unjo®

electric motor control systems of Sweden

Enjoy the benefits of
Unjo® Gepard.
Flexible motor control.

GEPARD

- High-end, semistandard motor control unit for 1–6 axes.

- Delivered with customised software.

- More than 100 kHz bandwidth in the current control loop.

- 450 W nominal motor power, drive and controller in one.

- Wide selection of function modules available.

- Encoder, field-bus and other interface options.

Enjoy all the
benefits of full
motor control

Technical specifications

Unjo®Gepard

General: High-end semistandard motor control unit for 12 individually controlled motor phases in PMSM motors, brushless DC motors, 2- or 3-phase step motors or brushed DC motors.

Commutation: BLDC: - Block, with hall sensors or sensorless
- Sinusoidal.

Step motor: Unlimited number of micro steps.

Supply: Nominal 12–75 VDC.

Powerstage: Max 10 A continuously.

Control loop performance:
- speed loop bandwidth 30 kHz
- position loop bandwidth 30 kHz
- current/torque loop bandwidth > 100 kHz
- time domain jitter < 10 ns.

Inputs, 24 VDC: 12 digital inputs for 24 VDC systems. Switching level approx. 7 V.

Inputs, encoder/ hall sencors: 18 channels for encoders with index pulse or digital hall sensors for BLDC; 5 or 10 VDC sensor supply.

Communication: USB 2.0 ; RS-485

Parameter memory (non volatile): Adjustable parameters are arranged according to customer demands.

Dimensions: PCB L x W x H = 195 x 135 x 35 mm.

Additional features/ daughter boards:
Analogue hall sensors.
Analogue differential hall sensors.
Analogue and digital outputs.
Analogue inputs.
Field-bus communication (Real-Time Ethernet, Ethernet, CAN)
Resolver feedback.
Relay/opto-coupled outputs.

Software: A large number of basic modules are available, for example motor control and communication. These are utilised by an overall application software, which is unique for each customer project. The modular design of the basic functions allows the application program to be designed and verified in a very limited period of time. This means that the customer's investment can be kept very low, without increasing the unit cost.

Processor option: Contains Altera NIOS II embedded processor, available for additional customer programming.

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