

SIEMENS

VERSICHARGE AC SERIES

ModBus Map

Product Information

Note

This document is valid for Firmware version V2.120 or higher

siemens.com/versicharge

Modbus RTU	Modbus TCP
Baud Rate: 38400	Server Port: 502
Minimum Timeout Setting: 2000 ms	Minimum Timeout Setting: 2000 ms
Minimum Pollrate: 1000 ms	Minimum Pollrate: 1000 ms
8 Data bits	Protocol: IPv4
Even Parity	
1 Stop Bit	

Note

1. The Modbus RTU default device address is 2 and can be modified by writing a new valid value at register 0xA000.
 2. The Modbus TCP communication port supported is 502 and cannot be modified.
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Note

Information reporting on registers with dynamic data may take several cycles to update in relation to content changes. The timeout information described above only refers to responding with a value, not necessarily the most recent value.

Note

When the charger is controlled via OCPP, the Modbus interface serves primarily as a monitoring interface. Read carefully the implications of OCPP control on Modbus behavior.

Register Map

Start address (External)	End address (External)	Start address (Internal)	End address (Internal)	Start address (External) Hex	End address (External) Hex	Start address (Internal) Hex	End address (Internal) Hex	Register Name	Number of 16bit registers	Single / Group	Data type	Access	Supported Function Code	Range Validation	Multiplication Factor	Units	Valid Write Value Range	Default Value	Description	Supported Exceptions
1. Charger Specification																				
1.1 OEM/Production																				
40001	40005	0	4	9C41	9C45	0	4	Manufacturer Name	5	Group	ASCII	RO	FC 03	No			N/A	"Siemens AG"	The user can get the Manufacturer Name using this register.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
40006	40007	5	6	9C46	9C47	5	6	Production Date	2	Group	Word 1 - UInt16 Byte 3: Hex Byte 4: Hex	RO	FC 03	No			N/A	Date based on Charger's Serial Number	Word 1 - YYYY Word 2 - Byte3 (MM) , Byte4 (DD) It is derived from the Serial Number.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
40008	40012	7	11	9C48	9C4C	7	8	Serial Number	5	Group	ASCII	RO	FC 03	No			N/A	Product Serial Number	The user can get the Product Serial Number using this register.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
40013	40022	12	21	9C4D	9C56	C	15	MLFB Number	10	Group	ASCII	RO	FC 03	No			N/A	Product Catalog Number	The user can get the Product Catalog Number using this register.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid

Start address (External)	End address (External)	Start address (Internal)	End address (Internal)	Start address (External) Hex	End address (External) Hex	Start address (Internal) Hex	End address (Internal) Hex	Register Name	Number of 16bit registers	Single / Group	Data type	Access	Supported Function Code	Range Validation	Multiplication Factor	Units	Valid Write Value Range	Default Value	Description	Supported Exceptions
1.2 Charger HW																				
40023	40023	22	22	9C57	9C57	16	16	Platform Type	1	Single	UInt16	RO	FC 03	No			N/A	Value based on the Charger type (1/2/3)	The user can get the charger platform type: 1 - Residential, 2 - Commercial 3 - ERK	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
40024	40024	23	23	9C58	9C58	17	17	Charger Time Zone	1	Single	UInt16	RO	FC 03	No			N/A	Value based on current the Charger Time	The user can get the Time Zone of the Charger in minutes using this register: If UTC time is : -9:00 The register value in minutes will be -540	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
40025	40025	24	24	9C59	9C59	18	18	Number of Outlets	1	Single	UInt16	RO	FC 03	No			N/A	Value based on the MLFB Number (1/2)	The user can get the number of charging outlets: 1 - 1 outlet 2 - 2 outlets	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
40026	40026	25	25	9C5A	9C5A	19	19	Type of Outlet	1	Single	UInt16	RO	FC 03	No			N/A	Value based on the MLFB Number (0-22)	The user can get the type of outlet: 0 - Left: socket type 2 1 - Left: cable with plug type 2 (7 m) 2 - Left: socket with shutters type 2 - France 3 - Left: cable with plug type 1 (7 m) 4 - Left: cable with plug type GB-T (6 m) 5 - Front SAE J1772 (20 ft) 6 - Front SAE J1772 (25 ft) 7 - Right: socket type 2 8 - Right: cable with plug type 2 (7 m) 9 - Right: cover type 2 - with shutter and E-plug 10 - Right: cable with plug type 1 (7 m) 11 - Right: cover type 2 - with shutter and F-plug 12 - Right: cover type 2 - with shutter only 13 - (Reserve) 14 - Left and right: socket type 2 15 - Left and Right: cable with plug type 2 (7 m) 16 - Left and Right: cover type 2 - France (7 m) 17 - Left and Right: cable with plug type 1 (7 m) 18 - Left and Right: cable with plug type GB-T (7 m) 19 - CCS1/J1772 (25ft) 20 - (Reserve) 21 - (Reserve) 22 - Blocked	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid

