SIEMENS

Data sheet

6ES7322-5FF00-0AB0



SIMATIC S7-300, Digital output SM 322, isolated, 8 DO, 120/230 V AC, 2A, with single rooting/channel and selectable failure mode, 1x 40-pole

Figure similar

Supply votage	riguresiima	
Rated value (AC) permissible range, lower limit (AC) permissible range, upper limit (AC) permissible range for 0 to 40 °C, min. per signal "1" permissible range for 0 to 40 °C, min. for signal "1" permissible range for 40 to 60 °C, min. for signal "1	Supply voltage	
permissible range, lower limit (AC) permissible range, upper limit (AC) permissible range, upper limit (AC) permissible range, upper limit (AC) provided and voltage L1 (without load), max. from load voltage L1 (without load), max. power loss Power loss Power loss, typ. Power loss, byp. Bigital outputs Number of digital outputs Short-circuit protection Controlling a digital input Yes; to be provided externally; fuse 3.15 A / 250 V, quick response Controlling a digital input Yes Size of motor starters according to NEMA, max. Size 5 according to NEMA Zero-crossing switch Yes; 60 V Switching capacity of the outputs on lamp load, max. Output voltage for signal "1", min. Uutput current for signal "1" permissible range for 0 to 40 °C, min. for signal "1" permissible range for 0 to 40 °C, min. for signal "1" permissible range for 40 to 60 °C, min. for signal "1" permissible range for 40 to 60 °C, min. for signal "1" permissible surge current, max. for signal "1" permissible surge current, max. for signal "1" permissible surge current, max. for signal "1" permissible surge current, max. for signal "1" permissible surge current, max. for signal "1" permissible surge current, max. for signal "1" permissible surge current, max. for signal "1" permissible surge current, max. for signal "1" permissible surge current, max. for signal "1" permissible surge current, max. for signal "1" permissible surge current, max. 20 A; with 2 half waves 2 mA Parallel switching of two outputs for redundant control of a load Yes Switching frequency with resistive load, max. with inductive load (acc. to IEC 60947-5-1, AC15), max. 10 IHz Total current of the outputs (per group)	Load voltage L1	
permissible range, upper limit (AC) liput current from load voltage L1 (without load), max. from backplane bus 6 V DC, max. Power loss. Power loss, typ. Digital outputs Number of digital outputs Short-circuit protection Controlling a digital input Size of motor slarters according to NEMA, max. Size 5 according to NEMA Switching capacity of the outputs • on lamp load, max. of or signal "1" rated value • for signal "1" permissible range for 0 to 40 °C, min. • for signal "1" permissible range for 40 to 60 °C, min. • for signal "1" permissible range for 40 to 60 °C, min. • for signal "1" permissible range for 40 to 60 °C, max. • for signal "1" permissible range for 40 to 60 °C, max. • for signal "1" permissible range for 40 to 60 °C, max. • for signal "1" permissible surge current, max. • for signal "0" residual current, max. • for uprating • for redundant control of a load Switching frequency • with inductive load, max. • on lamp loa	 Rated value (AC) 	230 V; 120/230 V AC
Input current from load voltage L1 (without load), max. 2 mA from backplane bus 5 V DC, max. 100 mA Power loss. Power loss, typ. 8.6 W Digital outputs Number of digital outputs Number of digital outputs 8 Short-circuit protection Yes; to be provided externally; fuse 3.15 A / 250 V, quick response Controlling a digital input Yes Size of motor starters according to NEMA, max. Size 5 according to NEMA Zero-crossing switch Yes; 60 V Switching capacity of the outputs • on lamp load, max. 50 W Output voltage • for signal "1", min. L1 (-8.5 V) Output current • for signal "1" permissible range for 0 to 40 "C, min. 10 mA • for signal "1" permissible range for 40 to 60 "C, max. 2 A • for signal "1" permissible range for 40 to 60 "C, max. 2 A • for signal "1" permissible range for 40 to 60 "C, max. 4 for signal "1" permissible range for 40 to 60 "C, max. 4 for signal "1" permissible range for 40 to 60 "C, max. 4 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 dedundant control of a load Yes Switching frequency • with inductive load, max. 10 Hz • with inductive load, max. 0.5 Hz • with inductive load, max. 0.5 Hz • with inductive load, max. 0.5 Hz • with inductive load (acc. to IEC 60947-5-1, AC15), max. 0.1 Hz Total current of the outputs (per group)	 permissible range, lower limit (AC) 	79 V
