BT 20000 Single output series: Register list for devices with KE firmware from V1.2.0 (Check for the hardest version in your device's Bmv-Ks software: Bmv-ks-106, Bmv-ks-206, Bmv-ks-306, Bmv-ks-406)

Modbus protocol offset	Modbus protocol offset (hexadecimal)	Writeable (Yes/No)	Modbus protocol data type	Modbus protocol data type (hexadecimal)	Description	Scaling	Units	Scaling for Bmv-Ks Tower	Type of value	Class	Examples	BTSoCPC Data Solutions
0	0000	-	-	-	-	-	-	-	-	-	-	-
1	0001	-	-	-	Device class	1	enum	-	-	-	See programming guide in section "A"	0x8000-01-C1
2	0002	-	-	-	Serial number	1	char	-	-	-	BT-20000-1000	0x8000-01-C2
3	0003	-	-	-	-	-	-	-	-	-	-	0x8000-01-C3
4	0004	-	-	-	Manufacturer	1	char	-	-	-	BOSCH	0x8000-01-C4
5	0005	-	-	-	Manufacturer: DF code	1	char	-	-	-	BOSCH	0x8000-01-C5
6	0006	-	-	-	Manufacturer: Production date	1	char	-	-	-	2023-01-01	0x8000-01-C6
7	0007	-	-	-	Manufacturer: Hardware version	1	char	-	-	-	1.0.0	0x8000-01-C7
8	0008	-	-	-	Device software	1	char	-	-	-	Flashing kernel version: B231Dev	0x8000-01-C8
9	0009	-	-	-	Bootloader version	1	char	-	-	-	Flashing kernel version: B231Dev	0x8000-01-C9
10	0010	-	-	-	Hardware version	1	char	-	-	-	1.0.0	0x8000-01-CA
11	0011	-	-	-	Serial number	1	char	-	-	-	0000	0x8000-01-CB
12	0012	-	-	-	Article no.	1	char	-	-	-	0011	0x8000-01-CC
13	0013	-	-	-	Article no.	1	char	-	-	-	0011-0011	0x8000-01-CD
14	0014	-	-	-	Serial no.	1	char	-	-	-	12345678901	0x8000-01-CE
15	0015	-	-	-	Info text	16	char	-	-	-	-	0x8000-01-CF
16	0016	-	-	-	Firmware version (BK)	1	char	-	-	-	1.0.0	0x8000-01-D0
17	0017	-	-	-	Firmware version (VE.Direct)	1	char	-	-	-	1.0.0	0x8000-01-D1
18	0018	-	-	-	Full software version	1	char	-	-	-	1.0.0	0x8000-01-D2
19	0019	-	-	-	-	-	-	-	-	-	-	-
20	0020	R	-	-	Remote mode	1/10	enum	-	-	-	Car Alternator	0x8000-01-F4
21	0021	R	-	-	Current offset	1/10	mA	-	-	-	Car Alternator	0x8000-01-F5
22	0022	R	-	-	Current of DC subpanel after power-on	1/10	mA	-	-	-	Car Adblue	0x8000-01-F6
23	0023	R	-	-	Current of DC subpanel after switching the device	1/10	mA	-	-	-	Power	0x8000-01-F7
24	0024	R	-	-	Operation mode (Car/Power)	1	enum	-	-	-	Car Alternator	0x8000-01-F8
25	0025	R	-	-	Switch-on mode (Auto/Switch)	1	enum	-	-	-	Auto	0x8000-01-F9
26	0026	R	-	-	Alternator current	1/10	mA	-	-	-	Car Alternator	0x8000-01-FA
27	0027	R	-	-	Current of DC subpanel after leaving remote	1/10	mA	-	-	-	Car Alternator	0x8000-01-FB
28	0028	R	-	-	Current limit	1/10	mA	-	-	-	0 to 1 Ampere	0x8000-01-FC
29	0029	R	-	-	Current of DC subpanel	1/10	mA	-	-	-	Current and voltage table	0x8000-01-FD
30	0030	R	-	-	Battery Sense Voltage	100	mV	-	-	-	Car Condition	0x8000-01-FE
31	0031	R	-	-	Battery Sense Temperature	100	mK	-	-	-	Car Condition	0x8000-01-FF
32	0032	R	-	-	Active Mode/Inverter Power	1	W	-	-	-	Car Alternator	0x8000-02-00
33	0033	R	-	-	Alternator voltage	100	mV	-	-	-	Car Alternator	0x8000-02-01
34	0034	R	-	-	Alternator current	100	mA	-	-	-	Car Alternator	0x8000-02-02
35	0035	R	-	-	Alternator power	100	W	-	-	-	Car Alternator	0x8000-02-03
36	0036	R	-	-	Starter battery voltage	100	mV	-	-	-	Car Condition	0x8000-02-04
