

### Modbus Register Table CION Home and Semipublic

Register Address	Register Bit	Data Type	Multiplier	Length [Word / 16bit]	Default Value [-]	Unit	Register Designation / Name	General Explanation	EVCC-Home MODBUS RTU
100 +							<b>Operation charging point CP1</b>		
100	-	boolean	1	1	0	-	Charging authorisation	0: Charging not authorised, 1: Charging authorised	r/w
101	-	uint16_t	1	1	(Config.)	A	Charging current setting	Charging current setting in A	r/w
102	-	boolean	1	1	1	-	Automatic LED activation	0: Manual activation via registers 103-117, 1: Automatic LED activation	r/w
103	-	uint16_t	100	1	10	ms	Ready LED interval	Flash interval Ready LED in 100-ms steps	r/w
104	-	uint16_t	100	1	5	ms	Ready LED duty	Duty time Ready LED in 100-ms steps	r/w
105	-	uint16_t	100	1	0	ms	Ready LED offset	Offset against Charging LED in 100-ms steps	r/w
106	-	uint16_t	100	1	10	ms	Charging LED interval	Flash interval Charging LED in 100-ms steps	r/w
107	-	uint16_t	100	1	5	ms	Charging LED duty	Duty time Charging LED in 100-ms steps	r/w
108	-	uint16_t	100	1	0	ms	Charging LED offset	Offset against Ready LED in 100-ms steps	r/w
109	-	uint16_t	250	1	1	ms	RGB flashing phase 1 duration	Duration of flashing phase 1 for RGB signalling in 250-ms steps (from 250 to 4000 ms; minimum is 250 ms)	r/w
110	-	uint16_t	250	1	1	ms	RGB flashing phase 2 duration	Duration of flashing phase 2 for RGB signalling in 250-ms steps (from 250 to 4000 ms; minimum is 250 ms)	r/w
111	-	uint16_t	1	1	1	-	Phase 1 red	Activation of the red channel in phase 1 (1 = ON / 0 = OFF) (Determines whether the red channel of the RGB LED should light up in phase 1 [for the duration defined above])	r/w
112	-	uint16_t	1	1	1	-	Phase 1 green	Activation of the green channel in phase 1 (1 = ON / 0 = OFF) (Determines whether the green channel of the RGB LED should light up in phase 1 [for the duration defined above])	r/w
113	-	uint16_t	1	1	1	-	Phase 1 blue	Activation of the blue channel in phase 1 (1 = ON / 0 = OFF) (Determines whether the blue channel of the RGB LED should light up in phase 1 [for the duration defined above])	r/w
114	-	uint16_t	1	1	1	-	Phase 2 red	Activation of the red channel in phase 2 (1 = ON / 0 = OFF) (Determines whether the red channel of the RGB LED should light up in phase 2 [for the duration defined above])	r/w
115	-	uint16_t	1	1	1	-	Phase 2 green	Activation of the green channel in phase 2 (1 = ON / 0 = OFF) (Determines whether the green channel of the RGB LED should light up in phase 2 [for the duration defined above])	r/w
116	-	uint16_t	1	1	1	-	Phase 2 blue	Activation of the blue channel in phase 2 (1 = ON / 0 = OFF) (Determines whether the blue channel of the RGB LED should light up in phase 2 [for the duration defined above])	r/w
117	-	uint16_t	1	1	0	-	RGBOverride	Alternative cumulative representation of the above components Bit meaning: 0x01 RGB override active 0x02 phase 1 red 0x04 phase 1 green 0x08 phase 1 blue 0x10 phase 2 red 0x20 phase 2 green 0x40 phase 2 blue 0x80 - 0x400 duration of phase 1 (4 bit - i.e. adjustable) from 250ms to 4000ms 0x800 - 0x4000 duration of phase 2	r/w
118	-	uint16_t	1	1	0	-	Lock / unlock charging socket	0: no action, 1: lock, 2: unlock	r/w
119							(reserved)		
120	-	boolean	1	1	0	-	Charging authorisation ignored	0: no, 1: yes Charging authorisation is ignored in case of - error (RCCB/MCB, charging cable) - no car connected (Mode3) - no cable connected "charging authorisation ignored" is reset on the master by setting charging authorisation = 0	r
121	0	bit	1	1/16	0	-	Charging cable plugged in	Applicable to all bits: 0: no 1: yes	r
	1	bit	1	1/16	0	-	Charging contactor 1 active		r
	2	bit	1	1/16	0	-	Charging contactor 2 active		-
	3	bit	1	1/16	0	-	Ventilation requested		r
	4	bit	1	1/16	0	-	Connector locking activation		r
	5	bit	1	1/16	0	-	Connector locking response		r
	6	bit	1	1/16	0	-	Collective error		r
	7	bit	1	1/16	0	-	RCCB/MCB error		r
	8	bit	1	1/16	0	-	Faulty charging cable error		r
	9	bit	1	1/16	0	-	Charging cable rejected error		r
	10	bit	1	1/16	0	-	Load breaker error		-
126	-	uint16_t	1	1	0	A	Present Mode3 charging current value	Present charging current value in A	r
127	-	uint16_t	1	1	0	A	Maximum Mode3 charging current value	Maximum charging current value in A	r
128	-	uint16_t	1	1	0	A	Current carrying capacity charging cable	Current carrying capacity of the charging cable in A: 0, 13, 20, 32, 63	r
129-138	-	char	1	10	0	-	RFID tag	Last scanned RFID tag, 16-bit encoded ASCII, e.g. 0x3132, 0x3334 = "1234"	r