from load voltage L1 (without load), max. from backplane bus 5 V DC, max. 100 mA Power loss Power loss Number of digital outputs Number of digital outputs Short-circuit protection Yes; to be provided externally; fuse 3.15 A / 250 V, quick response Controlling a digital input Yes Size of motor starters according to NEMA, max. Size 5 according to NEMA Zero-crossing switch Switching capacity of the outputs • on lamp load, max. 50 W Output voltage • for signal "1" rated value • for signal "1" permissible range for 0 to 40 °C, min. • for signal "1" permissible range for 40 to 60 °C, min. • for signal "1" permissible range for 40 to 60 °C, min. • for signal "1" permissible sange for 40 to 60 °C, max. • for signal "1" permissible surge current, max. • for signal "1" permissible surge current, max. • for signal "0" residual current max. • for signal "0" residual current, max. • for signal "0" residual current, max. • for redundant control of a load Switching frequency • with inductive load, max. • with inductive load, max. • on lamp load, lamx. • on l	 permissible range, upper limit (AC) 	264 V
from backplane bus 5 V DC, max. Power loss, typ. Power loss, typ. Digital outputs Number of digital outputs Short-circuit protection Controlling a digital input Size of motor starters according to NEMA, max. Zero-crossing switch Switching capacity of the outputs on lamp load, max. Output voltage • for signal "1" permissible range for 0 to 40 °C, min. • for signal "1" permissible range for 40 to 60 °C, min. • for signal "1" permissible range for 40 to 60 °C, min. • for signal "1" permissible range for 40 to 60 °C, max. • for signal "1" permissible range for 40 to 60 °C, max. • for signal "1" permissible range for 40 to 60 °C, min. • for signal "1" permissible range for 40 to 60 °C, min. • for signal "1" permissible range for 40 to 60 °C, min. • for signal "1" permissible range for 40 to 60 °C, min. • for signal "1" permissible range for 40 to 60 °C, min. • for signal "1" permissible und current • for signal "1" per	Input current	
Power loss Power loss, typ. 8.6 W	from load voltage L1 (without load), max.	2 mA
Power loss, typ. 8.6 W Digital outputs 8	from backplane bus 5 V DC, max.	100 mA
Number of digital outputs Short-circuit protection Yes; to be provided externally; fuse 3.15 A / 250 V, quick response Controlling a digital input Size of motor starters according to NEMA, max. Zero-crossing switch Switching capacity of the outputs on lamp load, max. 50 W Output voltage of or signal "1" permissible range for 0 to 40 "C, min. of or signal "1" permissible range for 0 to 40 "C, min. of or signal "1" permissible range for 40 to 60 "C, min. of or signal "1" permissible singe for 40 to 60 "C, max. of or signal "1" permissible sunge for 40 to 60 "C, max. of or signal "1" permissible sunge for 40 to 60 "C, max. of or signal "1" permissible sunge for 40 to 60 "C, max. of or signal "1" permissible sunge for 40 to 60 "C, max. of or signal "1" permissible sunge for 40 to 60 "C, max. of or signal "1" permissible sunge current, max. of or signal "0" residual current, max. Parallel switching of two outputs of or redundant control of a load Yes Switching frequency owith resistive load, max. or lamp load, max. or lamp load, max. 10 Hz or lamp load, max. 1 Hz Total current of the outputs (per group)	Power loss	
