SIEMENS

Data sheet 6AG1322-1FF01-7AA0



Figure similar

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

General information	
based on	6ES7322-1FF01-0AA0
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

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Output delay with resistive load	
● "0" to "1", max.	1 AC cycle
● "1" to "0", max.	1 AC cycle
Parallel switching of two outputs	
● for uprating	No
● for redundant control of a load	Yes
Switching frequency	
● with resistive load, max.	10 Hz
● with inductive load, max.	0.5 Hz
● with inductive load (acc. to IEC 60947-5-1, AC15), max.	0.5 Hz
● 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	
● shielded, max.	1 000 m
● unshielded, max.	600 m
Interrupts/diagnostics/status information	
Alarms	No
Diagnostics function	Yes; Fuse blown or load voltage missing
Alarms	
● Diagnostic alarm	No
Diagnoses	
● Wire break	No
● short-circuit	No
● Fuse blown	Yes
● Missing load voltage	Yes
Diagnostics indication LED	
● Rated load voltage PWR (green)	Yes
● Fuse OK FSG (green)	Yes
● Group error SF (red)	Yes
● Status indicator digital output (green)	Yes
Potential separation	
Potential separation digital outputs	
● between the channels	Yes
● between the channels, in groups of	4
● 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; T1 Category 1 Class A/B horizontal mounting position
Ambient conditions	
Ambient temperature during operation	
● min.	-40 °C
● 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	
● min.	-40 °C
● max.	70 °C

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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 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.	275 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

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	Miscellaneous		Miscellaneous		

General Product Approval		EMV	Test Certificates	Maritime application	other
	Confirmation		Type Test Certific-ates/Test Report		Miscellaneous

other	Environment	
Confirmation	Environmental Con-firmations	Environmental Con-firmations

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