

## LOGO! Logic Modules



<b>2/2</b>	<b>Introduction</b>
2/2	LOGO! logic module
<b>2/3</b>	<b>LOGO! basic and expansion modules</b>
2/3	LOGO! basic modules with display
2/6	LOGO! basic modules without display
2/9	LOGO! expansion modules
2/15	SIPLUS LOGO! basic modules with display
2/18	SIPLUS LOGO! basic modules without display
2/21	SIPLUS LOGO! expansion modules
<b>2/26</b>	<b>LOGO! communication modules</b>
2/26	Introduction
2/27	LOGO! CMK2000 communication module
2/28	LOGO! CSM unmanaged
2/30	LOGO! CMR (wireless communication)
<b>2/36</b>	<b>LOGO!Power</b>
2/36	Introduction
2/37	1-phase, 5 V DC
2/40	1-phase, 12 V DC
2/44	1-phase, 15 V DC
2/47	1-phase, 24 V DC
<b>2/51</b>	<b>SIPLUS LOGO!Power</b>
<b>2/52</b>	<b>LOGO! accessories</b>
2/52	LOGO!Contact switching module
2/53	LOGO! mounting kits
<b>2/54</b>	<b>LOGO! software</b>

# LOGO! Logic Modules

## Introduction

### LOGO! logic module

#### Overview



#### LOGO! logic module

- 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 press 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 easy to change at the press of a button. 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 exposure to environmental substances (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 more information, please go to:

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

#### Technical specifications 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

##### Extended range of environmental conditions

<ul style="list-style-type: none"> <li>• with reference to ambient temperature, air pressure and altitude</li> </ul>	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)
<ul style="list-style-type: none"> <li>• At cold restart, min.</li> </ul>	0° C
Relative humidity <ul style="list-style-type: none"> <li>• with condensation, max.</li> </ul>	100 %; RH incl. bedewing/frost (no commissioning in bedewed state)
Resistance <ul style="list-style-type: none"> <li>• to biologically active substances/ compliance with EN 60721-3-3</li> <li>• to chemically active substances/ compliance with EN 60721-3-3</li> <li>• to mechanically active substances, compliance with EN 60721-3-3</li> </ul>	Yes; Class 3B2 mold and fungal spores (except fauna); the supplied plug covers must remain in place on the unused interfaces during operation.  Yes; Class 3C4 (RH < 75%) incl. salt spray in accordance with EN 60068-2-52 (severity 3); the supplied plug covers must remain in place on the unused interfaces during operation.  Yes; Class 3S4 incl. sand, dust; the supplied plug covers must remain in place on unused interfaces during operation.

### Overview



- The space-saving basic variants
- Interface for the connection of expansion modules, up to 24 digital inputs, 20 digital outputs, 8 analog inputs and 8 analog outputs can be addressed
- All basic units with integrated web server
- Enclosure width 72 mm (4 U)
- All basic units with Ethernet interface for communication with LOGO! 8, LOGO! TDE, SIMATIC Controllers, SIMATIC Panels and PCs
- Use of standard micro CF cards

2

### Technical specifications

Article number	6ED1052-1CC08-0BA0	6ED1052-1MD08-0BA0	6ED1052-1HB08-0BA0	6ED1052-1FB08-0BA0
	LOGO! 24CE, 8DI(4AI)/4DQ, 400 Blocks	LOGO!12/24RCE, 8DI(4AI)/4DQ, 400 Blocks	LOGO! 24RCE, 8DI/4DQ, 400 Blocks	LOGO!230RCE, 8DI/4DQ, 400 Blocks
<b>Display</b>				
with display	Yes	Yes	Yes	Yes
<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>				
Rated value (DC)				
• 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
Rated value (AC)				
• 24 V AC			Yes	
• 115 V AC				Yes
• 230 V AC				Yes
<b>Time of day</b>				
<b>Time switching clocks</b>				
• Number	400; Max. 400, function-specific	400; Max. 400, function-specific	400; Max. 400, function-specific	400; Max. 400, function-specific
• 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
<b>Output current</b>				
• for signal "I" permissible range for 0 to 55 °C, max.	0.3 A	10 A		
<b>Relay outputs</b>				
<b>Switching capacity of contacts</b>				
- with inductive load, max.		3 A	3 A	3 A
- with resistive load, max.		10 A	10 A	10 A

## LOGO! Logic Modules

### LOGO! basic and expansion modules

#### LOGO! basic modules with display

#### Technical specifications (continued)

Article number	6ED1052-1CC08-0BA0	6ED1052-1MD08-0BA0	6ED1052-1HB08-0BA0	6ED1052-1FB08-0BA0
	LOGO! 24CE, 8DI(4AI)/4DQ, 400 Blocks	LOGO!12/24RCE, 8DI(4AI)/4DQ, 400 Blocks	LOGO! 24RCE, 8DI/4DQ, 400 Blocks	LOGO!230RCE, 8DI/4DQ, 400 Blocks
<b>EMC</b>				
<b>Emission of radio interference acc. to EN 55 011</b>				
<ul style="list-style-type: none"> <li>Limit class B, for use in residential areas</li> </ul>	Yes; Radio interference suppression according to EN55011, Limit Value Class B	Yes	Yes	Yes
<b>Degree and class of protection</b>				
Degree of protection acc. to EN 60529				
<ul style="list-style-type: none"> <li>IP20</li> </ul>	Yes	Yes	Yes	Yes
<b>Standards, approvals, certificates</b>				
CE mark	Yes	Yes	Yes	Yes
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	Yes	Yes	Yes	Yes
<b>Ambient conditions</b>				
<b>Ambient temperature during operation</b>				
<ul style="list-style-type: none"> <li>min.</li> <li>max.</li> </ul>	-20 °C; No condensation 55 °C	-20 °C; No condensation 55 °C	-20 °C; No condensation 55 °C	-20 °C; No condensation 55 °C
<b>Ambient temperature during storage/transportation</b>				
<ul style="list-style-type: none"> <li>min.</li> <li>max.</li> </ul>	-40 °C 70 °C	-40 °C 70 °C	-40 °C 70 °C	-40 °C 70 °C
<b>Altitude during operation relating to sea level</b>				
<ul style="list-style-type: none"> <li>Ambient air temperature-barometric pressure-altitude</li> </ul>	Tmin ... Tmax at 1 080 hPa ... 795 hPa (-1 000 m ... +2 000 m)		Tmin ... Tmax at 1 080 hPa ... 795 hPa (-1 000 m ... +2 000 m)	Tmin ... Tmax at 1 080 hPa ... 795 hPa (-1 000 m ... +2 000 m)
<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

#### Ordering data

Article No.	Article No.
<b>LOGO! 8 logic module</b>	<b>LOGO! 24RCE</b>
<b>LOGO! 24CE</b>	<b>6ED1052-1HB08-0BA0</b>
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 interlinked, modular expansion capability	Supply voltage 24 V AC/DC, 8 digital inputs 24 V AC/DC, 4 relay outputs 10 A, integrated time switch, Ethernet interface; 400 function blocks can be interlinked, modular expansion capability
<b>LOGO! 12/24RCE</b>	<b>LOGO! 230RCE</b>
<b>6ED1052-1MD08-0BA0</b>	<b>6ED1052-1FB08-0BA0</b>
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, integrated time switch, Ethernet interface; 400 function blocks can be interlinked, modular expansion capability	Supply voltage 115...230 V AC/DC, 8 digital inputs 115...230 V AC/DC, 4 relay outputs 10 A, integrated time switch, Ethernet interface; 400 function blocks can be interlinked, modular expansion capability

## LOGO! Logic Modules

### LOGO! basic and expansion modules

#### LOGO! basic modules with display

Ordering data	Article No.	Ordering data	Article No.
<b>Accessories</b>		<b>LOGO! Starter Kit 12/24 V</b>	<b>6ED1057-3BA11-0AA8</b>
<b>LOGO! 8 text display HMI</b> 6-line text display, can be connected to all LOGO! 8 variants with and without display, with 2 Ethernet interfaces; incl. installation accessories. Requires additional 12 V DC or 24 V AC/DC power supply	<b>6ED1055-4MH08-0BA0</b>	With LOGO! 12/24 RCEO, LOGO! TD, power supply, screwdriver, in Systainer	
<b>LOGO!Soft Comfort V8</b>	<b>6ED1058-0BA08-0YA1</b>	<b>LOGO! 8 KP300 Basic Starter Kit</b>	<b>6AV2132-0HA00-0AA1</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, KP300 Basic mono PN	
<b>LOGO! Starter Kits</b>		<b>LOGO! 8 KTP400 Basic Starter Kit</b>	<b>6AV2132-0KA00-0AA1</b>
In TANOS Box, with LOGO! Soft Comfort V8, WinCC Basic, Ethernet cable		With LOGO! 12/24RCE, LOGO! Power 24 V 1.3 A, KTP400 Basic	
<b>LOGO! Starter Kit 12/24 RCE</b>	<b>6ED1057-3BA01-0AA8</b>	<b>LOGO! 8 KTP700 Basic Starter Kit</b>	<b>6AV2132-3GB00-0AA1</b>
With LOGO! 12/24 RCE, power supply, screwdriver, in Systainer		With LOGO! 12/24RCE, LOGO! Power 24 V 1.3 A, KTP700 Basic	
<b>LOGO! Starter Kit 130 RCE</b>	<b>6ED1057-3BA03-0AA8</b>	<b>Front panel mounting set</b>	
With LOGO! 230 RCE, power supply, screwdriver, in Systainer		Width 4 U, with keys	<b>6AG1057-1AA00-0AA3</b>
		Width 8 U, with keys	<b>6AG1057-1AA00-0AA2</b>

## LOGO! Logic Modules

### LOGO! basic and expansion modules

#### LOGO! basic modules without display

#### Overview



- Basic variants optimized for costs
- Interface for the connection of expansion modules, up to 24 digital inputs, 20 digital outputs, 8 analog inputs and 8 analog outputs can be addressed
- With connection option for LOGO! TDE text display
- All basic units with integrated web server
- Enclosure width 72 mm (4 U)
- All basic units with Ethernet interface for communication with LOGO! 8, LOGO! TDE, SIMATIC Controllers, SIMATIC Panels and PCs
- Use of standard micro CF cards

#### Technical specifications

Article number	6ED1052-2CC08-0BA0 LOGO! 24CEO, 8DI(4AI)/4DQ, 400 Blocks	6ED1052-2MD08-0BA0 LOGO! 12/24RCEO, 8DI(4AI)/4DQ, 400 Blocks	6ED1052-2HB08-0BA0 LOGO! 24RCEO, 8DI/4DQ, 400 Blocks
<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>			
Rated value (DC)			
• 12 V DC		Yes	
• 24 V DC	Yes	Yes	Yes
permissible range, lower limit (DC)	20.4 V	10.8 V	20.4 V
permissible range, upper limit (DC)	28.8 V	28.8 V	28.8 V
Rated value (AC)			
• 24 V AC			Yes
<b>Time of day</b>			
<b>Time switching clocks</b>			
• Number	400; Max. 400, function-specific	400; Max. 400, function-specific	400; Max. 400, function-specific
• Power reserve	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
<b>Digital outputs</b>			
Number of digital outputs	4; Transistor	4; Relays	4; Relays
Short-circuit protection	Yes; electrical (1 A)	No; external fusing necessary	No; external fusing necessary
<b>Output current</b>			
• for signal "I" permissible range for 0 to 55 °C, max.	0.3 A	10 A	
<b>Relay outputs</b>			
<b>Switching capacity of contacts</b>			
- with inductive load, max.		3 A	3 A
- with resistive load, max.		10 A	10 A
<b>EMC</b>			
<b>Emission of radio interference acc. to EN 55 011</b>			
• Limit class B, for use in residential areas	Yes; Radio interference suppression according to EN55011, Limit Value Class B	Yes	Yes
<b>Degree and class of protection</b>			
Degree of protection acc. to EN 60529			
• IP20	Yes	Yes	Yes

**Technical specifications (continued)**

Article number	<b>6ED1052-2CC08-0BA0</b> LOGO! 24CEO, 8DI(4AI)/4DQ, 400 Blocks	<b>6ED1052-2MD08-0BA0</b> LOGO!12/24RCEO, 8DI(4AI)/4DQ,400 Blocks	<b>6ED1052-2HB08-0BA0</b> LOGO! 24RCEO, 8DI/4DQ, 400 Blocks
<b>Standards, approvals, certificates</b>			
CE mark	Yes	Yes	Yes
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	Yes	Yes	Yes
<b>Ambient conditions</b>			
<b>Ambient temperature during operation</b>			
• min.	-20 °C; No condensation	-20 °C; No condensation	-20 °C; No condensation
• max.	55 °C	55 °C	55 °C
<b>Ambient temperature during storage/transportation</b>			
• min.	-40 °C	-40 °C	-40 °C
• max.	70 °C	70 °C	70 °C
<b>Altitude during operation relating to sea level</b>			
• Ambient air temperature-barometric pressure-altitude	Tmin ... Tmax at 1 080 hPa ... 795 hPa (-1 000 m ... +2 000 m)		Tmin ... Tmax at 1 080 hPa ... 795 hPa (-1 000 m ... +2 000 m)
<b>Dimensions</b>			
Width	71.5 mm	71.5 mm	71.5 mm
Height	90 mm	90 mm	90 mm
Depth	58 mm	60 mm	58 mm
<hr/>			
Article number	<b>6ED1052-2FB08-0BA0</b> LOGO!230RCEO, 8DI/4DQ,400 Blocks	Article number	<b>6ED1052-2FB08-0BA0</b> LOGO!230RCEO, 8DI/4DQ,400 Blocks
<b>Display</b>		<b>Degree and class of protection</b>	
with display	No	Degree of protection acc. to EN 60529	
<b>Installation type/mounting</b>		• IP20	Yes
Mounting	on 35 mm DIN rail, 4 spacing units wide	<b>Standards, approvals, certificates</b>	
<b>Supply voltage</b>		CE mark	Yes
Rated value (DC)		CSA approval	Yes
• 115 V DC	Yes	UL approval	Yes
• 230 V DC	Yes	FM approval	Yes
permissible range, lower limit (DC)	100 V	developed in accordance with IEC 61131	Yes
permissible range, upper limit (DC)	253 V	according to VDE 0631	Yes
Rated value (AC)		Marine approval	Yes
• 115 V AC	Yes	<b>Ambient conditions</b>	
• 230 V AC	Yes	<b>Ambient temperature during operation</b>	
<b>Time of day</b>		• min.	-20 °C; No condensation
<b>Time switching clocks</b>		• max.	55 °C
• Number	400; Max. 400, function-specific	<b>Ambient temperature during storage/transportation</b>	
• Power reserve	480 h	• min.	-40 °C
<b>Digital inputs</b>		• max.	70 °C
Number of digital inputs	8	<b>Altitude during operation relating to sea level</b>	
<b>Digital outputs</b>		• Ambient air temperature-barometric pressure-altitude	Tmin ... Tmax at 1 080 hPa ... 795 hPa (-1 000 m ... +2 000 m)
Number of digital outputs	4; Relays	<b>Dimensions</b>	
Short-circuit protection	No; external fusing necessary	Width	71.5 mm
<b>Relay outputs</b>		Height	90 mm
<b>Switching capacity of contacts</b>		Depth	60 mm
- with inductive load, max.	3 A	<hr/>	
- with resistive load, max.	10 A	<b>EMC</b>	
<b>Emission of radio interference acc. to EN 55 011</b>		• Limit class B, for use in residential areas	
• Limit class B, for use in residential areas		Yes	

**LOGO! Logic Modules**

## LOGO! basic and expansion modules

## LOGO! basic modules without display

2

**Ordering data****Article No.****LOGO! 8 logic module****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,  
integrated time switch,  
Ethernet interface;  
without display and keyboard;  
400 function blocks  
can be interlinked,  
modular expansion capability

**6ED1052-2CC08-0BA0****LOGO! 12/24RCEo logic module**

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,  
integrated time switch,  
Ethernet interface;  
without display or keyboard;  
400 function blocks  
can be interlinked,  
modular expansion capability

**6ED1052-2MD08-0BA0****LOGO! 24RCEo logic module**

24 V AC/DC supply voltage,  
8 digital inputs 24 V AC/DC,  
4 relay outputs 10 A,  
integrated time switch,  
Ethernet interface;  
without display or keyboard;  
400 function blocks  
can be interlinked,  
modular expansion capability

**6ED1052-2HB08-0BA0****LOGO! 230RCEo logic module**

115...230 V AC/DC supply voltage,  
8 digital inputs 115...230 V AC/DC,  
4 relay outputs 10 A,  
integrated time switch,  
Ethernet interface;  
without display or keyboard;  
400 function blocks  
can be interlinked,  
modular expansion capability

**6ED1052-2FB08-0BA0****Accessories****LOGO! TDE text display**

6-line text display,  
can be connected to all  
LOGO! 8 variants with and without  
display, with 2 Ethernet interfaces;  
incl. installation accessories.

