## Data sheet

SIPLUS S7-300 SM 322 8DO 48-125V -25...+70 °C with conformal coating based on 6ES7322-1CF00-0AA0 . Digital output isolated, 8 DO, 48-125 V DC, 1.5A, 1x 20-pole



Figure similar

Supply voltage	
Load voltage L+	
Rated value (DC)	48 V; 48 V DC to 125 V DC
<ul> <li>permissible range, lower limit (DC)</li> </ul>	40 V
<ul> <li>permissible range, upper limit (DC)</li> </ul>	140 V
Input current	
from load voltage L+ (without load), max.	2 mA
from backplane bus 5 V DC, max.	100 mA
Power loss	
Power loss, typ.	7.2 W
Digital outputs	
Number of digital outputs	8
Limitation of inductive shutdown voltage to	M (-1 V)
Switching capacity of the outputs	
• on lamp load, max.	15 W; 15 W (48 V) or 40 W (125 V)
Output voltage	

• for signal "1", min.	L+ (-1.2 V)
Output current	
• for signal "1" rated value	1.5 A
• for signal "1" minimum load current	10 mA
• for signal "1" permissible surge current, max.	3 A; for 10 ms
• for signal "0" residual current, max.	0.5 mA
Switching frequency	
• with resistive load, max.	25 Hz
<ul><li>with inductive load, max.</li></ul>	0.5 Hz
• on lamp load, max.	10 Hz
Total current of the outputs (per group)	
horizontal installation	
— up to 40 °C, max.	6 A
— up to 60 °C, max.	3 A
— up to 70 °C, max.	1 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	No
Alarms	
Diagnostic alarm	No
Diagnostic messages	
Wire-break	No
Short-circuit	No
• Fuse blown	No
missing load voltage	No
Diagnostics indication LED	
<ul> <li>Rated load voltage PWR (green)</li> </ul>	No
• Fuse OK FSG (green)	No
• Group error SF (red)	Yes
<ul> <li>Status indicator digital output (green)</li> </ul>	Yes
Potential separation	
Potential separation digital outputs	
• between the channels	Yes
<ul><li>between the channels, in groups of</li></ul>	4
between the channels and backplane bus	Yes; Optocoupler
Permissible potential difference	

between different circuits	146 V DC/132 V AC
Inclusion	
Isolation Isolation tested with	1500 V AC
Isolation tested with	1000 V 710
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	V 74.0 4.0 4.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1
• EN 50155	Yes; T1 Category 1 Class A/B horizontal mounting position
Ambient conditions	
Ambient temperature during operation	
• min.	-25 °C
• max.	70 °C; = Tmax; for use on railway vehicles according to EN50155, the rated temperature range -25 +55 °C (T1) or 60 °C @ UL/ULhaz/ATEX/FM use applies
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
<ul> <li>Ambient air temperature-barometric pressure- altitude</li> </ul>	Tmin Tmax at 1 140 hPa 795 hPa (-1 000 m +2 000 m)
Relative humidity	
<ul> <li>With condensation, tested in accordance with IEC 60068-2-38, max.</li> </ul>	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
Resistance	
Use in stationary industrial systems	
<ul> <li>to biologically active substances according to EN 60721-3-3</li> </ul>	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
<ul> <li>to chemically active substances according to EN 60721-3-3</li> </ul>	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
<ul> <li>to mechanically active substances according to EN 60721-3-3</li> </ul>	Yes; Class 3S4 incl. sand, dust, *
Use on ships/at sea	
<ul> <li>to biologically active substances according to EN 60721-3-6</li> </ul>	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
<ul> <li>to chemically active substances according to EN 60721-3-6</li> </ul>	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); $^{\star}$
<ul> <li>to mechanically active substances according to EN 60721-3-6</li> </ul>	Yes; Class 6S3 incl. sand, dust; *
Remark	

<ul> <li>Note regarding classification of environmental conditions acc. to EN 60721</li> </ul>	* The supplied plug covers must remain in place over the unused interfaces during operation!
Conformal coating	
<ul> <li>Coatings for printed circuit board assemblies acc. to EN 61086</li> </ul>	Yes; Class 2 for high availability
<ul> <li>Military testing according to MIL-I-46058C,</li> </ul>	Yes; Discoloration of coating possible during service life

 Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A

Amendment 7

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.	250 g	
	10/14/10040	

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