SIEMENS

Data sheet 6AG1422-1BL00-2AA0



SIPLUS S7-400 SM 422 32DA based on 6ES7422-1BL00-0AA0 with conformal coating, -25…+60 °C,

General information	
based on	6ES7422-1BL00-0AA0
Supply voltage	
Load voltage L+	
● Rated value (DC)	24 V
● permissible range, lower limit (DC)	20.4 V
● permissible range, upper limit (DC)	28.8 V
Input current	
from load voltage L+ (without load), max.	30 mA
from backplane bus 5 V DC, max.	200 mA
Power loss	
Power loss, typ.	4 W
Digital outputs	
Number of digital outputs	32
Short-circuit protection	Yes; Clocked electronically
● Response threshold, typ.	0.7 to 1.5 A
Limitation of inductive shutdown voltage to	-27 V
Controlling a digital input	Yes; possible
Switching capacity of the outputs	
● on lamp load, max.	5 W
Load resistance range	
● lower limit	48 Ω
● upper limit	4 kΩ
Output voltage	
● for signal "1", min.	L+ (-0.3 V)
Output current	
● for signal "1" rated value	0.5 A
● for signal "1" permissible range, min.	5 mA
● for signal "1" permissible range, max.	0.6 A
● for signal "0" residual current, max.	0.3 mA
Output delay with resistive load	
● "0" to "1", max.	1 ms
● "1" to "0", max.	1 ms
Parallel switching of two outputs	
● for uprating	Yes; possible (only outputs of the same group)
● for redundant control of a load	Yes; possible (only outputs of the same group)
Switching frequency	
● with resistive load, max.	100 Hz
● with inductive load, max.	0.5 Hz

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● with inductive load (acc. to IEC 60947-5-1, DC13), max.	2 Hz; 2 Hz at 0.3 A; 0.5 Hz at 0.5 A
● on lamp load, max.	10 Hz
Total current of the outputs (per group)	
all mounting positions	
— up to 40 °C, max.	4 A
— up to 60 °C, max.	2 A; 8 adjacent outputs each
Cable length	
● shielded, max.	1 000 m
● unshielded, max.	600 m
Interrupts/diagnostics/status information	
Diagnostics function	No
Potential separation	
Potential separation digital outputs	
● between the channels	No
● between the channels, in groups of	32
● between the channels and backplane bus	Yes
Isolation	
Isolation tested with	500 V AC/707 V DC, type test
Ambient conditions	
Ambient temperature during operation	
● min.	-25 °C; = Tmin
● max.	60 °C; = Tmax
Ambient temperature during storage/transportation	
● min.	-40 °C
● max.	70 °C
Altitude during operation relating to sea level	
● 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)
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 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!
Conformal coating	
● Coatings for printed circuit board assemblies acc. to EN 61086	Yes; Class 2 for high reliability
● Protection against fouling acc. to EN 60664-3	Yes; Type 1 protection
● Military testing according to MIL-I-46058C, Amendment 7	Yes; Discoloration of coating possible during service life

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● Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A	Yes; Conformal coating, Class A

Dimensions	
Width	25 mm
Height	290 mm
Depth	210 mm

Weights	
Weight, approx.	600 g

Classifications

	Version	Classification
eClass	16	27-24-22-04
eClass	14	27-24-22-04
eClass	12	27-24-22-04
eClass	9.1	27-24-22-04
eClass	9	27-24-22-04
eClass	8	27-24-22-04
eClass	7.1	27-24-22-04
eClass	6	27-24-22-04
ETIM	10	EC001419
ETIM	9	EC001419
ETIM	8	EC001419
ETIM	7	EC001419
IDEA	4	3566
UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval

EG-Konf.	Manufacturer Declaration		China RoHS		China RoHS

General Product Approval	EMV		For use in hazardous locations		
		RCM	CCC-Ex	IECEx	ATEX

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