Requires additional 12 V DC or  
24 V AC/DC power supply

**Article No.****6ED1055-4MH08-0BA0****LOGO!Soft Comfort V8**

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

**6ED1058-0BA08-0YA1****LOGO! Starter Kits**

In TANOS Box,  
with LOGO! Soft Comfort V8,  
WinCC Basic, Ethernet cable

**LOGO! Starter Kit 12/24 RCE**

With LOGO! 12/24 RCE,  
power supply, screwdriver,  
in Systainer

**6ED1057-3BA01-0AA8****LOGO! Starter Kit 130 RCE**

With LOGO! 230 RCE,  
power supply, screwdriver,  
in Systainer

**6ED1057-3BA03-0AA8****LOGO! Starter Kit 12/24 V**

With LOGO! 12/24 RCEO,  
LOGO! TD, power supply,  
screwdriver, in Systainer

**6ED1057-3BA11-0AA8****LOGO! 8 KP300 Basic Starter Kit**

With LOGO! 12/24RCE,  
LOGO! Power 24 V 1.3 A,  
KP300 Basic mono PN

**6AV2132-0HA00-0AA1****LOGO! 8 KTP400 Basic Starter Kit**

With LOGO! 12/24RCE,  
LOGO! Power 24 V 1.3 A,  
KTP400 Basic

**6AV2132-0KA00-0AA1****LOGO! 8 KTP700 Basic Starter Kit**

With LOGO! 12/24RCE,  
LOGO! Power 24 V 1.3 A,  
KTP700 Basic

**6AV2132-3GB00-0AA1**



## Overview



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

2

## Technical specifications

Article number	6ED1055-1CB00-0BA2	6ED1055-1HB00-0BA2	6ED1055-1MB00-0BA2	6ED1055-1FB00-0BA2
	LOGO! DM8 24 Exp. mod., 4DI/4DQ	LOGO! DM8 24R Exp. mod. 2 MW, 4DI/4DQ	LOGO! DM8 12/24R Exp. mod. 2 MW, 4DI/DQ	LOGO! DM8 230R Exp. mod. 2 MW, 4DI/4DQ
<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>				
Rated value (DC)				
• 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
Rated value (AC)				
• 24 V AC		Yes		
• 115 V AC				Yes
• 230 V AC				Yes
<b>Line frequency</b>				
• permissible range, lower limit		47 Hz		47 Hz
• permissible range, upper limit		63 Hz		63 Hz
<b>Digital inputs</b>				
Number of digital inputs	4	4	4	4
<b>Input voltage</b>				
• Type of input voltage	DC	AC/DC	DC	AC/DC
• for signal "0"	< 5 V DC	< 5 V AC/DC	< 5 V DC	< 40 V AC, < 30 V DC
• for signal "1"	> 12 V DC	> 12 V AC/DC	> 8.5 V	> 79 V AC, > 79 V DC
<b>Input current</b>				
• for signal "0", max. (permissible quiescent current)	0.88 mA	1.1 mA	0.88 mA	0.06 mA; 0.05 mA with AC, 0.06 mA with DC
• for signal "1", typ.	2.1 mA	2.63 mA	1.5 mA	0.13 mA
<b>Input delay (for rated value of input voltage)</b>				
<b>for standard inputs</b>				
- 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

**LOGO! Logic Modules**

## LOGO! basic and expansion modules

## LOGO! expansion modules

**Technical specifications** (continued)

Article number	<b>6ED1055-1CB00-0BA2</b> LOGO! DM8 24 Exp. mod., 4DI/4DQ	<b>6ED1055-1HB00-0BA2</b> LOGO! DM8 24R Exp. mod. 2 MW, 4DI/4DQ	<b>6ED1055-1MB00-0BA2</b> LOGO! DM8 12/24R Exp. mod. 2 MW, 4DI/DQ	<b>6ED1055-1FB00-0BA2</b> LOGO! DM8 230R Exp. mod. 2 MW, 4DI/4DQ
<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
<b>Switching capacity of the outputs</b>				
• on lamp load, max.		1 000 W	1 000 W	1 000 W; 500 W at 115V AC
<b>Parallel switching of two outputs</b>				
• for uprating	No	No	No	No
<b>Switching frequency</b>				
• 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
<b>Relay outputs</b>				
<b>Switching capacity of contacts</b>				
- with inductive load, max.		3 A	3 A	3 A
- with resistive load, max.		5 A	5 A	5 A
<b>EMC</b>				
<b>Emission of radio interference acc. to EN 55 011</b>				
• Limit class B, for use in residential areas	Yes	Yes	Yes	Yes
<b>Degree and class of protection</b>				
Degree of protection acc. to EN 60529				
• IP20	Yes	Yes	Yes	Yes
<b>Standards, approvals, certificates</b>				
CE mark	Yes	Yes	Yes	Yes
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	Yes	Yes	Yes	Yes
<b>Ambient conditions</b>				
<b>Ambient temperature during operation</b>				
• min.	0 °C; ES03 and higher: -20 °C	0 °C; ES03 and higher: -20 °C	0 °C; ES03 and higher: -20 °C	0 °C; ES03 and higher: -20 °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

**Technical specifications** (continued)

Article number	<b>6ED1055-1CB10-0BA2</b> LOGO! DM16 24 Exp. mod., 4 MW, 8DI/8DQ	<b>6ED1055-1NB10-0BA2</b> LOGO! DM16 24R Exp. mod. 4 MW, 8DI/8DQ	<b>6ED1055-1FB10-0BA2</b> LOGO! DM16 230R Exp. mod. 4 MW, 8DI/8DQ
<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>			
Rated value (DC)			
• 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
Rated value (AC)			
• 24 V AC		No	
• 115 V AC			Yes
• 230 V AC			Yes
<b>Line frequency</b>			
• permissible range, lower limit			47 Hz
• permissible range, upper limit			63 Hz
<b>Digital inputs</b>			
Number of digital inputs	8	8	8
<b>Input voltage</b>			
• 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
<b>Input current</b>			
• for signal *0*, max. (permissible quiescent current)	0.85 mA	0.85 mA	0.06 mA; 0.05 mA with AC, 0.06 mA with DC
• for signal *1*, typ.	2 mA	2 mA	0.13 mA
<b>Input delay (for rated value of input voltage)</b>			
<b>for standard inputs</b>			
- 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; Relays
Short-circuit protection	Yes	No	No
Controlling a digital input		Yes	Yes
<b>Switching capacity of the outputs</b>			
• on lamp load, max.		1 000 W	1 000 W; 500 W at 115V AC
<b>Parallel switching of two outputs</b>			
• for uprating	No	No	No
<b>Switching frequency</b>			
• 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
<b>Relay outputs</b>			
<b>Switching capacity of contacts</b>			
- with inductive load, max.		3 A	3 A
- with resistive load, max.		5 A	5 A

## LOGO! Logic Modules

### LOGO! basic and expansion modules

#### LOGO! expansion modules

##### Technical specifications (continued)

Article number	<b>6ED1055-1CB10-0BA2</b> LOGO! DM16 24 Exp. mod., 4 MW, 8DI/8DQ	<b>6ED1055-1NB10-0BA2</b> LOGO! DM16 24R Exp. mod. 4 MW, 8DI/8DQ	<b>6ED1055-1FB10-0BA2</b> LOGO! DM16 230R Exp. mod. 4 MW, 8DI/8DQ
<b>EMC</b>			
<b>Emission of radio interference acc. to EN 55 011</b>			
• Limit class B, for use in residential areas	Yes	Yes	Yes
<b>Degree and class of protection</b>			
Degree of protection acc. to EN 60529			
• IP20	Yes	Yes	Yes
<b>Standards, approvals, certificates</b>			
CE mark	Yes	Yes	Yes
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	Yes	Yes	Yes
<b>Ambient conditions</b>			
<b>Ambient temperature during operation</b>			
• min.	0 °C; ES03 and higher: -20 °C	0 °C; ES03 and higher: -20 °C	0 °C; ES03 and higher: -20 °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
<hr/>			
Article number	<b>6ED1055-1MA00-0BA2</b> LOGO! AM2 Exp. mod., 12/24V, 2AI,	<b>6ED1055-1MD00-0BA2</b> LOGO! AM2 RDT, 2AI, -50..+200°C	
<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>			
Rated value (DC)			
• 12 V DC	Yes; 10.8 V DC to 28.8 V DC		Yes; 10.8 V DC to 28.8 V DC
• 24 V DC	Yes; 10.8 V DC to 28.8 V DC		Yes; 10.8 V DC to 28.8 V DC
<b>Analog inputs</b>			
Number of analog inputs	2		2; 2 or 3 wire connection
<b>Input ranges</b>			
• Voltage	Yes		No
• Current	Yes		No
• Resistance thermometer	No		Yes; For PT100/PT1000 sensors
<b>Input ranges (rated values), voltages</b>			
• 0 to +10 V	Yes		No
<b>Input ranges (rated values), currents</b>			
• 0 to 20 mA	Yes; 0 mA or 4 mA to 20 mA		No
<b>Input ranges (rated values), resistance thermometer</b>			
• Pt 100	No		Yes
<b>EMC</b>			
<b>Emission of radio interference acc. to EN 55 011</b>			
• Limit class B, for use in residential areas	Yes		Yes
<b>Degree and class of protection</b>			
Degree of protection acc. to EN 60529			
• IP20	Yes		Yes

### Technical specifications (continued)

Article number	<b>6ED1055-1MA00-0BA2</b> LOGO! AM2 Exp. mod., 12/24V, 2AI,	<b>6ED1055-1MD00-0BA2</b> LOGO! AM2 RDT, 2AI, -50..+200°C
<b>Standards, approvals, certificates</b>		
CE mark	Yes	Yes
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	Yes	Yes
<b>Ambient conditions</b>		
<b>Ambient temperature during operation</b>		
• min.	0 °C; ES03 and higher: -20 °C	0 °C; ES03 and higher: -20 °C
• max.	55 °C	55 °C
<b>Dimensions</b>		
Width	35.5 mm	35.5 mm
Height	90 mm	90 mm
Depth	58 mm	58 mm

Article number	<b>6ED1055-1MM00-0BA2</b> LOGO! AM2 AQ, 2AQ, 0-10V, 0/4-20mA
<b>Installation type/mounting</b>	
Mounting	on 35 mm DIN rail, 2 spacing units wide
<b>Supply voltage</b>	
Rated value (DC)	
• 12 V DC	No
• 24 V DC	Yes
<b>Analog outputs</b>	
Number of analog outputs	2
<b>Output ranges, voltage</b>	
• 0 to 10 V	Yes
<b>Output ranges, current</b>	
• 0 to 20 mA	Yes
• 4 mA to 20 mA	Yes
<b>EMC</b>	
<b>Emission of radio interference acc. to EN 55 011</b>	
• Limit class B, for use in residential areas	Yes
<b>Degree and class of protection</b>	
Degree of protection acc. to EN 60529	
• IP20	Yes

Article number	<b>6ED1055-1MM00-0BA2</b> LOGO! AM2 AQ, 2AQ, 0-10V, 0/4-20mA
<b>Standards, approvals, certificates</b>	
CE mark	Yes
CSA approval	Yes
UL approval	Yes
FM approval	Yes
developed in accordance with IEC 61131	Yes
according to VDE 0631	Yes
Marine approval	Yes
<b>Ambient conditions</b>	
<b>Ambient temperature during operation</b>	
• min.	0 °C; ES03 and higher: -20 °C
• max.	55 °C
<b>Dimensions</b>	
Width	35.5 mm
Height	90 mm
Depth	58 mm

**LOGO! Logic Modules**

LOGO! basic and expansion modules

**LOGO! expansion modules**

2

Ordering data	Article No.	Ordering data	Article No.
<b>LOGO! 8 expansion modules</b>		<b>Accessories for LOGO! 8</b>	
<b>LOGO! DM8 24</b> 24 V DC supply voltage, 4 digital inputs 24 V DC, 4 digital outputs 24 V DC, 0.3 A	6ED1055-1CB00-0BA2	<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	6ED1058-0BA08-0YA1
<b>LOGO! DM16 24</b> 24 V DC supply voltage, 8 digital inputs 24 V DC, 8 digital outputs 24 V DC, 0.3 A	6ED1055-1CB10-0BA2		
<b>LOGO! DM8 12/24R</b> 12...24 V DC supply voltage, 4 digital inputs 12...24 V DC, 4 relay outputs 5 A	6ED1055-1MB00-0BA2		
<b>LOGO! DM8 24R</b> 24 V AC/DC supply voltage, 4 digital inputs 24 V AC/DC, 4 relay outputs 5 A	6ED1055-1HB00-0BA2		
<b>LOGO! DM16 24R</b> 24 V DC supply voltage, 8 digital inputs 24 V DC, 8 relay outputs 5 A	6ED1055-1NB10-0BA2		
<b>LOGO! DM8 230R</b> 115...230 V AC/DC supply voltage, 4 digital inputs 115...230 V AC/DC, 4 relay outputs 5 A	6ED1055-1FB00-0BA2		
<b>LOGO! DM16 230R</b> 115...230 V AC/DC supply voltage, 8 digital inputs 115...230 V AC/DC, 8 relay outputs 5 A	6ED1055-1FB10-0BA2		
<b>LOGO! AM2</b> 12...24 V DC supply voltage, 2 analog inputs 0 to 10 V or 0 to 20 mA, resolution 10 bits	6ED1055-1MA00-0BA2		
<b>LOGO! AM2 PT 100</b> 12...24 V DC supply voltage, 2 analog inputs Pt100, temperature range -50 °C to 200 °C	6ED1055-1MD00-0BA2		
<b>LOGO! AM2 AQ</b> 24 V DC supply voltage, 2 analog outputs 0 to 10 V, 0/4 to 20 mA	6ED1055-1MM00-0BA2		

#### Overview



- The space-saving basic variants
- Interface for connecting 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! TDE text display
- All basic units with integrated web server
- Same enclosure width as LOGO! 0BA6 (4 U)
- All basic units with Ethernet interface for communication with LOGO!, SIMATIC Controllers, SIMATIC Panel and PC
- Use of standard micro CF cards

