



SIMATIC S7-300, Digital output SM 322, isolated, 16 DO (solid-state relay), 24-48 V AC/DC; 0.5 A with single rooting, 1x 40-pole

Figure similar

Supply voltage	
Mains buffering	
• Mains/voltage failure stored energy time	5 ms
Load voltage L+	
• Rated value (DC)	24 V; 24 / 48
• permissible range, lower limit (DC)	20.4 V
• permissible range, upper limit (DC)	57.6 V
• Reverse polarity protection	Yes
Input current	
from supply voltage L+, max.	200 mA
from backplane bus 5 V DC, max.	100 mA
Power loss	
Power loss, typ.	2.8 W
Digital outputs	
Number of digital outputs	16
Short-circuit protection	No; to be provided externally
Controlling a digital input	Yes
Size of motor starters according to NEMA, max.	Size 5 according to NEMA
Switching capacity of the outputs	
• on lamp load, max.	2.5 W
Output voltage	
• for signal "1", min.	L+ (-0.25 V)
Output current	
• for signal "1" rated value	0.5 A
• for signal "1" permissible range for 0 to 40 °C, max.	0.5 A
• for signal "1" permissible range for 40 to 60 °C, max.	0.5 A
• for signal "1" permissible surge current, max.	1.5 A; for 50 ms, 1 A 2 s one-time
• for signal "0" residual current, max.	10 µA
Output delay with resistive load	
• "0" to "1", max.	6 ms
• "1" to "0", max.	3 ms
Parallel switching of two outputs	
• for uprating	No
• for redundant control of a load	Yes
Switching frequency	
• with resistive load, max.	10 Hz
• with inductive load, max.	0.5 Hz

<ul style="list-style-type: none"> <li>with inductive load (acc. to IEC 60947-5-1, DC13), max.</li> </ul>	0.5 Hz
<ul style="list-style-type: none"> <li>on lamp load, max.</li> </ul>	0.5 Hz
<b>Total current of the outputs (per group)</b>	
horizontal installation	
— up to 40 °C, max.	0.5 A; 8 A per module
— up to 60 °C, max.	0.5 A; 8 A per module
vertical installation	
— up to 40 °C, max.	0.5 A; 8 A per module
<b>Cable length</b>	
<ul style="list-style-type: none"> <li>shielded, max.</li> </ul>	1 000 m
<ul style="list-style-type: none"> <li>unshielded, max.</li> </ul>	600 m
<b>Interrupts/diagnostics/status information</b>	
Diagnostics function	Yes; Parameterizable
<b>Alarms</b>	
<ul style="list-style-type: none"> <li>Diagnostic alarm</li> </ul>	Yes; Parameterizable
<b>Diagnoses</b>	
<ul style="list-style-type: none"> <li>Diagnostic information readable</li> </ul>	Yes
<b>Diagnostics indication LED</b>	
<ul style="list-style-type: none"> <li>Group error SF (red)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Status indicator digital output (green)</li> </ul>	Yes
<b>Potential separation</b>	
Potential separation digital outputs	
<ul style="list-style-type: none"> <li>between the channels</li> </ul>	Yes
<ul style="list-style-type: none"> <li>between the channels, in groups of</li> </ul>	1
<ul style="list-style-type: none"> <li>between the channels and backplane bus</li> </ul>	Yes; Optocoupler
<ul style="list-style-type: none"> <li>between the channels and the power supply of the electronics</li> </ul>	Yes
<b>Isolation</b>	
Isolation tested with	1 500 V AC
<b>connection method / header</b>	
required front connector	40-pin
<b>Dimensions</b>	
Width	40 mm
Height	125 mm
Depth	120 mm
<b>Weights</b>	
Weight, approx.	260 g
<b>last modified:</b>	12/16/2020 