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

Load voltage L1 Rated value (AC) permissible range, lower limit (AC) permissible range, upper limit (AC) permissible range (AC) permissible range (AC) power loss. Power loss. Power loss. Number of digital outputs Number of digital outputs Number of digital outputs Number of digital input Yes; to be provided externally; fuse 3.15 A / 250 V, quick response controlling a digital input Yes; 60 V Switching capacity of the outputs o on lamp load, max. Output voltage 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 0 to 40 °C, min. of or signal "1" permissible range for 0 to 60 °C, min. of or signal "1" permissible range for 0 to 60 °C, min. of or signal "1" permissible range for 0 to 60 °C, min. of or signal "1" permissible range for 0 to 60 °C, min. of or signal "1" permissible range for 0 to 60 °C, min. of or signal "1" permissible range for 0 to 60 °C, min. of or signal "1" permissible range for 0 to 60 °C, min. of or signal "1" permissible range for 0 to 60 °C, min. of or signal "1" permissible range for 0 to 60 °C, min. of or signal "1" permissible range for 0 to 60 °C, min. of or signal "1" permissible range for 0 to 60 °C, min. of or signal "1" permissible range for 0 to 60 °C, min. of or signal "1" permissible range for 0 to 60 °C, min. of or signal "1" permissible range for 0 to 60 °C, min. of or signal "1" permissible range for 0 to 60 °C, min. of or signal "1" permissible range for 0 to 60 °C, min. of or signal "1" permis	Supply voltage		
permissible range, lower limit (AC) permissible range, upper limit (AC) permissible range, upper limit (AC) permissible range, upper limit (AC) possible range (AC) possible range (AC) possible range (AC) permissible range for 40 to 60 °C, max. permissible range for with resistive load, max. possible requency possible requency possible requency possible range for 40 to 60 °C, max. possible requency poss	Load voltage L1		
permissible range, lower limit (AC) permissible range, upper limit (AC) permissible range, upper limit (AC) permissible range, upper limit (AC) possible range (AC) possible range (AC) possible range (AC) permissible range for 40 to 60 °C, max. permissible range for with resistive load, max. possible requency possible requency possible requency possible range for 40 to 60 °C, max. possible requency poss	Rated value (AC)	230 V; 120/230 V AC	
Input current from load voltage L1 (without load), max. 100 mA Power loss. Power loss, typ. 8.6 W 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; to be provided externally; fuse 3.15 A / 250 V, quick response Controlling a digital input Yes; 60 V 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" rated value • for signal "1" rated value • for signal "1" permissible range for 0 to 40 °C, min. 10 mA • for signal "1" permissible range for 0 to 60 °C, max. 2 A • for signal "1" permissible range for 0 to 60 °C, min. 10 mA • for signal "1" permissible range for 40 to 60 °C, min. 2 A • for signal "1" permissible range for 40 to 60 °C, min. 40 mA • for signal "1" permissible range for 40 to 60 °C, min. 40 mA • for signal "1" permissible range for 40 to 60 °C, max. 40 mA • for signal "1" permissible range for 40 to 60 °C, max. 40 mA • for signal "1" permissible range for 40 to 60 °C, max. 40 mA • for signal "1" permissible range for 40 to 60 °C, max. 40 mA • for signal "1" permissible range for 40 to 60 °C, max. 40 mA • for signal "1" permissible range for 40 to 60 °C, max. 40 mA • for signal "1" permissible range for 40 to 60 °C, max. 40 mA • for signal "1" permissible range for 40 to 60 °C, max. 40 mA • for signal "1" permissible range for 40 to 60 °C, max. 40 mA • for signal "1" permissible range for 40 to 60 °C, max. 40 mA • for signal "1" permissible range for 40 to 60 °C, max. 40 mA • for signal "1" permissible range for 40 to 60 °C, max. 40 mA • for signal "1" permissible range for 40 to 60 °C, max. 40 mA • for signal "1" permissible range for 40 to 60 °C, max. 40 mA • for signal "1" permissible range for 40 to 60 °C, max. 40 mA • for signal "1" permissible range for 40 to 60 °C, max. 40 mA • for signal "1" permissible range for 40 to 60 °C,		79 V	
from load voltage L1 (without load), max. from backplane bus 5 V DC, max. Power loss Power loss Power loss, typ. Bigital outputs Number of digital outputs Number of digital outputs Short-circuit protection Controlling a digital input Size of motor starters according to NEMA, max. Zero-crossing switch on lamp load, max. Output voltage o for signal "1", min. Output current of or signal "1" permissible range for 0 to 40 °C, min. of or signal "1" permissible sunge for 40 to 60 °C, min. of or signal "1" permissible range for 40 to 60 °C, min. of or signal "1" permissible sunge for 40 to 60 °C, min. of or signal "1" permissible range for 40 to 60 °C, min. of or signal "1" permissible sunge for 40 to 60 °C, min. 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 or redundant control of a load Switching frequency with resistive load, max. of on lamp load, max. I the	 permissible range, upper limit (AC) 	264 V	
