Starting Address of the Group Registers (Dec)	Starting Address of the Group Registers (Hex)	System Version (Release)	System Version (Build)	Group Name (Text)	Group Code (Hex)	Group Complexity (Hex)	Group Version (Hex)
45056	B000	-	-	**STATION DATA** (status, commands, registers, settings)	B001	10	0100

MODBUS PROTOCOL DETAILS

Function Code (Dec)	Exception Codes (Dec)	Data Encoding
1	01, 02, 03, 04	"Big Endian" (most significant byte first)
2	01, 02, 03, 04	
3	01, 02, 03, 04	
4	01, 02, 03, 04	
5	01, 02, 03, 04	
6	01, 02, 03, 04	
15	01, 02, 03, 04	
16	01, 02, 03, 04	

MODBUS OVER SERIAL DETAILS

Physical Layer	Trasmission Modes	Device Addressing	Baud Rates (bit/s)	Data Bits	Data bits trasmission sequence	Parity	Stop Bits
standard EIA/TIA 485 (RS-485) two-wire configuration	RTU	1÷247 (default 1)	9.600, 19.200, 38.400 (default 19.200), option 57.600	8	Least significant bit first	no, odd, even (default even)	1, 2 (default 1)

MASTER/SLAVE COMMUNICATION TIMING

Timer Descrtiption	Timer Value (msec)
Inter-character time-out	
Response delay (from master request)	
Delay Time (between two master trasmissions)	

REFER ALSO TO: www.modbus.org - MODBUS over serial line specification and implementation guide V1.02

- MODBUS APPLICATION PROTOCOL SPECIFICATION V1.1b

Register Number	Register Address (Dec)	Register Address (Hex)	Dimension [bit]	Description	Note	Read Function Codes (Dec)	Write Function Codes (Dec)	Data Storing (2)
	45056	B000		STATION STATE				
	45056	B000	1	station powered	1=powered	2		
	45057	B001	1	working mode	0=stand alone 1=managed After reset or power outage, the charge station must keep the working mode in memory	2		Y
	45058	B002	1	charge state	1 = charge terminated	2		

Register Number	Register Address (Dec)	Register Address (Hex)	Dimension [bit]	Description	Note	Read Function Codes (Dec)	Write Function Codes (Dec)	Data Storing (2)
	45056	B000		STATION COMMANDS				
	45056	B000	1	Firmware Reset			5, 15	
	45057	B001	1	Statistics Reset			5, 15	
	45058	B002	1	Not implemented	0=not implemented	1	5, 15	
	45059	B003	1	Not implemented	0=not implemented	1	5, 15	
	45060	B004	1	Not implemented	0=not implemented	1	5, 15	
	45061	B005	1	Not implemented	0=not implemented	1	5, 15	
	45062	B006	1	EVPlug charge authorization	1=Charge permited, 0=Charge not permited (by default, possition befor each charge process) This bit control the autorisation of charge. You can stop/start the charge with this bit. Take care, the EV can take time (> 30s) in order to respond to the charge request. if you stop the charge, the EVPlug stays locked and goes in waiting state.	1	5, 15	
	45063	B007	1	EVPlug disable	1=Enable (by default), 0=Disable This bit is able to activate/desactivate the detection of the EVPlug. If the EVPlug is already detected (in charge, waiting …) and you desactivate, the EV plug will be unlocked and stopped.	1	5, 15	
	45064	B008	2	EV Charging Level 1 (bit 1) - LSb EV Charging Level 2 (bit 2) - MSb	00 = 100%, 01 = 75%, 10 = 50%, 11 = 50% Off set	1	15	
	45066	B00A	1	DomPlug charge authorization	1=Charge permited, 0=Charge not permited (by default, possition befor each charge process) This bit control the autorisation of charge. You can stop/start the charge with this bit. If you stop the charge, the Domplug goes in waiting state.	1	5, 15	
	45067	B00B	1	DomPlug disable	1=Enable (by default), 0=Disable This bit is able to activate/desactivate the detection of the DomPlug. If the DomPlug is already detected (in charge, waiting …) and you desactivate, the DomPlug will be stopped.	1	5, 15	
	45068	B00C	1	Start/Stop	1=START (led on), 0=STOP (led off) Control the push button on the HMI, when there is no plug connected this bit doesn't change	1	5, 15	
	45069	B00D	1	Not implemented	0=not implemented	1	5, 15	
	45070	B00E	3	EV Charging additionnal Level 1 - LSb EV Charging additionnal Level 2 EV Charging additionnal Level 3 - MSb	According to the register B008 value, this one is used to add additional level of charge. 000 = +0%, 001 = +5%, 010 = +10%, 011 = +15%, 100 = +20% Example: B008 value 11 = 50% AND B00E value 011 = +15% => EV Charging level = 65%	1	15	

