

SIMATIC S7-400, digital output SM 422, isolated 16 DO; 120/230 V AC, 2 A



Figure similar

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>	79 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 L+ (without load), max.	1.5 mA
from backplane bus 5 V DC, max.	400 mA
Power loss	
Power loss, typ.	16 W
Digital outputs	
Number of digital outputs	16
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>	100 A

• Response time, max.	100 ms
Controlling a digital input	Yes; possible
Size of motor starters according to NEMA, max.	Size 5 according to NEMA
Spare fuses	Fuse 8 A, 250 V, quick response
Zero-crossing switch	No
<b>Switching capacity of the outputs</b>	
• on lamp load, max.	50 W
<b>Output voltage</b>	
• for signal "1", min.	L1 (-18.1 V)
• for signal "1" (at max. current), min.	L1 (-1.3 Vrms)
• for signal "1" (at min. current), min.	L1 (-18.1 Vrms)
<b>Output current</b>	
• for signal "1" rated value	2 A
• for signal "1" permissible range, min.	10 mA
• for signal "1" permissible range, max.	2 A
• for signal "1" permissible surge current, max.	50 A; per cycle
• for signal "0" residual current, max.	2.6 mA
<b>Output delay with resistive load</b>	
• "0" to "1", max.	1 ms
• "1" to "0", max.	1 AC cycle
<b>Parallel switching of two outputs</b>	
• for redundant control of a load	Yes; Possible (only outputs with the same load voltage)
<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>	
all mounting positions	
— up to 40 °C, max.	4 A; 6 A with fan assembly
— up to 60 °C, max.	2 A; 5 A with fan subassembly; per 4 adjacent outputs
<b>Cable length</b>	
• shielded, max.	1 000 m
• unshielded, max.	600 m
<b>Interrupts/diagnostics/status information</b>	
Diagnostics function	Not parameterizable
<b>Diagnostics indication LED</b>	
• internal fault INTF (red)	Yes; Fuse blown
• external fault EXTF (red)	Yes; Missing load voltage
<b>Potential separation</b>	

#### Potential separation digital outputs

- |  |     |
|--|-----|
| • between the channels                   | Yes |
| • between the channels, in groups of     | 4   |
| • between the channels and backplane bus | Yes |

#### Isolation

Isolation tested with	1500 V AC
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#### Dimensions

Width	25 mm
Height	290 mm
Depth	210 mm

#### Weights

Weight, approx.	800 g
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**last modified:** 11/19/2019