Start address (External)	End address (External)	Start address (Internal)	End address (Internal)	Start address (External) Hex	End address (External) Hex	Start address (Internal) Hex	End address (Internal) Hex	Register Name	Number of 16bit registers	Single / Group	Data type	Access	Supported Function Code	Range Validation	Multiplication Factor	Units	Valid Write Value Range	Default Value	Description	Supported Exceptions
40027	40027	26	26	9C5B	9C5B	1A	1A	Delay Button Status	1	Single	UInt16	RW	FC 03, FC 06, FC 16	Yes			0 to 4	0 (No Delay)	Get/Set Delay state of the charger 0 - No delay 1 - 2 Hours delay 2 - 4 Hours delay 3 - 6 Hours delay 4 - 8 Hours delay	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
40028	40028	27	27	9C5C	9C5C	1B	1B	Utilized Connectivity Stream	1	Single	UInt16	RO	FC 03	No			N/A	0 (Not Commissioned)	This register return the stream through which the charger is commissioned: 0 - Not Commissioned 1 - Wi-Fi 2 - Cellular 3 - Ethernet	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
40029	40029	28	28	9C5D	9C5D	1C	1C	Rated Current	1	Single	UInt16	RO	FC 03	No	1	Amp	N/A	Value based on the MLFB Number	Rated (Maximum) Amps value which is configured from system configuration (6 to 80 Amps)	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
40030	40030	29	29	9C5E	9C5E	1D	1D	Installation Current (DIP switch)	1	Single	UInt16	RO	FC 03	No	1	Amp	N/A	Based on the DIP Switch position on Charger	Derated setting Value in Ampere (Based on Amp switch setting) (6 to 80 Amps) Below table for ampere rating as per switch position. Switch ----- UL ----- IEC position ----- (amps) --- (amps) 0 ----- 12 ----- 10 1 ----- 16 ----- 13 2 ----- 24 ----- 16 3 ----- 32 ----- 20 4 ----- 40 ----- 32 5 ----- 48 ----- 48 Derated Ampere value is derived from the DIP switch ampere rating and Rated Ampere. For Example: Unit Type: UL Rated Ampere : 32A DIP Switch Ampere rating: 5 (48A) Derated Ampere(Installation current) : 32A As per the DIP Switch position, ampere rating should be 48A, but as we have Rated Ampere value is 32A, and because of that installation current will be minimum value from the Derated Ampere and DIP switch ampere current.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid

Start address (External)	End address (External)	Start address (Internal)	End address (Internal)	Start address (External) Hex	End address (External) Hex	Start address (Internal) Hex	End address (Internal) Hex	Register Name	Number of 16bit registers	Single / Group	Data type	Access	Supported Function Code	Range Validation	Multiplication Factor	Units	Valid Write Value Range	Default Value	Description	Supported Exceptions
40031	40031	30	30	9C5F	9C5F	1E	1E	Meter Type	1	Single	UInt16	RO	FC 03	No			0 to 8	Value based on the MLFB Number	0 - no metering 1 - Basic 2 - ANSI 3 - MID 4 - integrated meter MID 5 - Eichrechtskonform Metering (ERK) 7 - CMC Meter 9 - Onboard CMC 25 - Blocked	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid

Start address (External)	End address (External)	Start address (Internal)	End address (Internal)	Start address (External) Hex	End address (External) Hex	Start address (Internal) Hex	End address (Internal) Hex	Register Name	Number of 16bit registers	Single / Group	Data type	Access	Supported Function Code	Range Validation	Multiplication Factor	Units	Valid Write Value Range	Default Value	Description	Supported Exceptions
1.3 Charger SW																				
40032	40036	31	35	9C60	9C64	1F	23	A8 FW Version	5	Group	ASCII	RO	FC 03	No			N/A	Value based on the FW Flashed in A8	Firmware Flashed in A8: For example, 2.113 / 2.115 / 2.116 / 2.117...	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
40037	40041	36	40	9C65	9C69	24	28	M0 FW Version	5	Group	ASCII	RO	FC 03	No			N/A	Value based on the FW Flashed in M0	Firmware Flashed in A8: For example, 4.3.5/4.3.10...	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
40042	40042	41	41	9C6A	9C6A	29	29	Modbus App Version	1	Single	UInt16	RO	FC 03	No			N/A	Value based on the FW Flashed in A8	Firmware Flashed in A8: For example, 1/2/3/4/5/6/7/8/9...	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
40043	40079	42	78	9C6B	9C8F	2A	4E	BUFFER	37	N/A	N/A	N/A	N/A	N/A			N/A	N/A	Buffer register for future use	N/A

Start address (External)	End address (External)	Start address (Internal)	End address (Internal)	Start address (External) Hex	End address (External) Hex	Start address (Internal) Hex	End address (Internal) Hex	Register Name	Number of 16bit registers	Single / Group	Data type	Access	Supported Function Code	Range Validation	Multiplication Factor	Units	Valid Write Value Range	Default Value	Description	Supported Exceptions
2. Authentication																				
40080	40080	79	79	9C90	9C90	4F	4F	RFID Authorization Status	1	Single	UInt16	RW	FC 03, FC 06, FC 16	Yes			0 or 1	Value based on current RFID Authorization Status	Get/Set the RFID Authorization: 0 - RFID Authorization Disabled 1 - RFID Authorization Enabled	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
40081	40087	80	86	9C91	9C97	50	56	Add/Remove RFID Cards	7	Group	Byte1 - UInt8 Byte 2 - 0 Byte 3 - 0 Byte4 - UInt8 Byte 5 to 14 - HEX	WO	FC 16	No			Byte1 - 1 to 4 Byte4 - 4 or 7 or 10	N/A	The User can add the new RFID card using this register: Byte 1 = 1 Add admin card = 2 Remove admin card = 3 Add user card = 4 Remove user card Byte 2 = Reserved Byte 3 = Reserved Byte 4 = UID Size Byte 5 to 14 = UID of the RFID card(4, 7 or 10 bytes)	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid 0x22 - RFID Application User card whitelist have more than 50 RFID Cards 0x23 - RFID Application Admin card whitelist have more than 5 RFID Cards
40088	40338	87	337	9C98	9D92	57	151	RFID User Card Whitelist	251	Group	Word 1: UInt16 Word 2-251: Hex	RO	FC 03	No			N/A	0	The User can read the added user card number and UIDs using this register: Word 1 - White List Count Word 2-6 - UID RFID 1 Word 247-251 - UID RFID 50 Note: First register will provide added card count and remaining registers will provide the RFID Card UIDs. The User need to read the data in multiple of 5 for UIDs. Per the Modbus standard, the user can read maximum #125 register in single read query so multiple read queries will require to read entire data.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
40356	40405	355	404	9DA4	9DD5	163	194	BUFFER	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Buffer register for future use	N/A