Number of digital outputs Short-circuit protection Yes; to be provided externally; fuse 3.15 A / 250 V, quick response Controlling a digital input Yes Size of motor starters according to NEMA, max. Size 5 according to NEMA Zero-crossing switch Yes; 60 V Switching capacity of the outputs on lamp load, max. Output voitage of or signal "1", min. L1 (-8.5 V) Output current of or signal "1" permissible range for 0 to 40 "C, min. of or signal "1" permissible range for 0 to 40 "C, max. of or signal "1" permissible range for 0 to 60 "C, min. of or signal "1" permissible range for 0 to 60 "C, max. of or signal "1" permissible range for 0 to 60 "C, max. of or signal "1" permissible range for 0 to 60 "C, max. of or signal "1" permissible surge current, max. of or signal "1" permissible surge current, max. of or signal "1" permissible surge current, max. of or signal "0" residual current, max. Parallel switching of two outputs of or uprating of or redundant control of a load Switching frequency with resistive load, max. with inductive load, max. on lamp load, max. 10 Hz on lamp load, max. Total current of the outputs (per group)	Power loss, typ.	8.6 W
Short-circuit protection Controlling a digital input Size of motor starters according to NEMA, max. Zero-crossing switch on lamp load, max. Output voltage of ro signal "1" rated value of or signal "1" permissible range for 0 to 40 °C, min. of or signal "1" permissible range for 40 to 60 °C, min. of or signal "1" permissible range for 40 to 60 °C, max. of or signal "1" permissible range for 0 to 40 oC, max. of or signal "1" permissible range for 0 to 40 oC, max. of or signal "1" permissible range for 0 to 40 oC, max. of or signal "1" permissible range for 40 to 60 °C, min. of or signal "1" permissible range for 40 to 60 °C, max. of or signal "1" permissible range for 40 to 60 °C, max. of or signal "1" permissible surge current, max. of or signal "0" residual current of or signal "0" residual current, max. of or uprating of redundant control of a load Yes Switching frequency owith resistive load, max. owith inductive load, max. owith inductive load, max. owith inductive load (acc. to IEC 60947-5-1, AC15), max. on lamp load, max. 1 Hz Total current of the outputs (per group)	Digital outputs	
Controlling a digital input Size of motor starters according to NEMA, max. Zero-crossing switch Switching capacity of the outputs on lamp load, max. Output voltage of or signal "1" rated value for signal "1" permissible range for 0 to 40 °C, min. of or signal "1" permissible range for 0 to 40 °C, min. of or signal "1" permissible range for 0 to 40 °C, min. of or signal "1" permissible range for 40 to 60 °C, min. of or signal "1" permissible range for 40 to 60 °C, min. of or signal "1" permissible range for 40 to 60 °C, max. of or signal "1" permissible range for 40 to 60 °C, max. of or signal "1" minimum load current of or signal "1" permissible surge current, max. of or signal "0" residual current, max. 2 mA Parallel switching of two outputs of or uprating of or uprating of or redundant control of a load Yes Switching frequency with resistive load, max. with inductive load (acc. to IEC 60947-5-1, AC15), max. on lamp load, max. 1 Hz Total current of the outputs (per group)	Number of digital outputs	8
Size of motor starters according to NEMA, max. Zero-crossing switch Yes; 60 V Switching capacity of the outputs on lamp load, max. 50 W Output voltage of or signal "1", min. L1 (-8.5 V) Output current of or signal "1" permissible range for 0 to 40 °C, min. of or signal "1" permissible range for 0 to 40 °C, max. of or signal "1" permissible range for 0 to 60 °C, max. of or signal "1" permissible range for 40 to 60 °C, max. of or signal "1" permissible range for 40 to 60 °C, max. of or signal "1" permissible range for 40 to 60 °C, max. of or signal "1" permissible surge current, max. of or signal "1" permissible surge current, max. of or signal "0" residual current, max. of or signal "0" residual current, max. of or signal "0" residual current, max. of or uprating of two outputs of or uprating of or redundant control of a load Yes Switching frequency owith resistive load, max. owith inductive load, max. owith inductive load (acc. to IEC 60947-5-1, AC15), max. on lamp load, max. 1 Hz Total current of the outputs (per group)	Short-circuit protection	Yes; to be provided externally; fuse 3.15 A / 250 V, quick response