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139	-	char	1	1	0	-	CP signal state	Mode3 state: 'A', 'B', 'C', 'D', 'U' (undefined), ASCII encoded, 0x41 = 65 = 'A' 0x42 = 66 = 'B' 0x43 = 67 = 'C'	r
140	-	uint16_t	1	1	0	-	CP generator state	CP generator state: 0: high resistance, 1: DC positive, 2: DC negative, 3: PWM	r
141	-	uint16_t	1	1	0	A	PP status	0 A, 13 A, 20 A, 32 A, 63 A, SC	r
142	-	uint16_t	1	1	0	-	CPHIGH_ADC	CP high value of the ADC	r
143	-	uint16_t	1	1	0	-	CPLOW_ADC	CP low value of the ADC	r
144	-	uint16_t	1	1	0	-	PP_ADC	PP value of the ADC	r
145	-	-	-	-	-	-	(reserved)		
146	-	boolean	1	1	0	-	Communication error with the vehicle	0: no error, 1: plausibility error on PP & CP	r
147	-	boolean	1	1	0	-	Configuration error in charging point	0: no error, 1: plausibility error in the configuration	r
148	-	uint16_t	1/1000	1	0	V	Voltage E1	Voltage at input E1	r
149	-	uint16_t	1/1000	1	0	V	Voltage E3	Voltage at input E3	r
150	0	bit	1	1/16	0	-	RCCB/MCB error - error word - EBE binary bus protocol	0x01 RCCB/MCB error	r
	1	bit	1	1/16	0	-	Faulty charging cable error - error word - EBE binary bus protocol	0x02 charging cable error	r
	2	bit	1	1/16	0	-	Charging cable rejected error - error word - EBE binary bus protocol	0x04 charging cable rejected	r
	3	bit	1	1/16	0	-	RCMU self-test error - error word - EBE binary bus protocol	0x08 RCMU self-test error	r
	4	bit	1	1/16	0	-	RCMU detects residual current - error word - EBE binary bus protocol	0x10 RCMU detects residual current	r
	5	bit	1	1/16	0	-	Locking error - error word - EBE binary bus protocol	0x20 locking error	r
	6	bit	1	1/16	0	-	Supply undervoltage - error word - EBE binary bus protocol	0x40 supply undervoltage	r
	7	bit	1	1/16	0	-	Supply overvoltage - error word - EBE binary bus protocol	0x80 supply overvoltage	r
	8	bit	1	1/16	0	-	Load breaker error - error word - EBE binary bus protocol	0x100 load breaker error	r
	-	boolean	1	1	0	-	Collective error - error word - EBE binary bus protocol	≠ 0 collective error	r
151 - 152	-	uint32_t	1	2	0	ms	Charging time	Charging time in milliseconds	r
153 - 154	-	uint32_t	1	2	0	ms	Plugged-in time	Plugged-in time in ms	r
155 - 159	-	-	-	-	-	-	(reserved)	Reserve	
167	-	uint16_t	1/100	1	0	V	Voltage U1 Modbus / EVCC Home: mains voltage	Voltage U1	r
300 +	-	-	-	-	-	-	<b>Operation - General</b>		
300	-	uint16_t	1	1	2/0/0	-	Operating mode of the ChargeController (SA/master or slave mode)	0: slave	r
301	-	uint16_t	1/1000	1	0	V	Supply voltage (vplusmon_raw)	Supply voltage of the charging controller	r
302	-	uint16_t	1/100	1	0	V	Mains voltage (value RCCB/MCB)	Mains voltage	r
303	-	uint16_t	1	1	0	°C	Temperature (onboard sensor)	Temperature in the charging controller	r
307	-	uint16_t	1/10	1	0	mV	Temperature measured value [mV]		r
305	-	uint16_t	1	1	0	-	Locked time	1: plugged-in to unplugged, 2: charging start to charging end, 3: charging start to unplugged	r/w
306	-	boolean	1	1	0	-	Controller status	0: error-free, 1: error	r
307	-	uint16_t	1	1	0	mV	Analogue temperature sensor value	Analogue temperature sensor value	r
308	-	boolean	1	1	0	-	A4 can be controlled via Modbus	0: low 1: high	r/w

