



SIMATIC ET 200SP TM ECC 2xPWM ST Chargecontroller f. conductive charging of electric vehicles according IEC61851 mode 3 for 2 Charging points -30°C...60°C 2x Control Pilot 2x Plug Present 2x DQ switch contact for contactor; 2x DI read contact for contactor or connector locking; 2x ACT for connector locking suitable for BU Typ BU20-P12+A0+4B and BU20-P12+A4+0B

General information	
Product type designation	ECC 2x PWM ST
HW functional status	1
Firmware version	V1.0.2
<ul style="list-style-type: none"> <li>FW update possible</li> </ul>	Yes
Product description	Technology modules for the conductive AC charging of electric vehicles according to IEC 61851
usable BaseUnits	BU type B0, B1
Number of channels	2; Acc. to IEC 61851-1 Mode 3 and/or SAE J1772
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 as of version</li> </ul>	V14 SP1
Installation type/mounting	
Mounting type	standard rail
Mounting position	Horizontal

Supply voltage	
Type of supply voltage	DC
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes; against destruction
Load voltage L+	
• Rated value (DC)	24 V
Input current	
Current consumption, typ.	40 mA
Current consumption, max.	90 mA
Digital inputs	
Number of digital inputs	2; 1 per channel
Digital inputs, parameterizable	Yes; 12 V / 24 V
Digital input functions, parameterizable	
• Freely usable digital input	No; Readback contact contactor / connector lock
Input voltage	
• Type of input voltage	DC
• for signal "0"	<0.2 V (nom)
• for signal "1"	>0.6 V (nom)
• permissible voltage at input, min.	0 V
• permissible voltage at input, max.	30 V
Input delay (for rated value of input voltage)	
for technological functions	
— parameterizable	Yes; Type of connector lock, system current
Cable length	
• unshielded, max.	30 m
Digital outputs	
Type of digital output	Transistor
Number of digital outputs	2; 1 per channel
short-circuit proof	Yes
Short-circuit protection	Yes; electronic/thermal
Digital output functions, parameterizable	
• PWM output	Yes; According to IEC 61851
— Number, max.	2; 1 per channel
— Cycle duration, parameterizable	No; 1 kHz
• Connection of a DC motor	Yes; ACT p/n connector locking
Switching capacity of the outputs	
• with resistive load, max.	1.3 A
Output voltage	
• Type of output voltage	DC

• Output voltage, min.	24 V
<b>Cable length</b>	
• unshielded, max.	30 m
<b>Analog outputs</b>	
Number of analog outputs	2; Control pilot acc. to IEC 61851-1 and/or SAE J1772
Connection of a DC motor	Yes; Motor for connector lock
<b>Protocols</b>	
Bus communication	Yes
Vehicle communication according to IEC 61851	Yes; MODE 3
<b>Interrupts/diagnostics/status information</b>	
<b>Alarms</b>	
• Diagnostic alarm	Yes
<b>Diagnostic messages</b>	
• Monitoring the supply voltage	No
• Short-circuit	Yes
<b>Diagnostics indication LED</b>	
• ERROR LED	Yes; red LED
• Monitoring of the supply voltage (PWR-LED)	Yes; green PWR LED
• Channel status display	Yes; green LED
• for module diagnostics	Yes; green/red DIAG LED
<b>Potential separation</b>	
<b>Potential separation channels</b>	
• between the channels	No
• between the channels and backplane bus	Yes
<b>Isolation</b>	
Isolation tested with	707 V DC
Degree of pollution	2
<b>EMC</b>	
Electrostatic discharge acc. to IEC 61000-4-2	4 kV contact discharge / 8 kV air discharge
Field-related interference acc. to IEC 61000-4-3	10 V/m (80 ... 1 000 MHz), 3 V/m (1.4 ... 2.0 GHz), 1 V/m (2.0 ... 2.7 GHz)
Conducted interference due to burst acc. to IEC 61000-4-4	2 kV signal lines
Conducted interference due to surge acc. to IEC 61000-4-5	On DC supply lines: 0.5 kV symmetrical and asymmetrical
Conducted interference due to high-frequency radiation acc. to IEC 61000-4-6	10 V (0.15 ... 80 MHz)
<b>Degree and class of protection</b>	
IP degree of protection	IP20
<b>Standards, approvals, certificates</b>	

Certificate of suitability	CE / RCM / EAC / UL / KC
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### Ambient conditions

#### Ambient temperature during operation

- min. -30 °C
- max. 60 °C
- horizontal installation, min. -30 °C
- horizontal installation, max. 60 °C
- vertical installation, min. -30 °C
- vertical installation, max. 50 °C

#### Ambient temperature during storage/transportation

- Storage, min. -40 °C
- Storage, max. 70 °C
- Transportation, min. -40 °C
- Transportation, max. 70 °C

#### Altitude during operation relating to sea level

- Installation altitude above sea level, max. 2 000 m
- Ambient air temperature-barometric pressure-altitude Tmin ... Tmax at 1 080 hPa ... 795 hPa (-1 000 m ... +2 000 m)

#### Relative humidity

- Operation, min. 5 %
- Operation, max. 95 %; no condensation

#### Vibrations

- Vibration resistance during operation acc. to IEC 60068-2-6 10 ... 58 Hz / 0.075 mm, 58 ... 150 Hz / 1 g

#### Shock testing

- Shock resistance acc. to IEC 60068-2-27 15 g / 11 ms

### Decentralized operation

to SIMATIC S7-1500	Yes
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### Dimensions

Width	20 mm
Height	73 mm
Depth	58 mm

### Weights

Weight, approx.	32 g
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**last modified:** 02/24/2020