

SIMATIC S7-300

Digital modules

SM 322 digital output modules

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Technical specifications (continued)

	6ES7 322-1BF01-0AA0	6ES7 322-1FF01-0AA0	6ES7 322-5FF00-0AB0	6ES7 322-1FH00-0AA0	6ES7 322-1FL00-0AA0	6ES7 322-1HF01-0AA0
Aggregate current of the outputs (per group)						
• horizontal installation		4 A	8 A	4 A	4 A	
- up to 40 °C, max.						
- up to 60 °C, max.	4 A	2 A	4 A	2 A	3 A	
Relay outputs						
Rated input voltage of relay L+ (DC)						24 V; 110 mA
Number of operating cycles						300,000; 230 V AC: 100000, 120 V AC: 200000, 24 V DC: 300000 (at 2 A)
Switching capacity of the contacts						
• with inductive load, max.						2 A; 2 A (230 V AC), 2 A (24 V DC)
• with resistive load, max.						2 A
Status information/ alarms/diagnostics						
Alarms						
• Diagnostic alarm	No	No	Yes; parameterizable	No	No	No
Diagnoses						
• Diagnostics	No	Yes	Yes; Off / last value / substitute value	Yes	Yes	No
Isolation						
Isolation checked with	500 V DC	1500 V AC	1500 V AC	4000 V DC	4000 V DC	1500 V AC
Isolation						
Isolation, digital outputs						
• between the channels, in groups of	4	4	1	8	8	2
• between the channels and the backplane bus	Yes; Optocoupler	Yes; Optocoupler	Yes; Optocoupler	Yes; Optocoupler	Yes; Optocoupler	Yes; Optocoupler
Dimensions and weight						
Width	40 mm	40 mm	40 mm	40 mm	80 mm	40 mm
Height	125 mm	125 mm	125 mm	125 mm	125 mm	125 mm
Depth	120 mm	120 mm	120 mm	120 mm	117 mm	120 mm
Weights						
Weight, approx.	190 g	275 g	275 g	275 g	500 g	190 g
	6ES7 322-1HF10-0AA0		6ES7 322-5HF00-0AB0		6ES7 322-1HH01-0AA0	
Voltages and currents						
Load voltage L+						
• Rated value (DC)	120 V		24 V		120 V	
Load voltage L1						
• Rated value (AC)	230 V		230 V		230 V	
Current consumption						
from backplane bus DC 5 V, max.	40 mA		100 mA		100 mA	
Power loss, typ.	4.2 W		3.5 W		4.5 W	
Connection point						
required front connectors	40-pin		40-pin		20-pin	

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Technical specifications (continued)

	6ES7 322-1HF10-0AA0	6ES7 322-5HF00-0AB0	6ES7 322-1HH01-0AA0
Digital outputs			
Number of digital outputs	8; Relay	8; Relay	16; Relay
Cable length, shielded, max.	1,000 m	1,000 m	1,000 m
Cable length unshielded, max.	600 m	600 m	600 m
Short-circuit protection of the output	No; to be provided externally	No; to be provided externally	
Lamp load, max.	1,500 W; AC 230 V	1,500 W; AC 230 V	50 W; AC 230 V
Output current			
• for signal "1" minimum load current	5 mA	10 mA	10 mA
Switching frequency			
• with resistive load, max.	2 Hz	2 Hz	1 Hz
• with inductive load, max.	0.5 Hz	0.5 Hz	0.5 Hz
• on lamp load, max.	2 Hz	2 Hz	1 Hz
• mechanical, max.	10 Hz	10 Hz	10 Hz
Aggregate current of the outputs (per group)			
• vertical installation - up to 40 °C, max.	5 A	5 A	8 A
• horizontal installation - up to 60 °C, max.	5 A	5 A	8 A
Relay outputs			
Rated input voltage of relay L+ (DC)	24 V		24 V
Number of operating cycles	300,000; 300,000 (DC 24 V, at 2 A), 200,000 (AC 120 V, at 3 A), 100,000 (AC 230 V, at 3 A)	100,000; 100,000 (DC 24 V, at 5 A), 100,000 (AC 230 V, at 5 A)	100,000; 50,000 (24 V DC, at 2 A), 700,000 (120 V AC, at 2 A), 100,000 (230 V AC, at 2 A)
Switching capacity of the contacts			
• with inductive load, max.	3 A; 3 A (230 V AC), 2 A (24 V DC)	5 A; 5 A (230 V AC), 5 A (24 V DC)	2 A; 2 A (230 V AC), 2 A (24 V DC)
• with resistive load, max.	8 A; 8 A (230 V AC), 5 A (24 V DC)	5 A; 5 A (230 V AC), 5 A (24 V DC)	2 A; 2 A (230 V AC), 2 A (24 V DC)
Status information/ alarms/diagnostics			
Alarms			
• Diagnostic alarm	No	Yes; parameterizable	No
Diagnoses			
• Diagnostics	No	Yes; Off / last value / substitute value	No
Isolation			
Isolation checked with	2000 V AC	1500 V AC	1500 V AC
Isolation			
Isolation, digital outputs			
• between the channels, in groups of	1	1	8
• between the channels and the backplane bus	Yes; Optocoupler	Yes; Optocoupler	Yes; Optocoupler
Dimensions and weight			
Width	40 mm	40 mm	40 mm
Height	125 mm	125 mm	125 mm
Depth	120 mm	120 mm	120 mm
Weights			
Weight, approx.	320 g	320 g	250 g