Duravolt Plug-In thuisbatterij 485 protocol

Protocol specification:
Standard Modbus RTU Protocol
Modbus default Address: 1
baud:115200, 8bit, No parity bit, 1bit Stopbit

version	**time**	**change**
v1.0	30-07-2024	first version
v1.1		add 32104 32105

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Address

Function	ID(DEC)	ID(HEX)	name	bytes	vlaue type	gain/unit	Description	Read out	mean
0x03	31000	7918	device name	20	char	/			
	31100	797C	soft version	2	u16	0.01		103(DEC)	1.03
	31200	79E0	SN code	20	char	/			
	32100	7D64	battery voltage(average)	2	u16	0.01V		5120(DEC)	51.2V
	32101	7D65	battery current(average)	2	s16	0.01A		1502(DEC)	15.02A
	32102	7D66	battery power	4	s32	1W		2500(DEC)	2500W
	32104	7D68	battery SOC	2	u16	0.1%		500(DEC)	50%
	32105	7D69	battery total energy	2	u16	0.001kwh		2500(DEC)	2.5kwh
	32200	7DC8	AC voltage	2	u16	0.1V		2200(DEC)	220V
	32201	7DC9	AC current	2	u16	0.01A		350(DEC)	3.5A
	32202	7DCA	AC power	4	s32	W	positive vlaue means feeds power into the grid	1000(DEC)	1000W
	32204	7DCC	AC frequency	2	u16	0.01hz		5000(DEC)	50HZ
	32300	7E2C	AC offgrid voltage	2	u16	0.1V		2200(DEC)	220V
	32301	7E2D	AC offgrid current	2	u16	0.01A		350(DEC)	3.5A
	32302	7E2E	AC offgrid power	4	s32	W		1000(DEC)	1000W
	33000	80E8	total charging energy	4	u32	0.01kWh		100000(DEC)	1000kWh
	33002	80EA	total discharging energy	4	u32	0.01kWh		100000(DEC)	1000kWh
	33004	80EC	daily charging energy	4	u32	0.01kWh	updated daily at 00:00	500(DEC)	5kWh
	33006	80EE	daily discharging energy	4	u32	0.01kWh	updated daily at 00:00	2000(DEC)	20kWh
	33008	80F0	monthly charging energy	4	u32	0.01kWh	updated on 1st of each month	10000(DEC)	100kWh
	33010	80F2	monthly discharging energy	4	u32	0.01kWh	updated on 1st of each month	10000(DEC)	100kWh
	35000	88B8	internal temperature	2	s16	0.1℃		373(DEC)	37.3℃
	35001	88B9	internal MOS1 temperature	2	s16	0.1℃		257(DEC)	25.7℃
	35002	88BA	internal MOS2 temperature	2	s16	0.1℃		257(DEC)	25.7℃
	35010	88C2	max cell temperature	2	s16	0.1℃		-32(DEC)	-3.2℃
	35011	88C3	min cell temperature	2	s16	0.1℃		400(DEC)	40℃
	35100	891C	inverter state	2	u16	/	0:sleep 1:standby 2:charge 3:discharge 4:backup mode 5:OTA upgrade	2	charge
	35110	8926	battery charge voltage limit	2	u16	100mv		120(DEC)	12V
	35111	8927	battery charge current limit	2	u16	100ma		50(DEC)	5A
	35112	8928	battery discharge current limit	2	u16	100ma		50(DEC)	5A
	36000	8CA0	alarm word	2	bit	/	see at ex_info		
	36100	8D04	fault word	4	bit	/	see at ex_info		

