BATCOMMS

GENERAL	DRIVER rev.2 SPECIFICATION
Type	PCB module with heatsink
Usage	Operation of unmanned systems
MECHANICAL & ENVIRONMENTAL	
Dimensions & weight	W: 100 mm L: 175 mm H: 45 mm + heatsink 35 mm; 950 g
IP rating	IP65 with custom enclosure
Operating temp. range	-40...+85 C
Enclosure	Custom enclosure possible
POWER	
Operating voltage	12–36 V
Abs. max voltage	48 V
Max. cont. current	70 A
Max. peak current	120 A
Max. cont. power with passive cooling	1500 W
Max. cont. power with active cooling	3000 W
TRACTION MOTOR	
Traction motor type	brushed DC motor
Voltage	12–36 V
Current	60 A, peak 100 A
Overload protection	dynamic
Short-circuit protection	hardware-based
Encoder feedback	optional; magnetic 14-bit SPI absolute encoder
PID control for speed and power	optional; requires encoder feedback
PID auto-tuning	no
STEERING SERVO	
Steering servo motor type	brushed DC motor
Voltage	12 V
Current	4 A, peak 8 A
Overload protection	dynamic
Short-circuit protection	software-based
Position feedback	required, AB-type incremental encoder or potentiometer feedback
Zero-position sensor	required
Position calibration	required
TEMPERATURE & POWER MANAGEMENT	
Built-in temperature	yes

measurement	
Temp-feedback power control	dynamic
OUTPUTS / INPUTS	
12 V output	11,9–12,1 V, 10 A
12 V controlled switches	3 pcs, 10 A switching current, open-drain
Active cooling control	when active cooling is used, one 12 V controllable output is used for cooling system control
12 V PWM-outputs	no
5 V output	4,85–5,15 V, 3 A
5 V RC-servo outputs	3 pcs; PWM-type control signal, compatible with standard RC servos
Programmable IO-s	5 pcs
INTERFACES	
Serial-port	yes, 3,3 V TTL, full duplex, 8N1, 9600 bit/s – 2 Mbit/s
Serial-protokoll	CRSF, 416 kbit/s
I^2C master	yes, 1 port
CONFIGURING & DEBUGGING	
Configuring	USB-MSD, text-based configuration file
Debugging	USB-HID, closed protocol, manufacturer-provided tools