine Tools	NC 60		
SINUMERIK & SINAMICS Equipment for Machine Tools	NC 61		
SINUMERIK 840D sl Type 1B Equipment for Machine Tools	NC 62		
SINUMERIK 808 Equipment for Machine Tools	NC 81.1		
SINUMERIK 828 Equipment for Machine Tools	NC 82		
SIMOTION, SINAMICS S120 & SIMOTICS Equipment for Production Machines	PM 21		
Drive and Control Components for Cranes	CR 1		
<b>Power Supply</b>			
Power supply SITOP	KT 10.1		
<b>Safety Integrated</b>			
Safety Technology for Factory Automation	SI 10		
<b>SIMATIC HMI/PC-based Automation</b>			
Human Machine Interface Systems/ PC-based Automation	ST 80/ ST PC		
<b>SIMATIC Ident</b>			
Industrial Identification Systems	ID 10		
<b>SIMATIC Industrial Automation Systems</b>			
Products for Totally Integrated Automation	ST 70		
SIMATIC PCS 7 Process Control System System components	ST PCS 7		
SIMATIC PCS 7 Process Control System Technology components	ST PCS 7 T		
Add-ons for the SIMATIC PCS 7 Process Control System	ST PCS 7 AO		
<b>SIMATIC NET</b>			
Industrial Communication	IK PI		
<b>SIRIUS Industrial Controls</b>			
SIRIUS Industrial Controls	IC 10		
<b>Information and Download Center</b>			
Digital versions of the catalogs are available on the Internet at: <a href="http://www.siemens.com/industry/infocenter">www.siemens.com/industry/infocenter</a>			
There you'll find additional catalogs in other languages. Please note the section "Downloading catalogs" on page "Online services" in the appendix of this catalog.			

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