



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
• FW update possible	Yes
usable BaseUnits	BU type B1
Color code for module-specific color identification plate	CC41
Product function	
• I&M data	Yes; I&M0 to I&M3
• Isochronous mode	No
Engineering with	
• STEP 7 TIA Portal configurable/integrated from version	V13 / V13
• STEP 7 configurable/integrated from version	V5.5 SP3 / -
• PROFIBUS from GSD version/GSD revision	GSD Revision 5
• PROFINET from GSD version/GSD revision	GSDML V2.3
Operating mode	
• DQ	Yes
• DQ with energy-saving function	No
• PWM	No
• Oversampling	No
• MSO	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	
• Address space per module, max.	1 byte; + 1 byte for QI information
• Inputs	1 byte; With QI
• Outputs	1 byte
Hardware configuration	
Automatic encoding	
• Type of mechanical coding element	type C
Digital outputs	

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
Switching capacity of the outputs	
<ul style="list-style-type: none"> with resistive load, max. 	2 A
<ul style="list-style-type: none"> on lamp load, max. 	100 W
Output voltage	
<ul style="list-style-type: none"> for signal "1", min. 	20.4 V
Output current	
<ul style="list-style-type: none"> for signal "1" rated value 	2 A
<ul style="list-style-type: none"> for signal "1" permissible range, min. 	10 mA
<ul style="list-style-type: none"> for signal "1" permissible range, max. 	2 A
<ul style="list-style-type: none"> for signal "0" residual current, max. 	460 µA
Output delay with resistive load	
<ul style="list-style-type: none"> "0" to "1", max. 	10 ms
<ul style="list-style-type: none"> "1" to "0", max. 	10 ms
Parallel switching of two outputs	
<ul style="list-style-type: none"> for logic links 	No
<ul style="list-style-type: none"> for uprating 	No
<ul style="list-style-type: none"> for redundant control of a load 	Yes
Switching frequency	
<ul style="list-style-type: none"> with resistive load, max. 	10 Hz
<ul style="list-style-type: none"> with inductive load, max. 	0.5 Hz; Higher frequencies are possible, see Equipment Manual / Product Information
<ul style="list-style-type: none"> on lamp load, max. 	1 Hz
Total current of the outputs	
<ul style="list-style-type: none"> Current per channel, max. 	2 A
<ul style="list-style-type: none"> Current per module, max. 	8 A
Total current of the outputs (per module)	
horizontal installation	
<ul style="list-style-type: none"> up to 40 °C, max. 	8 A
<ul style="list-style-type: none"> up to 50 °C, max. 	6 A
<ul style="list-style-type: none"> up to 60 °C, max. 	4 A
vertical installation	
<ul style="list-style-type: none"> up to 30 °C, max. 	8 A
<ul style="list-style-type: none"> up to 40 °C, max. 	6 A
<ul style="list-style-type: none"> up to 50 °C, max. 	4 A
Cable length	
<ul style="list-style-type: none"> shielded, max. 	1 000 m
<ul style="list-style-type: none"> unshielded, max. 	600 m
Interrupts/diagnostics/status information	
Diagnostics function	No
Substitute values connectable	Yes
Alarms	
<ul style="list-style-type: none"> Diagnostic alarm 	No
Diagnoses	
<ul style="list-style-type: none"> Monitoring the supply voltage 	No
<ul style="list-style-type: none"> Wire-break 	No
<ul style="list-style-type: none"> Short-circuit 	No
<ul style="list-style-type: none"> Group error 	Yes
Diagnostics indication LED	
<ul style="list-style-type: none"> Monitoring of the supply voltage (PWR-LED) 	Yes; green PWR LED
<ul style="list-style-type: none"> Channel status display 	Yes; green LED
<ul style="list-style-type: none"> for channel diagnostics 	No
<ul style="list-style-type: none"> for module diagnostics 	Yes; green/red DIAG LED

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

last modified:

8/16/2023 