SIEMENS

Data sheet

6ES7322-1BP00-0AA0

SIMATIC S7-300 digital output SM 322, isolated in groups of 16, 64 DO, 24 V DC, 0.3 A sink output total current 2 A/group, 8 A/module terminal blocks 6ES7392-1.N00-0AA0 and cable 6ES7392-4...0-0AA0 required

Supply voltage	0	1.1400 07 V to diffe cable of 07002 4 0 07 V to required
Rated value (CC) 24 V permissible range, lower limit (DC) 20.4 V permissible range, lower limit (DC) 28.8 V	Supply voltage	
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permissible range, upper limit (DC) 28.8 V Injut churrent		
Input current Trom load voltage L+ (without load), max.		
from load voltage L+ (without load), max.		28.8 V
From backplane bus 5 V DC, max. 100 mA	Input current	
Power loss Po	from load voltage L+ (without load), max.	75 mA
Power loss, typ. 6 W	from backplane bus 5 V DC, max.	100 mA
Digital outputs 64	Power loss	<u></u>
Number of digital outputs 64	Power loss, typ.	6 W
Short-circuit protection	Digital outputs	
Response threshold, typ. Limitation of inductive shutdown voltage to L+ (-53 V) Controlling a digital input Yes Switching capacity of the outputs • on lamp load, max. Load resistance range • lower limit * upper limit * upper limit * upper limit * of signal *1*, min. L+ (-0.5 V) Output voltage * for signal *1* permissible range, min. * or signal *1* permissible range, max. * of signal *1* permissible range, max. * for signal *1* permissible range, max. * for signal *1* residual current, max. Output delay with resistive load * "0" to *1*, max. * for signal *0", max. * for signal *0", max. * for signal *1* permissible range, max. * for signal *0" residual current, max. O.1 mA Output delay with resistive load * "0" to *1*, max. * for uprating * for redundant control of a load * Yes Switching frequency • with resistive load, max. * on lamp load, m	Number of digital outputs	64
Limitation of inductive shutdown voltage to	Short-circuit protection	Yes; Electronic
Controlling a digital input	Response threshold, typ.	0.7 to 1.9 A
Switching capacity of the outputs	Limitation of inductive shutdown voltage to	L+ (-53 V)
	Controlling a digital input	Yes
Load resistance range • lower limit 20 μpper limit 10 kΩ Output voltage • for signal "1", min.	Switching capacity of the outputs	
 lower limit upper limit 10 kΩ Output voltage for signal "1" rated value for signal "1" permissible range, min. for signal "1" permissible range, min. for signal "0" residual current, max. for signal "0" residual current, max. 0.3 A for signal "0" residual current, max. 0.1 mA Output delay with resistive load *0" to "1", max. 550 μs *1" to "0", max. *50 μs with to "0", max. *10 Hz with resistive load, max. of redundant control of a load *Yes Switching frequency with resistive load, max. 0.5 Hz with inductive load, max. 10 Hz Total current of the outputs (per group) horizontal installation — up to 40 °C, max. 1.6 A — up to 40 °C, max. 1.2 A vertical installation — up to 40 °C, max. 1.6 A Cable length \$hielded, max. unshielded, max. foo m unshielded, max. unshielded, max. on on unshielded, max. horizontal installation foo unshielded, max. on on on on on unshielded, max. on on on on on unshielded, max. on on on o	● on lamp load, max.	5 W
	Load resistance range	
Output voltage • for signal "1", min. L+ (-0.5 V) Output current • for signal "1" rated value 0.3 A • for signal "1" permissible range, min. 2.4 mA • for signal "1" permissible range, max. 0.36 A • for signal "0" residual current, max. 0.1 mA Output delay with resistive load • "0" to "1", max. • "1" to "0", max. 550 μs • "1" to "0", max. 550 μs Parallel switching of two outputs • for redundant control of a load • for redundant control of a load Yes Switching frequency • with resistive load, max. 100 Hz • with inductive load, max. 0.5 Hz • on lamp load, max. 10 Hz Total current of the outputs (per group) horizontal installation — up to 40 °C, max. 1.6 A — up to 40 °C, max. 1.6 A vertical installation — up to 40 °C, max. 1.6 A Cable length • shielded, max. 600 m Interrupts/dlagnostics/status information No	 lower limit 	80 Ω
• for signal "1", min. L+ (-0.5 V) Output current • for signal "1" permissible range, min. 2.4 mA • for signal "1" permissible range, max. 0.36 A • for signal "0" residual current, max. 0.1 mA Output delay with resistive load • "0" to "1", max. 550 μs • "1" to "0", max. 550 μs Parallel switching of two outputs • for uprating No • for redundant control of a load Yes Switching frequency • with resistive load, max. 100 Hz • with inductive load, max. 0.5 Hz • on lamp load, max. 10 Hz • on lamp load, max. 10 Hz Total current of the outputs (per group) horizontal installation — up to 40 °C, max. 1.6 A — up to 40 °C, max. 1.2 A vertical installation — up to 40 °C, max. 1.6 A Cable length • shielded, max. 600 m Interrupts/diagnostics/status information No	upper limit	10 kΩ