37	0037	R	-	-	Starter battery current	100	mA	-	-	-	Car Condition	0x8000-02-05
38	0038	R	-	-	Starter battery power	100	W	-	-	-	Car Condition	0x8000-02-06
39	0039	R	-	-	Alternator voltage	100	mV	-	-	-	Car Alternator	0x8000-02-07
40	0040	R	-	-	Alternator current	100	mA	-	-	-	Car Alternator	0x8000-02-08
41	0041	R	-	-	Alternator power	100	W	-	-	-	Car Alternator	0x8000-02-09
42	0042	R	-	-	Alternator voltage	100	mV	-	-	-	Car Alternator	0x8000-02-0A
43	0043	R	-	-	Alternator current	100	mA	-	-	-	Car Alternator	0x8000-02-0B
44	0044	R	-	-	Alternator power	100	W	-	-	-	Car Alternator	0x8000-02-0C
45	0045	R	-	-	-	-	-	-	-	-	-	-
46	0046	R	-	-	Error current since Modbus Write Events	100	%ref	-	-	-	Flashing point kernel: B231Dev	Current error, longer, short, 10min
47	0047	R	-	-	Error voltage since Modbus Write Events	100	%ref	-	-	-	Flashing point kernel: B231Dev	Voltage error, longer, 10 min
48	0048	R	-	-	Full discharge voltage since Modbus Write Events	100	%ref	-	-	-	Flashing point kernel: B231Dev	Voltage error, longer, 10 min
49	0049	R	-	-	Current offset since Modbus Write Events	100	%ref	-	-	-	Flashing point kernel: B231Dev	Current error, longer, 10 min
50	0050	R	-	-	Operation mode (Car/Power)	1	enum	-	-	-	0000 - 0000 F - Power	0x8000-02-F4
51	0051	R	-	-	Switch-on mode (Auto/Switch)	1	enum	-	-	-	0000 - 0000 F - Auto	0x8000-02-F5
52	0052	R	-	-	Current limit	1/10	mA	-	-	-	0000 - 0000 F - 1000	0x8000-02-F6
53	0053	R	-	-	Current of DC subpanel after power-on	1/10	mA	-	-	-	0000 - 0000 F - 0	0x8000-02-F7
54	0054	R	-	-	Current of DC subpanel after switching	1/10	mA	-	-	-	0000 - 0000 F - 0	0x8000-02-F8
55	0055	R	-	-	Current of DC subpanel after leaving remote	1/10	mA	-	-	-	0000 - 0000 F - 0	0x8000-02-F9
56	0056	R	-	-	Error	1	enum	-	-	-	0 to 1 Ampere	0x8000-02-FA
57	0057	R	-	-	-	-	-	-	-	-	-	-
58	0058	R	-	-	Actual voltage	1	mV(12)	-	-	-	0000 - 0FFF (0 - 10V)	Actual voltage (for translation see programming guide)
59	0059	R	-	-	Actual current	1	mA(12)	-	-	-	0000 - 0FFF (0 - 10V)	Actual current (for translation see programming guide)
60	005A	R	-	-	Actual power	1	W(12)	-	-	-	0000 - 0FFF (0 - 10V)	Actual power (for translation see programming guide)
61	005B	R	-	-	Current state 1	1	enum	-	-	-	0 to 1 Ampere	0x8000-02-FF
62	005C	R	-	-	-	-	-	-	-	-	-	-
63	005D	R	-	-	Alternator voltage, alternator discharge	100	mV	-	-	-	Flashing point kernel: B231Dev	Set value
64	005E	R	-	-	Alternator current, alternator discharge	100	mA	-	-	-	Flashing point kernel: B231Dev	Set value
65	005F	R	-	-	Alternator power, alternator discharge	100	W	-	-	-	Flashing point kernel: B231Dev	Actual value
66	0060	R	-	-	Alternator current, condition	100	mA	-	-	-	Condition	0x8000-1-0-0xhex_0x0001 = idle
67	0061	R	-	-	Alternator voltage, condition	100	mV	-	-	-	Condition	0x8000-1-0-0xhex_0x0002 = starting, 0x0003 = open
68	0062	R	-	-	Alternator power, condition	100	W	-	-	-	Condition	0x8000-1-0-0xhex_0x0004 = bulk
69	0063	R	-	-	Alternator current, condition	100	mA	-	-	-	Car Alternator	0x8000-1-0-0xhex_0x0008 = Trigger boost
70	0064	R	-	-	Alternator voltage, condition	100	mV	-	-	-	Car Alternator	0x8000-1-0-0xhex_0x0010 = Trickle
