SIEMENS

Data sheet 6ES7522-5HF00-0AB0

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

General information	
Product type designation	DQ 8x230 V AC/5 A ST (relay)
HW functional status	FS01
Firmware version	V2.0.0
• FW update possible	Yes
Product function	
• I&M data	Yes; I&M0 to I&M3
Engineering with	
• STEP 7 TIA Portal configurable/integrated as of version	V12 / V12
• STEP 7 configurable/integrated as of version	V5.5 SP3 / -
• PROFIBUS as of GSD version/GSD revision	V1.0 / V5.1
• PROFINET as of GSD version/GSD revision	V2.3 / -
Operating mode	
• DQ	Yes
• DQ with energy-saving function	No
• PWM	No
• Oversampling	No
• MSO	Yes

Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	20.4 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 available from the backplane bus	0.8 W
Power loss	
Power loss, typ.	5 W
Digital outputs	
Type of digital output	Relays
Number of digital outputs	8
Current-sinking	Yes
Current-sourcing	Yes
Short-circuit protection	No
Controlling a digital input	possible
Switching capacity of the outputs	
• on lamp load, max.	1 500 W; 10 000 operating cycles
• Low energy/fluorescent lamps with electronic control gear	10x 58 W (25 000 operating cycles)
• Fluorescent tubes, conventionally compensated	1x 58 W (25 000 operating cycles)
• Fluorescent tubes, uncompensated	10x 58 W (25 000 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: 1000 A
• Contact connection (internal)	No
• Size of motor starters according to NEMA, max.	5
• 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

Isochronous mode	
Isochronous operation (application synchronized up to terminal)	No

Interrupts/diagnostics/status information	
Diagnostics function	Yes
Substitute values connectable	Yes
Alarms	
• Diagnostic alarm	Yes
Diagnostic messages	
• Monitoring the supply voltage	Yes
• Wire-break	No
• Short-circuit	No
Diagnostics indication LED	
• RUN LED	Yes; Green LED
• ERROR LED	Yes; Red 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; 500 V AC between the channels
Isolation	
Isolation tested with	Between channels: 3 100 V DC; between channels backplane bus: 3 100 V DC; between L+ and backplane bus: 707 V DC (type test)
Ambient conditions	
Ambient temperature during operation	
• horizontal installation, min.	0 °C
• horizontal installation, max.	60 °C
• vertical installation, min.	0 °C
• vertical installation, max.	40 °C
Decentralized operation	
Prioritized startup	Yes
Dimensions	
Width	35 mm
Height	147 mm
Depth	129 mm
Weights	
Weight, approx.	350 g
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