Register Number	Register Address (Dec)	Register Address (Hex)	Dimension [word]	Bit Position	Description	Type	Scale	Unit	Range	Note	Read Function Code (Dec)	Data Storing (2)
	45056	B000			STATION REGISTERS							
	45056	B000	1	0x0001 : Error condition detected 0x0002 : Charge request 0x0004 : Charge in progress 0x0008 : Charge waiting 0x0010 : RFID read 0x0020 : Date and time request 0x0040 : Remote identification request 0x0100 : EVPlug charge process (1=active, 0=inactive) 0x0200 : EVPlug inserted 0x0400 : EVPlug contactor closed 0x0800 : EVPlug locked 0x1000 : DomPlug charge process (1=active, 0=inactive) 0x2000 : DomPlug inserted 0x4000 : DomPlug contactor closed	Station State : Charge request = 1, just after a connection ; Charge request = 0 if the Charging station receives an authorisation (COILS register B006 or B00A) ; Charge in progress = depending of the contactor position ; Charge waiting = 1, just after the charge request and waiting the EV charge authorisation side ;						4	
	45057	B001	1	0x0001 : Main power failure 0x0002 : Low battery voltage 0x0010 : EVPlug locking system malfunction (unlock) 0x0020 : EVPlug locking system malfunction (lock) 0x0040 : EVPlug maximum charging current exceeded 0x0080 : EVPlug CP Failure detected (EV/cable/EVSE side) 0x0100 : EVPlug CP Failure detected (EVSE side) 0x0200 : EVPlug PP non-standard value detected 0x0400 : EVPlug diode not detected on EV side 0x0800 : EVPlug contactor failure 0x1000 : DomPlug maximum charging current exceeded 0x2000 : 6mA failure detection	Station Errors 0x2000 : 6mA failure detection is only available on the ref. 0 580 XX and 0 590 05/06/07/08/09/70/71						4	Y
	45058	B002	5		Last UserID Read (if no RFID=0000 0000 0000 0000 0000)						4	
	45063	B007	1		Backup Battery Voltage Level	unsigned integer	1/100	V	0..1500		4	
	45064	B008	1	0x0001 : Two side version 0x0002 : RFID reader (activate=1, not=0) 0x0004 : EVPlug lock (present=1, absent=0) 0x0008 : Ventilation system (yes=1, no=0) 0x0010 : Three phase (3P=1, 1P=0) 0x0020 : Type station (Plastic=1, metalic=0) 0x0040: DOMPlug (present=1, absent=0) 0x0080: Current range (1=32to25to20to16A, 0=20to16A)	Hw Configuration						4	Y
	45065	B009	3		Serial Number (1st word Serial number, 2nd word Manufacturing date, 3rd word Reference)						4	Y
	45068	B00C	1		Rated Current	unsigned integer	1/100	A	0..8000		4	
	45069	B00D	2		HW Version				n.n.n.n		4	Y
	45071	B00F	2		SW Version				n.n.n.n		4	Y
	45073	B011	1		Max Assignable Charging Current	unsigned integer	1/100	A	0..8000	(3)	4	Y
	45074	B012	1		Phase 1 Instant Current (R)	unsigned integer	1/100	A	0..8000		4	
	45075	B013	1		Phase 2 Instant Current (S)	unsigned integer	1/100	A	0..8000		4	
	45076	B014	1		Phase 3 Instant Current (T)	unsigned integer	1/100	A	0..8000		4	
	45077	B015	1		Phase 1 Average Current (R)	unsigned integer	1/100	A	0..8000		4	
	45078	B016	1		Phase 2 Average Current (S)	unsigned integer	1/100	A	0..8000		4	
	45079	B017	1		Phase 3 Average Current (T)	unsigned integer	1/100	A	0..8000		4	
	45080	B018	1		Phase 1 Max Peak Current (R)	unsigned integer	1/100	A	0..8000		4	
	45081	B019	1		Phase 2 Max Peak Current (S)	unsigned integer	1/100	A	0..8000		4	
	45082	B01A	1		Phase 3 Max Peak Current (T)	unsigned integer	1/100	A	0..8000		4	
	45083	B01B	2		Actual Charging Time	unsigned integer	1	sec	0..4294967295		4	
	45085	B01D	2		Actual Idle Time	unsigned integer	1	sec	0..4294967295		4	
	45087	B01F	2		Actual Waiting Time	unsigned integer	1	sec	0..4294967295		4	
	45089	B021	5		UserID currently served (if no RFID=0000 0000 0000 0000 0000)						4	
	45094	B026	2		Total number of charge				0..4294967295		4	Y
	45096	B028	1		Total Average charging current (Full price)	unsigned integer	1/100	A	0..8000		4	Y
	45097	B029	1		Total Average charging current (Low cost price)	unsigned integer	1/100	A	0..8000		4	Y
	45098	B02A	2		Total charging time (Full price)	unsigned integer	1	sec	0..4294967295		4	Y
	45100	B02C	2		Total charging time (Low cost price)	unsigned integer	1	sec	0..4294967295		4	Y