71	0065	R	-	-	Alternator power, condition	100	W	-	-	-	Flashing point kernel: B231Dev	Actual value
72	0066	R	-	-	-	-	-	-	-	-	-	-
73	0067	R	-	-	Actual voltage (at input Sense 1)	1	mV(12)	-	-	-	0000 - 0FFF (0 - 10V)	Actual voltage (for translation see programming guide)
74	0068	R	-	-	Actual voltage (at input Sense 2)	1	mV(12)	-	-	-	0000 - 0FFF (0 - 10V)	Actual voltage (for translation see programming guide)
75	0069	R	-	-	Actual voltage (at input Sense 3)	1	mV(12)	-	-	-	0000 - 0FFF (0 - 10V)	Actual voltage (for translation see programming guide)
76	006A	-	-	-	-	-	-	-	-	-	-	-
77	006B	R	-	-	Count of DC alternator active power-on	1	enum	-	-	-	0000 - 0FFF	0x8000-03-0A
78	006C	R	-	-	Count of DC alternator active power-off	1	enum	-	-	-	0000 - 0FFF	0x8000-03-0B
79	006D	R	-	-	Count of DC alternator active power-on (protects monitor)	1	enum	-	-	-	0000 - 0FFF	0x8000-03-0C
80	006E	R	-	-	Count of DC alternator active power-off (protects monitor)	1	enum	-	-	-	0000 - 0FFF	0x8000-03-0D
81	006F	R	-	-	Count of DC alternator active power-on	1	enum	-	-	-	0000 - 0FFF	0x8000-03-0E
82	0070	R	-	-	Count of DC alternator active power-off	1	enum	-	-	-	0000 - 0FFF	0x8000-03-0F
83	0071	R	-	-	Count of DC alternator active power-on	1	enum	-	-	-	0000 - 0FFF	0x8000-03-10
84	0072	R	-	-	Count of DC alternator active power-off	1	enum	-	-	-	0000 - 0FFF	0x8000-03-11
85	0073	-	-	-	-	-	-	-	-	-	-	-
86	0074	R	-	-	Alternator current, alternator discharge	100	mA	-	-	-	Flashing point kernel: B231Dev	Set value
87	0075	R	-	-	Alternator voltage, condition	100	mV	-	-	-	Flashing point kernel: B231Dev	Actual value
88	0076	R	-	-	Alternator power, condition	100	W	-	-	-	Flashing point kernel: B231Dev	Actual value
89	0077	R	-	-	Alternator current, condition	100	mA	-	-	-	Condition	0x8000-1-0-0xhex_0x0001 = idle
90	0078	R	-	-	Alternator voltage, condition	100	mV	-	-	-	Condition	0x8000-1-0-0xhex_0x0002 = starting, 0x0003 = open
91	0079	R	-	-	Alternator power, condition	100	W	-	-	-	Condition	0x8000-1-0-0xhex_0x0004 = bulk
92	007A	R	-	-	Alternator current, condition	100	mA	-	-	-	Car Alternator	0x8000-1-0-0xhex_0x0008 = Trigger boost
93	007B	R	-	-	Alternator voltage, condition	100	mV	-	-	-	Car Alternator	0x8000-1-0-0xhex_0x0010 = Trickle
94	007C	R	-	-	Alternator power, idle	100	W	-	-	-	Flashing point kernel: B231Dev	Actual value
95	007D	R	-	-	-	-	-	-	-	-	-	-
96	007E	R	-	-	Alternator voltage (at input Sense 1)	1	mV(12)	-	-	-	0000 - 0FFF (0 - 10V)	Actual voltage (for translation see programming guide)
97	007F	R	-	-	Alternator voltage (at input Sense 2)	1	mV(12)	-	-	-	0000 - 0FFF (0 - 10V)	Actual voltage (for translation see programming guide)
98	0080	R	-	-	Alternator voltage (at input Sense 3)	1	mV(12)	-	-	-	0000 - 0FFF (0 - 10V)	Actual voltage (for translation see programming guide)
99	0081	-	-	-	-	-	-	-	-	-	-	-
100	0082	R	-	-	Count of DC alternator active power-on	1	enum	-	-	-	0000 - 0FFF	0x8000-04-0A
101	0083	R	-	-	Count of DC alternator active power-off	1	enum	-	-	-	0000 - 0FFF	0x8000-04-0B
102	0084	R	-	-	Count of DC alternator active power-on (protects monitor)	1	enum	-	-	-	0000 - 0FFF	0x8000-04-0C
