



Figure similar

SIPLUS S7-300 SM 322-20-pole based on 6ES7322-1HH01-0AA0 with conformal coating, -40...+70 °C, digital output optically isolated 16 DQ, relay contacts

General information	
based on	6ES7322-1HH01-0AA0
Supply voltage	
Load voltage L+	
• Rated value (DC)	120 V
Load voltage L1	
• Rated value (AC)	230 V
Input current	
from supply voltage L+, max.	250 mA
from backplane bus 5 V DC, max.	100 mA
Power loss	
Power loss, typ.	4.5 W
Digital outputs	
Number of digital outputs	16; Relays
Short-circuit protection	No
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.	50 W; 230 V AC
Output current	
• for signal "1" rated value	2 A
• for signal "1" minimum load current	10 mA
Parallel switching of two outputs	
• for uprating	No
• for redundant control of a load	Yes
Switching frequency	
• with resistive load, max.	1 Hz
• with inductive load, max.	0.5 Hz
• With inductive load (to IEC 60947-5-1, DC13/AC15), max.	0.5 Hz
• on lamp load, max.	1 Hz
• mechanical, max.	10 Hz
Total current of the outputs (per group)	
horizontal installation	
— up to 60 °C, max.	8 A
vertical installation	
— up to 40 °C, max.	8 A
Relay outputs	
• Rated supply voltage of relay coil L+ (DC)	24 V
• Contact connection (internal)	No

• Number of operating cycles, max.	100 000; 50 000 (24 V DC, at 2 A); 700 000 (120 V AC, at 2 A); 100 000 (230 V AC, at 2 A)
Switching capacity of contacts	
— with inductive load, max.	2 A; 2 A (230 V AC), 2 A (24 V DC)
— with resistive load, max.	2 A; 2 A (230 V AC), 2 A (24 V DC)
— Thermal continuous current, max.	2 A
Cable length	
• shielded, max.	1 000 m
• unshielded, max.	600 m
Interrupts/diagnostics/status information	
Alarms	No
Diagnostics function	No
Alarms	
• Diagnostic alarm	No
Diagnoses	
• Wire-break	No
• Short-circuit	No
• Fuse blown	No
• missing load voltage	No
Diagnostics indication LED	
• Rated load voltage PWR (green)	No
• Fuse OK FSG (green)	No
• Status indicator digital output (green)	Yes
Potential separation	
Potential separation digital outputs	
• between the channels	Yes
• between the channels, in groups of	8
• 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	
• EN 50155	Yes; Sections 4, 5 and 12; no further agreements apply; T1, Category 1, Class A/B, EN 50155:2007 (see SIOS entry 109755985)
Ambient conditions	
Ambient temperature during operation	
• min.	-40 °C; = Tmin
• max.	70 °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM use
Ambient temperature during storage/transportation	
• min.	-40 °C
• max.	70 °C
Altitude during operation relating to sea level	
• Installation altitude above sea level, max.	2 000 m
• Ambient air temperature-barometric pressure-altitude	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m)
Relative humidity	
• 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	
— to biologically active substances according to EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
— to chemically active substances according to EN 60721-3-3	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
— to mechanically active substances according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust, *
Use on land craft, rail vehicles and special-purpose vehicles	
— to biologically active substances according to EN	Yes; Class 5B2 mold, fungus and dry rot spores (with the exception of fauna);

60721-3-5	Class 5B3 on request
— to chemically active substances according to EN 60721-3-5	Yes; Class 5C3 (RH < 75 %) incl. salt spray acc. to EN 50155 (ST2); *
— to mechanically active substances according to EN 60721-3-5	Yes; Class 5S3 incl. sand, dust; *
Use on ships/at sea	
— to biologically active substances according to EN 60721-3-6	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
— to chemically active substances according to EN 60721-3-6	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
— to mechanically active substances according to EN 60721-3-6	Yes; Class 6S3 incl. sand, dust; *
Usage in industrial process technology	
— Against chemically active substances acc. to EN 60654-4	Yes; Class 3 (excluding trichlorethylene)
— Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04	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)
Remark	
— 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	
required front connector	20-pin
Dimensions	
Width	40 mm
Height	125 mm
Depth	120 mm
Weights	
Weight, approx.	250 g
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