Zero-crossing switch Switching capacity of the outputs on lamp load, max. 50 W Output voltage of or signal "1", min. L1 (-8.5 V) Output current of or signal "1" rated value of or signal "1" permissible range for 0 to 40 °C, min. of or signal "1" permissible range for 0 to 40 °C, min. of or signal "1" permissible range for 0 to 40 °C, min. of or signal "1" permissible range for 40 to 60 °C, min. of or signal "1" permissible range for 40 to 60 °C, min. of or signal "1" permissible range for 40 to 60 °C, max. of or signal "1" permissible surge current, max. of or signal "1" minimum load current of or signal "1" residual current, max. of or signal "0" residual current, max. and of or uprating of or uprating of or redundant control of a load Yes Switching frequency with resistive load, max. with inductive load, max. on lamp load, max. on lamp load, max. I Hz Total current of the outputs (per group)	Controlling a digital input	Yes
Switching capacity of the outputs on lamp load, max. 50 W Output voltage of ro signal "1", min. L1 (-8.5 V) Output current of ro signal "1" rated value of or signal "1" permissible range for 0 to 40 °C, min. of or signal "1" permissible range for 0 to 40 °C, min. of or signal "1" permissible range for 40 to 60 °C, min. of or signal "1" permissible range for 40 to 60 °C, min. of or signal "1" permissible range for 40 to 60 °C, max. of or signal "1" permissible range for 40 to 60 °C, max. of or signal "1" permissible surge current, max. of or signal "1" permissible surge current, max. of or signal "0" residual current, max. of or signal "0" residual current, max. Parallel switching of two outputs of or uprating of or redundant control of a load Yes Switching frequency of with resistive load, max. of the current of the outputs (loed, max. on lamp load, max. In Hz Total current of the outputs (per group)	Size of motor starters according to NEMA, max.	Size 5 according to NEMA
on lamp load, max. Output voltage of r signal "1", min. L1 (-8.5 V) Output current of r signal "1" rated value of r signal "1" permissible range for 0 to 40 °C, min. of r signal "1" permissible range for 0 to 40 °C, max. of r signal "1" permissible range for 40 to 60 °C, min. of r signal "1" permissible range for 40 to 60 °C, max. of r signal "1" minimum load current of r signal "1" permissible surge current, max. of r signal "0" residual current, max. of r signal "0" residual current, max. Parallel switching of two outputs of or uprating of r redundant control of a load Switching frequency with resistive load, max. with inductive load, max. with inductive load (acc. to IEC 60947-5-1, AC15), max. on lamp load, max. Total current of the outputs (per group)	Zero-crossing switch	Yes; 60 V
Output voltage • for signal "1", min. Output current • for signal "1" rated value • for signal "1" permissible range for 0 to 40 °C, min. • for signal "1" permissible range for 0 to 40 °C, min. • for signal "1" permissible range for 40 to 60 °C, min. • for signal "1" permissible range for 40 to 60 °C, min. • for signal "1" permissible range for 40 to 60 °C, max. • for signal "1" permissible range for 40 to 60 °C, max. • for signal "1" permissible surge current, max. • for signal "1" permissible surge current, max. • for signal "0" residual current, max. • for signal "0" residual current, max. • for uprating • for uprating • for redundant control of a load Switching frequency • with resistive load, max. • with inductive load, max. • with inductive load (acc. to IEC 60947-5-1, AC15), max. • on lamp load, max. 1 Hz Total current of the outputs (per group)	Switching capacity of the outputs	
