



Figure similar

SIPLUS S7-300 SM 322 8DA 120/ 230 V AC 1A based on 6ES7322-1FF01-0AA0 with conformal coating, -40...+70 °C, digital output isolated, 8 DQ, 120/230 V AC, 1 A, 1x 20-pole

Supply voltage	
Load voltage L1	
• Rated value (AC)	230 V; 120/230 V AC
• permissible range, lower limit (AC)	93 V
• permissible range, upper limit (AC)	264 V
• permissible frequency range, lower limit	47 Hz
• permissible frequency range, upper limit	63 Hz
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	8
Short-circuit protection	Yes; Fuse 8 A, 250 V; per group
• required current for fuse shutdown, min.	40 A
• Response time, max.	300 ms
Controlling a digital input	Yes
Size of motor starters according to NEMA, max.	5 NEMA compliant
Spare fuses	8 A / quick response
Zero-crossing switch	Yes; Max. 60 V
Switching capacity of the outputs	
• on lamp load, max.	50 W
Output voltage	
• for signal "1", min.	L1 (-1.5 V)
• for signal "1" (at max. current), min.	L1 (-1.5 V)
• for signal "1" (at min. current), min.	L1 (-8.5 V)
Output current	
• for signal "1" rated value	2 A
• for signal "1" permissible range for 0 to 40 °C, min.	10 mA
• for signal "1" permissible range for 0 to 40 °C, max.	2 A
• for signal "1" permissible range for 40 to 60 °C, min.	10 mA
• for signal "1" permissible range for 40 to 60 °C, max.	1 A
• for signal "1" minimum load current	10 mA
• for signal "1" permissible surge current, max.	20 A; max. 1 AC cycle
• for signal "0" residual current, max.	2 mA
Output delay with resistive load	

<ul style="list-style-type: none"> • "0" to "1", max. 	1 AC cycle
<ul style="list-style-type: none"> • "1" to "0", max. 	1 AC cycle
Parallel switching of two outputs	
<ul style="list-style-type: none"> • for uprating 	No
<ul style="list-style-type: none"> • for redundant control of a load 	Yes
Switching frequency	
<ul style="list-style-type: none"> • with resistive load, max. 	10 Hz
<ul style="list-style-type: none"> • with inductive load, max. 	0.5 Hz
<ul style="list-style-type: none"> • with inductive load (acc. to IEC 60947-5-1, AC15), max. 	0.5 Hz
<ul style="list-style-type: none"> • on lamp load, max. 	1 Hz
Total current of the outputs (per group)	
horizontal installation	
— up to 40 °C, max.	4 A
— up to 60 °C, max.	2 A
— up to 70 °C, max.	1.5 A
vertical installation	
— up to 40 °C, max.	2 A
Cable length	
<ul style="list-style-type: none"> • shielded, max. 	1 000 m
<ul style="list-style-type: none"> • unshielded, max. 	600 m
Interrupts/diagnostics/status information	
Alarms	No
Diagnostics function	Yes; Fuse blown or load voltage missing
Alarms	
<ul style="list-style-type: none"> • Diagnostic alarm 	No
Diagnoses	
<ul style="list-style-type: none"> • Wire-break 	No
<ul style="list-style-type: none"> • Short-circuit 	No
<ul style="list-style-type: none"> • Fuse blown 	Yes
<ul style="list-style-type: none"> • missing load voltage 	Yes
Diagnostics indication LED	
<ul style="list-style-type: none"> • Rated load voltage PWR (green) 	Yes
<ul style="list-style-type: none"> • Fuse OK FSG (green) 	Yes
<ul style="list-style-type: none"> • Group error SF (red) 	Yes
<ul style="list-style-type: none"> • Status indicator digital output (green) 	Yes
Potential separation	
Potential separation digital outputs	
<ul style="list-style-type: none"> • between the channels 	Yes
<ul style="list-style-type: none"> • between the channels, in groups of 	4
<ul style="list-style-type: none"> • between the channels and backplane bus 	Yes; Optocoupler
Isolation	
Isolation tested with	1 500 V AC
Standards, approvals, certificates	
CE mark	Yes
UL approval	Yes; File E239877
RCM (formerly C-TICK)	Yes
KC approval	Yes
EAC (formerly Gost-R)	Yes
Railway application	
<ul style="list-style-type: none"> • EN 50155 	Yes; T1 Category 1 Class A/B horizontal mounting position
Ambient conditions	
Ambient temperature during operation	
<ul style="list-style-type: none"> • min. 	-40 °C
<ul style="list-style-type: none"> • max. 	70 °C; = Tmax; for use on railway vehicles according to EN 50155, the rated temperature range -25 ... +55 °C (T1) or 60 °C @ UL/UL hazardous use applies
Ambient temperature during storage/transportation	
<ul style="list-style-type: none"> • min. 	-40 °C
<ul style="list-style-type: none"> • max. 	70 °C

Altitude during operation relating to sea level	
<ul style="list-style-type: none"> • Installation altitude above sea level, max. • Ambient air temperature-barometric pressure-altitude 	<p>2 000 m</p> <p>Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m)</p>
Relative humidity	
<ul style="list-style-type: none"> • With condensation, tested in accordance with IEC 60068-2-38, max. 	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
Resistance	
Use in stationary industrial systems	
<ul style="list-style-type: none"> — to biologically active substances according to EN 60721-3-3 — to chemically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 	<p>Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request</p> <p>Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *</p> <p>Yes; Class 3S4 incl. sand, dust, *</p>
Use on ships/at sea	
<ul style="list-style-type: none"> — to biologically active substances according to EN 60721-3-6 — to chemically active substances according to EN 60721-3-6 — to mechanically active substances according to EN 60721-3-6 	<p>Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request</p> <p>Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *</p> <p>Yes; Class 6S3 incl. sand, dust; *</p>
Usage in industrial process technology	
<ul style="list-style-type: none"> — Against chemically active substances acc. to EN 60654-4 — Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04 	<p>Yes; Class 3 (excluding trichlorethylene)</p> <p>Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)</p>
Remark	
<ul style="list-style-type: none"> — Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04 	* The supplied plug covers must remain in place over the unused interfaces during operation!
connection method / header	
required front connector	20-pin
Dimensions	
Width	40 mm
Height	125 mm
Depth	120 mm
Weights	
Weight, approx.	275 g
last modified:	1/16/2021 