SIEMENS

Data sheet



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

Figure similar

Load voltage L1 Rated value (AC) permissible range, lower limit (AC) permissible range, upper limit (AC) permissible frequency range, lower limit permissible frequency range, upper limit permissible frequency range, upper limit from load voltage L+ (without load), max. from backplane bus 5 V DC, max. Power loss Power loss, typ. Digital outputs Number of digital outputs Short-circuit protection required current for fuse shutdown, min. Response time, max. Controlling a digital input Size of motor starters according to NEMA, max. Size 5 according to NEMA Switching capacity of the outputs		
permissible range, lower limit (AC) permissible range, upper limit (AC) permissible frequency range, lower limit permissible frequency range, upper limit permissible frequency range, upper limit permissible frequency range, upper limit from load voltage L+ (without load), max. from backplane bus 5 V DC, max. Power loss Power loss, typ. 16 W Digital outputs Number of digital outputs Number of digital outputs Short-circuit protection required current for fuse shutdown, min. Response time, max. Controlling a digital input Size of motor starters according to NEMA, max. Size 5 according to NEMA Spare fuses Zero-crossing switch No Switching capacity of the outputs	Rated value (AC)	
permissible range, upper limit (AC) permissible frequency range, lower limit permissible frequency range, upper limit permissible frequency range, upper limit from load voltage L+ (without load), max. from backplane bus 5 V DC, max. Power loss Power loss, typ. 16 W Digital outputs Number of digital outputs Short-circuit protection required current for fuse shutdown, min. Response time, max. Controlling a digital input Size of motor starters according to NEMA, max. Size 5 according to NEMA Spare fuses Zero-crossing switch No Switching capacity of the outputs		230 V; 120/230 V AC
permissible frequency range, lower limit permissible frequency range, upper limit from load voltage L+ (without load), max. from backplane bus 5 V DC, max. Power loss Power loss, typ. Digital outputs Number of digital outputs Short-circuit protection required current for fuse shutdown, min. Response time, max. Controlling a digital input Size of motor starters according to NEMA, max. Size 5 according to NEMA Spare fuses Zero-crossing switch No Switching capacity of the outputs	 permissible range, lower limit (AC) 	79 V
permissible frequency range, upper limit Input current from load voltage L+ (without load), max. from backplane bus 5 V DC, max. Power loss Power loss, typ. Digital outputs Number of digital outputs Short-circuit protection • required current for fuse shutdown, min. • Response time, max. Controlling a digital input Size of motor starters according to NEMA, max. Spare fuses Zero-crossing switch Switching capacity of the outputs 1.5 mA 400 mA Power loss 16 W Digital outputs 16 Yes; Fuse 8 A, 250 V; per group • required current for fuse shutdown, min. 100 A • Response time, max. 100 ms Controlling a digital input Yes; possible Size 5 according to NEMA Spare fuses Fuse 8 A, 250 V, quick response Zero-crossing switch No	 permissible range, upper limit (AC) 	264 V
Input current from load voltage L+ (without load), max. from backplane bus 5 V DC, max. Power loss Power loss, typ. 16 W Digital outputs Number of digital outputs 16 Short-circuit protection • required current for fuse shutdown, min. • Response time, max. Controlling a digital input Size of motor starters according to NEMA, max. Spare fuses Zero-crossing switch No Switching capacity of the outputs	 permissible frequency range, lower limit 	47 Hz
from load voltage L+ (without load), max. 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 • required current for fuse shutdown, min. • Response time, max. Controlling a digital input Size of motor starters according to NEMA, max. Spare fuses Zero-crossing switch No Switching capacity of the outputs	 permissible frequency range, upper limit 	63 Hz
from backplane bus 5 V DC, max. Power loss Power loss, typ. Digital outputs Number of digital outputs Short-circuit protection • required current for fuse shutdown, min. • Response time, max. Controlling a digital input Size of motor starters according to NEMA, max. Spare fuses Zero-crossing switch Switching capacity of the outputs	ut current	
