



SIMATIC S7-300, Digital output SM 322, isolated, 32 DO, 120 V/230 V AC, 1 A, double-width, 2x 20-pole

Supply voltage	
Load voltage L1	
• Rated value (AC)	120 V; 120/230 V AC
• permissible range, lower limit (AC)	79 V
• permissible range, upper limit (AC)	264 V
• permissible frequency range, lower limit	47 Hz
• permissible frequency range, upper limit	63 Hz
Input current	
from load voltage L1 (without load), max.	10 mA
from backplane bus 5 V DC, max.	190 mA
Power loss	
Power loss, typ.	25 W
Digital outputs	
Number of digital outputs	32
Short-circuit protection	No
Controlling a digital input	Yes
Size of motor starters according to NEMA, max.	Size 4 according to NEMA
Zero-crossing switch	Yes; Max. 60 V
Switching capacity of the outputs	
• on lamp load, max.	50 W
Output voltage	
• for signal "1", min.	L1 (-0.8 V)
Output current	
• for signal "1" rated value	1 A
• for signal "1" permissible range for 0 to 40 °C, min.	10 mA
• for signal "1" permissible range for 0 to 40 °C, max.	1 A
• for signal "1" permissible range for 40 to 60 °C, min.	10 mA
• for signal "1" permissible range for 40 to 60 °C, max.	1 A
• for signal "1" minimum load current	10 mA
• for signal "1" permissible surge current, max.	10 A; per group (for 2 AC cycles)
• for signal "0" residual current, max.	2 mA
Output delay with resistive load	
• "0" to "1", max.	1 AC cycle
• "1" to "0", max.	1 AC cycle
Parallel switching of two outputs	
• for uprating	No
• for redundant control of a load	Yes; only outputs of the same group
Switching frequency	
• with resistive load, max.	10 Hz
• with inductive load, max.	0.5 Hz

<ul style="list-style-type: none"> • with inductive load (acc. to IEC 60947-5-1, AC15), max. 	0.5 Hz
<ul style="list-style-type: none"> • on lamp load, max. 	1 Hz
Total current of the outputs (per group)	
horizontal installation	
— up to 40 °C, max.	4 A
— up to 60 °C, max.	3 A
vertical installation	
— up to 40 °C, max.	4 A
Cable length	
<ul style="list-style-type: none"> • shielded, max. 	1 000 m
<ul style="list-style-type: none"> • unshielded, max. 	600 m
Interrupts/diagnostics/status information	
Alarms	No
Diagnostics function	Yes; Fuse blown or load voltage missing
Alarms	
<ul style="list-style-type: none"> • Diagnostic alarm 	No
Diagnostics indication LED	
<ul style="list-style-type: none"> • Group error SF (red) 	Yes
<ul style="list-style-type: none"> • Status indicator digital output (green) 	Yes; per channel
Potential separation	
Potential separation digital outputs	
<ul style="list-style-type: none"> • between the channels 	Yes
<ul style="list-style-type: none"> • between the channels, in groups of 	8
<ul style="list-style-type: none"> • between the channels and backplane bus 	Yes; Optocoupler
Isolation	
Isolation tested with	4 000 V DC
connection method	
required front connector	20-pin
Dimensions	
Width	80 mm
Height	125 mm
Depth	117 mm
Weights	
Weight, approx.	500 g

last modified: 3/12/2024 