

# Servo amplifier

## mcDSA-E67

Article number: 1511663



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. 45 mA
Power supply voltage $U_p$	9..60 V
Max. output current	15 A
Continuous output current @ $U_p=24V^{*2}$	5 A
Continuous output current @ $U_p=48V^{*2}$	4.3 A
PWM	
Output voltage	100% $U_p$
PWM frequency	25, 32 <sup>*3</sup> , 50 kHz
Mechanical	
Size LxWxH	74 x 45 x 17 mm
Weight	30 g
Environment	
Protection class	IP20
Ambient temperature (operation)	-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)	
Output voltage	5 V
Max. output current	0.2 A
Encoder	
Type	sin / cos
Signals	+Sin,-Sin,+Cos,-Cos
Resolution	13 bit per sine period
Input voltage	1 V peak-peak, differential
Signal type	sine/cosine, analog, differential
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 <sup>*4</sup>
Digital outputs	
Number	1 (Dout0)
Continuous output current	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 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: 5 A → 4.1 Aeff, 4.3 A → 3.5 Aeff

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

\*3 default value

\*4 Input voltage must not exceed Electronic supply voltage  $U_e$

Additional technical data are available in mcManual.



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## Scheme



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## Terminal assignment

X1 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
3	+Cos	Encoder, plus cosine signal
4	+Sin	Encoder, plus sine signal
5	res.	Reserved
6	-Cos	Encoder, minus cosine signal
7	-Sin	Encoder, minus sine signal
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