Power loss, typ. 16 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. 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 Switching capacity of the outputs	om load voltage L+ (without load), max.	1.5 mA
Power loss, typ. Digital outputs Number of digital outputs 16 Short-circuit protection • required current for fuse shutdown, min. • Response time, max. Controlling a digital input Size of motor starters according to NEMA, max. Size 5 according to NEMA Spare fuses Zero-crossing switch Switching capacity of the outputs	om backplane bus 5 V DC, max.	400 mA
Digital outputs Number of digital outputs 16 Short-circuit protection Yes; Fuse 8 A, 250 V; per group ● required current for fuse shutdown, min. 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 Switching capacity of the outputs	wer loss	
Number of digital outputs Short-circuit protection • required current for fuse shutdown, min. • Response time, max. Controlling a digital input Size of motor starters according to NEMA, max. Spare fuses Zero-crossing switch Switching capacity of the outputs	ower loss, typ.	16 W
Short-circuit protection • required current for fuse shutdown, min. • Response time, max. Controlling a digital input Size of motor starters according to NEMA, max. Spare fuses Zero-crossing switch Switching capacity of the outputs Yes; Fuse 8 A, 250 V; per group 100 A 100 ms Yes; possible Size 5 according to NEMA Fuse 8 A, 250 V, quick response No	ital outputs	
 required current for fuse shutdown, min. Response time, max. Controlling a digital input Size of motor starters according to NEMA, max. Spare fuses Zero-crossing switch Switching capacity of the outputs 	umber of digital outputs	16
● Response time, max. 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 Switching capacity of the outputs	hort-circuit protection	Yes; Fuse 8 A, 250 V; per group
Controlling a digital input 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 Switching capacity of the outputs	 required current for fuse shutdown, min. 	100 A
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 Switching capacity of the outputs	Response time, max.	100 ms
Spare fuses Fuse 8 A, 250 V, quick response Zero-crossing switch No Switching capacity of the outputs	ontrolling a digital input	Yes; possible
Zero-crossing switch No Switching capacity of the outputs	ize of motor starters according to NEMA, max.	Size 5 according to NEMA
Switching capacity of the outputs	pare fuses	Fuse 8 A, 250 V, quick response
	ero-crossing switch	No
	witching capacity of the outputs	
• on lamp load, max. 50 W	 on lamp load, max. 	50 W
Output voltage	utput voltage	
● for signal "1", min. L1 (-18.1 V)	• for signal "1", min.	L1 (-18.1 V)
• for signal "1" (at max. current), min. L1 (-1.3 Vrms)	for signal "1" (at max. current), min.	L1 (-1.3 Vrms)
• for signal "1" (at min. current), min. L1 (-18.1 Vrms)	● for signal "1" (at min. current), min.	L1 (-18.1 Vrms)
Output current	utput current	
• for signal "1" rated value 2 A	for signal "1" rated value	2 A
• for signal "1" permissible range, min. 10 mA	for signal "1" permissible range, min.	10 mA
• for signal "1" permissible range, max. 2 A	for signal "1" permissible range, max.	2 A
• for signal "1" permissible surge current, max. 50 A; per cycle	for signal "1" permissible surge current, max.	50 A; per cycle
• for signal "0" residual current, max. 2.6 mA	for signal "0" residual current, max.	2.6 mA
Output delay with resistive load	utput delay with resistive load	
• "0" to "1", max. 1 ms	• "0" to "1", max.	1 ms
• "1" to "0", max. 1 AC cycle	• "1" to "0", max.	1 AC cycle
Parallel switching of two outputs	arallel switching of two outputs	
• for redundant control of a load Yes; Possible (only outputs with the same load voltage)	for redundant control of a load	Yes; Possible (only outputs with the same load voltage)
Switching frequency	witching 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
on lamp load, max.	1 Hz
Total current of the outputs (per group)	
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
Cable length	
• shielded, max.	1 000 m
• unshielded, max.	600 m
Interrupts/diagnostics/status information	
Diagnostics function	Not parameterizable
Diagnostics indication LED	
internal fault INTF (red)	Yes; Fuse blown
 external fault EXTF (red) 	Yes; Missing load voltage
Potential separation	
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	1 500 V AC
Dimensions	
Width	25 mm
Height	290 mm
Depth	210 mm
Weights	
Weight, approx.	800 g
Weight, approx.	800 g

last modified: 8/30/2023

