SIEMENS

Data sheet 6FE1242-6TM10-0BB1



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	V1.04
● FW update possible	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	
● I&M data	Yes; I&M0 to I&M3
● Isochronous mode	No
Engineering with	
● STEP 7 TIA Portal configurable/integrated from version	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

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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
● Rated value (DC)	24 V
Cable length	
● unshielded, max.	30 m; when using a PROFIBUS line
Analog outputs	
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
Protocols	
Bus communication	Yes
Vehicle communication according to IEC 61851	Yes; MODE 3
Interrupts/diagnostics/status information	
Alarms	
● Diagnostic alarm	Yes
Diagnoses	
● Monitoring the supply voltage	No
● Short-circuit	Yes
Diagnostics indication LED	
● 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
Potential separation	
Potential separation channels	
● between the channels	No
● between the channels and backplane bus	Yes
Isolation	
Isolation tested with	707 V DC
Degree of pollution	2
EMC	
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)
Degree and class of protection	
IP degree of protection	IP20
Standards, approvals, certificates	
Certificate of suitability	CE / RCM / EAC / UL / KC
Ambient conditions	
Ambient temperature during operation	
● min.	-30 °C
● max.	60 °C
● horizontal installation, min.	-30 °C

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● 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
Dimensions	
Width	20 mm
Height	73 mm
Depth	58 mm
Weights	
Weight, approx.	32 g

Classifications

	Version	Classification
eClass	16	27-14-47-03
eClass	14	27-14-47-03
eClass	12	27-14-47-03
eClass	9.1	27-14-47-03
eClass	9	27-14-47-03
ETIM	10	EC002889
ETIM	9	EC002889
ETIM	8	EC002889
ETIM	7	EC002889
IDEA	4	1554
UNSPSC	15	26-11-17-29

Approvals / Certificates

General Product Approval	EMV

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