#### Note:

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

#### Technical specifications

Article number	6AG1052-1CC08-7BA0	6AG1052-1MD08-7BA0	6AG1052-1HB08-7BA0	6AG1052-1FB08-7BA0
Based on	6ED1052-1CC08-0BA0 SIPLUS LOGO! 24CE	6ED1052-1MD08-0BA0 SIPLUS LOGO! 12/24RCE	6ED1052-1HB08-0BA0 SIPLUS LOGO! 24RCE	6ED1052-1FB08-0BA0 SIPLUS LOGO! 230RCE
<b>Ambient conditions</b>				
<b>Ambient temperature during operation</b>				
• min.	-25 °C; = Tmin; Startup @ -20 °C	-25 °C; = Tmin; Startup @ -20 °C	-25 °C; = Tmin; Startup @ -20 °C	-25 °C; = Tmin; Startup @ -20 °C
• max.	70 °C; Tmax; Tmax > +55 °C max. load 0.2 A per output	70 °C; Tmax; Tmax > +55 °C max. load 1 A per relay or max. load 3 A per relay and half the number of DIs (no adjacent points)	70 °C; Tmax; Tmax > +55 °C max. load 1 A per relay or max. load 3 A per relay and half the number of DIs (no adjacent points)	70 °C; Tmax; Tmax > +55 °C max. load 1 A per relay
• At cold restart, min.	-20 °C; incl. condensation / frost permitted (no commissioning under condensation conditions)	-20 °C; incl. condensation / frost permitted (no commissioning under condensation conditions)	-20 °C; incl. condensation / frost permitted (no commissioning under condensation conditions)	-20 °C; incl. condensation / frost permitted (no commissioning under condensation conditions)
<b>Ambient temperature during storage/transportation</b>				
• min.	-40 °C	-40 °C	-40 °C	-40 °C
• max.	70 °C	70 °C	70 °C	70 °C
<b>Altitude during operation relating to sea level</b>				
• Installation altitude above sea level, max.	5 000 m	5 000 m	5 000 m	2 000 m
• Ambient air temperature-barometric pressure-altitude	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)	Tmin ... Tmax at 1 140 hPa ... 795 hPa ( - 1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m)
<b>Relative humidity</b>				
• With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation

**LOGO! Logic Modules**

## LOGO! basic and expansion modules

**SIPLUS LOGO! basic modules with display****Technical specifications** (continued)

Article number	<b>6AG1052-1CC08-7BA0</b>	<b>6AG1052-1MD08-7BA0</b>	<b>6AG1052-1HB08-7BA0</b>	<b>6AG1052-1FB08-7BA0</b>
Based on	<b>6ED1052-1CC08-0BA0</b>	<b>6ED1052-1MD08-0BA0</b>	<b>6ED1052-1HB08-0BA0</b>	<b>6ED1052-1FB08-0BA0</b>
	SIPLUS LOGO! 24CE	SIPLUS LOGO! 12/24RCE	SIPLUS LOGO! 24RCE	SIPLUS LOGO! 230RCE
<b>Resistance</b>				
<b>Coolants and lubricants</b>				
- Resistant to commercially available coolants and lubricants	Yes; Incl. diesel and oil droplets in the air	Yes; Incl. diesel and oil droplets in the air	Yes; Incl. diesel and oil droplets in the air	Yes; Incl. diesel and oil droplets in the air
<b>Use in stationary industrial systems</b>				
- to biologically active substances according to EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
- to chemically active substances according to EN 60721-3-3	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
- to mechanically active substances according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust; *	Yes; Class 3S4 incl. sand, dust; *	Yes; Class 3S4 incl. sand, dust; *	Yes; Class 3S4 incl. sand, dust; *
<b>Use on ships/at sea</b>				
- to biologically active substances according to EN 60721-3-6	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
- to chemically active substances according to EN 60721-3-6	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
- to mechanically active substances according to EN 60721-3-6	Yes; Class 6S3 incl. sand, dust; *	Yes; Class 6S3 incl. sand, dust; *	Yes; Class 6S3 incl. sand, dust; *	Yes; Class 6S3 incl. sand, dust; *
<b>Remark</b>				
- Note regarding classification of environmental conditions acc. to EN 60721	* The supplied plug covers must remain in place over the unused interfaces during operation!	* The supplied plug covers must remain in place over the unused interfaces during operation!	* The supplied plug covers must remain in place over the unused interfaces during operation!	* The supplied plug covers must remain in place over the unused interfaces during operation!
<b>Conformal coating</b>				
• Coatings for printed circuit board assemblies acc. to EN 61086	Yes; Class 2 for high availability	Yes; Class 2 for high availability	Yes; Class 2 for high availability	Yes; Class 2 for high availability
• Protection against fouling acc. to EN 60664-3	Yes; Type 1 protection	Yes; Type 1 protection	Yes; Type 1 protection	Yes; Type 1 protection
• Military testing according to MIL-I-46058C, Amendment 7	Yes; Discoloration of coating possible during service life	Yes; Discoloration of coating possible during service life	Yes; Discoloration of coating possible during service life	Yes; Discoloration of coating possible during service life
• Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A	Yes; Conformal coating, Class A	Yes; Conformal coating, Class A	Yes; Conformal coating, Class A	Yes; Conformal coating, Class A



Ordering data	Article No.	Accessories	Article No.
<b>SIPLUS LOGO! 8 logic module</b> <b>SIPLUS LOGO! 24CE</b> 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 interlinked, modular expansion capability  Extended temperature range and exposure to environmental substances	<b>6AG1052-1CC08-7BA0</b>	<b>SIPLUS LOGO! TDE</b> (Extended temperature range -10 ... +60 °C and exposure to environmental substances)  6-line text display, can be connected to all LOGO! 8 variants with and without display, with 2 Ethernet interfaces; incl. installation accessories. Requires additional 12 V DC or 24 V AC/DC power supply	<b>6AG1055-4MH08-2BA0</b>
<b>SIPLUS LOGO! 12/24RCE</b> 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, integrated time switch, Ethernet interface; 400 function blocks can be interlinked, modular expansion capability  Extended temperature range and exposure to environmental substances	<b>6AG1052-1MD08-7BA0</b>	<b>Accessories for            SIPLUS LOGO! 6, 7, 8</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>SIPLUS LOGO! 24RCE</b> Supply voltage 24 V AC/DC, 8 digital inputs 24 V AC/DC, 4 relay outputs 10 A, integrated time switch, Ethernet interface; 400 function blocks can be interlinked, modular expansion capability  Extended temperature range and exposure to environmental substances	<b>6AG1052-1HB08-7BA0</b>	<b>Front panel mounting set</b> Width 8 U, with keys	<b>6AG1057-1AA00-0AA2</b>
<b>SIPLUS LOGO! 230RCE</b> Supply voltage 115...230 V AC/DC, 8 digital inputs 115...230 V AC/DC, 4 relay outputs 10 A, integrated time switch, Ethernet interface; 400 function blocks can be interlinked, modular expansion capability  Extended temperature range and exposure to environmental substances	<b>6AG1052-1FB08-7BA0</b>		

## LOGO! Logic Modules

LOGO! basic and expansion modules

### SIPLUS LOGO! basic modules without display

#### Overview

2



- Basic variants optimized for costs
- Interface for connecting 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! TDE text display
- All basic units with integrated web server
- Same enclosure width as LOGO! 0BA6 (4 U)
- All basic units with Ethernet interface for communication with LOGO!, SIMATIC Controllers, SIMATIC Panel and PC
- Use of standard micro CF cards

#### Note:

SIPLUS extreme products are based on SIMATIC standard products. The contents listed here were adopted from the respective standard products. SIPLUS extreme specific information was added.

#### Technical specifications

Article number	6AG1052-2CC08-7BA0	6AG1052-2MD08-7BA0	6AG1052-2HB08-7BA0	6AG1052-2FB08-7BA0
Based on	6ED1052-2CC08-0BA0 SIPLUS LOGO! 24CEO	6ED1052-2MD08-0BA0 SIPLUS LOGO! 12/24RCEO	6ED1052-2HB08-0BA0 SIPLUS LOGO! 24RCEO (AC)	6ED1052-2FB08-0BA0 SIPLUS LOGO! 230RCEO
<b>Ambient conditions</b>				
<b>Ambient temperature during operation</b>				
• min.	-40 °C; = Tmin; Startup @ -25 °C	-40 °C; = Tmin; Startup @ -25 °C	-40 °C; = Tmin; Startup @ -25 °C	-40 °C; = Tmin; Startup @ -25 °C
• max.	70 °C; Tmax; Tmax > +55 °C max. load 0.2 A per output	70 °C; Tmax; Tmax > +55 °C max. load 1 A per relay or max. load 3 A per relay and half the number of DIs (no adjacent points)	70 °C; Tmax; Tmax > +55 °C max. load 1 A per relay or max. load 3 A per relay and half the number of DIs (no adjacent points)	70 °C; Tmax; Tmax > +55 °C max. load 1 A per relay
• At cold restart, min.	-25 °C; incl. condensation / frost permitted (no commissioning under condensation conditions)	-25 °C; incl. condensation / frost permitted (no commissioning under condensation conditions)	-25 °C; incl. condensation / frost permitted (no commissioning under condensation conditions)	-25 °C; incl. condensation / frost permitted (no commissioning under condensation conditions)
<b>Ambient temperature during storage/transportation</b>				
• min.	-40 °C	-40 °C	-40 °C	-40 °C
• max.	70 °C	70 °C	70 °C	70 °C
<b>Altitude during operation relating to sea level</b>				
• Installation altitude above sea level, max.	5 000 m	5 000 m	5 000 m	2 000 m
• Ambient air temperature-barometric pressure-altitude	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m)
<b>Relative humidity</b>				
• With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation

**Technical specifications (continued)**

Article number	<b>6AG1052-2CC08-7BA0</b>	<b>6AG1052-2MD08-7BA0</b>	<b>6AG1052-2HB08-7BA0</b>	<b>6AG1052-2FB08-7BA0</b>
Based on	<b>6ED1052-2CC08-0BA0</b> SIPLUS LOGO! 24CEO	<b>6ED1052-2MD08-0BA0</b> SIPLUS LOGO! 12/24RCEO	<b>6ED1052-2HB08-0BA0</b> SIPLUS LOGO! 24RCEO (AC)	<b>6ED1052-2FB08-0BA0</b> SIPLUS LOGO! 230RCEO
<b>Resistance</b>				
<b>Coolants and lubricants</b>				
- Resistant to commercially available coolants and lubricants	Yes; Incl. diesel and oil droplets in the air	Yes; Incl. diesel and oil droplets in the air	Yes; Incl. diesel and oil droplets in the air	Yes; Incl. diesel and oil droplets in the air
<b>Use in stationary industrial systems</b>				
- to biologically active substances according to EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
- to chemically active substances according to EN 60721-3-3	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
- to mechanically active substances according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust; *	Yes; Class 3S4 incl. sand, dust; *	Yes; Class 3S4 incl. sand, dust; *	Yes; Class 3S4 incl. sand, dust; *
<b>Use on ships/at sea</b>				
- to biologically active substances according to EN 60721-3-6	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
- to chemically active substances according to EN 60721-3-6	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
- to mechanically active substances according to EN 60721-3-6	Yes; Class 6S3 incl. sand, dust; *	Yes; Class 6S3 incl. sand, dust; *	Yes; Class 6S3 incl. sand, dust; *	Yes; Class 6S3 incl. sand, dust; *
<b>Remark</b>				
- Note regarding classification of environmental conditions acc. to EN 60721	* The supplied plug covers must remain in place over the unused interfaces during operation!	* The supplied plug covers must remain in place over the unused interfaces during operation!	* The supplied plug covers must remain in place over the unused interfaces during operation!	* The supplied plug covers must remain in place over the unused interfaces during operation!
<b>Conformal coating</b>				
• Coatings for printed circuit board assemblies acc. to EN 61086	Yes; Class 2 for high availability	Yes; Class 2 for high availability	Yes; Class 2 for high availability	Yes; Class 2 for high availability
• Protection against fouling acc. to EN 60664-3	Yes; Type 1 protection	Yes; Type 1 protection	Yes; Type 1 protection	Yes; Type 1 protection
• Military testing according to MIL-I-46058C, Amendment 7	Yes; Discoloration of coating possible during service life	Yes; Discoloration of coating possible during service life	Yes; Discoloration of coating possible during service life	Yes; Discoloration of coating possible during service life
• Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A	Yes; Conformal coating, Class A	Yes; Conformal coating, Class A	Yes; Conformal coating, Class A	Yes; Conformal coating, Class A

**LOGO! Logic Modules**

LOGO! basic and expansion modules

**SIPLUS LOGO! basic modules without display**

2

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

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,  
Ethernet interface;  
without display and keyboard  
400 function blocks  
can be interlinked,  
modular expansion capability

Extended temperature range and  
exposure to environmental  
substances

**6AG1052-2CC08-7BA0****SIPLUS LOGO! 230RCEo**

115...230 V AC/DC supply voltage  
8 digital inputs 115...230 V AC/DC  
4 relay outputs 10 A  
integrated time switch,  
Ethernet interface;  
without display or keyboard  
400 function blocks  
can be interlinked,  
modular expansion capability

Extended temperature range and  
exposure to environmental  
substances

**6AG1052-2FB08-7BA0****SIPLUS LOGO! 24RCEo**

24 V AC/DC supply voltage,  
8 digital inputs 24 V AC/DC,  
4 relay outputs 10 A,  
integrated time switch,  
Ethernet interface;  
without display or keyboard;  
400 function blocks  
can be interlinked,  
modular expansion capability

Extended temperature range and  
exposure to environmental  
substances

**6AG1052-2HB08-7BA0****SIPLUS LOGO! 12/24RCEo**

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  
integrated time switch,  
Ethernet interface;  
without display and keyboard  
400 function blocks  
can be interlinked,  
modular expansion capability

Extended temperature range and  
exposure to environmental  
substances

**6AG1052-2MD08-7BA0****Article No.****Accessories****SIPLUS LOGO! TDE**

(Extended temperature range  
-10 ... +60 °C and exposure to  
environmental substances)

6-line text display,  
can be connected to all  
LOGO! 8 variants with and without  
display, with 2 Ethernet interfaces;  
incl. installation accessories.  
Requires additional 12 V DC or  
24 V AC/DC power supply

**6AG1055-4MH08-2BA0****Accessories for  
SIPLUS LOGO! 6, 8****LOGO!Soft Comfort V8**

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

**6ED1058-0BA08-0YA1****Front panel mounting set**

Width 8 U, with keys

**6AG1057-1AA00-0AA2**

**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 SIMATIC standard products. The contents listed here were adopted from the respective standard products. SIPLUS extreme specific information was added.

