## **Data sheet**

# 6ES7522-5HF00-0AB0

### Siemens EcoTech



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

Figure similar

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
<ul> <li>Isochronous mode</li> </ul>	No
Prioritized startup	Yes
Engineering with	
<ul> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul>	V12 / V12
<ul> <li>STEP 7 configurable/integrated from version</li> </ul>	V5.5 SP3 / -
<ul> <li>PROFIBUS from GSD version/GSD revision</li> </ul>	V1.0 / V5.1
<ul> <li>PROFINET from GSD version/GSD revision</li> </ul>	V2.3 / -
Operating mode	
• DQ	Yes
<ul> <li>DQ with energy-saving function</li> </ul>	No
• PWM	No
<ul> <li>Oversampling</li> </ul>	No
• MSO	Yes
<ul> <li>Integrated operating cycle counter</li> </ul>	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 / header	
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
Digital outputs	
Type of digital output	Relays

Current-sinking Yes Current-sourcing Yes Current-sourcing Yes Short-circuit protection No Controlling a digital input Size of motor statures according to NEMA, max.  Size of motor statures according to NEMA, max.  Size of motor statures according to NEMA, max.  Sourching capacity of the outputs  on lamp load, max.  Low energy/flucrescent lamps with electronic control gear  Fluorescent tubes, concempensated  100-08 8W (25 000 operating cycles)  10x 58 W (25 000 operating cycles  10x 58 W (25 00	Ni wala an af aliasta I an tan ta	
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typ.  • external protection for relay outputs  • Contact connection (internal)  • Number of operating cycles, max.  • Relay approved acc. to UL 508  Switching capacity of contacts  — with inductive load, max.  — with resistive load, max.  • shielded, max.  • shielded, max.  • unshielded, max.  • unshielded, max.  • unshielded, max.  Diagnostics function  Diagnostics function  Diagnostics function  A Universe of the foreign of the properties of the propertie		
O.5 0.7: 900 A with 8 A Diazed fuse: 1 000 A  Ocontact connection (internal)  No  No  No  No  No  No  No  No  No  N		OU IIIA
<ul> <li>Number of operating cycles, max.</li> <li>Relay approved acc. to UL 508</li> <li>Switching capacity of contacts</li> <li>— with inductive load, max.</li> <li>— with resistive load, max.</li> <li>Shielded, max.</li> <li>Interrupts/diagnostics/status information</li> <li>Substitute values connectable</li> <li>A 000 000; see additional description in the manual</li> <li>Yes; 250 V AC/5 A g.p.; 120 V AC TV-4 tungsten; A300, R300</li> <li>Yes additional description in the manual</li> <li>See additional description in the manual</li> <li>1 000 m</li> <li>Wes</li> <li>Substitute values connectable</li> <li>Yes</li> </ul>	external protection for relay outputs	
<ul> <li>Relay approved acc. to UL 508         Switching capacity of contacts         — with inductive load, max.         — with resistive load, max.         Shielded, max.         • unshielded, max.         • unshielded, max.         Diagnostics function         Substitute values connectable         Alarms         </li> </ul>	<ul> <li>Contact connection (internal)</li> </ul>	No
Switching capacity of contacts  - with inductive load, max.  - with resistive load, max.  See additional description in the manual  Cable length  • shielded, max.  • unshielded, max.  Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms	<ul> <li>Number of operating cycles, max.</li> </ul>	4 000 000; see additional description in the manual
<ul> <li>— with inductive load, max.</li> <li>— with resistive load, max.</li> <li>See additional description in the manual</li> <li>Cable length</li> <li>• shielded, max.</li> <li>• unshielded, max.</li> <li>1 000 m</li> <li>600 m</li> <li>Interrupts/diagnostics/status information</li> <li>Diagnostics function</li> <li>Yes</li> <li>Substitute values connectable</li> <li>Alarms</li> </ul>	<ul> <li>Relay approved acc. to UL 508</li> </ul>	Yes; 250 V AC/5 A g.p.; 120 V AC TV-4 tungsten; A300, R300
— with resistive load, max.  Cable length  ● shielded, max.  ● unshielded, max.  Final properties of the content of the conte	Switching capacity of contacts	
Cable length  • shielded, max.  • unshielded, max.  600 m  Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms	— with inductive load, max.	see additional description in the manual
shielded, max.     unshielded, max.     600 m  Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms  Alarms	— with resistive load, max.	see additional description in the manual
<ul> <li>unshielded, max.</li> <li>Interrupts/diagnostics/status information</li> <li>Diagnostics function</li> <li>Yes</li> <li>Substitute values connectable</li> <li>Alarms</li> </ul>	Cable length	
Interrupts/diagnostics/status information  Diagnostics function  Substitute values connectable  Alarms  Yes  Yes	• shielded, max.	1 000 m
Diagnostics function Yes Substitute values connectable Alarms	• unshielded, max.	600 m
Substitute values connectable Yes Alarms	nterrupts/diagnostics/status information	
Alarms	Diagnostics function	Yes
	Substitute values connectable	Yes
Diagnostic alarm     Yes	Alarms	
	Diagnostic alarm	Yes
Maintenance interrupt     Yes	Maintenance interrupt	Yes
Diagnoses	Diagnoses	
Monitoring the supply voltage     Yes	<ul> <li>Monitoring the supply voltage</li> </ul>	Yes
Wire-break     No	Wire-break	No
Short-circuit     No		No
Diagnostics indication LED	Diagnostics indication LED	
• RUN LED Yes; green LED	• RUN LED	Yes; green LED
• ERROR LED Yes; red LED	• ERROR LED	Yes; red LED
MAINT LED     Yes; Yellow LED	MAINT LED	Yes; Yellow LED
Monitoring of the supply voltage (PWR-LED)  Yes; green LED	<ul> <li>Monitoring of the supply voltage (PWR-LED)</li> </ul>	Yes; green LED
Channel status display  Yes; green LED		

