

Single board micro Board level 20A driver

Catalog number - RD000121

Specifications :

- Sinusoidal(FOC – Field oriented control) and trapezoid drive.
- Hall, Digital SSI. Incremental encoder feedback.
- PID closed loop modes: Position (2khz), speed (4khz), current (20khz) and stepper.
- 20A RMS continues current –with heat sink plate
- RS422 and (RS232,CAN)
- Analog and / or digital commands.
- Firmware upgrade via RS232.
- Protections: Temperature, voltage, encoders, hall, motor stuck more.
- Encoder to Hall on the fly switch-over.
- Comprehensive Error messages.
- 3 digital input. 2 digital outputs.
- Reliable: rigid construction high current 92A 100V Power MOSFETs,
- Hardware short motor winding protection – from hard short
- Operating temperature -40°C to 71°C
- Regeneration protection – 10J/10msec



Typical Single board applications:

- Robotics.
- Automotive.
- Avionics.
- Industrial.

Technical specifications

Function	Parameter	Remarks
CPU and Memory		
CORE	TI -TMS320F-28035	32bits DSP
Flash	128 Kbytes	
RAM	20 Kbytes	
CORE Speed	60Mhz	
Motor Interface		
BLDC 3 phases Bridge Drivers	12 100V@92A	FOC
Motor Current	25A RMS Continues	@room Temp
Hall angle inputs	60°	Open collector/Drain
Output hall devices power	5VDC	@200mA
Encoder Interface-A	SSI or SPI	SDI SDO SCLK
Encoder Interface-B	Digital RS422	CLK A CLK B Index
Motor Current Sense measurement	2 Channels	0-3V 12bits resolution
Adjustable Motor Current limiter	2 Channels	One Over load Point.
General Purpose Interface		
Digital Input / Output	4 Inputs 2 Output Channels	Optically isolated
Analog input (analog command)	1 Channel	±10V / ±5V /0-10V
STO		Not certified
Communication Interface		
CAN BUS	Single CANopen	CAN 2.0B 1Mbit/Sec
UART	1 Channels	RS232 or RS422 comm.
Power Supply		
Operating Voltage	8-48V	
Control Voltage	8V to 48V	
Quiescent Current	45mA @24V	Core @ 60Mhz.
Mechanical dimension		
L(mm) x W(mm) x H(mm), Weight	85.13 x 70.14 x 16.3 – 74g	Including connectors
Environment		
Operating Temperature	-40°c +71°c	Optional –55°c to +85°c
Storage Temperature	-65°c - +150°c	