SIEMENS

Data sheet

6ES7136-6DC00-0CA0



SIMATIC DP, Electronics module ET 200SP, F-DQ 8XDC 24V0.5A PP, 15 mm width, up to PL E (ISO 13849) up to SIL 3 (IEC 61508)

Product type designation F-DQ 8x24 V DC/0.5 A PP HF Firmware version • FW update possible version Yes usable BaseUnits BU type A0 Color code for module-specific color identification plate CO2 Product function • EXEMPTION • I&M data Yes; I&M0 to I&M3 Engineering with • STEP 7 TA Portal configurable/integrated from version V14 SP1 with HSP 202 • STEP 7 configurable/integrated from version V5.5 SP4 HF5 • FROFINET from GSD version/GSD revision V2.3 1 Supply voltage 24 V Rated value (DC) 24 V permissible range, upper limit (DC) 20.4 V permissible range, upper limit (DC) 20.4 V permissible range, upper limit (DC) 24.8 V Reverse polarity protection Yes Input current Current consumption (rated value) Current consumption, max. 21 mA; From the backplane bus Output voltage 70 mW Power loss 90 Power loss 3 W Address space per module 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Inputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Outputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Outputs 6 byte; 5 bytes	General information		
• FW update possible Yes usable BaseUnits BU type A0 Color code for module-specific color identification plate CO2 Product function CO2 • I&M data Yes; I&M0 to I&M3 Engineering with V14 SP1 with HSP 202 • STEP 7 TIA Portal configurable/integrated from version V5.5 SP4 HF5 • PROFINET from GSD version/GSD revision V2.31 Supply voltage Rated value (DC) Permissible range, lower limit (DC) 20.4 V permissible range, upper limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption (rated value) Current consumption, max. 21 mA; From the backplane bus Output voltage Power Power loss Power loss Power loss 70 mW Power loss 3 W Address space per module 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Inputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA Hardware configurable Yes • Linputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA <	Product type designation	F-DQ 8x24 V DC/0.5 A PP HF	
usable BaseUnits BU type A0 Color code for module-specific color identification plate CC02 Product function • (8M data • (8M data Yes; (8M0 to (8M3) Engineering with V14 SP1 with HSP 202 • STEP 7 TIA Portal configurable/integrated from version V5.5 SP4 HF5 • STEP 7 configurable/integrated from version V5.5 SP4 HF5 • PROFINET from GSD version/GSD revision V2.31 Supply voltage Rated value (DC) Permissible range, lower limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption, max. Current consumption, max. 21 mA; From the backplane bus Output voltage Rated value (DC) Power available from the backplane bus 70 mW Power loss Power loss, typ. Address area Address gace per module • Inputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Outputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Outputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Outputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA	Firmware version		
Color code for module-specific color identification plate CC02 Product function * • 1&M data Yes; 1&M0 to 1&M3 Engineering with * • STEP 7 TIA Portal configurable/integrated from version V14 SP1 with HSP 202 • STEP 7 configurable/integrated from version V5.5 SP4 HF5 • PROFINET from GSD version/GSD revision V2.31 Supply voltage Rated value (DC) Rated value (DC) 24 V permissible range, lower limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption (rated value) Cutrent consumption, max. 21 mA; From the backplane bus Output voltage 70 mW Power loss 70 mW Power loss, typ. 3 W Address space per module 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Inputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Udputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Lectronic coding element type F Yes • Power loss Yes • Didputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Lectronic coding element type F </td <td>FW update possible</td> <td>Yes</td>	FW update possible	Yes	
Product function I&M data Yes; I&M0 to I&M3 Engineering with • STEP 7 TIA Portal configurable/integrated from version • STEP 7 configurable/integrated from version • STEP 7 configurable/integrated from version • PROFINET from GSD version/GSD revision V2.31 Supply voltage Rated value (DC) 24 V permissible range, lower limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption, max. 21 mA; From the backplane bus Output voltage Rated value (DC) 24 V Power Power loss Power loss Power loss Power loss Power loss Power loss Power loss Power loss Power loss Power loss Power loss Power loss <t< td=""><td>usable BaseUnits</td><td>BU type A0</td></t<>	usable BaseUnits	BU type A0	
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Engineering with V14 SP1 with HSP 202 • STEP 7 TA Portal configurable/integrated from version V5.5 SP4 HF5 • PROFINET from GSD version/GSD revision V2.31 Supply voltage 24 V Permissible range, lower limit (DC) 20.4 V permissible range, lower limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption, max. Current consumption, max. 21 mA; From the backplane bus Output voltage 75 mA Rated value (DC) 24 V Power available from the backplane bus 70 mW Power loss, typ. 3 W Address space per module 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Outputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Outputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Outputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Outputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Outputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Outputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Outputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Outputs	Product function		
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version V5.5 SP4 HF5 • STEP 7 configurable/integrated from version V2.31 Supply voltage Rated value (DC) 24 V permissible range, lower limit (DC) 20.4 V permissible range, upper limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption (rated value) 75 mA Current consumption, max. 21 mA; From the backplane bus Output voltage Rated value (DC) 24 V Power available from the backplane bus 70 mW Power loss 70 mW Power loss, typ. 3 W Address area Address space per module 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Outputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Automatic encoding Yes • Electronic coding element type F Yes • Electronic coding element type F Yes • Electronic coding element type F Yes • Digital outputs 8	Engineering with		
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Reverse polarity protection Yes Input current Current consumption (rated value) 75 mA Current consumption, max. 21 mA; From the backplane bus Output voltage Rated value (DC) 24 V Power Power loss Power loss, typ. 3 W Address space per module 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Outputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA Hardware configuration Yes Automatic encoding Yes • Electronic coding element type F Yes Digital outputs 8	permissible range, lower limit (DC)	20.4 V	
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Power available from the backplane bus 70 mW Power loss 3 Power loss, typ. 3 W Address area 3 Address space per module 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Inputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Outputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Automatic encoding Yes • Electronic coding element type F Yes Digital outputs 8	Rated value (DC)	24 V	
Power loss Power loss, typ. Address area Address space per module • Inputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Outputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Address space per module • Inputs • Outputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA Hardware configuration Automatic encoding Yes • Electronic coding element type F Yes Digital outputs 8	Power		
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Address area Address space per module • Inputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Outputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA Hardware configuration 7 Automatic encoding Yes • Electronic coding element type F Yes Digital outputs 8	Power loss		
Address space per module • Inputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Outputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA Hardware configuration 4utomatic encoding Automatic encoding Yes • Electronic coding element type F Yes Digital outputs 8	Power loss, typ.	3 W	
• Inputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA • Outputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA Hardware configuration Automatic encoding Automatic encoding Yes • Electronic coding element type F Yes Digital outputs 8	Address area		
• Outputs 6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA Hardware configuration	Address space per module		
Hardware configuration Automatic encoding Yes • Electronic coding element type F Yes Digital outputs Number of digital outputs 8 8	Inputs	6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA	
Automatic encoding Yes • Electronic coding element type F Yes Digital outputs 8	Outputs	6 byte; 5 bytes non-RIOforFA; 6 bytes RIOforFA	
Electronic coding element type F Yes Digital outputs Number of digital outputs 8	Hardware configuration		
Digital outputs Number of digital outputs 8	Automatic encoding	Yes	
Number of digital outputs 8	 Electronic coding element type F 	Yes	
	Digital outputs		
	Number of digital outputs	8	
Digital outputs, parameterizable Yes	Digital outputs, parameterizable	Yes	

