



SIMATIC DP, ELECTRON. MODULE FOR ET200SP, F-RQ  
1X24VDC/24..230VAC/5A ST, 20MM WIDTH, 1 RELAY OUTPUT (2  
NO-CONTACTS) TOTAL OUTPUT CURRENT 5A, RATED  
VOLTAGE DC 24V AND AC 24 .. 230V, USEABLE UP TO PL E  
(ISO13849-1: 2008)/ SIL 3 (IEC61508: 2010) IF CONTROLLED BY  
A F-DQ (E.G. 6ES7136-6DB00-0CA0)

### Product type designation

### General information

#### Product function

- I&M data Yes; I&M0 to I&M3

#### Engineering with

- STEP 7 TIA Portal can be configured/integrated as of version V13
- STEP 7 can be configured/integrated as of version V5.5 SP4 and higher

#### Operating mode

### Supply voltage

Rated value (DC)	24 V; Coil voltage
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V

### Power

Power available from the backplane bus	100 mW
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### Power losses

Power loss, typ.	1 W
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### Address area

#### Address space per module

- Input 1 byte

### Digital outputs

Number of digital outputs	1
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Limitation of inductive shutdown voltage to	No
Controlling a digital input	Yes
Switching capacity of the outputs	
• with resistive load, max.	5 A
• on lamp load, max.	25 W
Load resistance range	
Output voltage	
Output current	
Output delay with resistive load	
Parallel switching of 2 outputs	
Switching frequency	
• with resistive load, max.	2 Hz
• with inductive load, max.	0.1 Hz; See data in manual
• with inductive load (to IEC 60947-5-1, DC13), max.	0.1 Hz
• with inductive load (to IEC 60947-5-1, AC15), max.	2 Hz
Aggregate current of the outputs	
Aggregate current of outputs (per group)	
horizontal installation	
vertical installation	
Total current of the outputs (per module)	
horizontal installation	
— up to 40 °C, max.	5 A; Note derating data in the manual
— up to 50 °C, max.	4 A; Note derating data in the manual
— up to 60 °C, max.	3 A; Note derating data in the manual
vertical installation	
— up to 50 °C, max.	3 A; Note derating data in the manual
Output current per channel	
horizontal installation	
vertical installation	
Relay outputs	
• Number of relay outputs	1; 2 NO contacts
• Rated input voltage of relay coil L+ (DC)	24 V
• Current consumption of relays (coil current of all relays), max.	70 mA
• external protection for relay outputs	yes; 6 A, see data in manual
• Relay approved acc. to UL 508	Yes
Switching capacity of contacts	
— with inductive load, max.	see additional description in the manual
— with resistive load, max.	see additional description in the manual
— Thermal continuous current, max.	5 A

— Contact rating, min.	1 mA
— Contact rating after exceeding 300mA, min.	10 mA
— Contact rating after exceeding 300mA, max.	5 A
— rated switching voltage (DC)	24 V
— rated switching voltage (AC)	230 V
Triac outputs	
Cable length	
• Cable length, shielded, max.	500 m; for load contacts
• Cable length unshielded, max.	300 m; for load contacts
• Control cable (input), max.	10 m
Interrupts/diagnostics/status information	
Alarms	
Diagnostic messages	
• Diagnostics	yes, firmware update
Diagnostics indication LED	
• RUN LED	Yes; green/red DIAG LED
• Channel status display	Yes; Green LED
Galvanic isolation	
Electrical isolation channels	
• between the channels	Yes; for SELV / PELV only
• between the channels and the backplane bus	Yes
• between the channels and the supply voltage of the electronics	Yes
Permissible potential difference	
between channels and backplane bus/supply voltage	250 V AC (reinforced insulation)
between backplane bus and supply voltage	60V AC/75V DC
Isolation	
Isolation checked with	2545V DC 2s (routine test)
Overvoltage category	III
tested with	
• between channels and backplane bus/supply voltage	DC 2545 V 2 s (routine test), impulse voltage test DC 7200 V / 5 positive and 5 negative pulses (type test)
• between backplane bus and supply voltage	707 V DC (type test)
Ambient conditions	
Operating temperature	
Extended ambient conditions	
Relative humidity	
Resistance	

Connection method	
ET-Connection	
Dimensions	
Width	20 mm
Weights	
Weight, approx.	56 g
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