SIEMENS

## Data sheet 6ES7522-5HF00-0AB0



Figure similar

SIMATIC S7-1500, digital output module DQ 8xAC 230V/5A ST; relay; 8 channels in groups of 1; 5 A per group; diagnostics; substitute value: switching cycle counter for integrated relay, the module supports the safety-oriented shutdown of load groups up to SIL1 according to EN IEC 62061:2021 and Category 2 / PL c according to EN ISO 13849-1:2015. front connector (screw terminals or push-in) to be ordered separately

| | |
|---|---|
| **General information** | |
| Product type designation | DQ 8x230 V AC/5 A ST (relay) |
| HW functional status | From FS02 |
| Firmware version | V2.1.0 |
| ● FW update possible | Yes |
| 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 | V12 / V12 |
| ● STEP 7 configurable/integrated from version | V5.5 SP3 / - |
| ● PROFIBUS from GSD version/GSD revision | V1.0 / V5.1 |
| ● PROFINET from GSD version/GSD revision | V2.3 / - |
| Operating mode | |
| ● DQ | Yes |
| ● DQ with energy-saving function | No |
| ● PWM | No |
| ● Cam control (switching at comparison values) | No |
| ● Oversampling | No |
| ● MSO | Yes |
| ● Integrated operating cycle counter | Yes; FW V2.1.0 or higher |
| **Supply voltage** | |
| Rated value (DC) | 24 V |
| permissible range, lower limit (DC) | 19.2 V |
| permissible range, upper limit (DC) | 28.8 V |
| Reverse polarity protection | Yes |
| **Input current** | |
| Current consumption, max. | 80 mA |
| **Output voltage** | |
| Rated value (AC) | 230 V; 24 V DC to 120 V DC / 24 V AC to 230 V AC |
| **Power** | |
| Power consumption from the backplane bus | 0.8 W |
| **Power loss** | |
| Power loss, typ. | 5 W |


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|---|---|
| **Address area** | |
| Address space per module | |
| ● Inputs | 0 byte |
| ● Outputs | 1 byte |
| **Digital outputs** | |
| Type of digital output | Relays |
| Number of digital outputs | 8 |
| Current-sinking | Yes |
| Current-sourcing | Yes |
| Digital outputs, parameterizable | Yes |
| Short-circuit protection | No |
| Controlling a digital input | Yes; possible |
| Size of motor starters according to NEMA, max. | 5 |
| Digital output functions, parameterizable | |
| ● Switching tripped by comparison values | No |
| ● Freely usable digital output | No |
| ● PWM output | No |
| ● Digital output with oversampling | No |
| Switching capacity of the outputs | |
| ● with resistive load, max. | 5 A |
| ● on lamp load, max. | 1 500 W; 10 000 operating cycles |
| Output current | |
| ● for signal "1" rated value | 5 A |
| ● for signal "1" permissible range, min. | 5 mA; 10 V |
| ● for signal "1" permissible range, max. | 8 A; thermal continuous current |
| ● for signal "0" residual current, max. | 0 A |
| Parallel switching of two outputs | |
| ● for logic links | Yes |
| ● for uprating | No |
| ● for redundant control of a load | Yes |
| Switching frequency | |
| ● with resistive load, max. | 2 Hz |
| ● with inductive load, max. | 0.5 Hz |
| ● on lamp load, max. | 2 Hz |
| Total current of the outputs | |
| ● Current per channel, max. | 8 A; see additional description in the manual |
| ● Current per group, max. | 8 A; see additional description in the manual |
| ● Current per module, max. | 64 A; see additional description in the manual |
| Relay outputs | |
| ● Number of relay outputs | 8 |
| ● Rated supply voltage of relay coil L+ (DC) | 24 V |
| ● Current consumption of relays (coil current of all relays), typ. | 80 mA |
| ● external protection for relay outputs | With miniature circuit breaker with characteristic B for: cos φ 1.0: 600 A cos φ 0.5 ... 0.7: 900 A with 8 A Diazed fuse: 1 000 A |
| ● Contact connection (internal) | No |
| ● Number of operating cycles, max. | 4 000 000; see additional description in the manual |
| ● Relay approved acc. to UL 508 | Yes; 250 V AC/5 A g.p.; 120 V AC TV-4 tungsten; A300, R300 |
| Switching capacity of contacts | |
| — with inductive load, max. | see additional description in the manual |
| — with resistive load, max. | see additional description in the manual |
| Cable length | |
| ● shielded, max. | 1 000 m |
| ● unshielded, max. | 600 m |
| **Interrupts/diagnostics/status information** | |
| Diagnostics function | Yes |
| Substitute values connectable | Yes |
| Alarms | |
| ● Diagnostic alarm | Yes |