Output current • for signal "1" rated value • for signal "1" permissible range, min. • for signal "0" residual current, max. • for signal "0" residual current, max. • O.1 mA Output delay with resistive load • "0" to "1", max. • "1" to "0", max. • "1" to "0", max. • for uprating • for uprating • for uprating • with resistive load, max. • with inductive load, max. • on lamp load, max. • on lamp load, max. • up to 40 °C, max. • up to 60 °C, max. • up to 40 °C, max. • unshielded, max. • to 00 m Interrupts/diagnostics/status information Interrupts/diagnostics/status information Interrupts/diagnostics/status information	Output voltage	
• for signal "1" rated value	● for signal "1", min.	L+ (-0.5 V)
 for signal "1" permissible range, min. for signal "0" residual current, max. 0.1 mA Output delay with resistive load "0" to "1", max. "550 μs "1" to "0", max. 550 μs Parallel switching of two outputs for uprating for redundant control of a load Yes Switching frequency with resistive load, max. with inductive load, max. on lamp load, max. on lamp load, max. on lamp load of c, max. — up to 40 °C, max. — up to 60 °C, max. — up to 40 °C, max. Lo A — up to 40 °C, max. 1.6 A Cable length shielded, max. 1000 m unshielded, max. unshielded, max. on max. on max. on max. on langload, max. 	Output current	
• for signal "1" permissible range, max. • for signal "0" residual current, max. Output delay with resistive load • "0" to "1", max. • "1" to "0", max. S50 µs • "1" to "0", max. For uprating • for uprating • for redundant control of a load Yes Switching frequency • with resistive load, max. • on lamp load, max. • on lamp load, max. • on lamp load, max. - up to 40 °C, max. — up to 40 °C, max. • shielded, max. • shielded, max. • unshielded, max. • No	● for signal "1" rated value	0.3 A
• for signal "0" residual current, max. Output delay with resistive load • "0" to "1", max. • "1" to "0", max. 550 µs • "1" to "0", max. 550 µs Parallel switching of two outputs • for uprating • for redundant control of a load Yes Switching frequency • with resistive load, max. • with inductive load, max. • on lamp load, max. • on lamp load, max. 100 Hz Total current of the outputs (per group) horizontal installation — up to 40 °C, max. 1.6 A — up to 60 °C, max. 1.2 A vertical installation — up to 40 °C, max. 1.6 A Cable length • shielded, max. • unshielded, max. • unshielded, max. • foo m Interrupts/diagnostics/status information Alarms No	◆ for signal "1" permissible range, min.	2.4 mA
Output delay with resistive load • "0" to "1", max. • "1" to "0", max. 550 µs Parallel switching of two outputs • for uprating • for redundant control of a load Yes Switching frequency • with resistive load, max. • with inductive load, max. • with inductive load, max. • on lamp load, max. • on lamp load, max. 10 Hz Total current of the outputs (per group) horizontal installation — up to 40 °C, max. — up to 60 °C, max. 1.6 A — up to 60 °C, max. 1.6 A Cable length • shielded, max. • unshielded, max. • on max. 1 000 m Interrupts/diagnostics/status information Alarms	for signal "1" permissible range, max.	0.36 A
 ""0" to "1", max. ""1" to "0", max. 550 μs Parallel switching of two outputs for uprating No for redundant control of a load Yes Switching frequency with resistive load, max. to Hz with inductive load, max. on lamp load, max. to Hz Total current of the outputs (per group) horizontal installation — up to 40 °C, max. — up to 40 °C, max. 1.6 A — up to 40 °C, max. - up to 40 °C, max. 1.6 A Cable length shielded, max. unshielded, max. to00 m Interrupts/diagnostics/status information Alarms No 	• for signal "0" residual current, max.	0.1 mA
• "1" to "0", max. 550 µs Parallel switching of two outputs • for uprating No • for redundant control of a load Yes Switching frequency • with resistive load, max. 100 Hz • with inductive load, max. 0.5 Hz • on lamp load, max. 10 Hz Total current of the outputs (per group) horizontal installation — up to 40 °C, max. 1.6 A — up to 60 °C, max. 1.2 A vertical installation — up to 40 °C, max. 1.6 A Cable length • shielded, max. 1000 m • unshielded, max. 600 m Interrupts/diagnostics/status information Alarms	Output delay with resistive load	