Address

0x03/0x06/0x10	41000	A028	device restart	2	u16	/	0x55aa: reset		
	41100	A08C	modbus address	2	u16	/	modbus address [1,255]		
	41200	A0F0	backup function	2	u16	/	whether to enable the backup function0: enable 1: disable		
	42000	A410	rs485 control mode	2	u16	/	reg 42000-42999 only work before enable this reg 0x55aa: enable 485 control mode // 0x55bb: disable 485 control mode	0x55bb(HEX)	enable 485 control mode
	42010	A41A	forcible charge/discharge	2	u16	/	0:stop 1:charge 2:Discharge		
	42011	A41B	charge to SOC	2	u16	1%	Force charge and discharge to the target SOC, and turn off the SOC when finished.[10,100%]. (Enabling this mode turns off the forced charge and discharge mode)	500(DEC)	0,5
	42020	A424	forcible charge power	2	u16	W	range:[0, 2.5kW]	2000(DEC)	2000W
	42021	A425	forcible discharge power	2	u16	W	range:[0, 2.5kW]	2000(DEC)	2000W
	43000	A7F8	user work mode	2	u16	W	0:manual 1:anti-feed 2:trade mode		
	43100	A85C	discharge time1 week	2	bit	/	bit1: Monday bit2:Tuesday bit3: Wednesday bit4: Thursday bit5:Friday bit6: Saturday bit7:Sunday	3(HEX)	work at Monday and Tuesday
	43101	A85D	discharge time1 start	2	u16	hour:min	range:[0,2359]	800(DEC)	start at 8:00
	43102	A85E	discharge time1 end	2	u16	hour:min	range:[0,2359]the end time must be longer than the start time	1730(DEC)	end at 17:30
	43103	A85F	discharge time1 power	2	s16	W	range[-2500,2500] postive means discharge	2000(DEC)	2000W
	43104	A860	discharge time1 enable	2	u16	/	0: disable 1:enable		
	43105	A861	discharge time2 week	2	bit	/	same as time1		
	43106	A862	discharge time2 start	2	u16	/	same as time1		
	43107	A863	discharge time2 end	2	u16	/	same as time1		
	43108	A864	discharge time2 power	2	s16	/	same as time1		
	43109	A865	discharge time2 enable	2	u16	/	same as time1		
	43110	A866	discharge time3 week	2	bit	/	same as time1		
	43111	A867	discharge time3 start	2	u16	/	same as time1		
	43112	A868	discharge time3 end	2	u16	/	same as time1		
	43113	A869	discharge time3 power	2	s16	/	same as time1		
	43114	A86A	discharge time3 enable	2	u16	/	same as time1		
	43115	A86B	discharge time4 week	2	bit	/	same as time1		
	43116	A86C	discharge time4 start	2	u16	/	same as time1		
	43117	A86D	discharge time4 end	2	u16	/	same as time1		
	43118	A86E	discharge time4 power	2	s16	/	same as time1		
	43119	A86F	discharge time4 enable	2	u16	/	same as time1		
	43120	A870	discharge time5 week	2	bit	/	same as time1		
	43121	A871	discharge time5 start	2	u16	/	same as time1		
	43122	A872	discharge time5 end	2	u16	/	same as time1		
	43123	A873	discharge time5 power	2	s16	/	same as time1		
	43124	A874	discharge time5 enable	2	u16	/	same as time1		
	43125	A875	discharge time6 week	2	bit	/	same as time1		
	43126	A876	discharge time6 start	2	u16	/	same as time1		
	43127	A877	discharge time6 end	2	u16	/	same as time1		
	43128	A878	discharge time6 power	2	s16	/	same as time1		
	43129	A879	discharge time6 enable	2	u16	/	same as time1		
	44000	ABE0	charging cutoff capacity	2	u16	0.1%	range:[80,100%]	930(DEC)	93.0%
	44001	ABE1	discharging cutoff capacity	2	u16	0.1%	range:[12,30%]	150(DEC)	15.0%
	44002	ABE2	max charge power	2	u16	W	range:[0,2.5kW]	800(DEC)	800W
	44003	ABE3	max discharge power	2	u16	W	range:[0,2.5kW]	2000(DEC)	2000W

Info

ID	bit	describs	value
36000 alarm code	Bit 0	PLL Abnormal Restart	0 : Normal 1 : Abnormal
	Bit 1	Overtemperature Limit	0 : Normal 1 : Abnormal
	Bit 2	Low Temperature Limit	0 : Normal 1 : Abnormal
	Bit 3	Fan Abnormal Warning	0 : Normal 1 : Abnormal
	Bit 4	Low Battery SOC Warning	0 : Normal 1 : Abnormal
	Bit 5	Output Overcurrent Warning	0 : Normal 1 : Abnormal
	Bit 6	Abnormal Line Sequence Detection	0 : Normal 1 : Abnormal
	Bit 7	Reserve	Reserve
	Bit 8	Reserve	Reserve
	Bit 9	Reserve	Reserve
	Bit 10	Reserve	Reserve
	Bit 11	Reserve	Reserve
	Bit 12	Reserve	Reserve
	Bit 13	Reserve	Reserve
	Bit 14	Reserve	Reserve
	Bit 15	Reserve	Reserve

ID	bit	describs	value
36100 fault word	Bit 0	Grid overvoltage	0 : Normal 1 : Abnormal
	Bit 1	Grid undervoltage	0 : Normal 1 : Abnormal
	Bit 2	Grid overfrequency	0 : Normal 1 : Abnormal
	Bit 3	Grid underfrequency	0 : Normal 1 : Abnormal
	Bit 4	Grid peak voltage abnormal	0 : Normal 1 : Abnormal
	Bit 5	Current Dcover	0 : Normal 1 : Abnormal
	Bit 6	Voltage Dcover	0 : Normal 1 : Abnormal
	Bit 7	Reserve	Reserve
	Bit 8	Reserve	Reserve
	Bit 9	Reserve	Reserve
	Bit 10	Reserve	Reserve
	Bit 11	Reserve	Reserve
	Bit 12	Reserve	Reserve
	Bit 13	Reserve	Reserve
	Bit 14	Reserve	Reserve
	Bit 15	Reserve	Reserve

