SIEMENS

Data sheet

6ES7322-1FH00-0AA0



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

Figure similar

W 1110 1 b 101		
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	

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

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