**Technical specifications**

Article number	6AG1055-1CB00-7BA2	6AG1055-1HB00-7BA2	6AG1055-1MB00-7BA2
Based on	6ED1055-1CB00-0BA2 SIPLUS LOGO! DM8 24 V8	6ED1055-1HB00-0BA2 SIPLUS LOGO! DM8 24R V8	6ED1055-1MB00-0BA2 SIPLUS LOGO! DM8 12/24R (LOGO 8)
<b>Ambient conditions</b>			
<b>Ambient temperature during operation</b>			
• min.	-40 °C; = Tmin; Startup @ -25 °C	-40 °C; = Tmin; Startup @ -25 °C	-40 °C; = Tmin; Startup @ -25 °C
• max.	70 °C; Tmax; Tmax > +55 °C max. load 0.2 A per output	70 °C; = Tmax; Tmax > +55 °C max. load 3 A per relay or max. total current 10 A	70 °C; = Tmax; Tmax > +55 °C max. load 3 A per relay or max. total current 10 A
• At cold restart, min.	-25 °C; incl. condensation / frost permitted (no commissioning under condensation conditions)	-25 °C; incl. condensation / frost permitted (no commissioning under condensation conditions)	-25 °C; incl. condensation / frost permitted (no commissioning under condensation conditions)
<b>Ambient temperature during storage/transportation</b>			
• min.	-40 °C	-40 °C	-40 °C
• max.	70 °C	70 °C	70 °C
<b>Altitude during operation relating to sea level</b>			
• Installation altitude above sea level, max.	5 000 m	5 000 m	5 000 m
• Ambient air temperature-barometric pressure-altitude	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)
<b>Relative humidity</b>			
• With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation
<b>Resistance</b>			
<b>Coolants and lubricants</b>			
- Resistant to commercially available coolants and lubricants	Yes; Incl. diesel and oil droplets in the air	Yes; Incl. diesel and oil droplets in the air	Yes; Incl. diesel and oil droplets in the air
<b>Use in stationary industrial systems</b>			
- to biologically active substances according to EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
- to chemically active substances according to EN 60721-3-3	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
- to mechanically active substances according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust, *	Yes; Class 3S4 incl. sand, dust, *	Yes; Class 3S4 incl. sand, dust, *

## LOGO! Logic Modules

### LOGO! basic and expansion modules

#### SIPLUS LOGO! expansion modules

#### Technical specifications (continued)

Article number	6AG1055-1CB00-7BA2	6AG1055-1HB00-7BA2	6AG1055-1MB00-7BA2
Based on	6ED1055-1CB00-0BA2 SIPLUS LOGO! DM8 24 V8	6ED1055-1HB00-0BA2 SIPLUS LOGO! DM8 24R V8	6ED1055-1MB00-0BA2 SIPLUS LOGO! DM8 12/24R (LOGO 8)
<b>Use on ships/at sea</b>			
- to biologically active substances according to EN 60721-3-6	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
- to chemically active substances according to EN 60721-3-6	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
- to mechanically active substances according to EN 60721-3-6	Yes; Class 6S3 incl. sand, dust; *	Yes; Class 6S3 incl. sand, dust; *	Yes; Class 6S3 incl. sand, dust; *
<b>Remark</b>			
- Note regarding classification of environmental conditions acc. to EN 60721	* The supplied plug covers must remain in place over the unused interfaces during operation!	* The supplied plug covers must remain in place over the unused interfaces during operation!	* The supplied plug covers must remain in place over the unused interfaces during operation!
<b>Conformal coating</b>			
• Coatings for printed circuit board assemblies acc. to EN 61086	Yes; Class 2 for high availability	Yes; Class 2 for high availability	Yes; Class 2 for high availability
• Protection against fouling acc. to EN 60664-3	Yes; Type 1 protection	Yes; Type 1 protection	Yes; Type 1 protection
• Military testing according to MIL-I-46058C, Amendment 7	Yes; Discoloration of coating possible during service life	Yes; Discoloration of coating possible during service life	Yes; Discoloration of coating possible during service life
• Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A	Yes; Conformal coating, Class A	Yes; Conformal coating, Class A	Yes; Conformal coating, Class A
<b>Dimensions</b>			
Width	35.5 mm	35.5 mm	35.5 mm
Height	90 mm	90 mm	90 mm
Depth	58 mm	58 mm	58 mm
Article number	6AG1055-1FB00-7BA2	6AG1055-1NB10-7BA2	
Based on	6ED1055-1FB00-0BA2 SIPLUS LOGO! DM8 230R V8	6ED1055-1NB10-0BA2 SIPLUS LOGO! DM16 24R V8	
<b>Ambient conditions</b>			
<b>Ambient temperature during operation</b>			
• min.	-40 °C; = Tmin; Startup @ -25 °C	-40 °C; = Tmin; Startup @ -25 °C	
• max.	70 °C; = Tmax; Tmax > +55 °C max. load 3 A per relay or max. total current 10 A	70 °C; = Tmax; Tmax > +55 °C max. load 3 A per relay	
• At cold restart, min.	-25 °C; incl. condensation / frost permitted (no commissioning under condensation conditions)	-25 °C; incl. condensation / frost permitted (no commissioning under condensation conditions)	
<b>Ambient temperature during storage/transportation</b>			
• min.	-40 °C	-40 °C	
• max.	70 °C	70 °C	
<b>Altitude during operation relating to sea level</b>			
• Installation altitude above sea level, max.	2 000 m	5 000 m	
• Ambient air temperature-barometric pressure-altitude	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m)	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)	
<b>Relative humidity</b>			
• With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation	
<b>Resistance</b>			
<b>Coolants and lubricants</b>			
- Resistant to commercially available coolants and lubricants	Yes; Incl. diesel and oil droplets in the air	Yes; Incl. diesel and oil droplets in the air	



**Technical specifications (continued)**

Article number	<b>6AG1055-1FB00-7BA2</b>	<b>6AG1055-1NB10-7BA2</b>
Based on	<b>6ED1055-1FB00-0BA2</b> SIPLUS LOGO! DM8 230R V8	<b>6ED1055-1NB10-0BA2</b> SIPLUS LOGO! DM16 24R V8
<b>Use in stationary industrial systems</b>		
- to biologically active substances according to EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
- to chemically active substances according to EN 60721-3-3	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
- to mechanically active substances according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust, *	Yes; Class 3S4 incl. sand, dust, *
<b>Use on ships/at sea</b>		
- to biologically active substances according to EN 60721-3-6	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
- to chemically active substances according to EN 60721-3-6	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
- to mechanically active substances according to EN 60721-3-6	Yes; Class 6S3 incl. sand, dust; *	Yes; Class 6S3 incl. sand, dust; *
<b>Remark</b>		
- Note regarding classification of environmental conditions acc. to EN 60721	* The supplied plug covers must remain in place over the unused interfaces during operation!	* The supplied plug covers must remain in place over the unused interfaces during operation!
<b>Conformal coating</b>		
• Coatings for printed circuit board assemblies acc. to EN 61086	Yes; Class 2 for high availability	Yes; Class 2 for high availability
• Protection against fouling acc. to EN 60664-3	Yes; Type 1 protection	Yes; Type 1 protection
• Military testing according to MIL-I-46058C, Amendment 7	Yes; Discoloration of coating possible during service life	Yes; Discoloration of coating possible during service life
• Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A	Yes; Conformal coating, Class A	Yes; Conformal coating, Class A

Article number	<b>6AG1055-1MA00-7BA2</b>
Based on	<b>6ED1055-1MA00-0BA2</b> SIPLUS LOGO! AM2 V8
<b>Ambient conditions</b>	
<b>Ambient temperature during operation</b>	
• min.	-40 °C; = Tmin; Startup @ -25 °C
• max.	70 °C; = Tmax
• At cold restart, min.	-25 °C; incl. condensation / frost permitted (no commissioning under condensation conditions)
<b>Ambient temperature during storage/transportation</b>	
• min.	-40 °C
• max.	70 °C
<b>Altitude during operation relating to sea level</b>	
• Installation altitude above sea level, max.	5 000 m
• Ambient air temperature-barometric pressure-altitude	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)
<b>Relative humidity</b>	
• With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation
<b>Resistance</b>	
<b>Coolants and lubricants</b>	
- Resistant to commercially available coolants and lubricants	Yes; Incl. diesel and oil droplets in the air

Article number	<b>6AG1055-1MA00-7BA2</b>
Based on	<b>6ED1055-1MA00-0BA2</b> SIPLUS LOGO! AM2 V8
<b>Use in stationary industrial systems</b>	
- to biologically active substances according to EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
- to chemically active substances according to EN 60721-3-3	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
- to mechanically active substances according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust, *
<b>Use on ships/at sea</b>	
- to biologically active substances according to EN 60721-3-6	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
- to chemically active substances according to EN 60721-3-6	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
- to mechanically active substances according to EN 60721-3-6	Yes; Class 6S3 incl. sand, dust; *
<b>Remark</b>	
- Note regarding classification of environmental conditions acc. to EN 60721	* The supplied plug covers must remain in place over the unused interfaces during operation!
<b>Conformal coating</b>	
• Coatings for printed circuit board assemblies acc. to EN 61086	Yes; Class 2 for high availability
• Protection against fouling acc. to EN 60664-3	Yes; Type 1 protection
• Military testing according to MIL-I-46058C, Amendment 7	Yes; Discoloration of coating possible during service life
• Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A	Yes; Conformal coating, Class A

## LOGO! Logic Modules

### LOGO! basic and expansion modules

#### SIPLUS LOGO! expansion modules

#### Technical specifications (continued)

Article number	<b>6AG1055-1MM00-7BA2</b>
Based on	<b>6ED1055-1MM00-0BA2</b> SIPLUS LOGO! AM2 AQ V8
<b>Ambient conditions</b>	
<b>Ambient temperature during operation</b>	
• min.	-40 °C; = Tmin; Startup @ -25 °C
• max.	70 °C; = Tmax
• At cold restart, min.	-25 °C; incl. condensation / frost permitted (no commissioning under condensation conditions)
<b>Ambient temperature during storage/transportation</b>	
• min.	-40 °C
• max.	70 °C
<b>Altitude during operation relating to sea level</b>	
• Installation altitude above sea level, max.	5 000 m
• Ambient air temperature-barometric pressure-altitude	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)
<b>Relative humidity</b>	
• With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation

Article number	<b>6AG1055-1MM00-7BA2</b>
Based on	<b>6ED1055-1MM00-0BA2</b> SIPLUS LOGO! AM2 AQ V8
<b>Resistance</b>	
<b>Coolants and lubricants</b>	
- Resistant to commercially available coolants and lubricants	Yes; Incl. diesel and oil droplets in the air
<b>Use in stationary industrial systems</b>	
- to biologically active substances according to EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
- to chemically active substances according to EN 60721-3-3	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
- to mechanically active substances according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust, *
<b>Use on ships/at sea</b>	
- to biologically active substances according to EN 60721-3-6	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
- to chemically active substances according to EN 60721-3-6	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
- to mechanically active substances according to EN 60721-3-6	Yes; Class 6S3 incl. sand, dust; *
<b>Remark</b>	
- Note regarding classification of environmental conditions acc. to EN 60721	* The supplied plug covers must remain in place over the unused interfaces during operation!
<b>Conformal coating</b>	
• Coatings for printed circuit board assemblies acc. to EN 61086	Yes; Class 2 for high availability
• Protection against fouling acc. to EN 60664-3	Yes; Type 1 protection
• Military testing according to MIL-I-46058C, Amendment 7	Yes; Discoloration of coating possible during service life
• Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A	Yes; Conformal coating, Class A



Ordering data	Article No.	Accessories	Article No.
<b>SIPLUS LOGO! 8 expansion modules</b>		<b>LOGO!Soft Comfort V8</b>	<b>6ED1058-0BA08-0YA1</b>
<b>SIPLUS LOGO! DM8 24</b> Supply voltage 24 V DC, 4 digital inputs 24 V DC, 4 digital outputs 24 V DC, 0.3 A  Extended temperature range and exposure to environmental substances	<b>6AG1055-1CB00-7BA2</b>	For programming on the PC in LAD/FBD; executes on Windows 8, 7, XP, Linux and Mac OSX; on DVD	
<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 environmental substances	<b>6AG1055-1FB00-7BA2</b>	<b>Front panel mounting set</b> Width 8 U, with keys	<b>6AG1057-1AA00-0AA2</b>
<b>SIPLUS LOGO! DM8 24R</b> Supply voltage 24 V AC/DC, 4 digital inputs 24 V AC/DC, 4 relay outputs 5 A  Extended temperature range and exposure to environmental substances	<b>6AG1055-1HB00-7BA2</b>		
<b>SIPLUS LOGO! AM2</b> 12...24 V DC supply voltage, 2 analog inputs 0 to 10 V or 0 to 20 mA, 10-bit resolution  Extended temperature range and exposure to environmental substances	<b>6AG1055-1MA00-7BA2</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 environmental substances	<b>6AG1055-1MB00-7BA2</b>		
<b>SIPLUS LOGO! AM2 AQ</b> Supply voltage 24 V DC, 2 analog outputs 0 to 10 V, 0/4 to 20 mA  Extended temperature range and exposure to environmental substances	<b>6AG1055-1MM00-7BA2</b>		
<b>SIPLUS LOGO! DM16 24R</b> Supply voltage 24 V DC, 8 digital inputs 24 V DC, 8 relay outputs 5 A  Extended temperature range and exposure to environmental substances	<b>6AG1055-1NB10-7BA2</b>		

## LOGO! Logic Modules

### LOGO! communication modules

#### Introduction

#### Overview

2



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

#### Note on compatibility:

Communication module	Can be used with:
LOGO! CMK2000 communication module	LOGO! ...0BA8
LOGO! CSM 12/24	LOGO! ...0BA7/...0BA8
LOGO! CSM 230	LOGO! ...0BA7
LOGO! CMR2020	LOGO! ...0BA8
LOGO! CMR2040	LOGO! ...0BA8

## Overview



- Expansion module for LOGO! 8 basic versions
- For integrating LOGO! 8 in KNX installations
- With 24 digital inputs, 20 digital outputs as well as 8 analog inputs and outputs for processing process signals via KNX.

## Technical specifications

Article number	<b>6BK1700-0BA20-0AA0</b> LOGO! CMK2000
<b>General information</b>	
Firmware version	
• FW update possible	Yes
<b>Installation type/mounting</b>	
Mounting	on 35 mm DIN rail, 4 spacing units wide
<b>Supply voltage</b>	
Rated value (DC)	24 V
• 12 V DC	No
• 24 V DC	Yes
Rated value (AC)	
• 24 V AC	No
<b>Input current</b>	
Current consumption, max.	0.04 A
<b>Power loss</b>	
Power loss, max.	1.1 W
<b>Memory</b>	
Flash	Yes
<b>Time of day</b>	
<b>Clock synchronization</b>	
• supported	Yes
<b>Interfaces</b>	
Number of industrial Ethernet interfaces	1; Ethernet, 1 port, RJ45
Number of other interfaces	1; EIB/KNX
Transmission rate, max.	100 Mbit/s over Ethernet, 9 600 bit/s over KNX
<b>Protocols</b>	
EIB/KNX	Yes
<b>Web server</b>	
• supported	Yes

Article number	<b>6BK1700-0BA20-0AA0</b> LOGO! CMK2000
<b>Communication functions</b>	
<b>S7 basic communication</b>	
• supported	No
<b>LOGO! communication</b>	
• supported	Yes
<b>Interrupts/diagnostics/ status information</b>	
<b>Diagnostics indication LED</b>	
• RUN/STOP LED	Yes
<b>EMC</b>	
<b>Emission of radio interference acc. to EN 55 011</b>	
• Limit class B, for use in residential areas	Yes; In accordance with EN 61000-6-3
<b>Degree and class of protection</b>	
Degree of protection acc. to EN 60529	
• IP20	Yes
<b>Standards, approvals, certificates</b>	
CE mark	Yes
CSA approval	Yes
UL approval	Yes
cULus	Yes
FM approval	No
RCM (formerly C-TICK)	No
KC approval	Yes
EAC (formerly Gost-R)	Yes
according to VDE 0631	No
Marine approval	No
<b>Ambient conditions</b>	
<b>Ambient temperature during operation</b>	
• min.	0 °C
• max.	55 °C
<b>Ambient temperature during storage/transportation</b>	
• min.	-40 °C
• max.	70 °C
<b>Relative humidity</b>	
• Operation, max.	95 %
<b>Connection method</b>	
Design of electrical connection for supply voltage	2 screw-type terminals: L+, M 0.5 mm <sup>2</sup> - 2.5 mm <sup>2</sup> Screw-type terminal: FE 0.5 mm <sup>2</sup> ... 6.0 mm <sup>2</sup>
Design of plug-in connection	KNX terminal 0.6 mm <sup>2</sup> - 1.0 mm <sup>2</sup>
<b>Dimensions</b>	
Width	71.5 mm; 4TE
Height	90 mm
Depth	58.5 mm
<b>Weights</b>	
Weight, approx.	0.14 kg

## Ordering data

### Article No.

**LOGO! CMK2000 communication module** **6BK1700-0BA20-0AA0**

For integrating LOGO! 8 in the KNX building system bus, max. 50 communication objects can be configured;  
RJ45 port for Ethernet;  
supply voltage 24 V DC/40 mA