Parallel switching of two outputs • for uprating • for redundant control of a load Yes Switching frequency • with resistive load, max. • with inductive load, max. • on lamp load, max. • on lamp load, max. 100 Hz • on lamp load, max. 10 Hz Total current of the outputs (per group) horizontal installation — up to 40 °C, max. — up to 60 °C, max. 1.6 A vertical installation — up to 40 °C, max. 1.6 A Cable length • shielded, max. • unshielded, max. • unshielded, max. • on max. 1000 m horizontal installation 1000 m horizontal installation 1000 m horizontal installation 1000 m		550 μs
for uprating for redundant control of a load Yes Switching frequency with resistive load, max. with inductive load, max.		550 μs
for redundant control of a load Yes Switching frequency with resistive load, max. with inductive load, max. on lamp load, max. on lamp load, max. Total current of the outputs (per group) horizontal installation	Parallel switching of two outputs	
Switching frequency • with resistive load, max. • with inductive load, max. • on lamp load, max. 10 Hz Total current of the outputs (per group) horizontal installation — up to 40 °C, max. — up to 60 °C, max. — up to 60 °C, max. 1.6 A vertical installation — up to 40 °C, max. 1.6 A Cable length • shielded, max. • unshielded, max. • unshielded, max. • unshielded, max. Interrupts/diagnostics/status information Alarms	for uprating	No
with resistive load, max. with inductive load, max. on lamp load, max. 10 Hz Total current of the outputs (per group) horizontal installation	for redundant control of a load	Yes
with inductive load, max. on lamp load, max. on lamp load, max. Total current of the outputs (per group) horizontal installation — up to 40 °C, max. — up to 60 °C, max. vertical installation — up to 40 °C, max. 1.6 A vertical installation — up to 40 °C, max. 1.6 A Cable length • shielded, max. • unshielded, max. • unshielded, max. No Interrupts/diagnostics/status information Alarms No	Switching frequency	
on lamp load, max. Total current of the outputs (per group) horizontal installation - up to 40 °C, max. - up to 60 °C, max. vertical installation - up to 40 °C, max. 1.6 A vertical installation - up to 40 °C, max. 1.6 A Cable length • shielded, max. • unshielded, max. • unshielded, max. Interrupts/diagnostics/status information Alarms No	 with resistive load, max. 	100 Hz
Total current of the outputs (per group) horizontal installation — up to 40 °C, max. — up to 60 °C, max. 1.2 A vertical installation — up to 40 °C, max. 1.6 A Cable length • shielded, max. • unshielded, max. • unshielded, max. Interrupts/diagnostics/status information Alarms No	 with inductive load, max. 	0.5 Hz
horizontal installation — up to 40 °C, max. — up to 60 °C, max. 1.6 A vertical installation — up to 40 °C, max. 1.6 A Cable length • shielded, max. • unshielded, max. • unshielded, max. Interrupts/diagnostics/status information Alarms No		10 Hz
- up to 40 °C, max. - up to 60 °C, max. 1.6 A vertical installation - up to 40 °C, max. 1.6 A Cable length • shielded, max. • unshielded, max. 1000 m Interrupts/diagnostics/status information Alarms No	Total current of the outputs (per group)	
— up to 60 °C, max. vertical installation — up to 40 °C, max. 1.6 A Cable length • shielded, max. • unshielded, max. Interrupts/diagnostics/status information Alarms 1.2 A 1.2 A 1.6 A 1.6 A No	horizontal installation	
vertical installation — up to 40 °C, max. Cable length • shielded, max. • unshielded, max. Interrupts/diagnostics/status information Alarms No	— up to 40 °C, max.	1.6 A
— up to 40 °C, max. Cable length ● shielded, max. ● unshielded, max. Interrupts/diagnostics/status information Alarms 1.6 A 1 000 m 600 m	— up to 60 °C, max.	1.2 A
Cable length • shielded, max. • unshielded, max. food m Interrupts/diagnostics/status information Alarms No	vertical installation	
● shielded, max. ■ unshielded, max. Interrupts/diagnostics/status information Alarms No		1.6 A
 unshielded, max. Interrupts/diagnostics/status information Alarms No 	Cable length	
Interrupts/diagnostics/status information Alarms No	shielded, max.	1 000 m
Alarms No	• unshielded, max.	600 m
	Interrupts/diagnostics/status information	
Diagnostics function No	Alarms	No
	Diagnostics function	No

Alarms		
Diagnostic alarm	No	
Diagnoses		
 Diagnostic information readable 	No	
Wire-break	No	
 Short-circuit 	No	
 Fuse blown 	No	
missing load voltage	No	
Potential separation		
Potential separation digital outputs		
 between the channels 	No	
 between the channels, in groups of 	16	
between the channels and backplane bus	Yes; Optocoupler	
Isolation		
Isolation tested with	500 V DC	
connection method		
required front connector	Cable: 6ES7392-4Bxx0-0AA0 terminal blocks: 6ES7392-1xN00-0AA0	
Dimensions		
Width	40 mm	
Height	125 mm	
Depth	112 mm	
Weights		
Weight, approx.	230 g	

last modified:

3/12/2024