Chart aircuit protection	Vec
Short-circuit protection	Yes
Open-circuit detection	No Turn 201/
Limitation of inductive shutdown voltage to	Typ39 V Yes
Controlling a digital input	Tes
Switching capacity of the outputs	0.5 A
with resistive load, max.	2 W
on lamp load, max. Load resistance range	2 VV
5	40.0
 lower limit upper limit 	48 Ω 12 000 Ω
Output voltage	24.1/1 + / 0.5.1/)
for signal "1", min. Output current	24 V; L+ (-0.5 V)
for signal "1" rated value	0.5 A
0	0.5 mA
for signal "0" residual current, max.	0.5 IIIA
Switching frequency with resistive load, max.	20 Hz: Symmetrical
with inductive load, max.	30 Hz; Symmetrical
	0.1 Hz; according to IEC 60947-5-1, DC-13, symmetrical
with capacitive load, max.	2 Hz; Symmetrical
on lamp load, max.	10 Hz; Symmetrical
Total current of the outputs	0.5 Au note detating data in the manual
Current per channel, max.	0.5 A; note derating data in the manual
Current per module, max.	3 A; note derating data in the manual
Total current of the outputs (per module)	
horizontal installation	0 4
— up to 40 °C, max.	3 A
— up to 50 °C, max.	2.5 A
— up to 60 °C, max.	2 A
vertical installation	
— up to 50 °C, max.	2 A
Cable length	400
• shielded, max.	100 m
• unshielded, max.	100 m
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Substitute values connectable	No
Alarms	
Diagnostic alarm	Yes
Diagnostics indication LED	
RUN LED	Yes; green LED
ERROR LED	Yes; red LED
 Monitoring of the supply voltage (PWR-LED) 	Yes; green PWR LED
 Channel status display 	Yes; green LED
 for channel diagnostics 	Yes; red LED
for module diagnostics	Yes; green/red DIAG LED
Potential separation	
Potential separation channels	
between the channels	No
 between the channels and backplane bus 	Yes
 between the channels and the power supply of the 	No
electronics	
Isolation	
Isolation tested with	707 V DC (type test)
Standards, approvals, certificates	
Suitable for safety functions	Yes
Highest safety class achievable in safety mode	
Performance level according to ISO 13849-1	PLe
Category according to ISO 13849-1	Cat. 4
-	

 SIL acc. to IEC 61508 	SIL 3	
Probability of failure (for service life of 20 years and repair time of 100 hours)		
 Low demand mode: PFDavg in accordance with SIL3 	< 6.00E-05	
 — High demand/continuous mode: PFH in accordance with SIL3 	< 2.00E-09 1/h	
Ambient conditions		
Ambient temperature during operation		
 horizontal installation, min. 	0 °C	
 horizontal installation, max. 	60 °C	
 vertical installation, min. 	0 °C	
 vertical installation, max. 	50 °C	
Altitude during operation relating to sea level		
 Installation altitude above sea level, max. 	4 000 m; with derating	
Dimensions		
Width	15 mm	
Height	73 mm	
Depth	58 mm	
Weights		
Weight, approx.	48 g	
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