



Figure similar

SIPLUS S7-1500 DQ 16x230VAC 1A ST TRIAC based on 6ES7522-5FH00-0AB0 with conformal coating, -40...+70 °C, start up -25 °C, digital output module 16 channels in groups of 2; 2 A per group; substitute value

| General information | |
|--|--|
| Product type designation | DQ 16x230VAC/1A ST (Triac) |
| Firmware version | |
| • FW update possible | Yes |
| based on | 6ES7522-5FH00-0AB0 |
| Product function | |
| • I&M data | Yes; I&M0 to I&M3 |
| • Isochronous mode | No |
| • Prioritized startup | Yes |
| Engineering with | |
| • STEP 7 TIA Portal configurable/integrated from version | see entry ID: 109746275 |
| Operating mode | |
| • DQ | Yes |
| • DQ with energy-saving function | No |
| • PWM | No |
| • Oversampling | No |
| • MSO | Yes |
| output voltage / header | |
| Rated value (AC) | 120/230 V AC, 50/60 Hz |
| Power | |
| Power consumption from the backplane bus | 1.2 W |
| Power loss | |
| Power loss, typ. | 11.1 W |
| Digital outputs | |
| Type of digital output | Triac |
| Number of digital outputs | 16 |
| Current-sinking | Yes |
| Current-sourcing | Yes |
| Digital outputs, parameterizable | Yes |
| Short-circuit protection | No |
| Size of motor starters according to NEMA, max. | 4 |
| Switching capacity of the outputs | |
| • with resistive load, max. | 1 A |
| • on lamp load, max. | 50 W |
| Output voltage | |
| • for signal "1", min. | L1 (-1.5 V) at maximum output current; L1 (-8.5 V) at minimum output current |
| Output current | |
| • for signal "1" rated value | 1 A |
| • for signal "1" permissible range, min. | 10 mA |




| | |
|---|--|
| <ul style="list-style-type: none"> • for signal "1" permissible range, max. • for signal "0" residual current, max. | 15 A; max. 1 AC cycle 2 mA |
| Output delay with resistive load | |
| <ul style="list-style-type: none"> • "0" to "1", max. • "1" to "0", max. | 1 AC cycle 1 AC cycle |
| Parallel switching of two outputs | |
| <ul style="list-style-type: none"> • for logic links • for uprating • for redundant control of a load | No No Yes |
| Switching frequency | |
| <ul style="list-style-type: none"> • with resistive load, max. • with inductive load, max. • on lamp load, max. | 10 Hz 0.5 Hz 1 Hz |
| Total current of the outputs | |
| <ul style="list-style-type: none"> • Current per channel, max. • Current per group, max. • Current per module, max. | 1 A; see additional description in the manual 2 A; see additional description in the manual 10 A; see additional description in the manual |
| Cable length | |
| <ul style="list-style-type: none"> • shielded, max. • unshielded, max. | 1 000 m 600 m |
| Interrupts/diagnostics/status information | |
| Diagnostics function | No |
| Substitute values connectable | Yes |
| Alarms | |
| <ul style="list-style-type: none"> • Diagnostic alarm | No |
| Diagnoses | |
| <ul style="list-style-type: none"> • Monitoring the supply voltage • Wire-break • Short-circuit | No No No |
| Diagnostics indication LED | |
| <ul style="list-style-type: none"> • RUN LED • ERROR LED • Monitoring of the supply voltage (PWR-LED) • Channel status display • for channel diagnostics • for module diagnostics | Yes; green LED Yes; red LED No Yes; green LED No Yes; red LED |
| Potential separation | |
| Potential separation channels | |
| <ul style="list-style-type: none"> • between the channels • between the channels, in groups of • between the channels and backplane bus | No 2 Yes |
| Permissible potential difference | |
| between different circuits | 250 V AC between the channels and the backplane bus; 500 V AC between the channels |
| Isolation | |
| Isolation tested with | 2 500 V DC |
| Standards, approvals, certificates | |
| Suitable for safety functions | No |
| Ecological footprint | |
| <ul style="list-style-type: none"> • environmental product declaration | Yes |
| Global warming potential | |
| — global warming potential, (total) [CO2 eq] | 43.8 kg |
| — global warming potential, (during production) [CO2 eq] | 9.5 kg |
| — global warming potential, (during operation) [CO2 eq] | 34.5 kg |
| — global warming potential, (after end of life cycle) [CO2 eq] | -0.231 kg |
| Ambient conditions | |
| Ambient temperature during operation | |
| <ul style="list-style-type: none"> • horizontal installation, min. • horizontal installation, max | -40 °C; = Tmin (incl. condensation/frost); start-up @ -25 °C 70 °C; = Tmax; see Derating BasedOn (e.g. manual), additionally Tmax > 60 °C |

| | | | |
|--|--|---------|----------------|
| <ul style="list-style-type: none">vertical installation, min.vertical installation, max. | max. 4 A aggregate current per module, max. 0.25 A per output -40 °C; = Tmin; Startup @ -25 °C 60 °C | | |
| 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 | 2 000 m Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) | | |
| 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 in bedewed state), horizontal installation | | |
| Resistance | | | |
| Coolants and lubricants | | | |
| <ul style="list-style-type: none">Resistant to commercially available coolants and lubricants | Yes; Incl. diesel and oil droplets in the air | | |
| Use in stationary industrial systems | | | |
| <ul style="list-style-type: none">to biologically active substances according to EN 60721-3-3to chemically active substances according to EN 60721-3-3to mechanically 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 Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); * Yes; Class 3S4 incl. sand, dust, * | | |
| Use on ships/at sea | | | |
| <ul style="list-style-type: none">to biologically active substances according to EN 60721-3-6to chemically active substances according to EN 60721-3-6to mechanically active substances according to EN 60721-3-6 | Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); * Yes; Class 6S3 incl. sand, dust; * | | |
| Usage in industrial process technology | | | |
| <ul style="list-style-type: none">Against chemically active substances acc. to EN 60654-4Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04 | Yes; Class 3 (excluding trichlorethylene) 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 | | | |
| <ul style="list-style-type: none">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 | | | |
| <ul style="list-style-type: none">Coatings for printed circuit board assemblies acc. to EN 61086Protection against fouling acc. to EN 60664-3Military testing according to MIL-I-46058C, Amendment 7Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A | Yes; Class 2 for high reliability Yes; Type 1 protection Yes; Discoloration of coating possible during service life Yes; Conformal coating, Class A | | |
| Dimensions | | | |
| Width | 35 mm | | |
| Height | 147 mm | | |
| Depth | 129 mm | | |
| Weights | | | |
| Weight, approx. | 310 g | | |
| Classifications | | | |
| | | Version | Classification |
| | 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 | 9 | EC001419 |
| | ETIM | 8 | EC001419 |
| | ETIM | 7 | EC001419 |

| | | |
|--------|----|-------------|
| IDEA | 4 | 3566 |
| UNSPSC | 15 | 32-15-17-05 |

Approvals / Certificates

| | |
|--------------------------|-----|
| General Product Approval | EMV |
|--------------------------|-----|

[Miscellaneous](#)
[Manufacturer Declaration](#)



[KC](#)

EG-Konf.

 UL

| | | |
|-----|-------------------|-------------|
| EMV | Marine / Shipping | Environment |
|-----|-------------------|-------------|





RCM

 DNV

 EPD

last modified:

10/9/2024 