103	0085	R	-	-	Count of DC alternator active power-off (protects monitor)	1	enum	-	-	-	0000 - 0FFF	0x8000-04-0D
104	0086	R	-	-	Count of DC alternator active power-on	1	enum	-	-	-	0000 - 0FFF	0x8000-04-0E
105	0087	R	-	-	Count of DC alternator active power-off	1	enum	-	-	-	0000 - 0FFF	0x8000-04-0F
106	0088	R	-	-	Count of DC alternator active power-on	1	enum	-	-	-	0000 - 0FFF	0x8000-04-10
107	0089	R	-	-	Count of DC alternator active power-off	1	enum	-	-	-	0000 - 0FFF	0x8000-04-11
108	008A	-	-	-	-	-	-	-	-	-	-	-
109	008B	R	-	-	Alternator current, condition	100	mA	-	-	-	Flashing point kernel: B231Dev	Set value
110	008C	R	-	-	Alternator voltage, condition	100	mV	-	-	-	Flashing point kernel: B231Dev	Set value
111	008D	R	-	-	Alternator power, condition	100	W	-	-	-	Flashing point kernel: B231Dev	Actual value
112	008E	-	-	-	-	-	-	-	-	-	-	-
113	008F	R	-	-	Alternator current, alternator discharge	100	mA	-	-	-	Flashing point kernel: B231Dev	Set value
114	0090	R	-	-	Alternator voltage, condition	100	mV	-	-	-	Flashing point kernel: B231Dev	Actual value
115	0091	R	-	-	Alternator power, condition	100	W	-	-	-	Flashing point kernel: B231Dev	Actual value
116	0092	R	-	-	Alternator current, condition	100	mA	-	-	-	Condition	0x8000-1-0-0xhex_0x0001 = idle
117	0093	R	-	-	Alternator voltage, condition	100	mV	-	-	-	Condition	0x8000-1-0-0xhex_0x0002 = starting, 0x0003 = open
118	0094	R	-	-	Alternator power, condition	100	W	-	-	-	Condition	0x8000-1-0-0xhex_0x0004 = bulk
119	0095	R	-	-	Alternator current, condition	100	mA	-	-	-	Car Alternator	0x8000-1-0-0xhex_0x0008 = Trigger boost
120	0096	R	-	-	Alternator voltage, condition	100	mV	-	-	-	Car Alternator	0x8000-1-0-0xhex_0x0010 = Trickle
121	0097	R	-	-	Alternator power, idle	100	W	-	-	-	Flashing point kernel: B231Dev	Actual value
122	0098	-	-	-	-	-	-	-	-	-	-	-
123	0099	R	-	-	Alternator voltage (at input Sense 1)	1	mV(12)	-	-	-	0000 - 0FFF (0 - 10V)	Actual voltage (for translation see programming guide)
124	009A	R	-	-	Alternator voltage (at input Sense 2)	1	mV(12)	-	-	-	0000 - 0FFF (0 - 10V)	Actual voltage (for translation see programming guide)
125	009B	R	-	-	Alternator voltage (at input Sense 3)	1	mV(12)	-	-	-	0000 - 0FFF (0 - 10V)	Actual voltage (for translation see programming guide)
126	009C	-	-	-	-	-	-	-	-	-	-	-
127	009D	R	-	-	Count of DC alternator active power-on	1	enum	-	-	-	0000 - 0FFF	0x8000-05-0A
128	009E	R	-	-	Count of DC alternator active power-off	1	enum	-	-	-	0000 - 0FFF	0x8000-05-0B
129	009F	R	-	-	Count of DC alternator active power-on (protects monitor)	1	enum	-	-	-	0000 - 0FFF	0x8000-05-0C
130	00A0	R	-	-	Count of DC alternator active power-off (protects monitor)	1	enum	-	-	-	0000 - 0FFF	0x8000-05-0D
131	00A1	R	-	-	Count of DC alternator active power-on	1	enum	-	-	-	0000 - 0FFF	0x8000-05-0E
132	00A2	R	-	-	Count of DC alternator active power-off	1	enum	-	-	-	0000 - 0FFF	0x8000-05-0F
133	00A3	R	-	-	Count of DC alternator active power-on	1	enum	-	-	-	0000 - 0FFF	0x8000-05-10
134	00A4	R	-	-	Count of DC alternator active power-off	1	enum	-	-	-	0000 - 0FFF	0x8000-05-11
