



SIMATIC S7-300, Digital output SM 322, isolated, 8 DO, 48-125 V DC, 1.5A, 1x 20-pole

Supply voltage	
Load voltage L+	
• Rated value (DC)	48 V; 48 V DC to 125 V DC
• permissible range, lower limit (DC)	40 V
• permissible range, upper limit (DC)	140 V
• Reverse polarity protection	Yes; through fuse
Input current	
from load voltage L+ (without load), max.	2 mA
from backplane bus 5 V DC, max.	100 mA
Power loss	
Power loss, typ.	7.2 W
Digital outputs	
Number of digital outputs	8
Short-circuit protection	Yes; Electronic
• Response threshold, typ.	4.4 A
Limitation of inductive shutdown voltage to	M (-1 V)
Controlling a digital input	Yes
Spare fuses	6.3 A / 250 V, quick-response, 5x 20 mm
Switching capacity of the outputs	
• on lamp load, max.	15 W; 15 W (48 V) or 40 W (125 V)
Output voltage	
• for signal "1", min.	L+ (-1.2 V)
Output current	
• for signal "1" rated value	1.5 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.	1.5 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.	1.5 A
• for signal "1" minimum load current	10 mA
• for signal "1" permissible surge current, max.	3 A; for 10 ms
• for signal "0" residual current, max.	0.5 mA
Output delay with resistive load	
• "0" to "1", max.	2 ms
• "1" to "0", max.	15 ms
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.	25 Hz
• with inductive load, max.	0.5 Hz

<ul style="list-style-type: none"> • with inductive load (acc. to IEC 60947-5-1, DC13), max. • on lamp load, max. 	0.5 Hz 10 Hz
Total current of the outputs (per group)	
horizontal installation	
— up to 40 °C, max.	6 A
— up to 50 °C, max.	4 A
— up to 60 °C, max.	3 A
vertical installation	
— up to 40 °C, max.	4 A
Cable length	
• shielded, max.	1 000 m
• unshielded, max.	600 m
Interrupts/diagnostics/status information	
Alarms	No
Diagnostics function	No
Alarms	
• Diagnostic alarm	No
Diagnoses	
• Wire-break	No
• Short-circuit	No
• Fuse blown	No
• missing load voltage	No
Diagnostics indication LED	
• Rated load voltage PWR (green)	No
• Fuse OK FSG (green)	No
• Group error SF (red)	Yes
• Status indicator digital output (green)	Yes
Potential separation	
Potential separation digital outputs	
• between the channels	Yes
• between the channels, in groups of	4
• between the channels and backplane bus	Yes; Optocoupler
Isolation	
Isolation tested with	1 500 V AC
connection method	
required front connector	20-pin
Dimensions	
Width	40 mm
Height	125 mm
Depth	120 mm
Weights	
Weight, approx.	250 g

last modified: 3/12/2024 