- for abound discussion	No			
• for channel diagnostics	No Variable D			
• for module diagnostics	Yes; red LED			
Potential separation				
Potential separation channels	V 0 11 11 11 11 11 11 11 11 11 11 11 11 1	200 1		
between the channels	Yes; Switching of different phas	ses 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	<u> </u>			
between different circuits	250 V AC between the channels the channels and the backplane AC when connecting different p	e bus; 250 V AC between		
Isolation				
Isolation tested with	between the channels: 3 100 V bus: 3 100 V DC; between the c DC; between the L+ and the ba	channels and the supply v	oltage L+: 3 100 V	
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			
<ul> <li>global warming potential, (during production) [CO2</li> </ul>	9.5 kg			
eq] — global warming potential, (during operation) [CO2	34.5 kg			
eq]				
<ul> <li>global warming potential, (after end of life cycle)</li> <li>[CO2 eq]</li> </ul>	-0.231 kg			
Highest safety class achievable for safety-related tripping of stand	lard modules			
<ul> <li>Performance level according to ISO 13849-1</li> </ul>	PL c			
<ul> <li>Category according to ISO 13849-1</li> </ul>	Cat. 2			
<ul> <li>SIL acc. to IEC 62061</li> </ul>	SIL 1			
remark on safety-oriented shutdown	https://support.industry.siemens.com/cs/de/en/view/39198632			
product functions / security / header				
signed firmware update	No			
data integrity	No			
Ambient conditions				
Ambient temperature during operation				
<ul> <li>horizontal installation, min.</li> </ul>	-30 °C; From FS03			
<ul> <li>horizontal installation, max.</li> </ul>	60 °C			
<ul> <li>vertical installation, min.</li> </ul>	-30 °C; From FS03			
<ul> <li>vertical installation, max.</li> </ul>	40 °C			
Dimensions				
Width	35 mm			
Height	147 mm			
Depth	129 mm			
Weights				
Weight, approx.	350 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	
	33.23			
	oClass.			
	eClass	8	27-24-22-04	
	eClass eClass	7.1	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**





**Miscellaneous** 

Manufacturer Declara-tion



<u>KC</u>

General Product Ap-

For use in hazardous locations

Maritime application



<u>FM</u>



<u>FM</u>





### Maritime application





NK / Nippon Kaiji Ky-<u>okai</u>





CCS (China Classification Society)

Maritime application

Environment





Siemens EcoTer



last modified:

4/7/2025