Start address (External)	End address (External)	Start address (Internal)	End address (Internal)	Start address (External) Hex	End address (External) Hex	Start address (Internal) Hex	End address (Internal) Hex	Register Name	Number of 16bit registers	Single / Group	Data type	Access	Supported Function Code	Range Validation	Multiplication Factor	Units	Valid Write Value Range	Default Value	Description	Supported Exceptions
3.1 Charger States																				
41601	41601	1600	1600	A281	A281	640	640	EVSE Error Code	1	Single	Int16	RO	FC 03	No			N/A	0	Supported Error Codes: 1: Any line phase under volt 2: Line phase A under volt 3: Line phase B under volt 4: Line phase C under volt 5: Line any phase over volt 6: Line phase A over volt 7: Line phase B over volt 8: Line phase C over volt 9: Line any phase zero volt 10: Line phase A zero volt 11: Line phase B zero volt 12: Line phase C zero volt 13: Any load phase under volt 14: Load phase A under volt 15: Load phase B under volt 16: Load phase C under volt 17: Any load phase over volt 18: Load phase A over volt 19: Load phase B over volt 20: Load phase C over volt 21: Any load phase zero volt 22: Load phase A zero volt 23: Load phase B zero volt 24: Load phase C zero volt 25: Bad pilot voltage 26: Bad amp switch position 27: Adc fault 28: Static memory fault 29: CCID fault 30 :CCID self test fault 31 :Contactor open 32 :Over Temperature 33 :J1772 comm fault 34 : SGD comm fault	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41602	41602	1601	1601	A282	A282	641	641	OCPP State	1	Single	UInt16	RO	FC 03	No			1 to 7	Based on Current State	Modbus register value against OCPP Possible Values (Pause OFF): 1- Available, 2 - suspended EV, 3 - Charging, 4 - suspended EV,	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid

Start address (External)	End address (External)	Start address (Internal)	End address (Internal)	Start address (External) Hex	End address (External) Hex	Start address (Internal) Hex	End address (Internal) Hex	Register Name	Number of 16bit registers	Single / Group	Data type	Access	Supported Function Code	Range Validation	Multiplication Factor	Units	Valid Write Value Range	Default Value	Description	Supported Exceptions
																			5- suspended EVSE, 6 - Faulted, 7- Finishing Modbus register value against OCPP Possible Values (Pause ON): 1- Available, 2 - preparing, 3 - Charging, 4 - suspended EV, 5- suspended EVSE, 6 - Faulted, 7- Finishing	
41603	41603	1602	1602	A283	A283	642	642	PCBA Temperature	1	Single	Int16	RO	FC 03	No	1	°C	N/A	Based on Current Temperature	Get the on board temperature value in Celsius	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41605	41629	1604	1628	A285	A29D	644	65C	BUFFER	25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Buffer registers for future use	N/A

Start address (External)	End address (External)	Start address (Internal)	End address (Internal)	Start address (External) Hex	End address (External) Hex	Start address (Internal) Hex	End address (Internal) Hex	Register Name	Number of 16bit registers	Single / Group	Data type	Access	Supported Function Code	Range Validation	Multiplication Factor	Units	Valid Write Value Range	Default Value	Description	Supported Exceptions
4. Load Management & Charging Session Analysis																				
4.1 Limit Charging Power & Energy Delivered																				
41630	41630	1629	1629	A29E	A29E	65D	65D	Pause State	1	Single	UInt16	RW	FC 03, FC 06, FC 16	Yes			1 or 2	Based on Current State	The User can get/set the Charger Pause state using this register: 1: PAUSE ON 2: PAUSE OFF Note: The pause command from the Modbus will ignored when unit is controlled over OCPP.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41634	41634	1633	1633	A2A2	A2A2	661	661	Max Charging Current Sum	1	Single	UInt16	RW	FC 03, FC 06, FC 16	No	1	Amp	6 to 80	Based on the charger Variant	The user can get/set the Max Charging current Sum using this register Note: If power level is below 15% it will calculate max current with 15% power level.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid

Start address (External)	End address (External)	Start address (Internal)	End address (Internal)	Start address (External) Hex	End address (External) Hex	Start address (Internal) Hex	End address (Internal) Hex	Register Name	Number of 16bit registers	Single / Group	Data type	Access	Supported Function Code	Range Validation	Multiplication Factor	Units	Valid Write Value Range	Default Value	Description	Supported Exceptions
4.2 Switch between 1ph- & 3ph-charging																				
41643	41643	1642	1642	A2AB	A2AB	66A	66A	Charger Phase	1	Single	UInt16	RW	FC 03, FC 06, FC 16	Yes			0 or 1	Based on the charger Type	0 : 1PHASE 1 : 3PHASE	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid

Start address (External)	End address (External)	Start address (Internal)	End address (Internal)	Start address (External) Hex	End address (External) Hex	Start address (Internal) Hex	End address (Internal) Hex	Register Name	Number of 16bit registers	Single / Group	Data type	Access	Supported Function Code	Range Validation	Multiplication Factor	Units	Valid Write Value Range	Default Value	Description	Supported Exceptions
4.3 Actual charging values																				
41648	41648	1647	1647	A2B0	A2B0	66F	66F	Charging current Phase L1	1	Single	UInt16	RO	FC 03	No	1	Amp		0	Actual Irms of Phase 1 Note: Value in this register will populate for #1 and #3 phase chargers.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41649	41649	1648	1648	A2B1	A2B1	670	670	Charging current Phase L2	1	Single	UInt16	RO	FC 03	No	1	Amp		0	Actual Irms of Phase 2 Note: Value in this register will populate for #3 phase charger only.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41650	41650	1649	1649	A2B2	A2B2	671	671	Charging current Phase L3	1	Single	UInt16	RO	FC 03	No	1	Amp		0	Actual Irms of Phase 3 Note: Value in this register will populate for #3 phase charger only.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41651	41651	1650	1650	A2B3	A2B3	672	672	Charging current Phase Sum	1	Single	UInt16	RO	FC 03	No	1	Amp		0	Actual Irms of Phase Sum Note: Value in this register will populate for #1 and #3 phase chargers.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41652	41652	1651	1651	A2B4	A2B4	673	673	Charging Voltage Phase V(L1-N)	1	Single	UInt16	RO	FC 03	No	1	Volt		0	Actual Vrms of Phase 1 Note: Value in this register will populate for #1 and #3 phase chargers.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41653	41653	1652	1652	A2B5	A2B5	674	674	Charging Voltage Phase V(L2-N)	1	Single	UInt16	RO	FC 03	No	1	Volt		0	Actual Vrms of Phase 2 Note: Value in this register will populate for #3 phase charger only.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41654	41654	1653	1653	A2B6	A2B6	675	675	Charging Voltage Phase V(L3-N)	1	Single	UInt16	RO	FC 03	No	1	Volt		0	Actual Vrms of Phase 3 Note: Value in this register will populate for #3 phase charger only.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid

Start address (External)	End address (External)	Start address (Internal)	End address (Internal)	Start address (External) Hex	End address (External) Hex	Start address (Internal) Hex	End address (Internal) Hex	Register Name	Number of 16bit registers	Single / Group	Data type	Access	Supported Function Code	Range Validation	Multiplication Factor	Units	Valid Write Value Range	Default Value	Description	Supported Exceptions
4.4. Charging fallback Settings																				
41661	41661	1660	1660	A2BD	A2BD	67C	67C	Fallback Current Phase Sum	1	Single	UInt16	RW	FC 03, FC 06, FC 16	No	1	Amp	0, 6-80A	48	This current phase sum will be set if Modbus connection lost for "Fallback time". Note: Set this value to 0 after each power cycle if load management feature is not required.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41662	41662	1661	1661	A2BE	A2BE	67D	67D	Fallback Time	1	Single	UInt16	RW	FC 03, FC 06, FC 16	No	1	Seconds	0, 60-600 s	60	If the Modbus connection is lost for this period, the configured current Phase Sum value in register 41661 will be set. Note: Set this value to 0 after each power cycle if load management feature is not required.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid

