



SIMATIC S7-300, Digital output SM 322, Isolated 16 DO, 120/230 V AC, 1 A, 1x 20-pole

Figure similar

Supply voltage	
Load voltage L1	
• Rated value (AC)	230 V; 120/230 V AC
• permissible range, lower limit (AC)	79 V
• permissible range, upper limit (AC)	264 V
Input current	
from load voltage L1 (without load), max.	2 mA
from backplane bus 5 V DC, max.	200 mA
Power loss	
Power loss, typ.	8.6 W
Digital outputs	
Number of digital outputs	16
Short-circuit protection	Yes; Fuse 8 A, 250 V; per group
• required current for fuse shutdown, min.	40 A
• Response time, max.	300 ms
Controlling a digital input	Yes
Size of motor starters according to NEMA, max.	4 NEMA compliant
Spare fuses	8 A / quick response
Switching capacity of the outputs	
• on lamp load, max.	50 W
Output voltage	
• for signal "1" (at max. current), min.	L1 (-1.5 V)
• for signal "1" (at min. current), min.	L1 (-8.5 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.	0.5 A
• for signal "1" minimum load current	10 mA
• for signal "1" permissible surge current, max.	20 A; with 2 half waves
• for signal "0" residual current, max.	2 mA
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
• with inductive load (acc. to IEC 60947-5-1, AC15), max.	0.5 Hz

• on lamp load, max.	1 Hz
<b>Total current of the outputs (per group)</b>	
horizontal installation	
— up to 40 °C, max.	4 A
— up to 60 °C, max.	2 A
vertical installation	
— up to 40 °C, max.	2 A
<b>Cable length</b>	
• shielded, max.	1 000 m
• unshielded, max.	600 m
<b>Interrupts/diagnostics/status information</b>	
Diagnostics function	Yes; Fuse blown or load voltage missing
<b>Alarms</b>	
• Diagnostic alarm	No
<b>Diagnoses</b>	
• Wire-break	No
• Short-circuit	No
• Fuse blown	Yes
• missing load voltage	No
<b>Diagnostics indication LED</b>	
• Rated load voltage PWR (green)	No
• Fuse OK FSG (green)	Yes; Red LED for fuse
• Group error SF (red)	Yes
• Status indicator digital output (green)	Yes
<b>Potential separation</b>	
Potential separation digital outputs	
• between the channels, in groups of	8
• between the channels and backplane bus	Yes; Optocoupler
<b>Isolation</b>	
Isolation tested with	4 000 V DC
<b>connection method</b>	
required front connector	20-pin
<b>Dimensions</b>	
Width	40 mm
Height	125 mm
Depth	120 mm
<b>Weights</b>	
Weight, approx.	275 g

**last modified:** 3/12/2024 