• for signal "1", min. Output current • for signal "1" rated value • for signal "1" permissible range for 0 to 40 °C, min. • for signal "1" permissible range for 0 to 40 °C, max. • for signal "1" permissible range for 0 to 40 °C, min. • for signal "1" permissible range for 40 to 60 °C, min. • for signal "1" permissible range for 40 to 60 °C, max. • for signal "1" permissible range for 40 to 60 °C, max. • for signal "1" permissible surge current, max. • for signal "1" permissible surge current, max. • for signal "0" residual current, max. • for signal "0" residual current, max. Parallel switching of two outputs • for uprating • for redundant control of a load Switching frequency • with resistive load, max. • with inductive load, max. • with inductive load (acc. to IEC 60947-5-1, AC15), max. • with inductive load, max. • on lamp load, max. 1 Hz Total current of the outputs (per group)	on lamp load, max.	50 W
Output current • for signal "1" rated value • for signal "1" permissible range for 0 to 40 °C, min. • for signal "1" permissible range for 0 to 40 °C, max. • for signal "1" permissible range for 40 to 60 °C, min. • for signal "1" permissible range for 40 to 60 °C, min. • for signal "1" permissible range for 40 to 60 °C, max. • for signal "1" minimum load current • for signal "1" minimum load current • for signal "1" permissible surge current, max. • for signal "0" residual current, max. 2 mA Parallel switching of two outputs • for uprating • for redundant control of a load Switching frequency • with resistive load, max. • with inductive load, max. • with inductive load (acc. to IEC 60947-5-1, AC15), max. • with inductive load (acc. to IEC 60947-5-1, AC15), max. • on lamp load, max. Total current of the outputs (per group)	Output voltage	
• for signal "1" rated value • for signal "1" permissible range for 0 to 40 °C, min. • for signal "1" permissible range for 0 to 40 °C, max. • for signal "1" permissible range for 0 to 40 °C, max. • for signal "1" permissible range for 40 to 60 °C, min. • for signal "1" permissible range for 40 to 60 °C, max. • for signal "1" permissible range for 40 to 60 °C, max. • for signal "1" minimum load current • for signal "1" permissible surge current, max. • for signal "0" residual current, max. 2 mA 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 (acc. to IEC 60947-5-1, AC15), max. • with inductive load (acc. to IEC 60947-5-1, AC15), max. • on lamp load, max. 1 Hz Total current of the outputs (per group)	● for signal "1", min.	L1 (-8.5 V)
for signal "1" permissible range for 0 to 40 °C, min. for signal "1" permissible range for 0 to 40 °C, max. for signal "1" permissible range for 40 to 60 °C, min. for signal "1" permissible range for 40 to 60 °C, min. for signal "1" permissible range for 40 to 60 °C, max. for signal "1" permissible surge current for signal "1" permissible surge current, max. for signal "0" residual current, max. for signal "0" residual current, max. for uprating for uprating for redundant control of a load Switching frequency with resistive load, max. with inductive load, max. with inductive load (acc. to IEC 60947-5-1, AC15), max. on lamp load, max. 10 Hz Total current of the outputs (per group)	Output current	
for signal "1" permissible range for 0 to 40 °C, max. if or signal "1" permissible range for 40 to 60 °C, min. e for signal "1" permissible range for 40 to 60 °C, min. e for signal "1" permissible range for 40 to 60 °C, max. e for signal "1" minimum load current e for signal "1" permissible surge current, max. e for signal "0" residual current, max. e for signal "0" residual current, max. e for uprating e for uprating e for redundant control of a load Switching frequency e with resistive load, max. e with inductive load, max. e with inductive load (acc. to IEC 60947-5-1, AC15), max. e on lamp load, max. Total current of the outputs (per group)	for signal "1" rated value	2 A