## LOGO! Logic Modules

### LOGO! communication modules

#### LOGO! CSM unmanaged

#### Overview



The module is used to connect a LOGO! and up to three other nodes to an Industrial Ethernet network with 10/100 Mbps 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 number	6GK7177-1FA10-0AA0	6GK7177-1MA20-0AA0
Product type designation	LOGO! CSM 230	LOGO! CSM 12/24
<b>Transmission rate</b>		
Transfer rate	10 Mbit/s, 100 Mbit/s	10 Mbit/s, 100 Mbit/s
<b>Interfaces for communication integrated</b>		
Number of electrical connections • for network components or terminal equipment	4	4
Number of 100 Mbit/s SC ports • for multimode	0	0
Number of 1000 Mbit/s LC ports • for multimode • for single mode (LD)	0 0	0 0
<b>Interfaces others</b>		
Number of electrical connections • for power supply	1	1
Type of electrical connection • for power supply	3-pole terminal block	3-pole terminal block
<b>Supply voltage, current consumption, power loss</b>		
Type of voltage of the supply voltage	115...240 V AC/DC	12/24 V DC
Supply voltage • external	230 V	24 V
• external minimum	100 V	10.2 V
• external maximum	240 V	30.2 V
Product component fusing at power supply input	Yes	Yes
Consumed current maximum	0.02 A	0.15 A
Power loss [W] • at DC at 24 V • at AC at 230 V	1.8 W	1.5 W
<b>Permitted ambient conditions</b>		
Ambient temperature • during operation • during storage • during transport	0 ... 55 °C -40 ... +70 °C -40 ... +70 °C	0 ... 55 °C -40 ... +70 °C -40 ... +70 °C
Relative humidity • at 25 °C without condensation during operation maximum	90 %	90 %
Protection class IP	IP20	IP20

**Technical specifications** (continued)

Article number	6GK7177-1FA10-0AA0	6GK7177-1MA20-0AA0
<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
• S7-1500 rail mounting	No	No
<b>Product functions management, configuration</b>		
Product function		
• multiport mirroring	No	No
Product function switch-managed	No	No
<b>Standards, specifications, approvals</b>		
Standard		
• for FM	FM3600 and 3611: CL, I, Div2, Group A,B,C,D T4, CL I, Zone 2, Group IIC, T4, Ta=55°C	ATEX: EN 60079-0 : 2009, EN 60079-15 :2010 (Directive 94/9/EC), IECEx: IEC 60079-0 :2011, IEC 60079-15 :2010
• for hazardous zone	no	UL 508, CSA C22.2 No. 142
• for safety from CSA and UL	UL60079-0, UL60079-15, CSA C22.2	Haz-Loc ANSI/ISA 12.12.01: CL, I, Div2, Group A,B,C,D T4, CL I, Zone 2, Group IIC, T4, Ta=55°C
• for hazardous zone from CSA and UL		
<b>Standards, specifications, approvals CE</b>		
Certificate of suitability CE marking	Yes	Yes
<b>Standards, specifications, approvals miscellaneous</b>		
Certificate of suitability		
• C-Tick	Yes	Yes
• KC approval	No	No
<b>Standards, specifications, approvals ship classification</b>		
Marine classification association		
• American Bureau of Shipping Europe Ltd. (ABS)	No	No
• Bureau Veritas (BV)	No	No
• Det Norske Veritas (DNV)	No	No
• Germanische Lloyd (GL)	No	No
• Lloyds Register of Shipping (LRS)	No	No
• Nippon Kaiji Kyokai (NK)	No	No
• Polski Rejestr Statkow (PRS)	No	No

**Ordering data**

Article No.	Article No.
<b>LOGO! CSM compact switch modules</b> Unmanaged switch for connection of one LOGO! and up to three further nodes on Industrial Ethernet with 10/100 Mbps; 4 x RJ45 ports; LED diagnostics, LOGO! module <b>LOGO! CSM12/24</b> external 12 V DC or 24 V DC power supply, for LOGO! ... 0BA7/... 0BA8 <b>LOGO! CSM230</b> external 115 ... 240 V AC power supply, for LOGO! ... 0BA7	<b>Accessories</b> <b>IE TP cord RJ45/RJ45</b> TP cable 4 x 2 with 2 RJ45 plugs • 0.5 m • 1 m • 2 m • 6 m • 10 m <b>IE FC outlet RJ45</b> For connection of Industrial Ethernet FC cables and TP cords; graduated prices for 10 and 50 units or more
<b>6GK7177-1MA20-0AA0</b>  <b>6GK7177-1FA10-0AA0</b>	<b>6XV1870-3QE50</b> <b>6XV1870-3QH10</b> <b>6XV1870-3QH20</b> <b>6XV1870-3QH60</b> <b>6XV1870-3QN10</b>  <b>6GK1901-1FC00-0AA0</b>

## LOGO! Logic Modules

### LOGO! communication modules

#### LOGO! CMR (wireless communication)

#### Overview



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

LOGO! CMR can send text messages or emails to predefined mobile network numbers as well as receive text messages from predefined mobile network numbers.

Sending a text message/email 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! logic module can be directly influenced by receiving a text message.

The LOGO! CMR offers comfortable Web Based Management commissioning and diagnostics via local and/or remote access.

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, the LOGO! 8 logic module can be time-synchronized by means of the time included in the GPS signal. Determination of 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 wireless networks
- LOGO! CMR2040 for use in LTE mobile wireless networks

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

DE: <http://www.siemens.de/mobilfunkzulassungen>

EN: <http://www.siemens.com/mobilenetwork-approvals>

#### Technical specifications

Article number	6GK7142-7BX00-0AX0	6GK7142-7EX00-0AX0
Product type designation	LOGO! CMR2020	LOGO! CMR2040
<b>Transmission rate</b>		
Transfer rate		
• at the 1st interface	10 ... 100 Mbit/s	10 ... 100 Mbit/s
• for GPRS transmission		
- with downlink maximum	80 kbit/s	85.6 kbit/s
- with uplink maximum	40 kbit/s	85.6 kbit/s
• for LTE transmission		
- with downlink maximum		100 Mbit/s
- with uplink maximum		50 Mbit/s
<b>Interfaces</b>		
Number of interfaces acc. to Industrial Ethernet	1	1
Number of electrical connections		
• at the 1st interface acc. to Industrial Ethernet	1	1
• for external antenna(s)	2	2
• for power supply	1	1
Number of slots		
• for SIM cards	1	1
• for memory cards	1	1
Type of electrical connection		
• at the 1st interface acc. to Industrial Ethernet	RJ45 port	RJ45 port
• for external antenna(s)	SMA socket (50 ohms)	SMA socket (50 ohms)
• for power supply	3-pole terminal block	3-pole terminal block
Type of antenna		
• at port 1 connectable	GPS Antenna	GPS Antenna
• at port 2 connectable	Mobile radio antenna (GPRS/GSM)	Mobile radio antenna (GPRS/GSM, UMTS, LTE)
Wire length of antenna cable maximum	15 m	15 m

**Technical specifications (continued)**

Article number	<b>6GK7142-7BX00-0AX0</b>	<b>6GK7142-7EX00-0AX0</b>
Product type designation	LOGO! CMR2020	LOGO! CMR2040
Slot version		
<ul style="list-style-type: none"> <li>• for SIM card</li> <li>• of the memory card</li> </ul>	Standard microSD	Standard microSD
Storage capacity of the memory card maximum	32 Gbyte	32 Gbyte
Performance class of the memory card minimum necessary	Class 6	Class 6
Type of file system	FAT32	FAT32
<b>Signal-Inputs/outputs</b>		
Number of electrical connections for digital input signals	2	2
Type of electrical connection for digital input signals	3 pole terminal block	3 pole terminal block
Digital input version	not galvanically isolated, not debounced	not galvanically isolated, not debounced
Input voltage at digital input		
<ul style="list-style-type: none"> <li>• with signal &lt;0&gt; at DC</li> <li>• for signal &lt;1&gt; at DC</li> </ul>	0 ... 5 V 8.5 ... 24 V	0 ... 5 V 8.5 ... 24 V
Input current at digital input for signal <1> maximum	5.5 mA	5.5 mA
Number of electrical connections for digital output signals	2	2
Type of electrical connection for digital output signals	3 pole terminal block	3 pole terminal block
Digital output version	transistor, not potential separated	transistor, not potential separated
Output voltage at digital output		
<ul style="list-style-type: none"> <li>• for signal &lt;1&gt;</li> <li>• for signal &lt;0&gt;</li> </ul>	12 ... 24 V; Value of the actual supply voltage 0 ... 5 V	12 ... 24 V; Value of the actual supply voltage 0 ... 5 V
Output current at digital output for signal <1> maximum	0.3 A	0.3 A
<b>Wireless technology</b>		
Type of mobile wireless service		
<ul style="list-style-type: none"> <li>• is supported SMS</li> <li>• is supported GPRS</li> <li>• Note</li> </ul>	Yes Yes GPRS (Multislot Class 10, Mobile Station Class B)	Yes Yes LTE
Type of mobile network is supported		
<ul style="list-style-type: none"> <li>• GSM</li> <li>• UMTS</li> <li>• LTE</li> </ul>	Yes No No	Yes Yes Yes
Operating frequency		
<ul style="list-style-type: none"> <li>• for GSM transmission 850 MHz</li> <li>• for GSM transmission 900 MHz</li> <li>• for GSM transmission 1800 MHz</li> <li>• for GSM transmission 1900 MHz</li> <li>• with UMTS transmission 850 MHz</li> <li>• with UMTS transmission 900 MHz</li> <li>• with UMTS transmission 2100 MHz</li> <li>• for LTE transmission 800 MHz</li> <li>• for LTE transmission 1800 MHz</li> <li>• for LTE transmission 2600 MHz</li> </ul>	Yes Yes Yes Yes No No No No No No No	No Yes Yes No Yes Yes Yes Yes Yes Yes Yes

**LOGO! Logic Modules**

## LOGO! communication modules

**LOGO! CMR (wireless communication)****Technical specifications (continued)**

Article number	<b>6GK7142-7BX00-0AX0</b>	<b>6GK7142-7EX00-0AX0</b>
Product type designation	LOGO! CMR2020	LOGO! CMR2040
<b>Supply voltage, current consumption, power loss</b>		
Type of voltage of the supply voltage	DC	DC
Supply voltage external	12 ... 24 V	12 ... 24 V
Supply voltage external at DC	12 ... 24 V	12 ... 24 V
Supply voltage for GPS antenna maximum	3.8 V; at 5 mA: 3,575 V / at 10 mA: 3,35 V / at 15 mA: 3,125 V	3.8 V; at 5 mA: 3,575 V / at 10 mA: 3,35 V / at 15 mA: 3,125 V
Relative positive tolerance at DC at 24 V	20 %	20 %
Relative negative tolerance at DC at 12 V	10 %	10 %
Consumed current		
• from external supply voltage at DC at 12 V maximum	0.25 A	0.25 A
• from external supply voltage at DC at 24 V maximum	0.125 A	0.125 A
Output current for GPS antenna maximum	15 mA	15 mA
Power loss [W]	3 W	3 W
<b>Permitted ambient conditions</b>		
Ambient temperature		
• during operation	-20 ... +70 °C	-20 ... +70 °C
• during storage	-40 ... +85 °C	-40 ... +85 °C
• during transport	-40 ... +85 °C	-40 ... +85 °C
Relative humidity at 25 °C without condensation during operation maximum	95 %	95 %
Protection class IP	IP20	IP20
<b>Design, dimensions and weight</b>		
Module format	Compact module, for rail mounting	Compact module, for rail mounting
Width	71.5 mm	71.5 mm
Height	90 mm	90 mm
Depth	58.2 mm	58.2 mm
Net weight	0.16 kg	0.16 kg
Mounting type		
• 35 mm DIN rail mounting	Yes	Yes
• wall mounting	Yes	Yes
<b>Product properties, functions, components general</b>		
Product function		
• DynDNS client	Yes	Yes
• no-ip.com client	Yes	Yes
<b>Performance data</b>		
Number of possible connections to the LOGO! logic module	1	1
Number of users/telephone numbers/email addresses definable maximum	20	20
Number of user groups definable maximum	10	10
Number of signals for monitoring or device control definable maximum	32	32
Number of events for monitoring definable maximum	32	32
number of actions definable maximum	32	32
Number of assignments definable maximum	32	32
Number of alias SMS commands definable maximum	20	20
Number of constants definable maximum	10	10



**Technical specifications (continued)**

Article number	<b>6GK7142-7BX00-0AX0</b>	<b>6GK7142-7EX00-0AX0</b>
Product type designation	LOGO! CMR2020	LOGO! CMR2040
<b>Performance data IT functions</b>		
Number of possible connections		
• as server by means of HTTP maximum	2	2
• as server by means of HTTPS maximum	2; http and https can be combined (max. number of 2 connections cannot be exceeded). Max. one connection via https is possible on the mobile wireless interface.	2; http and https can be combined (max. number of 2 connections cannot be exceeded). Max. one connection via https is possible on the mobile wireless interface.
• as e-mail client maximum	1	1
Number of free texts for e-mails definable by user	20	20
<b>Performance data Teleservice</b>		
Product function		
• Remote firmware update	Yes	Yes
• remote configuration	Yes	Yes
<b>Product functions Diagnosis</b>		
Product function Web-based diagnostics	Yes	Yes
<b>Product functions Security</b>		
Suitability for operation Virtual Private Network	Yes	Yes
Operating mode Virtual Private Network note	Open VPN server in PSK mode	Open VPN server in PSK mode
Product function with VPN connection	OpenVPN PSK	OpenVPN PSK
Type of encryption algorithms with VPN connection	AES-128 CBC	AES-128 CBC
Type of authentication with Virtual Private Network PSK	Yes	Yes
Type of hashing algorithms with VPN connection	SHA-256	SHA-256
Number of possible connections with VPN connection	1	1
Product function		
• password protection for Web applications	Yes	Yes
• password protection for VPN	Yes	Yes
• encrypted data transmission	Yes	Yes
• switch-off of non-required services	Yes	Yes
• log file for unauthorized access	Yes	Yes
<b>Product functions Time</b>		
Product function pass on time synchronization	Yes	Yes
Accuracy of the hardware real-time clock per day maximum time synchronization	7.5 s	7.5 s
• from NTP-server	Yes	Yes
• from GPS-signal	Yes	Yes
• from mobile network provider	Yes	Yes
• PC	Yes	Yes
• manual setting	Yes	Yes
<b>Product functions Position recognition</b>		
Product function		
• position detection with GPS	Yes	Yes
• pass on position data	Yes	Yes

## LOGO! Logic Modules

### LOGO! communication modules

#### LOGO! CMR (wireless communication)

2

#### Ordering data

#### Article No.

##### LOGO! CMR Communication Module Radio

Communication modules for connection of LOGO! 0BA8 to GSM/GPRS or LTE network; 1x RJ45 port for Industrial Ethernet connection; 2x digital input; 2x digital output; read/write access to LOGO! tags; possible to send/receive text messages; GPS position detection; time-of-day synchronization/forwarding with real time clock; configuration and diagnostics per web interface; Note country approvals: <http://www.siemens.com/mobilenetwork-approvals>

