

Servo amplifier

mcDSA-E65

Article number: 1512701

 Certification: 


Picture similar

Technical data

| Supply voltages | |
|--|-------------------------------|
| Electronic supply voltage U_e^{*2} | 9..30 V |
| Electronic current consumption @ $U_e=24V^{*3}$ | typ. 40 mA |
| Power supply voltage U_p^{*4} | 9..60 V |
| Output current | |
| Max. output current | 15 A |
| Continuous output current (certified UL) ^{*5} | |
| @ $U_p=24V$ | 5 A |
| @ $U_p=60V$ | 4.3 A |
| PWM | |
| Output voltage | 100% U_p |
| PWM frequency | 25, 32 ^{*6} , 50 kHz |
| Mechanical | |
| Size LxWxH | 74 x 45 x 17 mm |
| Weight | 30 g |
| Environment | |
| Protection class | IP20 |
| Ambient temperature (operation) (certified UL) | -25..40 °C |
| Ambient temperature (operation) (not certified) | -25..70 °C |
| Ambient temperature (storage) | -25..85 °C |
| Rel. humidity (non-condensing) | 5..90 % |
| CAN bus | |
| Protocol | DS301 |
| Device profile | DS402 |
| Max. baudrate | 1 Mbit/s |
| CAN specification | 2.0B |
| Galvanically isolated | no |
| Sensor supply (Encoder/Hall) | |
| Output voltage | 5 V |
| Max. output current | 0.2 A |

| Incremental encoder | |
|--|--|
| Type | incremental |
| Signals | A,B,Inx |
| Max. frequency (per channel) | 100 kHz |
| Input voltage | 0..5 V |
| Signal type | open collector, single ended |
| Notice | Inx parallel with H3 |
| Hall sensors | |
| Signals | H1,H2,H3 |
| Max. frequency (per channel) | 10 kHz |
| Input voltage | 0..5 V |
| Signal type | open collector, single ended |
| Notice | H3 parallel with Inx |
| Digital inputs | |
| Number (+/-30V tolerant) | 2 (Din0..1) |
| Number (0..30V tolerant) | 1 (Din2) |
| Low voltage | 0..5 V |
| High voltage | 8..30 V |
| Notice | Din2 parallel with Dout0 ^{*7} |
| Digital outputs | |
| Number | 1 (Dout0) |
| Continuous output current (certified UL) | 1.5 A |
| Load | resistive, inductive |
| Output voltage | Electronic supply voltage U_e |
| Signal type | positive switching |
| Notice | Dout0 parallel with Din2 |
| Analog inputs | |
| Number | 1 (Ain0) |
| Signal type | +/- 10 V, 12 Bit, single ended |

*1 The certified performance data must be observed (see UL Instruction Note)

*2 No reverse polarity protection, the destruction limit is at overvoltage of $\geq 33V$ or short-term peak voltage of $37V < 1s$

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

*4 No reverse polarity protection, the destruction limit is at overvoltage of $\geq 80V$

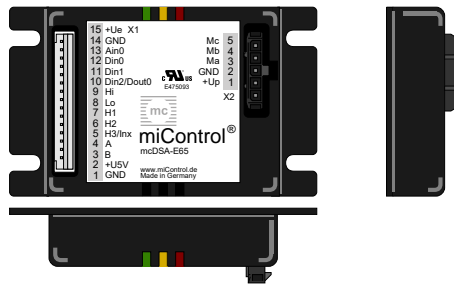
*5 connector cable with max. possible cable cross-section, PWM frequency 32 kHz (asymmetrical), ambient temperature 40 °C, I/O's and 5V output active, RMS current: 5 A \rightarrow 4.1 Aeff, 4.3 A \rightarrow 3.5 Aeff

*6 default value

*7 Input voltage must not exceed Electronic supply voltage U_e

Additional technical data are available in mcManual.

Scheme



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Terminal assignment

| X1 Hall, inc. encoder, I/O's and CAN | | |
|--------------------------------------|------------|---|
| 1 | GND | Ground for sensor supply Notice: don't connect with system GND |
| 2 | +U5V | 5V output voltage for sensor supply Sensors: encoder, hall |
| 3 | B | Inc. encoder, B channel |
| 4 | A | Inc. encoder, A channel |
| 5 | H3/Inx | Hall sensor 3 / Inc. encoder, index channel |
| 6 | H2 | Hall sensor 2 |
| 7 | H1 | Hall sensor 1 |
| 8 | CAN Lo | CAN Low |
| 9 | CAN Hi | CAN High |
| 10 | Din2/Dout0 | Digital input 2 / Digital output 0 |
| 11 | Din1 | Digital input 1 |
| 12 | Din0 | Digital input 0 |
| 13 | Ain0 | Analog input 0 |
| 14 | GND | Ground for electronic supply voltage |
| 15 | +Ue | Electronic supply voltage |
| X2 Motor | | |
| 1 | +Up | Power supply voltage |
| 2 | GND | Ground for power supply voltage |
| 3 | Ma | Motor phase A |
| 4 | Mb | Motor phase B |
| 5 | Mc | Motor phase C |