135	00A5	-	-	-	-	-	-	-	-	-	-	-
136	00A6	R	-	-	Starter battery voltage, condition	100	mV	-	-	-	Condition	0x8000-1-0-0xhex_0x0001 = idle
137	00A7	R	-	-	Starter battery, Enable MA	100	mA	-	-	-	Car 300 cold	0x8000-1-0-0xhex_0x0002 = starting, 0x0003 = open
138	00A8	R	-	-	Starter battery, Condition	100	mA	-	-	-	Car 300 cold	0x8000-1-0-0xhex_0x0004 = bulk
139	00A9	R	-	-	Starter battery, Condition	100	mA	-	-	-	Condition of Alternator	0x8000-1-0-0xhex_0x0008 = Trigger boost
140	00AA	-	-	-	-	-	-	-	-	-	-	0x8000 = Not initialized, 0x8001 = Idle (sleep), 0x8002 = Selfcheck, 0x8004 = Bulk, 0x8008 = Absorption, 0x8010 = Bulk MPPT, 0x8020 = Absorption MPPT, 0x8040 = Equalize, 0x8080 = Hydrogen, 0x8100 = Fully charged, 0x8200 = Fully charged MPPT, 0x8400 = Fully discharged, 0x8800 = Fully discharged MPPT, 0x9000 = Equalize MPPT, 0xa000 = Hydrogen MPPT, 0xc000 = Fully charged MPPT, 0xe000 = Fully discharged MPPT, 0x0a = Alternator mode detected, 0x0b = Alternator mode detected MPPT, 0x0c = Alternator mode detected, 0x0d = Alternator mode detected MPPT, 0x0e = Alternator mode detected, 0x0f = Alternator mode detected MPPT, 0x10 = Alternator mode detected, 0x11 = Alternator mode detected MPPT, 0x12 = Alternator mode detected, 0x13 = Alternator mode detected MPPT, 0x14 = Alternator mode detected, 0x15 = Alternator mode detected MPPT, 0x16 = Alternator mode detected, 0x17 = Alternator mode detected MPPT, 0x18 = Alternator mode detected, 0x19 = Alternator mode detected MPPT, 0x1a = Alternator mode detected, 0x1b = Alternator mode detected MPPT, 0x1c = Alternator mode detected, 0x1d = Alternator mode detected MPPT, 0x1e = Alternator mode detected, 0x1f = Alternator mode detected MPPT, 0x20 = Alternator mode detected, 0x21 = Alternator mode detected MPPT, 0x22 = Alternator mode detected, 0x23 = Alternator mode detected MPPT, 0x24 = Alternator mode detected, 0x25 = Alternator mode detected MPPT, 0x26 = Alternator mode detected, 0x27 = Alternator mode detected MPPT, 0x28 = Alternator mode detected, 0x29 = Alternator mode detected MPPT, 0x2a = Alternator mode detected, 0x2b = Alternator mode detected MPPT, 0x2c = Alternator mode detected, 0x2d = Alternator mode detected MPPT, 0x2e = Alternator mode detected, 0x2f = Alternator mode detected MPPT, 0x30 = Alternator mode detected, 0x31 = Alternator mode detected MPPT, 0x32 = Alternator mode detected, 0x33 = Alternator mode detected MPPT, 0x34 = Alternator mode detected, 0x35 = Alternator mode detected MPPT, 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Alternator mode detected, 0x6f = Alternator mode detected MPPT, 0x70 = Alternator mode detected, 0x71 = Alternator mode detected MPPT, 0x72 = Alternator mode detected, 0x73 = Alternator mode detected MPPT, 0x74 = Alternator mode detected, 0x75 = Alternator mode detected MPPT, 0x76 = Alternator mode detected, 0x77 = Alternator mode detected MPPT, 0x78 = Alternator mode detected, 0x79 = Alternator mode detected MPPT, 0x7a = Alternator mode detected, 0x7b = Alternator mode detected MPPT, 0x7c = Alternator mode detected, 0x7d = Alternator mode