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<b>500+</b>									
<b>Configuration CP1</b>									
500	-	uint16_t	1	1	1	-	Bus address override	Bus address / bus address override	r/w
501	-	uint16_t	1	1	16	A	Default charging current override	Charging current in A, only effective with corresponding DIP switch position	r/w
503	-	uint16_t	1	1	250	ms	Locking delay	Time in ms	r/w
505	-	uint16_t	1	1	500	ms	Motor activation time	Time in ms	r/w
506	-	uint16_t	1	1	1	-	Cable mode (plug-in / permanently connected)	0: charging socket, 1: permanently connected charging cable	r/w
507	-	uint16_t	1	1	13	A	Minimum charging current	Minimum charging current in A	r/w
508	-	uint16_t	1	1	6	A/V	PV scaling - x Ampere per volt for PV control	Basis for calculating the charging current setting for PV control	r/w
509	-	uint32_t	1	2	57600	baud	Baud rate for Modbus communication		r/w
<b>800+</b>									
<b>Manufacturer data</b>									
800-815	-	char	1	16	-	-	Manufacturer name	16-bit encoded ASCII, e.g. 0x5465, 0x7374 = "Test"	r
816-831	-	char	1	16	-	-	Device name	16-bit encoded ASCII, e.g. 0x5465, 0x7374 = "Test"	r
832-847	-	char	1	16	-	-	Firmware version	16-bit encoded ASCII, e.g. 0x5465, 0x7374 = "Test"	r
<b>1000+</b>									
<b>Reset</b>									
1000	-	uint16_t	1	1	0	-	Reset - entire EVCC	0: no reset, 1234: reset	w

Modbus parameters	
Baud	57600
Bus address	1
Data bits	8
Stop bits	1
Parity	None
RTS	Disable

Read and write to register (function codes)	
1	Read coil
2	Read discrete input
3	Read holding registers
4	Read input registers
5	Write single coil
6	Write single holding register
15	Write multiple coils
16	Write holding registers