from backplane bus 5 V DC, max. Power loss, typ. Digital outputs	Input current		
Power loss, typ. Power loss, typ. 8.6 W	from load voltage L1 (without load), max.	2 mA	
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 o no lamp load, max. of or signal "1", min. 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, min. of or signal "1" permissible range for 0 to 60 °C, max. of or signal "1" minimum load current of or signal "1" minimum load current 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 "1" permissible surge for 0 to 40 °C, min. of or signal "1" permissible surge for 0 to 40 °C, min. of or signal "1" permissible surge for 40 to 60 °C, min. 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 of or uprating of or uprating of or uprating of or uprating of or redundant control of a load Switching frequency owith resistive load, max. owith inductive load, max. owith inductive load, max. on lamp load, max. on lamp load, max. 10 Hz on lamp load, max. 11 Hz	from backplane bus 5 V DC, max.	100 mA	
Digital outputs Number of 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 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 60 °C, min. of or signal "1" permissible range for 40 to 60 °C, min. of or signal "1" permissible surge current, max. of or signal "1" permissible surge current, max. of or signal "4" permissible surge current, max. of or signal "1" permissible surge current, max. of or signal "0" residual current of or signal "0" residual current, max. of or signal "0" residual current, max. Parallel switching of two outputs of or uprating of the outputs of the	Power loss		
Number of digital outputs Short-circuit protection Controlling a digital input Size of motor starters according to NEMA, max. Zero-crossing switch Zero-crossing switch Ves; 60 V Switching capacity of the outputs on lamp load, max. for signal "1", min. 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 surge current, max. for signal "0" residual current, max. for signal "0" re	Power loss, typ.	8.6 W	
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" 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" minimum load current • for signal "1" permissible surge current, max. • for signal "1" permissible surge current, max. • for signal "1" residual current, max. • for signal "0" residual current, max. • for uprating • for uprating • for dedundant control of a load Switching frequency • with resistive load, max. • on lamp load, max. • 1 Hz	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. for signal "1", min. 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, min. of or signal "1" permissible range for 0 to 40 °C, min. of or signal "1" permissible range for 0 to 60 °C, min. of or signal "1" permissible range for 0 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, 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 surge current, max. of or signal "1" minimum load current of or signal "1" permissible surge current, max. of or signal "0" residual current, max. of or signal "0" residual current, max. of or uprating of or redundant control of a load 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.	Number of digital outputs	8	
Size of motor starters according to NEMA, max. Zero-crossing switch Switching capacity of the outputs on lamp load, max. 50 W Output voltage for signal "1", min. L1 (-8.5 V) Output current of ro 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, min. of or signal "1" permissible range for 40 to 60 °C, min. 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 redundant control of a load Parallel switching of two outputs of or redundant control of a load Switching frequency owith inductive load, max. on lamp load, max. on lamp load, max. on lamp load, max.	Short-circuit protection	Yes; to be provided externally; fuse 3.15 A / 250 V, quick response	
Size of motor starters according to NEMA, max. Zero-crossing switch Switching capacity of the outputs on lamp load, max. 50 W Output voltage for signal "1", min. L1 (-8.5 V) Output current of ro 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, min. of or signal "1" permissible range for 40 to 60 °C, min. 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 redundant control of a load Parallel switching of two outputs of or redundant control of a load Switching frequency owith inductive load, max. on lamp load, max. on lamp load, max. on lamp load, max.	Controlling a digital input	Yes	
