



SIMATIC ET 200SP, digital output module, DQ 4x 24..230V AC/2A  
Standard suitable for BU type B1, Color code CC41, Module diagnostics

General information	
Product type designation	DQ 4x24 ... 230 V AC/2 A ST
HW functional status	From FS05
Firmware version	V1.0
<ul style="list-style-type: none"> <li>FW update possible</li> </ul>	Yes
usable BaseUnits	BU type B1
Color code for module-specific color identification plate	CC41
Product function	
<ul style="list-style-type: none"> <li>I&amp;M data</li> </ul>	Yes; I&M0 to I&M3
<ul style="list-style-type: none"> <li>Isochronous mode</li> </ul>	No
Engineering with	
<ul style="list-style-type: none"> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul>	V13 / V13
<ul style="list-style-type: none"> <li>STEP 7 configurable/integrated from version</li> </ul>	V5.5 SP3 / -
<ul style="list-style-type: none"> <li>PROFIBUS from GSD version/GSD revision</li> </ul>	GSD Revision 5
<ul style="list-style-type: none"> <li>PROFINET from GSD version/GSD revision</li> </ul>	GSDML V2.3
Operating mode	
<ul style="list-style-type: none"> <li>DQ</li> </ul>	Yes
<ul style="list-style-type: none"> <li>DQ with energy-saving function</li> </ul>	No
<ul style="list-style-type: none"> <li>PWM</li> </ul>	No
<ul style="list-style-type: none"> <li>Oversampling</li> </ul>	No
<ul style="list-style-type: none"> <li>MSO</li> </ul>	No
Supply voltage	
Rated value (AC)	230 V
permissible range, lower limit (AC)	20.4 V
permissible range, upper limit (AC)	264 V
Input current	
Current consumption (rated value)	11.5 mA
output voltage / header	
Rated value (AC)	230 V; 24V AC to 230V AC
Power loss	
Power loss, typ.	9 W; Active power, load voltage 230 V, all outputs loaded with 2 A, 50 Hz
Address area	
Address space per module	
<ul style="list-style-type: none"> <li>Address space per module, max.</li> </ul>	1 byte; + 1 byte for QI information
<ul style="list-style-type: none"> <li>Inputs</li> </ul>	1 byte; With QI
<ul style="list-style-type: none"> <li>Outputs</li> </ul>	1 byte
Hardware configuration	

Automatic encoding	
• Type of mechanical coding element	type C
<b>Digital outputs</b>	
Type of digital output	Triac with zero point detection
Number of digital outputs	4
Current-sinking	No
Current-sourcing	Yes
Digital outputs, parameterizable	No
Short-circuit protection	No; When using BU type B1, a miniature, quick-response fuse with 10 A tripping current must be provided
Controlling a digital input	Yes
Size of motor starters according to NEMA, max.	5
<b>Switching capacity of the outputs</b>	
• with resistive load, max.	2 A
• on lamp load, max.	100 W
<b>Output voltage</b>	
• for signal "1", min.	20.4 V
<b>Output current</b>	
• for signal "1" rated value	2 A
• for signal "1" permissible range, min.	10 mA
• for signal "1" permissible range, max.	2 A
• for signal "0" residual current, max.	460 µA
<b>Output delay with resistive load</b>	
• "0" to "1", max.	10 ms
• "1" to "0", max.	10 ms
<b>Parallel switching of two outputs</b>	
• for logic links	No
• for uprating	No
• for redundant control of a load	Yes
<b>Switching frequency</b>	
• with resistive load, max.	10 Hz
• with inductive load, max.	0.5 Hz; Higher frequencies are possible, see Equipment Manual / Product Information
• on lamp load, max.	1 Hz
<b>Total current of the outputs</b>	
• Current per channel, max.	2 A
• Current per module, max.	8 A
<b>Total current of the outputs (per module)</b>	
horizontal installation	
— up to 40 °C, max.	8 A
— up to 50 °C, max.	6 A
— up to 60 °C, max.	4 A
vertical installation	
— up to 30 °C, max.	8 A
— up to 40 °C, max.	6 A
— up to 50 °C, max.	4 A
<b>Cable length</b>	
• shielded, max.	1 000 m
• unshielded, max.	600 m
<b>Interrupts/diagnostics/status information</b>	
Diagnostics function	No
Substitute values connectable	Yes
<b>Alarms</b>	
• Diagnostic alarm	No
<b>Diagnoses</b>	
• Monitoring the supply voltage	No
• Wire-break	No
• Short-circuit	No
• Group error	Yes
Diagnostics indication LED	

<ul style="list-style-type: none"> <li>• Monitoring of the supply voltage (PWR-LED)</li> <li>• Channel status display</li> <li>• for channel diagnostics</li> <li>• for module diagnostics</li> </ul>	Yes; green PWR LED Yes; green LED No Yes; green/red DIAG LED
<b>Potential separation</b>	
Potential separation channels	
<ul style="list-style-type: none"> <li>• between the channels</li> <li>• between the channels and backplane bus</li> <li>• between the channels and the power supply of the electronics</li> </ul>	No Yes No
<b>Isolation</b>	
Isolation tested with	2 545 V DC/2 s (routine test)
<b>Standards, approvals, certificates</b>	
Suitable for safety functions	No
<b>Ambient conditions</b>	
Ambient temperature during operation	
<ul style="list-style-type: none"> <li>• horizontal installation, min.</li> <li>• horizontal installation, max.</li> <li>• vertical installation, min.</li> <li>• vertical installation, max.</li> </ul>	-30 °C 60 °C -30 °C 60 °C
Altitude during operation relating to sea level	
<ul style="list-style-type: none"> <li>• Installation altitude above sea level, max.</li> </ul>	2 000 m; On request: Installation altitudes greater than 2 000 m
<b>Dimensions</b>	
Width	20 mm
Height	73 mm
Depth	58 mm
<b>Weights</b>	
Weight, approx.	50 g
<b>last modified:</b>	12/28/2021 