detected MPPT, 0x7e = Alternator mode detected, 0x7f = Alternator mode detected MPPT, 0x80 = Alternator mode detected, 0x81 = Alternator mode detected MPPT, 0x82 = Alternator mode detected, 0x83 = Alternator mode detected MPPT, 0x84 = Alternator mode detected, 0x85 = Alternator mode detected MPPT, 0x86 = Alternator mode detected, 0x87 = Alternator mode detected MPPT, 0x88 = Alternator mode detected, 0x89 = Alternator mode detected MPPT, 0x8a = Alternator mode detected, 0x8b = Alternator mode detected MPPT, 0x8c = Alternator mode detected, 0x8d = Alternator mode detected MPPT, 0x8e = Alternator mode detected, 0x8f = Alternator mode detected MPPT, 0x90 = Alternator mode detected, 0x91 = Alternator mode detected MPPT, 0x92 = Alternator mode detected, 0x93 = Alternator mode detected MPPT, 0x94 = Alternator mode detected, 0x95 = Alternator mode detected MPPT, 0x96 = Alternator mode detected, 0x97 = Alternator mode detected MPPT, 0x98 = Alternator mode detected, 0x99 = Alternator mode detected MPPT, 0x9a = Alternator mode detected, 0x9b = Alternator mode detected MPPT, 0x9c = Alternator mode detected, 0x9d = Alternator mode detected MPPT, 0x9e = Alternator mode detected, 0x9f = Alternator mode detected MPPT, 0xa0 = Alternator mode detected, 0xa1 = Alternator mode detected MPPT, 0xa2 = Alternator mode detected, 0xa3 = Alternator mode detected MPPT, 0xa4 = Alternator mode detected, 0xa5 = Alternator mode detected MPPT, 0xa6 = Alternator mode detected, 0xa7 = Alternator mode detected MPPT, 0xa8 = Alternator mode detected, 0xa9 = Alternator mode detected MPPT, 0xaa = Alternator mode detected, 0xab = Alternator mode detected MPPT, 0xac = Alternator mode detected, 0xad = Alternator mode detected MPPT, 0xae = Alternator mode detected, 0xaf = Alternator mode detected MPPT, 0xb0 = Alternator mode detected, 0xb1 = Alternator mode detected MPPT, 0xb2 = Alternator mode detected, 0xb3 = Alternator mode detected MPPT, 0xb4 = Alternator mode detected, 0xb5 = Alternator mode detected MPPT, 0xb6 = Alternator mode detected, 0xb7 = Alternator mode detected MPPT, 0xb8 = Alternator mode detected, 0xb9 = Alternator mode detected MPPT, 0xba = Alternator mode detected, 0xbb = Alternator mode detected MPPT, 0xbc = Alternator mode detected, 0xbd = Alternator mode detected MPPT, 0xbe = Alternator mode detected, 0xbf = Alternator mode detected MPPT, 0xc0 = Alternator mode detected, 0xc1 = Alternator mode detected MPPT, 0xc2 = Alternator mode detected, 0xc3 = Alternator mode detected MPPT, 0xc4 = Alternator mode detected, 0xc5 = Alternator mode detected MPPT, 0xc6 = Alternator mode detected, 0xc7 = Alternator mode detected MPPT, 0xc8 = Alternator mode detected, 0xc9 = Alternator mode detected MPPT, 0xca = Alternator mode detected, 0xcb = Alternator mode detected MPPT, 0xcc = Alternator mode detected, 0xcd = Alternator mode detected MPPT, 0xce = Alternator mode detected, 0xcf = Alternator mode detected MPPT, 0xd0 = Alternator mode detected, 0xd1 = Alternator mode detected MPPT, 0xd2 = Alternator mode detected, 0xd3 = Alternator mode detected MPPT, 0xd4 = Alternator