##### LOGO! CMR2020

For connecting LOGO! 0BA8 to a GSM/GPRS network

##### LOGO! CMR2040

For connecting LOGO! 0BA8 to an LTE network

#### Accessories

##### Mobile radio antennas

##### ANT794-4MR

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

##### ANT896-4MA

Rod antenna for direct mounting on device; SMA male connector

##### ANT896-4ME

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

6GK7142-7BX00-0AX0

6GK7142-7EX00-0AX0

6NH9860-1AA00

6GK5896-4MA00-0AA3

6GK5896-4ME00-0AA0

#### Article No.

##### GPS antenna

##### ANT895-6ML

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

6GK5895-6ML00-0AA0

##### Antenna adapter cable

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

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

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

##### 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 from 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

Ordering data	Article No.	Article No.
<b>Patch cable</b>		
<b>IE TP Cord RJ45/RJ45</b>		
TP cable 4 x 2 with 2 RJ45 plugs		
<ul style="list-style-type: none"> <li>• 0.5 m</li> <li>• 1 m</li> <li>• 2 m</li> <li>• 6 m</li> <li>• 10 m</li> </ul>	<b>6XV1870-3QE50</b> <b>6XV1870-3QH10</b> <b>6XV1870-3QH20</b> <b>6XV1870-3QH60</b> <b>6XV1870-3QN10</b>	
<b>IE FC outlet RJ45</b>	<b>6GK1901-1FC00-0AA0</b>	
For connection of Industrial Ethernet FC cables and TP Cords; graduated prices for 10 and 50 units or more		
<b>LOGO! CSM12/24</b>	<b>6GK7177-1MA20-0AA0</b>	
Compact switch module for connecting a LOGO! (...0BA7/...0BA8) and up to 3 additional nodes to Industrial Ethernet; 12/24 V DC power supply		
<b>LOGO! CSM230</b>	<b>6GK7177-1FA10-0AA0</b>	
Compact switch module for connecting a LOGO! (...0BA7) and up to 3 additional nodes to Industrial Ethernet 115 ... 240 V AC/DC		
		<b>Stainless steel enclosure in IP68 degree of protection</b>
		Stainless steel enclosure in IP68 degree of protection; suitable for SIMATIC RTU3030C; temperature range -60 to +135 °C; matte surface; cover with Pin Torx screws and padlock 7 cable openings and opening for mobile radio antenna prepared; please order the needed quantity of cable glands and sealing plugs separately
		<b>6NH3112-3BA00-1XX1</b>
		<b>Aluminum enclosure in IP68 degree of protection</b>
		Aluminum enclosure in IP68 degree of protection; suitable for SIMATIC RTU3030C; temperature range -40 to +80 °C; cover with Pin Torx screws; 7 cable openings and opening for mobile radio antenna prepared; please order the needed quantity of cable glands and sealing plugs separately
		<b>6NH3112-3BA00-1XX3</b>
		<b>Cable gland PG16 F for IP68 enclosure</b>
		Cable gland, M16, IP68, -40 to +100 °C; nickel-plated brass; suitable for enclosure with article numbers 6NH3112-3BA00-1x X1 and 6NH3112-3BA00-1x X3 pack quantity = 2 units
		<b>6NH3112-3BA00-1XX4</b>
		<b>Sealing plug M16 for IP68 enclosure</b>
		Sealing plug, M16, IP68, -40 to +100 °C; nickel-plated brass; suitable for enclosure with article numbers 6NH3112-3BA00-1x X1 and 6NH3112-3BA00-1x X3 pack quantity = 2 units
		<b>6NH3112-3BA00-1XX5</b>

# LOGO! Logic Modules

## LOGO!Power

### Introduction

### Overview

2



#### The flat power supply unit for distribution boards

Small. Clever. LOGO!Power

Small. Clever. LOGO!Power: Thanks to its stepped profile design, the LOGO! 8 product line is ideally suited for installation in small distribution boards. The stabilized power supplies with a wide range input of 100 ... 240 V AC (85 ... 264 V) and 110 ... 300 V DC are available in two performance classes with an output voltage of 5 V and 15 V, in three performance classes with 12 V and in four performance classes with 24 V. The 12 V and 24 V versions are ideal for supplying LOGO! controllers with the corresponding voltage input. The high level of efficiency across the entire load range as well as the low no-load losses result in lower overall energy consumption. Greater convenience when commissioning and servicing thanks to the integrated current monitor. The extended temperature range from -25 °C to +70 °C enables a host of additional applications.

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

LOGO!Power is the ideal choice when components need to be supplied with DC voltage. It can provide currents up to 4 A. This mini power pack can be used regardless of industry, e.g. in building technology applications for light and heating controllers or for access control systems. LOGO!Power is also well-suited for use in industrial automation, such as in packaging machine, machine tool, conveyor belt or sorting system applications.

#### Main product highlights

- Low width  
with minimum of 18 mm to maximum of 72 mm, thus requiring very little space in the control cabinet or distribution board
- High energy efficiency  
with efficiency levels of up to 90% over the entire power range and ERP-compliant no-load losses of < 0.3 W
- Global use  
due to operating temperature range from -25 °C to +70 °C and international certificates
- Load monitoring  
due to real-time measurement of the output current without disconnecting the cable, i.e. without interrupting the DC supply
- Flexible mounting  
with DIN rail or wall mounting in different installation positions
- Broad portfolio  
including 11 devices with 5 V, 12 V, 15 V and 24 V DC up to 100 watts (new: 12 V/0.9 A and 24 V/0.6 A)
- Flexible operation  
in all standard 1-phase supply networks thanks to wide range input of 100 ... 240 V AC without switchover and operation on DC networks with 110 ... 300 V DC
- Reliability  
due to problem-free connection of loads with high inrush currents thanks to power reserve when starting up as well as constant current in the event of overload

Baubreite	18 mm	36 mm	54 mm	72 mm
24 V	0,6 A	1,3 A	2,5 A	4,0 A
12 V	0,9 A	1,9 A	4,5 A	
5 V		3,0 A	6,3 A	
15 V		1,85 A	4,0 A	

## Overview



Thanks to its stepped profile design, the LOGO!Power product family is ideally suited for low installation depths, such as in miniature distribution boards. The stabilized power supplies with a wide range input of 100 ... 240 V AC (85 ... 264 V) and 110 ... 300 V DC are available with an output voltage of 5 V in two performance classes. The high level of efficiency across the entire load range as well as the low no-load losses result in lower overall energy consumption. Greater convenience when commissioning and servicing thanks to the integrated current monitor. The extended temperature range from -25 °C to +70 °C enables a host of additional applications.

### Main product highlights

- 5 V DC / 3 A and 6.3 A
- Narrow unit with 36 mm or 54 mm width and overall depth of 53 mm in LOGO! design
- Flexible mounting: DIN rail or wall mounting in a range of installation positions
- Higher energy efficiency: over the entire load range as well as no-load power losses of < 0.3 W
- Integrated current monitor: Actual output current measurement directly at the power supply unit
- Global use: Operating temperature range from -25 °C to +70 °C as well as international certifications such as UL, CSA, FM or ATEX

## Technical specifications

Article number	6EP3310-6SB00-0AY0	6EP3311-6SB00-0AY0
Product	LOGO!Power	LOGO!Power
Power supply, type	5 V/3 A	5 V/6.3 A
<b>Input</b>		
Input	1-phase AC or DC	1-phase AC or DC
Rated voltage value $V_{in \text{ rated}}$	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
Wide-range input	Yes	Yes
Overvoltage resistance	300 V AC for 1 s	300 V AC for 1 s
Mains buffering at $I_{out \text{ rated}}$ , min.	40 ms; at $V_{in} = 187 \text{ V}$	40 ms; at $V_{in} = 187 \text{ V}$
Rated line frequency 1	50 Hz	50 Hz
Rated line frequency 2	60 Hz	60 Hz
Rated line range	47 ... 63 Hz	47 ... 63 Hz
Input current		
• at rated input voltage 120 V	0.36 A	0.71 A
• at rated input voltage 230 V	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 6 A characteristic B or from 2 A characteristic C	Recommended miniature circuit breaker: from 10 A characteristic B or from 6 A characteristic C

# LOGO! Logic Modules

## LOGO!Power

### 1-phase, 5 V DC

#### Technical specifications (continued)

Article number	6EP3310-6SB00-0AY0	6EP3311-6SB00-0AY0
Product	LOGO!Power	LOGO!Power
Power supply, type	5 V/3 A	5 V/6.3 A
<b>Output</b>		
Output	Controlled, isolated DC voltage	Controlled, isolated DC voltage
Rated voltage $V_{out}$ DC	5 V	5 V
Total tolerance, static $\pm$	3 %	3 %
Static mains compensation, approx.	0.1 %	0.1 %
Static load balancing, approx.	0.1 %	0.1 %
Residual ripple peak-peak, max.	100 mV	100 mV
Residual ripple peak-peak, typ.	30 mV	30 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	100 mV	100 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	50 mV	50 mV
Adjustment range	4.6 ... 5.4 V	4.6 ... 5.4 V
Product function 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 $V_{out}$ (soft start)	No overshoot of $V_{out}$ (soft start)
Startup delay, max.	0.5 s	0.5 s
Voltage rise, typ.	100 ms	100 ms
Rated current value $I_{out\ rated}$	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
Supplied active power typical	15 W	31.5 W
Parallel switching for enhanced performance	Yes	Yes
Numbers of parallel switchable units for enhanced performance	2	2
<b>Efficiency</b>		
Efficiency at $V_{out\ rated}$ , $I_{out\ rated}$ , approx.	76 %	80 %
Power loss at $V_{out\ rated}$ , $I_{out\ rated}$ , approx.	5 W	8 W
Power loss [W] during no-load operation maximum	0.3 W	0.3 W
<b>Closed-loop control</b>		
Dynamic mains compensation ( $V_{in\ rated} \pm 15\%$ ), max.	0.2 %	0.2 %
Dynamic load smoothing ( $I_{out}$ : 10/90/10 %), $U_{out} \pm$ typ.	5 %	7 %
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.	3.8 A	8.2 A
Property of the output Short-circuit proof	Yes	Yes
Short-circuit protection	Constant current characteristic	Constant current characteristic
Enduring short circuit current RMS value		
• maximum	3.8 A	8.2 A
Overcurrent overload capability in normal operation	overload capability 150% $I_{out\ rated}$ typ. 200 ms	overload capability 150% $I_{out\ rated}$ typ. 200 ms
Overload/short-circuit indicator	-	-
measuring point for output current	50 mV $\hat{=}$ 3 A	50 mV $\hat{=}$ 6.3 A
Overcurrent overload capability when switching on	150% $I_{out\ rated}$ typ. 200 ms	150% $I_{out\ rated}$ typ. 200 ms

**Technical specifications** (continued)

Article number	<b>6EP3310-6SB00-0AY0</b>	<b>6EP3311-6SB00-0AY0</b>
Product	LOGO!Power	LOGO!Power
Power supply, type	5 V/3 A	5 V/6.3 A
<b>Safety</b>		
Primary/secondary isolation	Yes	Yes
Galvanic isolation	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/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; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866	ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866
FM approval	Class I, Div. 2, Group ABCD, T4	Class I, Div. 2, Group ABCD, T4
CB approval	Yes	Yes
Marine approval	ABS, DNV GL	ABS, DNV GL
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		
• during operation	-25 ... +70 °C	-25 ... +70 °C
- Note	with natural convection	with natural convection
• during transport	-40 ... +85 °C	-40 ... +85 °C
• during 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	+, -: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup>	+, -: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup>
• Auxiliary	-	-
Width of the enclosure	36 mm	54 mm
Height of the enclosure	90 mm	90 mm
Depth of the enclosure	53 mm	53 mm
Required spacing		
• top	20 mm	20 mm
• bottom	20 mm	20 mm
• left	0 mm	0 mm
• right	0 mm	0 mm
Weight, approx.	0.12 kg	0.2 kg
Product feature of the enclosure housing for side-by-side mounting	Yes	Yes
Installation	Snaps onto DIN rail EN 60715 35x7.5/15, direct mounting in different mounting positions	Snaps onto DIN rail EN 60715 35x7.5/15, direct mounting in different mounting positions
MTBF at 40 °C	2 931 709 h	2 654 280 h
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

**Ordering data**
**Article No.**
**Article No.**
**LOGO!Power 1-phase,  
5 V DC/3 A**

 Stabilized power supply  
 Input: 100 ... 240 V AC  
 (110 ... 300 V AC)  
 Output: 5 V DC/3 A

**6EP3310-6SB00-0AY0**
**LOGO!Power 1-phase,  
5 V DC/6.3 A**

 Stabilized power supply  
 Input: 100 ... 240 V AC  
 (110 ... 300 V AC)  
 Output: 5 V DC/6.3 A

**6EP3311-6SB00-0AY0**



# LOGO! Logic Modules

## LOGO!Power

### 1-phase, 12 V DC

#### Overview

2



Thanks to its stepped profile design, the LOGO!Power product family is ideally suited for low installation depths, such as in miniature distribution boards. The stabilized power supplies with a wide range input of 100 ... 240 V AC (85 ... 264 V) and 110 ... 300 V DC are available with an output voltage of 12 V in three performance classes. The 12 V versions are ideal for supplying LOGO! controllers with the corresponding voltage input. The high level of efficiency across the entire load range as well as the low no-load losses result in lower overall energy consumption. Greater convenience when commissioning and servicing thanks to integrated current monitor (for devices at least 36 mm wide). The extended temperature range from -25 °C to +70 °C enables a host of additional applications.

#### Main product highlights

- 12 V DC / 0.9 A, 1.9 A and 4.5 A
- Narrow unit with width of 18 mm, 36 mm or 54 mm and overall depth of 53 mm in LOGO! design
- Flexible mounting: DIN rail or wall mounting in a range of installation positions
- Higher energy efficiency: over the entire load range as well as no-load power losses of < 0.3 W
- Integrated current monitor: Actual output current measurement directly at the power supply unit (for devices at least 36 mm wide)
- Global use: Operating temperature range from -25 °C to +70 °C as well as international certifications such as UL, CSA, FM or ATEX

#### Technical specifications

Article number	6EP3320-6SB00-0AY0	6EP3321-6SB00-0AY0	6EP3322-6SB00-0AY0
Product	LOGO!Power	LOGO!Power	LOGO!Power
Power supply, type	12 V/0.9 A	12 V/1.9 A	12 V/4.5 A
<b>Input</b>			
Input	1-phase AC or DC	1-phase AC or DC	1-phase AC or DC
Rated voltage value $V_{in \text{ rated}}$	100 ... 240 V	100 ... 240 V	100 ... 240 V
Voltage range AC	85 ... 264 V	85 ... 264 V	85 ... 264 V
Input voltage			
• at DC	110 ... 300 V	110 ... 300 V	110 ... 300 V
Wide-range input	Yes	Yes	Yes
Oversoltage resistance	300 V AC for 1 s	300 V AC for 1 s	300 V AC for 1 s
Mains buffering at $t_{out \text{ rated}}$ , min.	40 ms; at $V_{in} = 187 \text{ V}$	40 ms; at $V_{in} = 187 \text{ V}$	40 ms; at $V_{in} = 187 \text{ V}$
Rated line frequency 1	50 Hz	50 Hz	50 Hz
Rated line frequency 2	60 Hz	60 Hz	60 Hz
Rated line range	47 ... 63 Hz	47 ... 63 Hz	47 ... 63 Hz
Input current			
• at rated input voltage 120 V	0.3 A	0.53 A	1.13 A
• at rated input voltage 230 V	0.2 A	0.3 A	0.61 A
Switch-on current limiting (+25 °C), max.	20 A	25 A	50 A
$I^2t$ , max.	0.8 A <sup>2</sup> ·s	0.8 A <sup>2</sup> ·s	3 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 6 A characteristic B or from 2 A characteristic C	Recommended miniature circuit breaker: from 6 A characteristic B or from 2 A characteristic C	Recommended miniature circuit breaker: from 10 A characteristic B or from 6 A characteristic C



