

Servo amplifier

mcDSA-FS40

Article number: 1516007



Picture similar

Technical data

| Supply voltages | |
|--|------------------------|
| Electronic supply voltage Ue*1 | 9..30 V |
| Electronic current consumption@ Ue=24V*2 | typ. 35 mA |
| Power supply voltage Up*3 | 9..60 V |
| Output current | |
| Max. output current | 20 A |
| Continuous output current @ Up=24V*4 | 7 A |
| Continuous output current @ Up=48V*4 | 6 A |
| PWM | |
| Output voltage | 85% Up |
| PWM frequency | 32 kHz |
| Commutation type | Field Oriented Control |
| Mechanical | |
| Size LxWxH | 110 x 23 x 77 mm |
| Weight | 110 g |
| Environment | |
| Protection class | IP20 |
| Ambient temperature (operation) | -40..70 °C |
| Ambient temperature (storage) | -40..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 |

| Auxiliary voltage | |
|-------------------------|-------------------------------|
| Output voltage | 5 V |
| Max. output current | 0.2 A |
| Digital inputs | |
| Number - digital inputs | 4 (Din0..3) |
| Low voltage | 0..5 V |
| High voltage | 8..30 V |
| Analog inputs | |
| Number | 1 (Ain0) |
| Signal type | 0..10 V, 12 Bit, single ended |

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

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

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

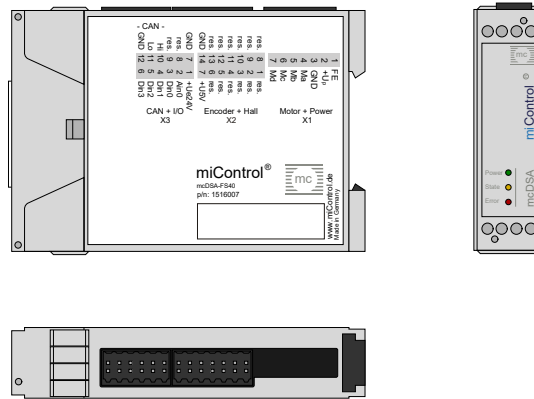
*4 connector cable with max. possible cable cross-section, PWM frequency 32 kHz, ambient temperature 40 °C ($t > 40$ °C derating), RMS current: 7 A \rightarrow 5.7 Aeff, 6 A \rightarrow 4.9 Aeff

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

Additional technical data are available in mcManual.



Scheme



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Terminal assignment

| X1 Motor | | |
|------------------|---------|--|
| 1 | FE | Functional earth |
| 2 | +Up | Power supply voltage |
| 3 | GND | Ground for power supply voltage |
| 4 | Ma | Motor phase A |
| 5 | Mb | Motor phase B |
| 6 | Mc | Motor phase C |
| 7 | Md | Motor phase D |
| X2 Reserved | | |
| 1 | res. | Reserved |
| 2 | res. | Reserved |
| 3 | res. | Reserved |
| 4 | res. | Reserved |
| 5 | res. | Reserved |
| 6 | res. | Reserved |
| 7 | +U5V | 5V output voltage (auxiliary voltage) |
| 8 | res. | Reserved |
| 9 | res. | Reserved |
| 10 | res. | Reserved |
| 11 | res. | Reserved |
| 12 | res. | Reserved |
| 13 | res. | Reserved |
| 14 | GND | Ground of the auxiliary voltage Notice: don't connect with system GND |
| X3 I/O's and CAN | | |
| 1 | +Ue24V | Electronic supply voltage |
| 2 | Ain0 | Analog input 0 |
| 3 | Din0 | Digital input 0 |
| 4 | Din1 | Digital input 1 |
| 5 | Din2 | Digital input 2 |
| 6 | Din3 | Digital input 3 |
| 7 | GND | Ground for electronic supply voltage |
| 8 | res. | Reserved |
| 9 | res. | Reserved |
| 10 | CAN Hi | CAN High |
| 11 | CAN Lo | CAN Low |
| 12 | CAN GND | CAN Ground |