



SIMATIC ET 200AL, DQ 8x 24 V DC/2 A, 8x M12, Degree of protection IP67

General information	
Product type designation	DQ 8x24VDC/2A
HW functional status	FS03
Firmware version	V1.0.x
Product function	
<ul style="list-style-type: none"> I&M data 	Yes; I&M0 to I&M3
Engineering with	
<ul style="list-style-type: none"> STEP 7 TIA Portal configurable/integrated from version 	STEP 7 V13 SP1 or higher
<ul style="list-style-type: none"> STEP 7 configurable/integrated from version 	V5.5 SP4 Hotfix 7 or higher
<ul style="list-style-type: none"> PROFIBUS from GSD version/GSD revision 	GSD as of Revision 5
<ul style="list-style-type: none"> PROFINET from GSD version/GSD revision 	GSDML V2.3.1
Supply voltage	
power supply according to NEC Class 2 required	No
Load voltage 1L+	
<ul style="list-style-type: none"> Rated value (DC) 	24 V
<ul style="list-style-type: none"> permissible range, lower limit (DC) 	20.4 V
<ul style="list-style-type: none"> permissible range, upper limit (DC) 	28.8 V
<ul style="list-style-type: none"> Reverse polarity protection 	Yes; against destruction; load increasing
Load voltage 2L+	
<ul style="list-style-type: none"> Rated value (DC) 	24 V
<ul style="list-style-type: none"> permissible range, lower limit (DC) 	20.4 V
<ul style="list-style-type: none"> permissible range, upper limit (DC) 	28.8 V
<ul style="list-style-type: none"> Reverse polarity protection 	Yes; against destruction; load increasing
Input current	
Current consumption (rated value)	40 mA; without load
from load voltage 1L+ (unswitched voltage)	4 A; Maximum value
from load voltage 2L+, max.	4 A; Maximum value
Power loss	
Power loss, typ.	4 W
Digital outputs	
Number of digital outputs	8
<ul style="list-style-type: none"> in groups of 	4; 2 load groups for 4 outputs each
Short-circuit protection	Yes; per channel, electronic
<ul style="list-style-type: none"> Response threshold, typ. 	2.8 A
Limitation of inductive shutdown voltage to	2L+ (-47 V)
Switching capacity of the outputs	
<ul style="list-style-type: none"> on lamp load, max. 	10 W
Load resistance range	

<ul style="list-style-type: none"> • lower limit • upper limit 	12 Ω 4 kΩ
Output voltage	
<ul style="list-style-type: none"> • for signal "1", min. 	L+ (-0.8 V)
Output current	
<ul style="list-style-type: none"> • for signal "1" rated value • for signal "1" permissible range, max. • for signal "0" residual current, max. 	2 A 2 A; with inductive load to IEC 60947-5-1, DC-13 / AC-15 0.5 mA
Switching frequency	
<ul style="list-style-type: none"> • with resistive load, max. • with inductive load, max. • on lamp load, max. 	100 Hz 0.1 Hz; 0.25 Hz at 25 °C 1 Hz
Total current of the outputs	
<ul style="list-style-type: none"> • Current per group, max. 	4 A; For inductive load max. 2 channels per group
Cable length	
<ul style="list-style-type: none"> • unshielded, max. 	30 m
Interrupts/diagnostics/status information	
Substitute values connectable	Yes; channel by channel, parameterizable
Alarms	
<ul style="list-style-type: none"> • Diagnostic alarm 	Yes; Parameterizable
Diagnoses	
<ul style="list-style-type: none"> • Short-circuit 	Yes; Outputs to ground; module by module
Diagnostics indication LED	
<ul style="list-style-type: none"> • Channel status display • for module diagnostics • For load voltage monitoring 	Yes; green LED Yes; green/red LED Yes; green LED
Potential separation	
between the load voltages	Yes
Potential separation channels	
<ul style="list-style-type: none"> • between the channels, in groups of • between the channels and backplane bus • between the channels and the power supply of the electronics 	4 Yes No; 4 channels are non-isolated and 4 channels are isolated from supply voltage 1L+
Isolation	
Isolation tested with	707 V DC (type test)
Degree and class of protection	
IP degree of protection	IP65/67
Standards, approvals, certificates	
Suitable for safety-related tripping of standard modules	Yes; From FS01
Highest safety class achievable for safety-related tripping of standard modules	
<ul style="list-style-type: none"> • Performance level according to ISO 13849-1 • Category according to ISO 13849-1 • SIL acc. to IEC 62061 	PL d Cat. 3 SIL 2
Ambient conditions	
Ambient temperature during operation	
<ul style="list-style-type: none"> • min. • max. 	-30 °C 55 °C
connection method / header	
Design of electrical connection for the inputs and outputs	M12, 5-pole
Design of electrical connection for supply voltage	M8, 4-pole
ET-Connection	
<ul style="list-style-type: none"> • ET-Connection 	M8, 4-pin, shielded
Dimensions	
Width	45 mm
Height	159 mm
Depth	40 mm
Weights	
Weight, approx.	192 g
last modified:	3/7/2022 

