SIEMENS

Data sheet 6AG1305-1BA80-2AA0



Figure similar

spare part SIPLUS S7-300 PS 305 based on 6ES7305-1BA80-0AA0 with conformal coating, -25…+70 °C, stabilized power supply input: 24-110 V DC output: 24 V DC/2 A

General information	
based on	6ES7305-1BA80-0AA0
Supply voltage	
Rated value (DC)	
● 24 V DC	Yes
● 48 V DC	Yes
● 72 V DC	Yes
● 96 V DC	Yes
● 120 V DC	Yes; Rated value 110 V DC
Mains buffering	
● Mains/voltage failure stored energy time	10 ms; Corresponds to S2 and C1 of EN 50155
● Repeat rate, min.	1 s
Input current	
Rated value at 24 V DC	2.7 A
Rated value at 48 V DC	1.3 A
Rated value at 72 V DC	0.9 A
Rated value at 96 V DC	0.65 A
Rated value at 110 V DC	0.6 A
Inrush current, max.	20 A
I^2t	5 $A^2 \cdot s$
Leakage current, typ.	0.7 mA
Leakage current, max.	3.5 mA
Overcurrent overload capability	270 ms on short circuit during startup and operation
Output voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	23.27 V
permissible range, upper limit (DC)	24.72 V
Power up time, max.	3 s
Residual ripple, typ.	30 mV; Peak - peak
Residual ripple, max.	150 mV; Peak - peak
Output current	
Current output (rated value)	2 A; 2 for connection in parallel
Short-circuit protection	Yes; Electronic
Power	
Active power input, typ.	64 W
Efficiency	75 %
Power loss	
Power loss, typ.	16 W

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Interrupts/diagnostics/status information	
Diagnostics indication LED	
● Status indicator output 24 V OK (green)	Yes
Potential separation	
primary/secondary	Yes; SELV output voltage Ua according to EN 60950-1 and EN 50178
Isolation	
Isolation tested with	Rated insulation voltage (24 V against input): 150 V AC tested with: 2800 V DC
EMC	
EMC interference immunity	EN 61000-6-2
EMC interference emission	EN 55011 Class A
Degree and class of protection	
Equipment protection class	I
Standards, approvals, certificates	
CE mark	Yes
Railway application	
● EN 50155	Yes; Sections 4, 5 and 12; no further agreements apply; T1, Category 1, Class A/B, EN 50155:2007
Ambient conditions	
Ambient temperature during operation	
● min.	-25 °C; = Tmin
● 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
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) // 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); above 2 000 m max. 75 V DC
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 60721-3-5	Yes; Class 5B2 mold, fungus and dry rot spores (with the exception of fauna); 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!
Dimensions	
Width	80 mm

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Height	125 mm
Depth	120 mm

Weights

Weight, approx.	740 g

Classifications

	Version	Classification
eClass	16	27-24-22-09
eClass	14	27-24-22-09
eClass	12	27-24-22-09
eClass	9.1	27-24-22-09
eClass	9	27-24-22-09
eClass	8	27-24-22-09
eClass	7.1	27-24-22-09
eClass	6	27-24-22-09
ETIM	10	EC000599
ETIM	9	EC000599
ETIM	8	EC000599
ETIM	7	EC000599
IDEA	4	3575
UNSPSC	15	32-15-17-06

Approvals / Certificates

General Product Approval

Manufacturer Declaration

Declaration of Conformity

China RoHS

General Product Approval

EMV

last modified: 5/29/2024

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