mode detected, 0xd5 = Alternator mode detected MPPT, 0xd6 = Alternator mode detected, 0xd7 = Alternator mode detected MPPT, 0xd8 = Alternator mode detected, 0xd9 = Alternator mode detected MPPT, 0xda = Alternator mode detected, 0xdb = Alternator mode detected MPPT, 0xdc = Alternator mode detected, 0xdd = Alternator mode detected MPPT, 0xde = Alternator mode detected, 0xdf = Alternator mode detected MPPT, 0xe0 = Alternator mode detected, 0xe1 = Alternator mode detected MPPT, 0xe2 = Alternator mode detected, 0xe3 = Alternator mode detected MPPT, 0xe4 = Alternator mode detected, 0xe5 = Alternator mode detected MPPT, 0xe6 = Alternator mode detected, 0xe7 = Alternator mode detected MPPT, 0xe8 = Alternator mode detected, 0xe9 = Alternator mode detected MPPT, 0xea = Alternator mode detected, 0xeb = Alternator mode detected MPPT, 0xec = Alternator mode detected, 0xed = Alternator mode detected MPPT, 0xee = Alternator mode detected, 0xef = Alternator mode detected MPPT, 0xf0 = Alternator mode detected, 0xf1 = Alternator mode detected MPPT, 0xf2 = Alternator mode detected, 0xf3 = Alternator mode detected MPPT, 0xf4 = Alternator mode detected, 0xf5 = Alternator mode detected MPPT, 0xf6 = Alternator mode detected, 0xf7 = Alternator mode detected MPPT, 0xf8 = Alternator mode detected, 0xf9 = Alternator mode detected MPPT, 0xfa = Alternator mode detected, 0xfb = Alternator mode detected MPPT, 0xfc = Alternator mode detected, 0xfd = Alternator mode detected MPPT, 0xfe = Alternator mode detected, 0xff = Alternator mode detected MPPT
141	00AB	-	-	-	-	-	-	-	-	-	-	-
142	00AC	R	-	-	Alternator Current, Alternator Discharge	100	mA	-	-	-	Flashing point kernel: B231Dev	Set value
143	00AD	R	-	-	Alternator Voltage, Condition	100	mV	-	-	-	Flashing point kernel: B231Dev	Actual value
144	00AE	R	-	-	Alternator Power, Condition	100	W	-	-	-	Flashing point kernel: B231Dev	Actual value
145	00AF	R	-	-	Alternator Current, Condition	100	mA	-	-	-	Condition	0x8000-1-0-0xhex_0x0001 = idle
146	00B0	R	-	-	Alternator Voltage, Condition	100	mV	-	-	-	Condition	0x8000-1-0-0xhex_0x0002 = starting, 0x0003 = open
147	00B1	R	-	-	Alternator Power, Condition	100	W	-	-	-	Condition	0x8000-1-0-0xhex_0x0004 = bulk
148	00B2	R	-	-	Alternator Current, Condition	100	mA	-	-	-	Car Alternator	0x8000-1-0-0xhex_0x0008 = Trigger boost
149	00B3	R	-	-	Alternator Voltage, Condition	100	mV	-	-	-	Car Alternator	0x8000-1-0-0xhex_0x0010 = Trickle
150	00B4	-	-	-	-	-	-	-	-	-	-	-
151	00B5	R	-	-	Function group(s) Activity: Start sequence	1	enum	-	-	-	0000F - End sequence	0x8000-06-0A
152	00B6	R	-	-	Function group(s) Activity: Start sequence	1	enum	-	-	-	0000F - End sequence	0x8000-06-0B
153	00B7	R	-	-	Function group(s) Activity: Start sequence (only required for Cube)	1	enum	-	-	-	0000F - End sequence	0x8000-06-0C
154	00B8	R	-	-	Function group(s) Activity: Start sequence (only required for Cube)	1	enum	-	-	-	Car Starter primary-low	0x8000-06-0D
155	00B9	-	-	-	-	-	-	-	-	-	-	-
156	00BA	R	-	-	Function group(s) Activity: Step 0 sequence 1	100	%	-	-	-	Flashing point kernel: B231Dev	Floating point number in IEEE754 format, see device manual for value range, check device manual for application
