

SIPLUS S7-300 SM 322 16DO -40...+70 °C with conformal coating based on 6ES7322-1FH00-0AA0 . Digital output Isolated 16 DO, 120/230 V AC, 1 A, 1x 20-pole



Figure similar

### Supply voltage

#### Load voltage L1

- |                                       |                     |
|---------------------------------------|---------------------|
| • Rated value (AC)                    | 230 V; 120/230 V AC |
| • permissible range, lower limit (AC) | 79 V                |
| • permissible range, upper limit (AC) | 264 V               |

### Input current

- |   |        |
|---|--------|
| from load voltage L1 (without load), max. | 2 mA   |
| from backplane bus 5 V DC, max.           | 200 mA |

### Power loss

- |                  |       |
|------------------|-------|
| Power loss, typ. | 8.6 W |
|------------------|-------|

### Digital outputs

- |                                   |      |
|-----------------------------------|------|
| Number of digital outputs         | 16   |
| Switching capacity of the outputs |      |
| • on lamp load, max.              | 50 W |

### Output current

- |                              |     |
|------------------------------|-----|
| • for signal "1" rated value | 1 A |
|------------------------------|-----|

• for signal "1" minimum load current	10 mA
• for signal "1" permissible surge current, max.	20 A; with 2 half waves
• for signal "0" residual current, max.	2 mA
<b>Switching frequency</b>	
• with resistive load, max.	10 Hz
• with inductive load, max.	0.5 Hz
• on lamp load, max.	1 Hz
<b>Total current of the outputs (per group)</b>	
<b>horizontal installation</b>	
— up to 40 °C, max.	4 A
— up to 60 °C, max.	2 A
— up to 70 °C, max.	1 A
<b>vertical installation</b>	
— up to 40 °C, max.	2 A
<b>Cable length</b>	
• shielded, max.	1 000 m
• unshielded, max.	600 m
<b>Interrupts/diagnostics/status information</b>	
Diagnostics function	Yes; Fuse blown or load voltage missing
<b>Alarms</b>	
• Diagnostic alarm	No
<b>Diagnostic messages</b>	
• Wire-break	No
• Short-circuit	No
• Fuse blown	Yes
• missing load voltage	No
<b>Diagnostics indication LED</b>	
• Rated load voltage PWR (green)	No
• Fuse OK FSG (green)	Yes; Red LED for fuse
• Group error SF (red)	Yes
• Status indicator digital output (green)	Yes
<b>Potential separation</b>	
<b>Potential separation digital outputs</b>	
• between the channels, in groups of	8
• between the channels and backplane bus	Yes; Optocoupler
<b>Isolation</b>	
Isolation tested with	4 000 V DC
<b>Standards, approvals, certificates</b>	
CE mark	Yes
UL approval	Yes; File E239877

RCM (formerly C-TICK)	Yes
KC approval	Yes
EAC (formerly Gost-R)	Yes
<b>Railway application</b>	
• EN 50121-4	No
• EN 50155	No
<b>Ambient conditions</b>	
<b>Ambient temperature during operation</b>	
• min.	-40 °C; = Tmin
• max.	70 °C; = Tmax; 60 °C @ UL/cUL, ATEX and FM use
<b>Ambient temperature during storage/transportation</b>	
• min.	-40 °C
• max.	70 °C
<b>Altitude during operation relating to sea level</b>	
• Installation altitude above sea level, max.	5 000 m
• Ambient air temperature-barometric pressure-altitude	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)
<b>Relative humidity</b>	
• With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
<b>Resistance</b>	
<b>Use in stationary industrial systems</b>	
— 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, *
<b>Use on ships/at sea</b>	
— 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; *
<b>Remark</b>	
— Note regarding classification of environmental conditions acc. to EN 60721	* The supplied plug covers must remain in place over the unused interfaces during operation!
<b>Conformal coating</b>	
• Coatings for printed circuit board assemblies acc. to EN 61086	Yes; Class 2 for high availability

- Military testing according to MIL-I-46058C, Amendment 7
- Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A

Yes; Discoloration of coating possible during service life

Yes; Conformal coating, Class A

#### Connection method

required front connector 20-pin

#### Dimensions

Width 40 mm

Height 125 mm

Depth 120 mm

#### Weights

Weight, approx. 275 g

**last modified:** 12/14/2018