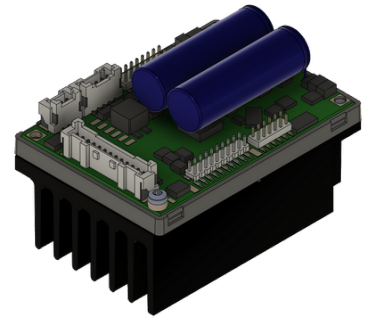


Servo amplifier

mcDSA-B50-Modul-HC

Article number: 1515694



Picture similar

Technical data

Absolute maximum rating (destruction limits)	
Power supply voltage U_p no polarity reversal protection	80 V
Continuous Electronic supply voltage U_e no polarity reversal protection	33 V
Short term peak voltage < 1s U_e no polarity reversal protection	37 V
Power	
Electronic supply voltage U_e	9..30 V
Electronic current consumption@ $U_e=24V^{*1}$	typ. 40 mA
Power supply voltage U_p	9..60 V
Max. output current	25 A
Continuous output current @ $U_p=24V^{*2}$	15 A
Continuous output current @ $U_p=48V^{*2}$	14.5 A
PWM	
Output voltage	90% U_p
PWM frequency	12.5, 25 ^{*3} kHz
Mechanical	
Size LxWxH	75 x 53 x 46 mm
Weight	168 g
Environment	
Protection class	IP00
Ambient temperature (operation)	-40..70 °C
Ambient temperature (storage)	-40..85 °C
Rel. humidity (non-condensing)	5..90 %
CAN bus	
Protocol	DS301
Max. baudrate	1 Mbit/s
CAN specification	2.0B
Galvanically isolated	no

Sensor supply (Hall)	
Output voltage	5 V
Max. output current	0.2 A
Hall sensors	
Signals	H1,H2,H3
Max. frequency (per channel)	10 kHz
Input voltage	0..5 V
Signal type	open collector, single ended
Digital inputs	
Number - digital inputs	4 (Din0..3)
Low voltage	0..5 V
High voltage	8..30 V
Digital outputs	
Number	4 (Dout0..3)
Continuous output current	0.3 A
Load	resistive, inductive
Output voltage	Electronic supply voltage U_e
Signal type	positive switching
Analog inputs	
Number	2 (Ain0..1)
Signal type - Ain	0..10 V, 12 Bit, single ended

*1 power amplifier switched off, 5V output (sensor supply) is free

*2 connector cable with max. possible cable cross-section, PWM frequency 32 kHz, ambient temperature 40 °C (t >40 °C derating), RMS current: 15 A → 12.2 A_{eff}, 14.5 A → 11.8 A_{eff}

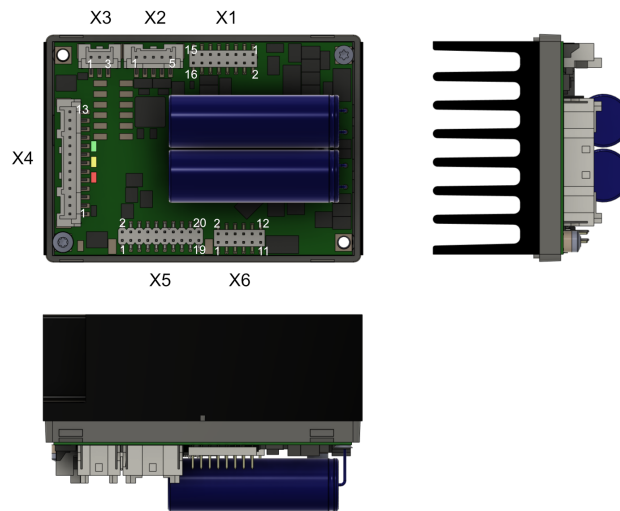
no guarantee, since value is determined empirical, please consider the application notes to determine the continuous current

*3 default value

Additional technical data are available in mcManual.



Scheme



Terminal assignment

X1 Supply		
1	FE	Functional earth
2	FE	Functional earth
3	+Up	Power supply voltage
4	+Up	Power supply voltage
5	+Up	Power supply voltage
6	+Up	Power supply voltage
7	GND	Ground for power supply voltage
8	GND	Ground for power supply voltage
9	GND	Ground for power supply voltage
10	GND	Ground for power supply voltage
11	+Ue24V	Electronic supply voltage
12	+Ue24V	Electronic supply voltage
13	GND	Ground for electronic supply voltage
14	GND	Ground for electronic supply voltage
15	GND	Ground for electronic supply voltage
16	GND	Ground for electronic supply voltage
X2 Analog inputs		
1	Ain0	Analog input 0
2	res.	Reserved
3	Ain1	Analog input 1
4	res.	Reserved
5	res.	Reserved
X3 CAN bus		
1	CAN Hi	CAN High
2	CAN Lo	CAN Low
3	res.	Reserved
X4 Digital inputs/outputs		
1	res.	Reserved
2	Din0	Digital input 0
3	Din1	Digital input 1
4	Din2	Digital input 2
5	Din3	Digital input 3
6	res.	Reserved
7	res.	Reserved
8	res.	Reserved
9	res.	Reserved
10	Dout0	Digital output 0
11	Dout1	Digital output 1
12	Dout2	Digital output 2
13	Dout3	Digital output 3

X5 Hall and inc. encoder		
1	res.	Reserved
2	GND	Ground for sensor supply Notice: don't connect with system GND
3	Erw5	mcSPI expansion signal 5
4	+U5V	5V output voltage for sensor supply Sensors: encoder, hall
5	Erw3	mcSPI expansion signal 3
6	res.	Reserved
7	Erw4	mcSPI expansion signal 4
8	res.	Reserved
9	SpiMISO	mcSPI Master In
10	res.	Reserved
11	Spi/SS	mcSPI Slave Select
12	res.	Reserved
13	SpiMOSI	mcSPI Master Out
14	res.	Reserved
15	SpiCLK	mcSPI Clock
16	H3	Hall sensor 3
17	Erw1	mcSPI expansion signal 1
18	H2	Hall sensor 2
19	Erw2	mcSPI expansion signal 2
20	H1	Hall sensor 1
X6 Motor		
1	Ma	Motor phase A
2	Ma	Motor phase A
3	Ma	Motor phase A
4	Ma	Motor phase A
5	Mb	Motor phase B
6	Mb	Motor phase B
7	Mb	Motor phase B
8	Mb	Motor phase B
9	Mc	Motor phase C
10	Mc	Motor phase C
11	Mc	Motor phase C
12	Mc	Motor phase C