



Figure similar

SIMATIC S7-300, Digital output SM 322, isolated, 8 DO, 120/230 V AC, 1 A, 1x 20-pole

Supply voltage	
Load voltage L1	
<ul style="list-style-type: none"> <li>Rated value (AC)</li> </ul>	230 V; 120/230 V AC
<ul style="list-style-type: none"> <li>permissible range, lower limit (AC)</li> </ul>	93 V
<ul style="list-style-type: none"> <li>permissible range, upper limit (AC)</li> </ul>	264 V
<ul style="list-style-type: none"> <li>permissible frequency range, lower limit</li> </ul>	47 Hz
<ul style="list-style-type: none"> <li>permissible frequency range, upper limit</li> </ul>	63 Hz
Input current	
from load voltage L1 (without load), max.	2 mA
from backplane bus 5 V DC, max.	100 mA
Power loss	
Power loss, typ.	8.6 W
Digital outputs	
Number of digital outputs	8
Short-circuit protection	Yes; Fuse 8 A, 250 V; per group
<ul style="list-style-type: none"> <li>required current for fuse shutdown, min.</li> </ul>	40 A
<ul style="list-style-type: none"> <li>Response time, max.</li> </ul>	300 ms
Controlling a digital input	Yes
Size of motor starters according to NEMA, max.	5 NEMA compliant
Spare fuses	8 A / quick response
Zero-crossing switch	Yes; Max. 60 V
Switching capacity of the outputs	
<ul style="list-style-type: none"> <li>on lamp load, max.</li> </ul>	50 W
Output voltage	
<ul style="list-style-type: none"> <li>for signal "1", min.</li> </ul>	L1 (-1.5 V)
<ul style="list-style-type: none"> <li>for signal "1" (at max. current), min.</li> </ul>	L1 (-1.5 V)
<ul style="list-style-type: none"> <li>for signal "1" (at min. current), min.</li> </ul>	L1 (-8.5 V)
Output current	
<ul style="list-style-type: none"> <li>for signal "1" rated value</li> </ul>	2 A
<ul style="list-style-type: none"> <li>for signal "1" permissible range for 0 to 40 °C, min.</li> </ul>	10 mA
<ul style="list-style-type: none"> <li>for signal "1" permissible range for 0 to 40 °C, max.</li> </ul>	2 A
<ul style="list-style-type: none"> <li>for signal "1" permissible range for 40 to 60 °C, min.</li> </ul>	10 mA
<ul style="list-style-type: none"> <li>for signal "1" permissible range for 40 to 60 °C, max.</li> </ul>	1 A
<ul style="list-style-type: none"> <li>for signal "1" minimum load current</li> </ul>	10 mA
<ul style="list-style-type: none"> <li>for signal "1" permissible surge current, max.</li> </ul>	20 A; max. 1 AC cycle
<ul style="list-style-type: none"> <li>for signal "0" residual current, max.</li> </ul>	2 mA
Output delay with resistive load	
<ul style="list-style-type: none"> <li>"0" to "1", max.</li> </ul>	1 AC cycle
<ul style="list-style-type: none"> <li>"1" to "0", max.</li> </ul>	1 AC cycle

<b>Parallel switching of two outputs</b>	
• for uprating	No
• for redundant control of a load	Yes
<b>Switching frequency</b>	
• 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>	
<b>horizontal installation</b>	
— up to 40 °C, max.	4 A
— up to 60 °C, max.	2 A
<b>vertical installation</b>	
— 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>	
Alarms	No
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	Yes
<b>Diagnostics indication LED</b>	
• Rated load voltage PWR (green)	Yes
• Fuse OK FSG (green)	Yes
• Group error SF (red)	Yes
• Status indicator digital output (green)	Yes
<b>Potential separation</b>	
<b>Potential separation digital outputs</b>	
• between the channels	Yes
• between the channels, in groups of	4
• between the channels and backplane bus	Yes; Optocoupler
<b>Isolation</b>	
Isolation tested with	1 500 V AC
<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:** 1/16/2021 