Switching capacity of the outputs on lamp load, max. Output voltage of or signal "1", min. 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, max. 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, min. of or signal "1" permissible range for 40 to 60 °C, min. 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. of or signal "0" residual current, max. of or uprating of or uprating of or redundant control of a load Yes Switching frequency with resistive load, max. of the outputs of the output outputs of the output outputs of the output outputs of the output output outputs of the output	Size of motor starters according to NEMA, max.	Size 5 according to NEMA	
Switching capacity of the outputs on lamp load, max. Output voltage of or signal "1", min. 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, max. 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, min. of or signal "1" permissible range for 40 to 60 °C, min. 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. of or signal "0" residual current, max. of or uprating of or uprating of or redundant control of a load Yes Switching frequency with resistive load, max. of the outputs of the output outputs of the output outputs of the output outputs of the output output outputs of the output	Zero-crossing switch	Yes; 60 V	
Output voltage • for signal "1", min. Cutput 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, min. • for signal "1" minimum load current • 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. • on lamp load, max.	Switching capacity of the outputs		
• for signal "1", min. Output current • for signal "1" rated value • for signal "4" 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, min. • 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. 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. • on lamp load, max. • on lamp load, max. 1 Hz	• 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, 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" permissible surge current, 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	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, min. • for signal "1" minimum load current • 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. • on lamp load, max. 1 Hz	• 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" 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 Switching frequency with resistive load, max. with inductive load (acc. to IEC 60947-5-1, AC15), max. on lamp load, max. 1 Hz 	Output current		
 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" 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 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 	for signal "1" rated value	2 A	
 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" 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 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 	 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. 20 A; with 2 half waves 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. 1 Hz 1 A 10 mA 20 A; with 2 half waves <l< td=""><td> for signal "1" permissible range for 0 to 40 °C, max. </td><td>2 A</td></l<>	 for signal "1" permissible range for 0 to 40 °C, max. 	2 A	
max. • for signal "1" minimum load current • for signal "1" permissible surge current, max. • for signal "0" residual current, max. 20 A; with 2 half waves • 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. 1 Hz	 for signal "1" permissible range for 40 to 60 °C, min. 	10 mA	
 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. on lamp load, max. 1 Hz 	· · · · · · · · · · · · · · · · · · ·	1 A	
 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. 1 Hz 1 Hz 1 Hz 1 Hz 1 Hz		10 mA	
 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. on lamp load, max. 1 Hz 			
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. 1 Hz			
 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 			
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		No	
 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 0.5 Hz 11 Hz 	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. 1 Hz 	Switching frequency		
 with inductive load (acc. to IEC 60947-5-1, AC15), max. on lamp load, max. 1 Hz 	with resistive load, max.	10 Hz	
max. ● on lamp load, max. 1 Hz	 with inductive load, max. 	0.5 Hz	
• on lamp load, max. 1 Hz		0.5 Hz	
·		1 Hz	

horizontal installation	
— up to 40 °C, max.	8 A
— up to 60 °C, max.	4 A
vertical installation	
— up to 40 °C, max.	4 A
Cable length	
shielded, max.	1 000 m
• unshielded, max.	600 m
Interrupts/diagnostics/status information	
Diagnostics function	Yes; Parameterizable
Alarms	
Diagnostic alarm	Yes; Parameterizable
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
Isolation	
Isolation tested with	1 500 V AC
connection method / header	
required front connector	40-pin
Dimensions	
Width	40 mm
Height	125 mm
Depth	120 mm
Weights	
Weight, approx.	275 g
last modified:	1/16/2021