**Technical specifications** (continued)

Article number	<b>6EP3320-6SB00-0AY0</b>	<b>6EP3321-6SB00-0AY0</b>	<b>6EP3322-6SB00-0AY0</b>
Product	LOGO!Power	LOGO!Power	LOGO!Power
Power supply, type	12 V/0.9 A	12 V/1.9 A	12 V/4.5 A
<b>Output</b>			
Output	Controlled, isolated DC voltage	Controlled, isolated DC voltage	Controlled, isolated DC voltage
Rated voltage $V_{out}$ DC	12 V	12 V	12 V
Total tolerance, static $\pm$	3 %	3 %	3 %
Static mains compensation, approx.	0.1 %	0.1 %	0.1 %
Static load balancing, approx.	0.1 %	0.1 %	0.1 %
Residual ripple peak-peak, max.	200 mV	200 mV	200 mV
Residual ripple peak-peak, typ.	30 mV	30 mV	30 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	300 mV	300 mV	300 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	50 mV	50 mV	50 mV
Adjustment range		10.5 ... 16.1 V	10.5 ... 16.1 V
Product function Output voltage adjustable	No	Yes	Yes
Output voltage setting		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 $V_{out}$ (soft start)	No overshoot of $V_{out}$ (soft start)	No overshoot of $V_{out}$ (soft start)
Startup delay, max.	0.5 s	0.5 s	0.5 s
Voltage rise, typ.	100 ms	100 ms	100 ms
Rated current value $I_{out rated}$	0.9 A	1.9 A	4.5 A
Current range	0 ... 0.9 A	0 ... 1.9 A	0 ... 4.5 A
• Note	+55 ... +70 °C: Derating 2%/K	+55 ... +70 °C: Derating 2%/K	+55 ... +70 °C: Derating 2%/K
Supplied active power typical	10.8 W	22.8 W	54 W
Parallel switching for enhanced performance	No	Yes	Yes
Numbers of parallel switchable units for enhanced performance		2	2
<b>Efficiency</b>			
Efficiency at $V_{out rated}$ , $I_{out rated}$ , approx.	78 %	81 %	87.1 %
Power loss at $V_{out rated}$ , $I_{out rated}$ , approx.	3 W	5 W	8 W
Power loss [W] during no-load operation maximum	0.3 W	0.3 W	0.3 W
<b>Closed-loop control</b>			
Dynamic mains compensation ( $V_{in rated} \pm 15\%$ ), max.	0.2 %	0.2 %	0.2 %
Dynamic load smoothing ( $I_{out}$ : 10/90/10 %), $U_{out} \pm$ typ.	3 %	2 %	4 %
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.	1.3 A	2.5 A	5 A
Property of the output Short-circuit proof	Yes	Yes	Yes
Short-circuit protection	Constant current characteristic	Constant current characteristic	Constant current characteristic
Enduring short circuit current RMS value			
• maximum	1.3 A	2.5 A	5 A
Overcurrent overload capability in normal operation	overload capability 150% $I_{out rated}$ typ. 200 ms	overload capability 150% $I_{out rated}$ typ. 200 ms	overload capability 150% $I_{out rated}$ typ. 200 ms
Overload/short-circuit indicator	-	-	-
measuring point for output current		50 mV = ^ 1.9 A	50 mV = ^ 4.5 A
Overcurrent overload capability when switching on	150% $I_{out rated}$ typ. 200 ms	150% $I_{out rated}$ typ. 200 ms	150% $I_{out rated}$ typ. 200 ms

# LOGO! Logic Modules

## LOGO!Power

### 1-phase, 12 V DC

#### Technical specifications (continued)

Article number	6EP3320-6SB00-0AY0	6EP3321-6SB00-0AY0	6EP3322-6SB00-0AY0
Product	LOGO!Power	LOGO!Power	LOGO!Power
Power supply, type	12 V/0.9 A	12 V/1.9 A	12 V/4.5 A
<b>Safety</b>			
Primary/secondary isolation	Yes	Yes	Yes
Galvanic isolation	Safety extra-low output voltage $U_{out}$ acc. to EN 60950-1 and EN 50178	Safety extra-low output voltage $U_{out}$ acc. to EN 60950-1 and EN 50178	Safety extra-low output voltage $U_{out}$ 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/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, NEC class 2 (acc. to UL 1310)
Explosion protection	ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866	ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866	ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866
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	ABS, DNV GL	ABS, DNV GL	ABS, DNV GL
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	not applicable
Noise immunity	EN 61000-6-2	EN 61000-6-2	EN 61000-6-2
<b>Operating data</b>			
Ambient temperature			
• during operation	-25 ... +70 °C	-25 ... +70 °C	-25 ... +70 °C
- Note	with natural convection	with natural convection	with natural convection
• during transport	-40 ... +85 °C	-40 ... +85 °C	-40 ... +85 °C
• during 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	+, -, 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup>	+, -, 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup>	+, -, 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup>
• Auxiliary	-	-	-
Width of the enclosure	18 mm	36 mm	54 mm
Height of the enclosure	90 mm	90 mm	90 mm
Depth of the enclosure	53 mm	53 mm	53 mm
Required spacing			
• top	20 mm	20 mm	20 mm
• bottom	20 mm	20 mm	20 mm
• left	0 mm	0 mm	0 mm
• right	0 mm	0 mm	0 mm
Weight, approx.	0.07 kg	0.12 kg	0.2 kg
Product feature of the enclosure housing for side-by-side mounting	Yes	Yes	Yes
Installation	Snaps onto DIN rail EN 60715 35x7.5/15, direct mounting in different mounting positions	Snaps onto DIN rail EN 60715 35x7.5/15, direct mounting in different mounting positions	Snaps onto DIN rail EN 60715 35x7.5/15, direct mounting in different mounting positions
MTBF at 40 °C	3 793 080 h	2 938 542 h	2 566 680 h
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

Ordering data	Article No.		Article No.
<b>LOGO!Power 1-phase, 12 V DC/0.9 A</b> Stabilized power supply Input: 100 ... 240 V DC (110 ... 300 V AC) Output: 12 V DC/0.9 A	<b>6EP3320-6SB00-0AY0</b>	<b>LOGO!Power 1-phase, 12 V DC/4.5 A</b> Stabilized power supply Input: 100 ... 240 V AC (110 ... 300 V AC) Output: 12 V DC/4.5 A	<b>6EP3322-6SB00-0AY0</b>
<b>LOGO!Power 1-phase, 12 V DC/1.9 A</b> Stabilized power supply Input: 100 ... 240 V AC (110 ... 300 V DC) Output: 12 V DC/1.9 A	<b>6EP3321-6SB00-0AY0</b>		

# LOGO! Logic Modules

## LOGO!Power

### 1-phase, 15 V DC

#### Overview

2



Thanks to its stepped profile design, the LOGO!Power product family is ideally suited for low installation depths, such as in miniature distribution boards. The stabilized power supplies with a wide range input of 100 ... 240 V AC (85 ... 264 V) and 110 ... 300 V DC are available with an output voltage of 15 V in two performance classes. The high level of efficiency across the entire load range as well as the low no-load losses result in lower overall energy consumption. Greater convenience when commissioning and servicing thanks to the integrated current monitor. The extended temperature range from -25 °C to +70 °C enables a host of additional applications.

#### Main product highlights

- 15 V DC / 1.9 A and 4.0 A
- Narrow unit with 36 mm or 54 mm width and overall depth of 53 mm in LOGO! design
- Flexible mounting: DIN rail or wall mounting in a range of installation positions
- Higher energy efficiency: over the entire load range as well as no-load power losses of < 0.3 W
- Integrated current monitor: Actual output current measurement directly at the power supply unit
- Global use: Operating temperature range from -25 °C to +70 °C as well as international certifications such as UL, CSA, FM or ATEX

#### Technical specifications

Article number	6EP3321-6SB10-0AY0	6EP3322-6SB10-0AY0
Product	LOGO!Power	LOGO!Power
Power supply, type	15 V/1.9 A	15 V/4 A
<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
Wide-range input	Yes	Yes
Overvoltage resistance	300 V AC for 1 s	300 V AC for 1 s
Mains buffering at $I_{out rated, min.}$	40 ms; at $V_{in} = 187 V$	40 ms; at $V_{in} = 187 V$
Rated line frequency 1	50 Hz	50 Hz
Rated line frequency 2	60 Hz	60 Hz
Rated line range	47 ... 63 Hz	47 ... 63 Hz
Input current		
• at rated input voltage 120 V	0.63 A	1.24 A
• at rated input voltage 230 V	0.33 A	0.68 A
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 6 A characteristic B or from 2 A characteristic C	Recommended miniature circuit breaker: from 10 A characteristic B or from 6 A characteristic C

**Technical specifications** (continued)

Article number	<b>6EP3321-6SB10-0AY0</b>	<b>6EP3322-6SB10-0AY0</b>
Product	LOGO!Power	LOGO!Power
Power supply, type	15 V/1.9 A	15 V/4 A
<b>Output</b>		
Output	Controlled, isolated DC voltage	Controlled, isolated DC voltage
Rated voltage $V_{out}$ DC	15 V	15 V
Total tolerance, static $\pm$	3 %	3 %
Static mains compensation, approx.	0.1 %	0.1 %
Static load balancing, approx.	0.1 %	0.1 %
Residual ripple peak-peak, max.	200 mV	200 mV
Residual ripple peak-peak, typ.	30 mV	30 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	300 mV	300 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	50 mV	50 mV
Adjustment range	10.5 ... 16.1 V	10.5 ... 16.1 V
Product function 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 $V_{out}$ (soft start)	No overshoot of $V_{out}$ (soft start)
Startup delay, max.	0.5 s	0.5 s
Voltage rise, typ.	100 ms	100 ms
Rated current value $I_{out rated}$	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
Supplied active power typical	28.5 W	60 W
Parallel switching for enhanced performance	Yes	Yes
Numbers of parallel switchable units for enhanced performance	2	2
<b>Efficiency</b>		
Efficiency at $V_{out rated}$ , $I_{out rated}$ , approx.	83 %	88.4 %
Power loss at $V_{out rated}$ , $I_{out rated}$ , approx.	6 W	8 W
Power loss [W] during no-load operation maximum	0.3 W	0.3 W
<b>Closed-loop control</b>		
Dynamic mains compensation ( $V_{in rated} \pm 15\%$ ), max.	0.2 %	0.2 %
Dynamic load smoothing ( $I_{out}$ : 10/90/10 %), $U_{out} \pm$ typ.	2 %	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.	2.5 A	5 A
Property of the output Short-circuit proof	Yes	Yes
Short-circuit protection	Constant current characteristic	Constant current characteristic
Enduring short circuit current RMS value		
• maximum	2.5 A	5 A
Overcurrent overload capability in normal operation	overload capability 150% $I_{out rated}$ typ. 200 ms	overload capability 150% $I_{out rated}$ typ. 200 ms
Overload/short-circuit indicator	-	-
measuring point for output current	50 mV $\hat{=}$ 1.9 A	45 mV $\hat{=}$ 4 A
Overcurrent overload capability when switching on	150% $I_{out rated}$ typ. 200 ms	150% $I_{out rated}$ typ. 200 ms

# LOGO! Logic Modules

## LOGO!Power

### 1-phase, 15 V DC

#### Technical specifications (continued)

Article number	<b>6EP3321-6SB10-0AY0</b>	<b>6EP3322-6SB10-0AY0</b>
Product	LOGO!Power	LOGO!Power
Power supply, type	15 V/1.9 A	15 V/4 A
<b>Safety</b>		
Primary/secondary isolation	Yes	Yes
Galvanic isolation	Safety extra-low output voltage $U_{out}$ acc. to EN 60950-1 and EN 50178	Safety extra-low output voltage $U_{out}$ 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/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)
Explosion protection	ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866	ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866
FM approval	Class I, Div. 2, Group ABCD, T4	Class I, Div. 2, Group ABCD, T4
CB approval	Yes	Yes
Marine approval	ABS, BV, DNV GL, LRS	ABS, BV, DNV GL, LRS
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		
• during operation	-25 ... +70 °C	-25 ... +70 °C
- Note	with natural convection	with natural convection
• during transport	-40 ... +85 °C	-40 ... +85 °C
• during 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	+, -: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup>	+, -: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup>
• Auxiliary	-	-
Width of the enclosure	36 mm	54 mm
Height of the enclosure	90 mm	90 mm
Depth of the enclosure	53 mm	53 mm
Required spacing		
• top	20 mm	20 mm
• bottom	20 mm	20 mm
• left	0 mm	0 mm
• right	0 mm	0 mm
Weight, approx.	0.12 kg	0.2 kg
Product feature of the enclosure housing for side-by-side mounting	Yes	Yes
Installation	Snaps onto DIN rail EN 60715 35x7.5/15, direct mounting in different mounting positions	Snaps onto DIN rail EN 60715 35x7.5/15, direct mounting in different mounting positions
MTBF at 40 °C	2 938 542 h	2 566 680 h
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

#### Ordering data

##### LOGO!Power 1-phase, 15 V DC/1.9 A

Stabilized power supply  
Input: 100 ... 240 V AC  
(110 ... 300 V DC)  
Output: 15 V DC/1.9 A

#### Article No.

**6EP3321-6SB10-0AY0**

#### Article No.

##### LOGO!Power 1-phase, 15 V DC/4 A

Stabilized power supply  
Input: 100 ... 240 V AC  
(110 ... 300 V DC)  
Output: 15 V DC/4 A

**6EP3322-6SB10-0AY0**

## Overview



Thanks to its stepped profile design, the LOGO!Power product family is ideally suited for low installation depths, such as in miniature distribution boards. The stabilized power supplies with a wide range input of 100 ... 240 V AC (85 ... 264 V) and 110 ... 300 V DC are available with an output voltage of 24 V in four performance classes. The 24 V versions are ideal for supplying LOGO! controllers with the corresponding voltage input. The high level of efficiency across the entire load range as well as the low no-load losses result in lower overall energy

consumption. Greater convenience when commissioning and servicing thanks to integrated current monitor (for devices at least 36 mm wide). The extended temperature range from -25 °C to +70 °C enables a host of additional applications.

