



Figure similar

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

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
• with inductive load (acc. to IEC 60947-5-1, DC13), max.	0.5 Hz

• on lamp load, max.	0.5 Hz	
Total current of the outputs (per group)		
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	
Cable length		
• shielded, max.	1 000 m	
• unshielded, max.	600 m	
Interrupts/diagnostics/status information		
Diagnostics function	Yes; Parameterizable	
Alarms		
• Diagnostic alarm	Yes; Parameterizable	
Diagnoses		
• Diagnostic information readable	Yes	
Diagnostics indication LED		
• Group error SF (red)	Yes	
• Status indicator digital output (green)	Yes	
Potential separation		
Potential separation digital outputs		
• between the channels	Yes	
• between the channels, in groups of	1	
• between the channels and backplane bus	Yes; Optocoupler	
• between the channels and the power supply of the electronics	Yes	
Isolation		
Isolation tested with	1 500 V AC	
Connection method		
required front connector	40-pin	
Dimensions		
Width	40 mm	
Height	125 mm	
Depth	120 mm	
Weights		
Weight, approx.	260 g	
Classifications		
	Version	Classification
eClass	14	27-24-22-04
eClass	12	27-24-22-04
eClass	9.1	27-24-22-04
eClass	9	27-24-22-04
eClass	8	27-24-22-04
eClass	7.1	27-24-22-04
eClass	6	27-24-22-04
ETIM	10	EC001419
ETIM	9	EC001419
ETIM	8	EC001419
ETIM	7	EC001419
IDEA	4	3566
UNSPSC	15	32-15-17-05
Approvals / Certificates		
General Product Approval		



[Miscellaneous](#)

[Manufacturer Declara-
tion](#)



General Product Approval

EMV



[China RoHS](#)

[Manufacturer Declara-
tion](#)



For use in hazardous locations



[FM](#)



IECEX



[Miscellaneous](#)

[CCC-Ex](#)

Maritime application



ABS



BUREAU
VERITAS



DNV



LRS

[NK / Nippon Kaiji Ky-
okai](#)



PRS

Maritime application



RINA

[CCS \(China Classifica-
tion Society\)](#)

last modified:

4/7/2025