157	00BB	-	-	-	-	-	-	-	-	-	Bytes 0-3: Delay(s) in s or s.s.	Floating point number in IEEE754 format, see device manual for value range, check device manual for application
158	00BC	-	-	-	-	-	-	-	-	-	Bytes 4-7: Value(s) in s or s.s.	Floating point number in IEEE754 format, see device manual for value range, check device manual for application
159	00BD	-	-	-	-	-	-	-	-	-	Bytes 8-11: Ramp(s) in s/s	Integer in IEEE754 format, 0 - 10000 Hz
160	00BE	-	-	-	-	-	-	-	-	-	Bytes 12-15: Ramp(s) in s/s	Integer in IEEE754 format, 0 - 10000 Hz
161	00BF	-	-	-	-	-	-	-	-	-	Bytes 16-19: Angle in degrees	Floating point number in IEEE754 format, see device manual for value range, check device manual for application
162	00C0	-	-	-	-	-	-	-	-	-	Bytes 20-23: Value(s) in s or s.s.	Floating point number in IEEE754 format, see device manual for value range, check device manual for application
163	00C1	-	-	-	-	-	-	-	-	-	Bytes 24-27: Value(s) in s or s.s.	Floating point number in IEEE754 format, see device manual for value range, check device manual for application
164	00C2	-	-	-	-	-	-	-	-	-	Bytes 28-31: Sequence time in ms	Floating point number in IEEE754 format, 100 ms - 36.000.000.000 ms
165	00C3	R	-	-	Function group(s) Activity: Step 0 sequence 2	100	%	-	-	-	Flashing point kernel: B231Dev	Floating point number in IEEE754 format, see device manual for value range, check device manual for application
166	00C4	-	-	-	-	-	-	-	-	-	Bytes 0-3: Delay(s) in s or s.s.	Floating point number in IEEE754 format, see device manual for value range, check device manual for application
167	00C5	-	-	-	-	-	-	-	-	-	Bytes 4-7: Value(s) in s or s.s.	Floating point number in IEEE754 format, see device manual for value range, check device manual for application
168	00C6	-	-	-	-	-	-	-	-	-	Bytes 8-11: Ramp(s) in s/s	Integer in IEEE754 format, 0 - 10000 Hz
169	00C7	-	-	-	-	-	-	-	-	-	Bytes 12-15: Ramp(s) in s/s	Integer in IEEE754 format, 0 - 10000 Hz
170	00C8	-	-	-	-	-	-	-	-	-	Bytes 16-19: Angle in degrees	Floating point number in IEEE754 format, see device manual for value range, check device manual for application
171	00C9	-	-	-	-	-	-	-	-	-	Bytes 20-23: Value(s) in s or s.s.	Floating point number in IEEE754 format, see device manual for value range, check device manual for application
172	00CA	-	-	-	-	-	-	-	-	-	Bytes 24-27: Value(s) in s or s.s.	Floating point number in IEEE754 format, see device manual for value range, check device manual for application
173	00CB	-	-	-	-	-	-	-	-	-	Bytes 28-31: Sequence time in ms	Floating point number in IEEE754 format, 100 ms - 36.000.000.000 ms
174	00CC	-	-	-	-	-	-	-	-	-	-	-
175	00CD	R	-	-	Function group(s) Activity: Step 0 sequence 3	100	%	-	-	-	Flashing point kernel: B231Dev	Floating point number in IEEE754 format, see device manual for value range, check device manual for application
176	00CE	-	-	-	-	-	-	-	-	-	Bytes 0-3: Delay(s) in s or s.s.	Floating point number in IEEE754 format, see device manual for value range, check device manual for application