ID	bit	describs	value
44100 Grid standards	/	0	AUTO (220-240) (50/60hz)
		1	EN50549 EN50549
		2	nl-Netherlands
		3	de-Germany
		4	at-Austria
		5	uk-England
		6	es-Spain
		7	pl-Poland
		8	it-Italy
		9	cn-China

ID	bit	describs	value
36001 alarm code	Bit 0	WIFI abnormal	0 : Normal 1 : Abnormal
	Bit 1	BLE abnormal	0 : Normal 2 : Abnormal
	Bit 2	Network abnormal	0 : Normal 3 : Abnormal
	Bit 3	CT connection abnormal	0 : Normal 3 : Abnormal
	Bit 4	Reserve	Reserve
	Bit 5	Reserve	Reserve
	Bit 6	Reserve	Reserve
	Bit 7	Reserve	Reserve
	Bit 8	Reserve	Reserve
	Bit 9	Reserve	Reserve
	Bit 10	Reserve	Reserve
	Bit 11	Reserve	Reserve
	Bit 12	Reserve	Reserve
	Bit 13	Reserve	Reserve
	Bit 14	Reserve	Reserve
	Bit 15	Reserve	Reserve

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Info

ID	bit	describs	value
36101 fault word	Bit 0	BAT overvoltage	0 : Normal 1 : Abnormal
	Bit 1	BAT undervoltage	0 : Normal 1 : Abnormal
	Bit 2	BAT overcurrent	0 : Normal 1 : Abnormal
	Bit 3	BAT low SOC	0 : Normal 1 : Abnormal
	Bit 4	BAT communication failure	0 : Normal 1 : Abnormal
	Bit 5	BMS protect	0 : Normal 1 : Abnormal
	Bit 6	Reserve	Reserve
	Bit 7	Reserve	Reserve
	Bit 8	Reserve	Reserve
	Bit 9	Reserve	Reserve
	Bit 10	Reserve	Reserve
	Bit 11	Reserve	Reserve
	Bit 12	Reserve	Reserve
	Bit 13	Reserve	Reserve
	Bit 14	Reserve	Reserve
	Bit 15	Reserve	Reserve

ID	bit	describs	value
36103 fault word	Bit 0	hardware Bus overvoltage	0 : Normal 1 : Abnormal
	Bit 1	hardware Output overcurrent	0 : Normal 1 : Abnormal
	Bit 2	hardware trans overcurrent	0 : Normal 1 : Abnormal
	Bit 3	hardware Battery overcurrent	0 : Normal 1 : Abnormal
	Bit 4	Hardware protection	0 : Normal 1 : Abnormal
	Bit 5	Output overcurrent	0 : Normal 1 : Abnormal
	Bit 6	High voltage bus overvoltage	0 : Normal 1 : Abnormal
	Bit 7	High voltage bus udnervoltage	0 : Normal 1 : Abnormal
	Bit 8	Overpower protection	0 : Normal 1 : Abnormal
	Bit 9	FSM abnormal	0 : Normal 1 : Abnormal
	Bit 10	Overtemperature protection	0 : Normal 1 : Abnormal
	Bit 11	Inverter soft start timeout	0 : Normal 1 : Abnormal
	Bit 12	Reserve	Reserve
	Bit 13	Reserve	Reserve
	Bit 14	Reserve	Reserve
	Bit 15	Reserve	Reserve

ID	bit	describs	value
36104 fault word	Bit 0	self-test fault	0 : Normal 1 : Abnormal
	Bit 1	eeprom fault	0 : Normal 1 : Abnormal
	Bit 2	other system fault	0 : Normal 1 : Abnormal
	Bit 3	Reserve	Reserve
	Bit 4	Reserve	Reserve
	Bit 5	Reserve	Reserve
	Bit 6	Reserve	Reserve
	Bit 7	Reserve	Reserve
	Bit 8	Reserve	Reserve
	Bit 9	Reserve	Reserve
	Bit 10	Reserve	Reserve
	Bit 11	Reserve	Reserve
	Bit 12	Reserve	Reserve
	Bit 13	Reserve	Reserve
	Bit 14	Reserve	Reserve
	Bit 15	Reserve	Reserve

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