

OFFICIAL DOCUMENT PACKAGE

Manufacturer's Manual

Amikon cover with selected official Siemens technical pages

SIEMENS LOGO! DIGITAL EXPANSION

6ED1055-1FB10-0BA2

LOGO! DM16 230R EXPANSION MODULE

Selected official pages cover housing dimensions, approximate weight, supply requirements and input/output ratings.

OFFICIAL SOURCE

Siemens LOGO! System Manual, 06/2023, A5E33039675-AL

Pages 343 and 348-350

Use the LOGO! DM16 230R column. Adjacent model columns remain unchanged to preserve the original manufacturer pages and notes.

Technical data

A.1 General technical data

Criterion	Tested in accordance with	Values
LOGO! Base Modules (0BA8) LOGO! Basic Dimensions (WxHxD) Weight - Modules with relay output - Modules with transistor output Installation		71.5 x 90 x 60 mm Approx. 240 g Approx. 195 g On a 35 mm profile rail four module widths or wall mounting
LOGO! Pure Dimensions (WxHxD) Weight - Modules with relay output - Modules with transistor output Installation		71.5 x 90 x 58 mm Approx. 200 g Approx. 160 g On a 35 mm profile rail four module widths or wall mounting
LOGO! expansion modules DM16... Dimensions (WxHxD) Weight - Modules with relay output - Modules with transistor output Installation		71.5 x 90 x 58 mm Approx. 225 g Approx. 165 g On a 35 mm profile rail four module widths or wall mounting
LOGO! expansion modules DM8... Dimensions (WxHxD) Weight - Modules with relay output - Modules with transistor output Installation		35.5 x 90 x 58 mm Approx. 130 g Approx. 95 g On a 35 mm profile rail two module widths or wall mounting
LOGO! expansion modules AM... Dimensions (WxHxD) Weight Installation		35.5 x 90 x 58 mm Approx. 95 g On a 35 mm profile rail two module widths or wall mounting
LOGO! TDE (Text Display with Ethernet interfaces) Dimensions (WxHxD) Weight Installation		128.2 x 86 x 38.7 mm Approx. 220 g Bracket mounting

A.3 Technical data: LOGO! DM8 230R and LOGO! DM16 230R

	LOGO! 230RCEo	LOGO! 230RCE
Fluorescent tubes, uncompensated (25000 switching cycles)	10 x 58 W (at 230/240 VAC)	10 x 58 W (at 230/240 VAC)
Short circuit-proof cos 1	Power protection B16, 600 A	Power protection B16, 600 A
Short circuit-proof cos 0.5 to 0.7	Power protection B16, 900 A	Power protection B16, 900 A
Derating	None; across the entire temperature range	None; across the entire temperature range
Parallel output circuits for power increase	Not permitted	Not permitted
Protection of output relay (if desired)	Max. 16 A, characteristic B16	Max. 16 A, characteristic B16
Line length (unshielded)	Max. 100 m	Max. 100 m
Switching rate		
Mechanical	10 Hz	10 Hz
Ohmic load/lamp load	2 Hz	2 Hz
Inductive load	0.5 Hz	0.5 Hz

Notice: For fluorescent lamps with capacitors, you must consider the technical data of fluorescent lamp ballasts. If the current exceeds the maximum allowed surge current, appropriate contactor relays must switch the fluorescent lamps.

The data was determined with the following devices:

- Siemens fluorescent tubes 58 W VVG 5LZ 583 3-1 uncompensated.
- Siemens fluorescent tubes 58 W VVG 5LZ 583 3-1 parallel compensated with 7 µF.
- Siemens fluorescent tubes 58 W VVG 5LZ 501 1-1N with ballast.

A.3 Technical data: LOGO! DM8 230R and LOGO! DM16 230R

	LOGO! DM8 230R	LOGO! DM16 230R
Power supply		
Input voltage	115 VAC/VDC to 240 VAC/VDC	115 VAC/VDC to 240 VAC/VDC
Permissible range	85 VAC to 265 VAC 100 VDC to 253 VDC	85 VAC to 265 VAC 100 VDC to 253 VDC
Permissible mains frequency	47Hz to 63 Hz	
Power consumption	• 115 VAC • 240 VAC • 115 VDC • 240 VDC	• 20 mA to 40 mA • 15 mA to 30 mA • 10 mA to 25 mA • 5 mA to 15 mA
Voltage failure buffering	• 115 VAC/VDC • 240 VAC/VDC	• Typ. 10 ms • Typ. 20 ms

