

SIPLUS S7-300 PS 305 -25...+70 °C with conformal coating according to EN 50155 T1 Cat 1 CI A/B based on 6ES7305-1BA80-0AA0 . Stabilized power supplies Input: 24-110 V DC Output: 24 V DC/2 A



Figure similar

| 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 |
| permissible range, lower limit (DC) | 16.8 V |
| permissible range, upper limit (DC) | 138 V |
| 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 ·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 |

| Interrupts/diagnostics/status information | |
|--|------------------|
| Diagnostics indication LED | |
| <ul style="list-style-type: none"> Output voltage 24 V DC (green) | Yes; OK for 24 V |

| Potential separation | |
|----------------------|---|
| primary/secondary | Yes; SELV output voltage U_a 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 | |
|---------------------------------------|------|
| Degree of protection acc. to EN 60529 | IP20 |
| 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 | |
| <ul style="list-style-type: none"> • min. • max. | <p>-25 °C; = Tmin</p> <p>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</p> |
| Altitude during operation relating to sea level | |
| <ul style="list-style-type: none"> • Installation altitude above sea level, max. • Ambient air temperature-barometric pressure-altitude | <p>2 000 m</p> <p>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</p> |
| Relative humidity | |
| <ul style="list-style-type: none"> • 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 |
| Height | 125 mm |
| Depth | 120 mm |

Weights

| | |
|-----------------|-------|
| Weight, approx. | 740 g |
|-----------------|-------|

last modified: 08/31/2019