Start address (External)	End address (External)	Start address (Internal)	End address (Internal)	Start address (External) Hex	End address (External) Hex	Start address (Internal) Hex	End address (Internal) Hex	Register Name	Number of 16bit registers	Single / Group	Data type	Access	Supported Function Code	Range Validation	Multiplication Factor	Units	Valid Write Value Range	Default Value	Description	Supported Exceptions
4.5 Additional charging session information																				
41663	41663	1662	1662	A2BF	A2BF	67E	67E	Current Charging Speed L1	1	Single	UInt16	RO	FC 03	No	1	Watt	N/A	0	The user can get the active power of phase 1 using this register.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41664	41664	1663	1663	A2C0	A2C0	67F	67F	Current Charging Speed L2	1	Single	UInt16	RO	FC 03	No	1	Watt	N/A	0	The user can get the active power of phase 2 using this register. Note: Value in this register will populate for #3 phase charger only.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41665	41665	1664	1664	A2C1	A2C1	680	680	Current Charging Speed L3	1	Single	UInt16	RO	FC 03	No	1	Watt	N/A	0	The user can get the active power of phase 3 using this register. Note: Value in this register will populate for #3 phase charger only.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41666	41666	1665	1665	A2C2	A2C2	681	681	Current Charging Speed Phase Sum	1	Single	UInt16	RO	FC 03	No	0,1	Watt	N/A	0	The user can get the total active power using this register. Note: For 1 phase charger, read this register to get L1 charging speed.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41667	41667	1666	1666	A2C3	A2C3	682	682	Power Factor Phase L1	1	Single	UInt16	RO	FC 03	No	0,01		N/A	0	The user can get the power factor of Phase 1 using this register.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41668	41668	1667	1667	A2C4	A2C4	683	683	Power Factor Phase L2	1	Single	UInt16	RO	FC 03	No	0,01		N/A	0	The user can get the power factor of Phase 2 using this register. Note: Value in this register will populate for #3 phase charger only.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid

Start address (External)	End address (External)	Start address (Internal)	End address (Internal)	Start address (External) Hex	End address (External) Hex	Start address (Internal) Hex	End address (Internal) Hex	Register Name	Number of 16bit registers	Single / Group	Data type	Access	Supported Function Code	Range Validation	Multiplication Factor	Units	Valid Write Value Range	Default Value	Description	Supported Exceptions
41669	41669	1668	1668	A2C5	A2C5	684	684	Power Factor Phase L3	1	Single	UInt16	RO	FC 03	No	0,01		N/A	0	The user can get the power factor of Phase 3 using this register. Note: Value in this register will populate for #3 phase charger only.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41670	41670	1669	1669	A2C6	A2C6	685	685	Average Power Factor	1	Single	UInt16	RO	FC 03	No	0,01		N/A	0	The user can get the Average Power Factor using this register. Note: For 1 phase charger, read this register to get L1 Power Factor.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41671	41671	1670	1670	A2C7	A2C7	686	686	Apparent Power Phase L1	1	Single	UInt16	RO	FC 03	No	1	volt-amps	N/A	0	The user can get the Apparent power of Phase 1 using this register.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41672	41672	1671	1671	A2C8	A2C8	687	687	Apparent Power Phase L2	1	Single	UInt16	RO	FC 03	No	1	volt-amps	N/A	0	The user can get the Apparent power of Phase 2 using this register. Note: Value in this register will populate for #3 phase charger only.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41673	41673	1672	1672	A2C9	A2C9	688	688	Apparent Power Phase L3	1	Single	UInt16	RO	FC 03	No	1	volt-amps	N/A	0	The user can get the Apparent power of Phase 3 using this register. Note: Value in this register will populate for #3 phase charger only.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41674	41674	1673	1673	A2CA	A2CA	689	689	Average Apparent Power	1	Single	UInt16	RO	FC 03	No	1	volt-amps	N/A	0	The user can get the average Apparent Power using this register. Note: For 1 phase charger, read this register to get L1 Apparent Power.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41675	41675	1674	1674	A2CB	A2CB	68A	68A	Reactive Power Phase L1	1	Single	UInt16	RO	FC 03	No	1	volt-amperes reactive	N/A	0	The user can get the Reactive power of Phase 1 using this register.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41676	41676	1675	1675	A2CC	A2CC	68B	68B	Reactive Power Phase L2	1	Single	UInt16	RO	FC 03	No	1	volt-amperes reactive	N/A	0	The user can get the Reactive power of Phase 2 using this register. Note: Value in this register will populate for #3 phase charger only.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41677	41677	1676	1676	A2CD	A2CD	68C	68C	Reactive Power Phase L3	1	Single	UInt16	RO	FC 03	No	1	volt-amperes reactive	N/A	0	The user can get the Reactive power of Phase 3 using this register. Note: Value in this register will populate for #3 phase charger only.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41678	41678	1677	1677	A2CE	A2CE	68D	68D	Average Reactive Power	1	Single	UInt16	RO	FC 03	No	1	volt-amperes reactive	N/A	0	The user can get the average Reactive power using this register. Note: For 1 phase charger, read this register to get L1 Reactive Power.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid

Start address (External)	End address (External)	Start address (Internal)	End address (Internal)	Start address (External) Hex	End address (External) Hex	Start address (Internal) Hex	End address (Internal) Hex	Register Name	Number of 16bit registers	Single / Group	Data type	Access	Supported Function Code	Range Validation	Multiplication Factor	Units	Valid Write Value Range	Default Value	Description	Supported Exceptions
41693	41694	1692	1693	A2DD	A2DE	69C	69D	Real Energy Consumed Phase Sum	2	Group	Uint32 (Big-endian)	RO	FC 03	No	0,1	Watt hours	N/A	0	The user can get the total consumed Real Energy using this register.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41711	41825	1710	1824	A2EF	A361	6AE	720	BUFFER	115	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Buffer registers for future use	N/A

Start address (External)	End address (External)	Start address (Internal)	End address (Internal)	Start address (External) Hex	End address (External) Hex	Start address (Internal) Hex	End address (Internal) Hex	Register Name	Number of 16bit registers	Single / Group	Data type	Access	Supported Function Code	Range Validation	Multiplication Factor	Units	Valid Write Value Range	Default Value	Description	Supported Exceptions
5. Reset																				
41826	41826	1825	1825	A362	A362	721	721	RTU Slave Address	1	Single	UInt16	RW	FC 06, FC 16, FC 03	Yes			1 - 247 but not existing slave addresses	2	Set Modbus RTU slave address Note: After setting new slave address, application will require ~20 seconds to reconfigure slave address.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41827	41827	1826	1826	A363	A363	722	722	Reboot Charger	1	Single	UInt16	WO	FC 06, FC 16	Yes			1 or 2	N/A	1 - Soft Reset (Modbus Application reset) 2 - Hard Reset (A8 board reset) Note: After Soft reset Mobius application will restart after 60 seconds. So wait for 60 seconds after applying soft reset command.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid
41828	41830	1827	1829	A364	A366	723	725	Salt For Factory Reset	3	Group	UInt16	RO	FC 03	No			N/A		Read the salt that needs to be used to generate random password for factory reset. Note: This register is for internal use only.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid

Start address (External)	End address (External)	Start address (Internal)	End address (Internal)	Start address (External) Hex	End address (External) Hex	Start address (Internal) Hex	End address (Internal) Hex	Register Name	Number of 16bit registers	Single / Group	Data type	Access	Supported Function Code	Range Validation	Multiplication Factor	Units	Valid Write Value Range	Default Value	Description	Supported Exceptions
6. Admin Whitelist																				
41853	41878	1852	1877	A37D	A396	73C	755	RFID Admin Card Whitelist	26	Group	Word 1: UInt16 Word 2-26: Hex	RO	FC 03	No	-	-	N/A	0	The User can read the added user card number and UIDs using this register: Word 1 - Admin Card White List Count Word 2-6 - Admin Card UID 1 Word 22-26 - Admin Card UID 5 Note: First register will provide added card count and remaining registers will provide the RFID Card UIDs. The User need to read the data in multiple of 5 for UIDs.	0x01 - Function code not supported 0x02 - The data address received in the query is not an allowable address for the slave. More specifically, the combination of reference number and transfer length is invalid