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|---|---|
| ● Maintenance interrupt | Yes; maintenance alarm for switching cycle counter |
| Diagnoses | |
| ● Monitoring the supply voltage | Yes |
| ● Wire break | No |
| ● Short-circuit | No |
| ● Group error | No |
| Diagnostics indication LED | |
| ● RUN LED | Yes; green LED |
| ● ERROR LED | Yes; red LED |
| ● MAINT LED | Yes; Yellow LED |
| ● Monitoring of the supply voltage (PWR-LED) | Yes; green LED |
| ● Channel status display | Yes; green LED |
| ● for channel diagnostics | No |
| ● for module diagnostics | Yes; red LED |
| **Potential separation** | |
| Potential separation channels | |
| ● between the channels | Yes; Switching of different phases permitted |
| ● between the channels, in groups of | 1 |
| ● between the channels and backplane bus | Yes |
| ● Between the channels and load voltage L+ | Yes |
| **Permissible potential difference** | |
| between different circuits | 250 V AC between the channels and the supply voltage L+, 250 V AC between the channels and the backplane bus; 250 V AC between the channels (500 V AC when connecting different phases; basic insulation) |
| **Isolation** | |
| Isolation tested with | between the channels: 3 100 V DC; between the channels and the backplane bus: 3 100 V DC; between the channels and the supply voltage L+: 3 100 V DC; between the L+ and the backplane bus: 707 V DC (type test) |
| **Standards, approvals, certificates** | |
| Siemens Eco Profile (SEP) | Siemens EcoTech |
| Suitable for safety functions | No |
| Suitable for safety-related tripping of standard modules | Yes; From FS03 |
| Ecological footprint | |
| ● 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 |
| Highest safety class achievable for safety-related tripping of standard modules | |
| ● Performance level according to ISO 13849-1 | PL c |
| ● Category according to ISO 13849-1 | Cat. 2 |
| ● SIL acc. to IEC 62061 | SIL 1 |
| ● remark on safety-oriented shutdown | https://www.plcally.com/?s=6ES7522-5HF00-0AB0 |
| **Security** | |
| signed firmware update | No |
| safely removing data | No |
| data integrity | No |
| **Ambient conditions** | |
| Ambient temperature during operation | |
| ● horizontal installation, min. | -30 °C; From FS03 |
| ● horizontal installation, max. | 60 °C |
| ● vertical installation, min. | -30 °C; From FS03 |
| ● vertical installation, max. | 40 °C |
| Altitude during operation relating to sea level | |
| ● Installation altitude above sea level, max. | 2 000 m |
| **Dimensions** | |
| Width | 35 mm |


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|---|---|
| Height | 147 mm |
| Depth | 129 mm |

**Weights**

| | |
|---|---|
| Weight, approx. | 350 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**

Miscellaneous | Manufacturer Declaration | CE EG-Konf. | UKCA | UL | KC

**General Product Approval** | **For use in hazardous locations**

RCM | EAC | China RoHS | Manufacturer Declaration | FM | UL

**For use in hazardous locations** | **Maritime application**

FM | ABS | Bureau Veritas | DNV | LRS | NK / Nippon Kaiji Kyokai

**Maritime application** | **Environment**

RINA | RMRS | CCS (China Classification Society) | KR (Korean Register of Shipping) | EPD | Siemens EcoTech

**last modified:** 5/7/2026


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