	LOGO! DM8 230R	LOGO! DM16 230R
Power loss at		
• 115 VAC	• 2.3 W to 4.6 W	• 2.3 W to 4.6 W
• 240 VAC	• 3.6 W to 7.2 W	• 3.6 W to 7.2 W
• 115 VDC	• 1.2 W to 2.9 W	• 1.2 W to 2.9 W
• 240 VDC	• 1.2 W to 3.6 W	• 1.2 W to 3.6 W
Digital inputs		
Number	4	8
Electrical isolation	No	No
Number of high speed inputs	0	0
Input frequency		
• Normal input	• Max. 4 Hz	• Max. 4 Hz
• High speed input	• - -	• - -
Max. continuous permissible voltage	265 VAC 253 VDC	265 VAC 253 VDC
Input voltage L1		
• Signal 0	• < 40 VAC	• < 40 VAC
• Signal 1	• > 79 VAC	• > 79 VAC
• Signal 0	• < 30 VDC	• < 30 VDC
• Signal 1	• > 79 VDC	• > 79 VDC
Input current at		
• Signal 0	• < 0.05 mA AC	• < 0.05 mA AC
• Signal 1	• > 0.08 mA AC	• > 0.08 mA AC
• Signal 0	• < 0.06 mA DC	• < 0.06 mA DC
• Signal 1	• > 0.13 mA DC	• > 0.13 mA DC
Delay time at 0 to 1:		
• 120 VAC	• Typ. 40 ms	• Typ. 40 ms
• 240 VAC	• Typ. 30 ms	• Typ. 30 ms
• 120 VDC	• Typ. 25 ms	• Typ. 25 ms
• 240 VDC	• Typ. 20 ms	• Typ. 20 ms
Delay time at 1 to 0:		
• 120 VAC	• Typ. 45 ms	• Typ. 45 ms
• 240 VAC	• Typ. 70 ms	• Typ. 70 ms
• 120 VDC	• Typ. 60 ms	• Typ. 60 ms
• 240 VDC	• Typ. 75 ms	• Typ. 75 ms
Line length (unshielded)	Max. 100 m	Max. 100 m
Digital outputs		
Number	4	8
Output type	Relay outputs	Relay outputs
Electrical isolation	Yes	Yes
In groups of	1	1
Control of a digital input	Yes	Yes

	LOGO! DM8 230R	LOGO! DM16 230R
Continuous current I_{th}	Recommended range of application ≥ 100 mA at 12 VAC/VDC Max. 5 A per relay	Recommended range of application ≥ 100 mA at 12 VAC/VDC Max. 5 A per relay
Relay rated voltage	240 VAC/VDC	240 VAC/VDC
Surge current	Max. 30 A	Max. 30 A
Incandescent lamp load (25000 switching cycles) at: 230/240 VAC 115/120 VAC	1000 W 500 W	1000 W 500 W
Fluorescent tubes with ballast (25000 switching cycles)	10 x 58 W (at 230/240 VAC)	10 x 58 W (at 230/240 VAC)
Fluorescent tubes, conventionally compensated (25000 switching cycles)	1 x 58 W (at 230/240 VAC)	1 x 58 W (at 230/240 VAC)
Fluorescent tubes, uncompensated (25000 switching cycles)	10 x 58 W (at 230/240 VAC)	10 x 58 W (at 230/240 VAC)
Short circuit-proof cos 1	Power protection B16, 600 A	Power protection B16, 600 A
Short circuit-proof cos 0.5 to 0.7	Power protection B16, 900 A	Power protection B16, 900 A
Derating	None; across the entire temperature range	None; across the entire temperature range
Parallel output circuits for power increase	Not permitted	Not permitted
Protection of output relay (if desired)	Max. 16 A, characteristic B16	Max. 16 A, characteristic B16
Line length (unshielded)	Max. 100 m	Max. 100 m
Switching rate		
Mechanical	10 Hz	10 Hz
Ohmic load/lamp load	2 Hz	2 Hz
Inductive load	0.5 Hz	0.5 Hz

Notice: For fluorescent lamps with capacitors, you must consider the technical data of fluorescent lamp ballasts. If the current exceeds the maximum allowed surge current, appropriate contactor relays must switch the fluorescent lamps.

The data was determined with the following devices:

- Siemens fluorescent tubes 58 W VVG 5LZ 583 3-1 uncompensated.
- Siemens fluorescent tubes 58 W VVG 5LZ 583 3-1 parallel compensated with 7 μ F.
- Siemens fluorescent tubes 58 W VVG 5LZ 501 1-1N with ballast.

A.4 Technical data: LOGO! 24...

	LOGO! 24CE LOGO! 24CEo
Power supply	
Input voltage	24 VDC
Permissible range	20.4 VDC to 28.8 VDC