

MPE configuration - parameter numbers and descriptions

Name of the parameter	NO.	Description in the bluetooth application	Unit	Default	Permissible
Battery / Current					
Battery capacity	2	BAT_CAP	Ah*10	130	0-999
Number of battery sections	4	BAT_S	S	13	1-35
mV / A current sensor	5	mV/a	mV/A	10	1-100
Current sensor - direction of operation	11	CUR_DIR	0/1	1	0/1
Advanced configuration throttle					
Minimum voltage at the TOT output	8	TOT_MIN	V*100	80	0-400
Maximum voltage at the TOT output	9	TOT_MAX	V*100	400	300-500
Minimum voltage at the TIN input	18	TIN_MIN	V*100	110	110-500
Maximum voltage at the TIN input	19	TIN_MAX	V*100	441	300-500
TOT output cut-off below the battery voltage value (V * 100 for one 305 battery section = 3.05V)	16	LVC	V*100	305	270-420
Speed reading configuration					
Circumference of a wheel	3	PERI	mm	2207	1-9999
Motor / wheel ratio - for mid-drive	14	GEAR	1*10	10	1-99
Number of magnets in the motor	15	MOT_MAG	-	1	1-99
Unit of speed and distance kph or mph	24	SPD_UNIT	0/1	0	0/1
Activation of cruise control					
Cruise control activation time	22	CRU_TIME	ms	3000	1000-5000
Activating cruise control on assist mode 5	46	CRU_ON	0/1	0	0/1
Brake sensor					
Brake sensor direction of operation	41	BRK_DIR	0/1	0	0/1
Deactivation of the brake sensor	43	BRK_ON	0/1	0	0/1
Configuration of temperature reading					
Temperature unit	29	TMP_UNIT	0/1	0	0/1
Type of temperature sensor 1	30	TMP1_TYPE	0/1/2/3/4	0	0/1/2/3/4
Type of temperature sensor 2	31	TMP2_TYPE	0/1/2/3/4	0	0/1/2/3/4
Temperature sensor overheating temperature 2	7	TMP2_OVH	tmp_unit	60	1-60
Temperature sensor overheating temperature 1	17	TMP1_OVH	tmp_unit	140	1-150
Disconnect the TOT output when the temperature is exceeded	20	TMP_STOP	0/1	1	0/1
PAS mode configuration					
Number of magnets in the PAS sensor	26	PAS_MAG	-	10	1-20
The minimum permitted speed at which the PAS will start operating	10	MIN_SPD	SPD_UNIT	3	1-10
Switch between 3 legal modes and 5 full modes	21	LEGAL_ON	0/1	0	0/1
Assist power in mode 1	49	PAS1_PWR	W	75	50-500
Assist power in mode 2	50	PAS2_PWR	W	100	50-500
Assist power in mode 3	28	PAS3_PWR	W	250	50-500
Assist power in mode 4	51	PAS4_PWR	W	350	50-500
Speed limit for legal mode	27	SPD LIM	SPD_UNIT	25	15-40
P component of the PID controller for the PAS sensor	32	PAS_P	-	2500	100-10000
I component of the PID controller for the PAS sensor	33	PAS_I	-	19000	10000-65000
D component of the PID controller for the PAS sensor	34	PAS_D	-	110	10-200
Maximum PWM value for PIDOut	23	PWM_MAX	-	140	100-255
Minimum cadence for PAS mode (will not activate PAS below)	47	PAS_C_MIN	obr/min	10	1-20
Maximum cadence for PAS mode (this value will be above)	48	PAS_C_MAX	obr/min	60	30-90
Power limit after exceeding the PAS speed limit. After exceeding the set speed as legal, the more you enter here, the more motor will support - 0 = no support	45	PAS_SPD_F		5	0-15
For the version without OLED display, when set to 1, it causes that pressing the button once changes the support mode. By default, when 0 you need to hold down the button to change the assist mode.	52	BT_BUTTONS	0/1	0	0/1
1 = Activation of the throttle limit in assist modes	53	THR_LIMIT_ON	0/1	0	0/1
Limiting the throttle in mode 1	54	THR_LIMIT_1	%	45	0-100
Limiting the throttle in mode 2	55	THR_LIMIT_2	%	55	0-100
Limiting the throttle in mode 3	56	THR_LIMIT_3	%	65	0-100
Limiting the throttle in mode 4	57	THR_LIMIT_4	%	80	0-100
Limiting the throttle in mode 5	58	THR_LIMIT_5	%	100	0-100
1 = Activation of the need to release the throttle and apply the gas again after using the brake or changing the assist mode. Useful for very strong constructions, where there is a risk that after releasing the brake, the motor will unexpectedly pull the machine forward.	25	THR_RESET_ON	0/1	0	0/1
Automatic activation of legal modes at device startup	6	AUTO_LEGAL	0/1	1	0/1
Speed limit on assistance mode 4	35	MAX_SPD_4	km/h / mph	35	0-999
Voltage divider ratio	12	VOL_DIV	-	32915	30000-35000
Setting current statistics, e.g. from the previous counter (only via bluetooth)					
Total distance	-	DIST	km/mi	0	0-65000
Number of charging cycles	-	NC	Ah*ilosco	0	0-65000

* Especially these parameters should be set so that the MPE device works correctly (individually in each vehicle).