Table Modbus Register - Heidelberg Wallbox Energy Control

Status 22 February 2021

Bus-Adr.	R/W	ModBus-Function	Type	Description	Range	Values / examples	Default Value	Available at
4	R	04 - readInputRegister	uint16	Modbus Register-Layouts Version	0..65536	0x100 -> V1.0.0	-	V 1.0.0
5	R	04 - readInputRegister	uint16	Charging State *	1…11	2=A1, 3=A2, 4=B1, 5=B2, 6=C1, 7=C2, 8=derating, 9=E, 10=F, 11=ERR	-	V 1.0.0
6	R	04 - readInputRegister	uint16	L1 - Current RMS **	0….350	1 = 0.1 Arms	-	V 1.0.0
7	R	04 - readInputRegister	uint16	L2 - Current RMS **	0….350	1 = 0.1 Arms	-	V 1.0.0
8	R	04 - readInputRegister	uint16	L3 - Current RMS **	0….350	1 = 0.1 Arms	-	V 1.0.0
9	R	04 - readInputRegister	int16	PCB-Temperatur in 0.1 °C	-200°C/200°C	325 = +32.5 °C / -145 = -14.5 °C	-	V 1.0.0
10	R	04 - readInputRegister	uint16	Voltage L1 - N rms in Volt **	0…65536	238 = 238 Vrms	-	V 1.0.0
11	R	04 - readInputRegister	uint16	Voltage L2 - N rms in Volt **	0…65536	8 = 8 Vrms	-	V 1.0.0
12	R	04 - readInputRegister	uint16	Voltage L3 - N rms in Volt **	0…65536	258 = 258 Vrms	-	V 1.0.0
13	R	04 - readInputRegister	uint16	extern lock state	0/1	0 = locked / 1 = unlocked	-	V 1.0.0
14	R	04 - readInputRegister	uint16	Power (L1+L2+L3) in VA **	0..65536	1000 --> 1kVA	-	V1.0.4
15	R	04 - readInputRegister	uint16	Energy since PowerOn [High byte] **	0..65536	1 --> 2^{16} VAh	-	V1.0.4
16	R	04 - readInputRegister	uint16	Energy since PowerOn [Low byte] **	0..65536	1000 --> 1000VAh	-	V1.0.4
17	R	04 - readInputRegister	uint16	Energy since Installation [High byte] **	0..65536	1 --> 2^{16} VAh	-	V1.0.7
18	R	04 - readInputRegister	uint16	Energy since Installation [Low byte] **	0..65536	1000 --> 1000VAh	-	V1.0.7
100	R	04 - readInputRegister	uint16	Hardware configuration maximal current	0…16	10 = 10A	-	V 1.0.0
101	R	04 - readInputRegister	uint16	Hardware configuration minimal current	0…16	7 = 7A	-	V 1.0.0
102	R	04 - readInputRegister	char[2]	Logistic - String [0,1]	ASCCI	reserved manufacturer	-	V1.0.4
…	R	04 - readInputRegister	char[2]	Logistic - String […,..]	ASCCI		-	V1.0.4
133	R	04 - readInputRegister	char[2]	Logistic - String [62,63]	ASCCI		-	V1.0.4
200	R	04 - readInputRegister	uint16	Hardware-Variant		reserved manufacturer	-	V1.0.3
203	R	04 - readInputRegister	uint16	Application Software svn-revNo			-	V1.0.5
300	R	04 - readInputRegister	uint16	Support Diagnostic Data		reserved manufacturer	-	V 1.0.4
…	R	04 - readInputRegister	uint16				-	V 1.0.4
318	R	04 - readInputRegister	uint16				-	V 1.0.4
500	R	04 - readInputRegister	int16	640 Bytes Error Memory	..	reserved manufacturer	-	V 1.0.4
…	..	..	..				..	V 1.0.4
819	R	04 - readInputRegister	int16				-	V 1.0.4
257	R / W	03 - readHoldingRegister *** 06 - writeHoldingRegister ***	uint16	ModBus-Master WatchDog Timeout in ms	0…65536	10000 = 10 sec. | 0 = Off	15000	V 1.0.1
258	W	06 - writeHoldingRegister ***	uint16	Standby Function Control (Power Saving if no car plugged)	0…65536	0-> enable StandBy Funktion 4-> disable StandBy Funktion x -> reserved development	0 = enable	V1.0.4 - V1.0.7
	R / W	03 - readHoldingRegister *** 06 - writeHoldingRegister ***						≥V1.0.8
259	R / W	06 - writeHoldingRegister	uint16	Remote lock (only if extern lock unlocked)	0..1	0 = locked / 1= unlocked	1 = unlocked	V1.0.4
261	R / W	03 - readHoldingRegister *** 06 - writeHoldingRegister ***	uint16	Maximal current command	[0; 60 to 160]	100 = 10A	0	V 1.0.7
262	R / W	03 - readHoldingRegister *** 06 - writeHoldingRegister ***	uint16	FailSafe Current configuration (in case loss of Modbus communication)	[0; 60 to 160]	0 = error state 60 = 6 A	0	V1.0.7

*** Notice Charging States**

	Car	Wallbox
State A1	No vehicle plugged	Wallbox doesn't allow charging
State A2		Wallbox allows charging
State B1	Vehicle plugged without charging request	Wallbox doesn't allow charging
State B2		Wallbox allows charging
State C1	Vehicle plugged with charging request	Wallbox doesn't allow charging
State C2		Wallbox allows charging

**** Notice Internal Values**

These values are for internal purposes and should not be used for accurate billing.

***** Notice Holding Register**

Up to and including version 1.0.7 after Power On or Standby default values are valid.
From version 1.0.8 in Register 257, 258, 259, 262 the stored values are retained and only in Register 261 default values are valid after Power On or Standby.
Please check Modbus register layout version by Register 4.