• for signal "1" permissible range for 40 to 60 °C, min. • for signal "1" permissible range for 40 to 60 °C, max. • for signal "1" minimum load current • for signal "1" permissible surge current, max. • for signal "0" residual current, max. • for signal "0" residual current, max. 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 (acc. to IEC 60947-5-1, AC15), max. • on lamp load, max. Total current of the outputs (per group)	 for signal "1" permissible range for 0 to 40 °C, min. 	10 mA
 for signal "1" permissible range for 40 to 60 °C, max. for signal "1" minimum load current for signal "1" permissible surge current, max. for signal "0" residual current, max. 2 mA 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 (acc. to IEC 60947-5-1, AC15), max. on lamp load, max. Total current of the outputs (per group) 1 A 10 mA 20 A; with 2 half waves 20 M 2 mA No Yes Switching frequency with inductive load, max. 10 Hz 0.5 Hz on lamp load, max. 1 Hz Total current of the outputs (per group)	 for signal "1" permissible range for 0 to 40 °C, max. 	2 A
 for signal "1" minimum load current for signal "1" permissible surge current, max. for signal "0" residual current, max. 2 mA 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 (acc. to IEC 60947-5-1, AC15), max. on lamp load, max. Total current of the outputs (per group) Total current of the outputs (per group)	 for signal "1" permissible range for 40 to 60 °C, min. 	10 mA
 for signal "1" permissible surge current, max. for signal "0" residual current, max. 2 mA 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 (acc. to IEC 60947-5-1, AC15), max. on lamp load, max. Total current of the outputs (per group) Total current of the outputs (per group)	 for signal "1" permissible range for 40 to 60 °C, max. 	1 A
 for signal "0" residual current, max. 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 (acc. to IEC 60947-5-1, AC15), max. on lamp load, max. Total current of the outputs (per group) 	for signal "1" minimum load current	10 mA
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 (acc. to IEC 60947-5-1, AC15), max. • on lamp load, max. Total current of the outputs (per group)	for signal "1" permissible surge current, max.	20 A; with 2 half waves
 for uprating for redundant control of a load Yes Switching frequency with resistive load, max. with inductive load, max. with inductive load (acc. to IEC 60947-5-1, AC15), max. on lamp load, max. Total current of the outputs (per group) No Yes O.5 Hz O.5 Hz Hz Total current of the outputs (per group)	for signal "0" residual current, max.	2 mA
for redundant control of a load Yes Switching frequency with resistive load, max. with inductive load, max. with inductive load (acc. to IEC 60947-5-1, AC15), max. on lamp load, max. 1 Hz Total current of the outputs (per group)	Parallel switching of two outputs	
 Switching frequency with resistive load, max. with inductive load, max. with inductive load (acc. to IEC 60947-5-1, AC15), max. on lamp load, max. Total current of the outputs (per group) 	for uprating	No
 with resistive load, max. with inductive load, max. with inductive load (acc. to IEC 60947-5-1, AC15), max. on lamp load, max. Total current of the outputs (per group) 	for redundant control of a load	Yes
 with inductive load, max. with inductive load (acc. to IEC 60947-5-1, AC15), max. on lamp load, max. Total current of the outputs (per group) 	Switching frequency	
 with inductive load (acc. to IEC 60947-5-1, AC15), max. on lamp load, max. 1 Hz Total current of the outputs (per group)	with resistive load, max.	10 Hz
on lamp load, max. 1 Hz Total current of the outputs (per group)	with inductive load, max.	0.5 Hz
Total current of the outputs (per group)	• with inductive load (acc. to IEC 60947-5-1, AC15), max.	0.5 Hz
	on lamp load, max.	1 Hz
horizontal installation	Total current of the outputs (per group)	
	horizontal installation	

8 A
4 A
4 A
1 000 m
600 m
Yes; Parameterizable
Yes; Parameterizable
Yes
Yes
Yes
1
Yes; Optocoupler
1 500 V AC
40-pin
40 mm
125 mm
120 mm
275 g

last modified:

8/16/2023