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

- 24 V DC / 0.6 A, 1.3 A, 2.5 A and 4.0 A
- Narrow unit with width of 18 mm, 36 mm, 54 mm or 72 mm and overall depth of 53 mm in LOGO! design
- Flexible mounting: DIN rail or wall mounting in a range of installation positions
- Higher energy efficiency: up to 90 % efficiency over the entire load range as well as no-load power losses of < 0.3 W
- Integrated current monitor: Actual output current measurement directly at the power supply unit (for devices at least 36 mm wide)
- Global use:  
Operating temperature range from -25 °C to +70 °C as well as international certifications such as UL, CSA, FM or ATEX

## Technical specifications

Article number	6EP3330-6SB00-0AY0	6EP3331-6SB00-0AY0	6EP3332-6SB00-0AY0	6EP3333-6SB00-0AY0
Product	LOGO!Power	LOGO!Power	LOGO!Power	LOGO!Power
Power supply, type	24 V/0.6 A	24 V/1.3 A	24 V/2.5 A	24 V/4 A
<b>Input</b>				
Input	1-phase AC or DC	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	100 ... 240 V
Voltage range AC	85 ... 264 V	85 ... 264 V	85 ... 264 V	85 ... 264 V
Input voltage				
• at DC	110 ... 300 V	110 ... 300 V	110 ... 300 V	110 ... 300 V
Wide-range input	Yes	Yes	Yes	Yes
Overvoltage resistance	300 V AC for 1 s	300 V AC for 1 s	300 V AC for 1 s	300 V AC for 1 s
Mains buffering at $I_{out rated, min.}$	40 ms; at $V_{in} = 187 V$	40 ms; at $V_{in} = 187 V$	40 ms; at $V_{in} = 187 V$	40 ms; at $V_{in} = 187 V$
Rated line frequency 1	50 Hz	50 Hz	50 Hz	50 Hz
Rated line frequency 2	60 Hz	60 Hz	60 Hz	60 Hz
Rated line range	47 ... 63 Hz	47 ... 63 Hz	47 ... 63 Hz	47 ... 63 Hz
Input current				
• at rated input voltage 120 V	0.3 A	0.7 A	1.22 A	1.95 A
• at rated input voltage 230 V	0.2 A	0.35 A	0.66 A	0.97 A
Switch-on current limiting (+25 °C), max.	20 A	25 A	52 A	31 A
$I^2t$ , max.	0.8 A <sup>2</sup> ·s	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	internal
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: from 6 A characteristic B or from 2 A characteristic C	Recommended miniature circuit breaker: from 6 A characteristic B or from 2 A characteristic C	Recommended miniature circuit breaker: from 10 A characteristic B or from 6 A characteristic C	Recommended miniature circuit breaker: from 10 A characteristic B or from 6 A characteristic C

# LOGO! Logic Modules

## LOGO!Power

### 1-phase, 24 V DC

#### Technical specifications (continued)

Article number	6EP3330-6SB00-0AY0	6EP3331-6SB00-0AY0	6EP3332-6SB00-0AY0	6EP3333-6SB00-0AY0
Product	LOGO!Power	LOGO!Power	LOGO!Power	LOGO!Power
Power supply, type	24 V/0.6 A	24 V/1.3 A	24 V/2.5 A	24 V/4 A
<b>Output</b>				
Output	Controlled, isolated DC voltage	Controlled, isolated DC voltage	Controlled, isolated DC voltage	Controlled, isolated DC voltage
Rated voltage $V_{out}$ DC	24 V	24 V	24 V	24 V
Total tolerance, static $\pm$	3 %	3 %	3 %	3 %
Static mains compensation, approx.	0.1 %	0.1 %	0.1 %	0.1 %
Static load balancing, approx.	0.1 %	0.1 %	0.1 %	0.1 %
Residual ripple peak-peak, max.	200 mV	200 mV	200 mV	200 mV
Residual ripple peak-peak, typ.	30 mV	30 mV	30 mV	30 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	300 mV	300 mV	300 mV	300 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	50 mV	50 mV	50 mV	50 mV
Adjustment range		22.2 ... 26.4 V	22.2 ... 26.4 V	22.2 ... 26.4 V
Product function Output voltage adjustable	No	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	Green LED for output voltage OK
On/off behavior	No overshoot of $V_{out}$ (soft start)	No overshoot of $V_{out}$ (soft start)	No overshoot of $V_{out}$ (soft start)	No overshoot of $V_{out}$ (soft start)
Startup delay, max.	0.5 s	0.5 s	0.5 s	0.5 s
Voltage rise, typ.	100 ms	100 ms	100 ms	100 ms
Rated current value $I_{out rated}$	0.6 A	1.3 A	2.5 A	4 A
Current range	0 ... 0.6 A	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	+55 ... +70 °C: Derating 2%/K
Supplied active power typical	14.4 W	31.2 W	60 W	96 W
Parallel switching for enhanced performance	No	Yes	Yes	Yes
Numbers of parallel switchable units for enhanced performance		2	2	2
<b>Efficiency</b>				
Efficiency at $V_{out rated}$ , $I_{out rated}$ , approx.	81 %	86 %	90 %	89 %
Power loss at $V_{out rated}$ , $I_{out rated}$ , approx.	3 W	5 W	7 W	12 W
Power loss [W] during no-load operation maximum	0.3 W	0.3 W	0.3 W	0.3 W
<b>Closed-loop control</b>				
Dynamic mains compensation ( $V_{in rated} \pm 15 \%$ ), max.	0.2 %	0.2 %	0.2 %	0.2 %
Dynamic load smoothing ( $I_{out}$ : 10/90/10 %), $U_{out} \pm$ typ.	2 %	1 %	2 %	2 %
Load step setting time 10 to 90%, typ.	1 ms	1 ms	1 ms	1 ms
Load step setting time 90 to 10%, typ.	1 ms	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	Yes, according to EN 60950-1
Current limitation, typ.	0.8 A	1.7 A	3.2 A	5 A
Property of the output Short-circuit proof	Yes	Yes	Yes	Yes
Short-circuit protection	Constant current characteristic	Constant current characteristic	Constant current characteristic	Constant current characteristic
Enduring short circuit current RMS value				
• maximum	0.8 A	1.7 A	3.2 A	5 A
Overcurrent overload capability in normal operation	overload capability 150% $I_{out rated}$ typ. 200 ms	overload capability 150% $I_{out rated}$ typ. 200 ms	overload capability 150% $I_{out rated}$ typ. 200 ms	overload capability 150% $I_{out rated}$ typ. 200 ms
Overload/short-circuit indicator measuring point for output current	-	50 mV $\Rightarrow$ 1.3 A	50 mV $\Rightarrow$ 2.5 A	50 mV $\Rightarrow$ 4 A
Overcurrent overload capability when switching on	150% $I_{out rated}$ typ. 200 ms	150% $I_{out rated}$ typ. 200 ms	150% $I_{out rated}$ typ. 200 ms	150% $I_{out rated}$ typ. 200 ms



**Technical specifications (continued)**

Article number	<b>6EP3330-6SB00-0AY0</b>	<b>6EP3331-6SB00-0AY0</b>	<b>6EP3332-6SB00-0AY0</b>	<b>6EP3333-6SB00-0AY0</b>
Product	LOGO!Power	LOGO!Power	LOGO!Power	LOGO!Power
Power supply, type	24 V/0.6 A	24 V/1.3 A	24 V/2.5 A	24 V/4 A
<b>Safety</b>				
Primary/secondary isolation	Yes	Yes	Yes	Yes
Galvanic isolation	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	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)	Class II (without protective conductor)	Class II (without protective conductor)
CE mark	Yes	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, 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; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866	ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866	ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866	ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866
FM approval	Class I, Div. 2, Group ABCD, T4	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	Yes
Marine approval	ABS, BV, DNV GL, LRS	ABS, BV, DNV GL, LRS	ABS, BV, DNV GL, LRS	ABS, BV, DNV GL, LRS
Degree of protection (EN 60529)	IP20	IP20	IP20	IP20
<b>EMC</b>				
Emitted interference	EN 55022 Class B	EN 55022 Class B	EN 55022 Class B	EN 55022 Class B
Supply harmonics limitation	not applicable	not applicable	not applicable	EN 61000-3-2
Noise immunity	EN 61000-6-2	EN 61000-6-2	EN 61000-6-2	EN 61000-6-2
<b>Operating data</b>				
Ambient temperature				
• during operation	-25 ... +70 °C	-25 ... +70 °C	-25 ... +70 °C	-25 ... +70 °C
- Note	with natural convection	with natural convection	with natural convection	with natural convection
• during transport	-40 ... +85 °C	-40 ... +85 °C	-40 ... +85 °C	-40 ... +85 °C
• during storage	-40 ... +85 °C	-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	Climate class 3K3, no condensation
<b>Mechanics</b>				
Connection technology	screw-type terminals	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	L, N: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> single-core/finely stranded
• Output	+, -: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup>	+, -: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup>	+, -: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup>	+, -: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup>
• Auxiliary	-	-	-	-
Width of the enclosure	18 mm	36 mm	54 mm	72 mm
Height of the enclosure	90 mm	90 mm	90 mm	90 mm
Depth of the enclosure	53 mm	53 mm	53 mm	53 mm
Required spacing				
• top	20 mm	20 mm	20 mm	20 mm
• bottom	20 mm	20 mm	20 mm	20 mm
• left	0 mm	0 mm	0 mm	0 mm
• right	0 mm	0 mm	0 mm	0 mm
Weight, approx.	0.07 kg	0.12 kg	0.2 kg	0.29 kg

**LOGO! Logic Modules**

## LOGO!Power

**1-phase, 24 V DC****Technical specifications** (continued)

Article number	<b>6EP3330-6SB00-0AY0</b>	<b>6EP3331-6SB00-0AY0</b>	<b>6EP3332-6SB00-0AY0</b>	<b>6EP3333-6SB00-0AY0</b>
Product	LOGO!Power	LOGO!Power	LOGO!Power	LOGO!Power
Power supply, type	24 V/0.6 A	24 V/1.3 A	24 V/2.5 A	24 V/4 A
Product feature of the enclosure housing for side-by-side mounting	Yes	Yes	Yes	Yes
Installation	Snaps onto DIN rail EN 60715 35x7.5/15, direct mounting in different mounting positions	Snaps onto DIN rail EN 60715 35x7.5/15, direct mounting in different mounting positions	Snaps onto DIN rail EN 60715 35x7.5/15, direct mounting in different mounting positions	Snaps onto DIN rail EN 60715 35x7.5/15, direct mounting in different mounting positions
MTBF at 40 °C	4 415 040 h	3 094 996 h	2 864 520 h	2 391 480 h
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

**Ordering data****LOGO!Power 1-phase, 24 V DC/0.6 A**

Stabilized power supply  
 Input: 100 ... 240 V AC  
 (110 ... 300 V DC)  
 Output: 24 V DC/0.6 A

**6EP3330-6SB00-0AY0****LOGO!Power 1-phase, 24 V DC/2.5 A**

Stabilized power supply  
 Input: 100 ... 240 V AC  
 (110 ... 300 V DC)  
 Output: 24 V DC/2.5 A

**6EP3332-6SB00-0AY0****LOGO!Power 1-phase, 24 V DC/1.3 A**

Stabilized power supply  
 Input: 100 ... 240 V AC  
 (110 ... 300 V DC)  
 Output: 24 V DC/1.3 A

**6EP3331-6SB00-0AY0****LOGO!Power 1-phase, 24 V DC/4 A**

Stabilized power supply  
 Input: 100 ... 240 V AC  
 (110 ... 300 V DC)  
 Output: 24 V DC/4 A

**6EP3333-6SB00-0AY0**

## Overview



Thanks to its stepped profile design, the SIPLUS LOGO!Power product family is ideally suited for low installation depths, such as in miniature distribution boards. The stabilized power supplies with a wide range input of 100 ... 240 V AC (85 ... 264 V) and 110 ... 300 V DC are available with an output voltage of 24 V in four performance classes. The 24 V versions are ideal for supplying SIPLUS LOGO! controllers with the corre-

sponding voltage input. The high level of efficiency across the entire load range as well as the low no-load losses result in lower overall energy consumption. Greater convenience when commissioning and servicing thanks to integrated current monitor (for devices at least 36 mm wide). The extended temperature range enables a host of additional applications.

### Main product highlights

- 24 V DC / 0.6 A, 1.3 A, 2.5 A and 4.0 A
- Narrow unit with width of 18 mm, 36 mm, 54 mm or 72 mm and overall depth of 53 mm in LOGO! design
- Flexible mounting: DIN rail or wall mounting in a range of installation positions
- Higher energy efficiency: up to 90% efficiency over the entire load range as well as no-load power losses of < 0.3 W
- Integrated current monitor: Actual output current measurement directly at the power supply unit (for devices at least 36 mm wide)
- Global use: International certifications such as UL, CSA, FM or ATEX

## Technical specifications

Article number	6AG1331-6SB00-7AY0	6AG1332-6SB00-7AY0	6AG1333-6SB00-7AY0
Based on	6EP3331-6SB00-0AY0	6EP3332-6SB00-0AY0	6EP3333-6SB00-0AY0
Product	SIPLUS LOGO!Power	SIPLUS LOGO!Power	SIPLUS LOGO!Power
Power supply, type	24 V/1.3 A	24 V/2.5 A	24 V/4 A
<b>Operating data</b>			
Ambient temperature			
• during operation	-40 ... +70 °C	-40 ... +70 °C	-40 ... +70 °C
- Note	with natural convection	with natural convection	with natural convection
• during transport	-40 ... +85 °C	-40 ... +85 °C	-40 ... +85 °C
• during storage	-40 ... +85 °C	-40 ... +85 °C	-40 ... +85 °C
• on cold restart minimum	-25 °C	-25 °C	-25 °C
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)
Resistance to biologically active substances conformity acc. to EN 60721-3-3	Yes	Yes	Yes
Resistance to chemically active substances conformity acc. to EN 60721-3-3	Yes	Yes	Yes
Resistance to mechanically active substances conformity acc. to EN 60721-3-3	Yes	Yes	Yes

## Ordering data

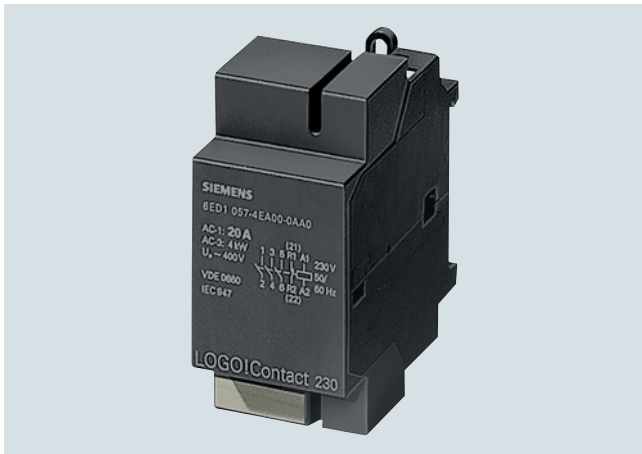
Ordering data	Article No.	Ordering data	Article No.
<b>SIPLUS LOGO!Power 24 V 1.3 A</b> Extended temperature range and exposure to environmental substances Input 100 ... 240 V AC Output 24 V DC, 1.3 A	6AG1331-6SB00-7AY0	<b>SIPLUS LOGO!Power 24 V 4 A</b> Extended temperature range and exposure to environmental substances Input 100 ... 240 V AC Output 24 V DC, 4 A	6AG1333-6SB00-7AY0
<b>SIPLUS LOGO!Power 24 V 2.5 A</b> Extended temperature range and exposure to environmental substances Input 100 ... 240 V AC Output 24 V DC, 2.5 A	6AG1332-6SB00-7AY0		

**LOGO! Logic Modules**

LOGO! accessories

**LOGO!Contact switching module****Overview**

2



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

**Technical specifications**

Article number	<b>6ED1057-4CA00-0AA0</b>	<b>6ED1057-4EA00-0AA0</b>
	LOGO! Contact Mod., 24 V DC, 3NO/1NC	LOGO! Contact Mod., 230 V AC, 3NO/1NC
<b>Standards, approvals, certificates</b>		
CE mark	Yes	Yes
<b>Ambient conditions</b>		
<b>Ambient temperature during operation</b>		
• min.	-25 °C	-25 °C
• max.	55 °C	55 °C
<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**

**Overview**

LOGO! and SIPLUS LOGO! are designed for quick and easy mounting on DIN 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****Front panel mounting kit**

Width 4 U, with keys

Width 8 U, with keys

**Article No.****6AG1057-1AA00-0AA3****6AG1057-1AA00-0AA2**

# LOGO! Logic Modules

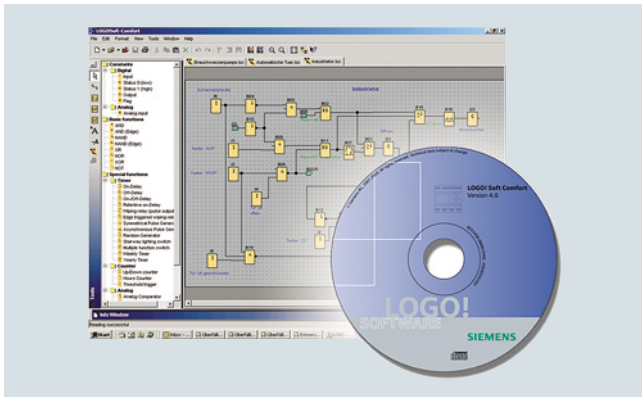
LOGO! software

LOGO! software

## Overview

## Ordering data

## Article No.



### LOGO!Soft Comfort V8

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

6ED1058-0BA08-0YA1

- 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.