	45102	B02E			HISTORIC STATION REGISTERS							
N°1	45102	B02E	2		Charge ID				0..4294967295		4	Y
	45104	B030	5		UserID (if no RFID=0000 0000 0000 0000 0000)						4	Y
	45109	B035	2	**First Word** 0x0001 : Plug type (1=EV,0=Dom) 0x0002 : 0x0004 : Charge state (1=terminated) 0x0008 : Main Power Failure 0x0010 : Generic HW error (recoverable) 0x0020 : Generic HW error (non-recoverable) 0x0040 : Phase charge (1=Three,0=Mono) **Second Word** 0x0001 : EVPlug locking system malfunction (unlock) 0x0002 : EVPlug locking system malfunction (lock) 0x0004 : EVPlug maximum charging current exceeded 0x0008 : EVPlug CP Failure detected (EV/cable/EVSE side) 0x0010 : EVPlug CP Failure detected (EVSE side) 0x0020 : EVPlug PP non-standard value detected 0x0040 : EVPlug diode not detected on EV side 0x0080 : EVPlug contactor failure 0x0100 : DomPlug maximum charging current exceeded	Charge Properties					4	Y
	45111	B037	4		Date and Time IN					1 Word (MSW): DD-MM 2 Word : YYYY 3 Word : hh-mm 4 Word (LSW) : ss-(nd)	4	Y
	45115	B03B	4		Date and Time OUT					1 Word (MSW): DD-MM 2 Word : YYYY 3 Word : hh-mm 4 Word (LSW) : ss-(nd)	4	Y
	45119	B03F	1		Phase 1 Average Current (R)	unsigned integer	1/100	A	0..8000		4	Y
	45120	B040	1		Phase 2 Average Current (S)	unsigned integer	1/100	A	0..8000		4	Y
	45121	B041	1		Phase 3 Average Current (T)	unsigned integer	1/100	A	0..8000		4	Y
	45122	B042	1		Phase 1 Max Peak Current (R)	unsigned integer	1/100	A	0..8000		4	Y
	45123	B043	1		Phase 2 Max Peak Current (S)	unsigned integer	1/100	A	0..8000		4	Y
	45124	B044	1		Phase 3 Max Peak Current (T)	unsigned integer	1/100	A	0..8000		4	Y
	45125	B045	2		Charging Time	unsigned integer	1	sec	0..4294967295		4	Y
	45127	B047	2		Waiting Time	unsigned integer	1	sec	0..4294967295		4	Y
N°2	45129	B049	27									Y
N°3	45156	B064	27									Y
N°4	45183	B07F	27									Y
N°5	45210	B09A	27									Y
N°6	45237	B0B5	27									Y
N°7	45264	B0D0	27									Y
N°8	45291	B0EB	27									Y
N°9	45318	B106	27									Y
N°10	45345	B121	27									Y

20481	**20480**	**5000**	**114**		**Three-phase Electric Measurement**							
	20480	5000	2		Phase 1 Current Value (R)	unsigned integer	1/100	A		Expressed on "numeric coding"; without mark	4	
	20482	5002	2		Phase 2 Current Value (S)	unsigned integer	1/100	A		Expressed on "numeric coding"; without mark	4	
	20484	5004	2		Phase 3 Current Value (T)	unsigned integer	1/100	A		Expressed on "numeric coding"; without mark	4	
	20486	5006	52		RESERVED (all return "8000h")							
	20538	503A	2		Three-phase Active Power	unsigned integer	1/100	W		Expressed on "numeric coding"; without mark	4	
	20540	503C	11		RESERVED (all return "8000h")							
	20551	5047	2		Phase 1 Active Power	unsigned integer	1/100	W		Expressed on "numeric coding"; without mark	4	
	20553	5049	2		Phase 2 Active Power	unsigned integer	1/100	W		Expressed on "numeric coding"; without mark	4	
	20555	504B	2		Phase 3 Active Power	unsigned integer	1/100	W		Expressed on "numeric coding"; without mark	4	
	20557	504D	35		RESERVED (all return "8000h")							
	20592	5070	2		Positive Three-phase Active Energy	unsigned integer	1	Wh		Expressed on "numeric coding"; without mark	4	Y

Register Number	Register Address (Dec)	Register Address (Hex)	Dimension [word]	Bit Position	Description	Scale	Unit	Range	Note	Read Function Codes (Dec)	Write Function Codes (Dec)	Data Storing (2)
	45056	B000			STATION SETTINGS							
	45056	B000	4		System Date and time (in RW)				1 Word (MSW): GG-MM 2 Word: AAAA 3 Word: hh-mm 4 Word (LSW): ss-(nd)	3	6, 16	
	45060	B004	2		Not implemented					3	6, 16	
	45062	B006	2		Not implemented					3	6, 16	