

# CC-AMB



Converter for driving ultra-high-speed permanent-magnet synchronous motors (PMSM) with active magnetic bearing.

- Integrated drive control and control of three axis active magnetic bearing system
- PAM and PWM control
- Sensorless speed control from 0 rpm up to 500,000 rpm
- Integrated break chopper
- Controlled motor stop in case of power failure
- User-friendly PC control software (CelerotonPilot)
- Ideal in combination with Celeroton AMB-motors



Specifications converter	CC-AMB-500	CC-AMB-1000	CC-AMB-1500
Input voltage $U_{in}$ (DC)	24 – 75 V	24 – 75 V	24 – 75 V
Maximum output power	500 VA	1,000 VA	1,500 VA
Output voltage (peak value phase-phase)	0 – 0.95 $U_{in}$	0 – 0.95 $U_{in}$	0 – 0.95 $U_{in}$
Maximum output power motor converter	300 W	640 W	800 W
Maximum radial reactive power (active magnetic bearing)	2 x 55 VA	2 x 90 VA	2 x 180 VA
Maximum axial reactive power (active magnetic bearing)	90 VA	180 VA	340 VA
Maximum phase current radial bearing	1.9 Arms	3.1 Arms	6.1 Arms
Maximum phase current axial bearing	3.8 Arms	7.5 Arms	4.5 Arms
Maximum frequency / speed (PAM-operation)	8.3 kHz / 500,000 U/min		
Operating range motor	4-Quadrant		
Communication interface	USB, RS232/485, CAN		
Weight	2,25 kg		
Dimensions (L x W x H)	270 (320) x 182 x 83 mm		
Operating temperature	0 – 40 °C		

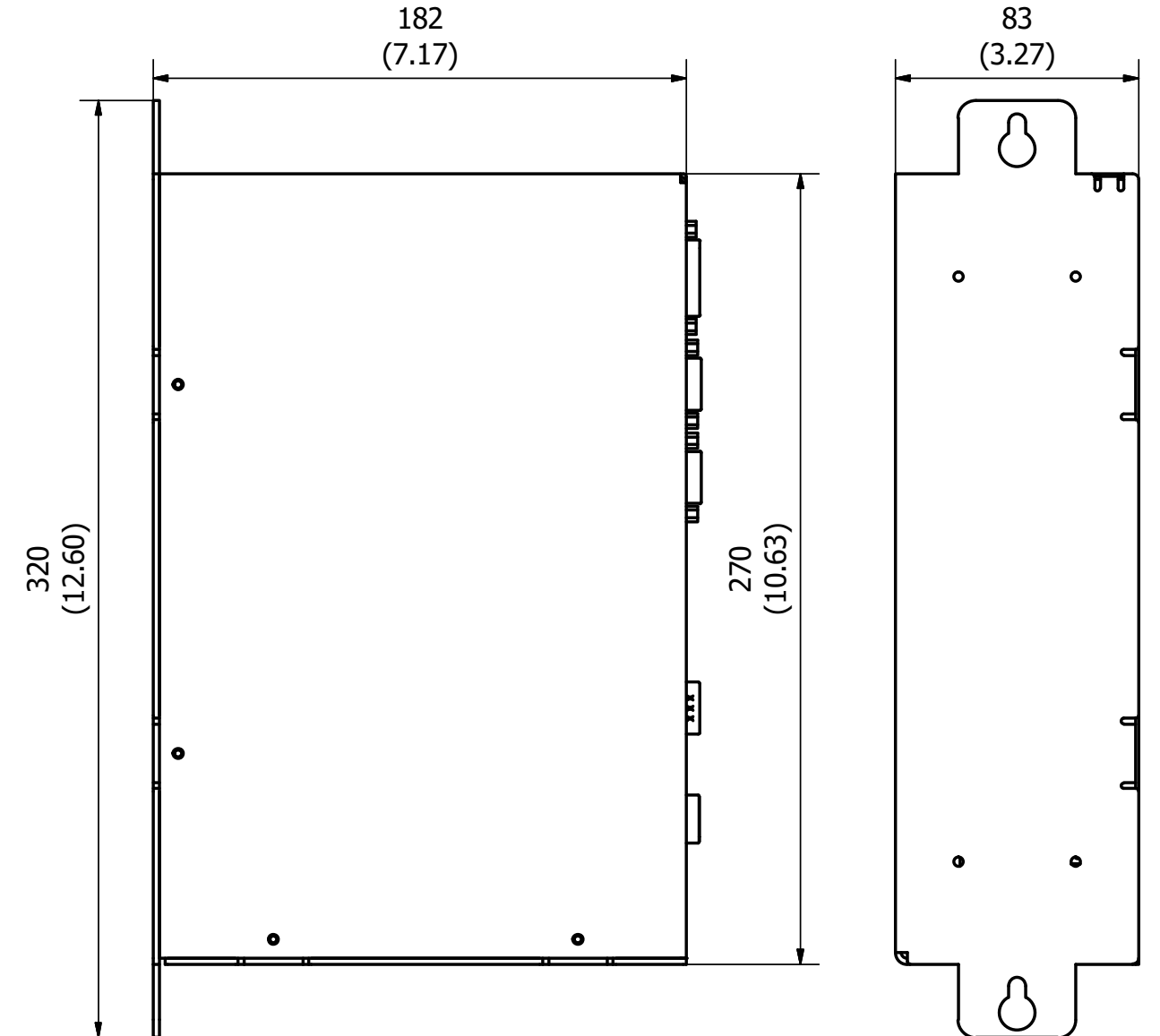
## User interfaces (X10, X11)

### Connector X10 – Digital interface (2 x 6 pins)

1 x digital GND	Digital GND for digital inputs
3 x digital inputs	0 – 24 V, galvanically isolated (software adjustable thresholds 0.8 – 20 V)
3 x COM	Common rail for digital outputs
3 x digital outputs	0 – 24 V (relay, normally open contacts)
1 x auxiliary power supply	5 V, 200 mA (max.) e.g. for digital inputs/outputs
1 x GND	Reference for auxiliary power supply

### Stecker X11 – Analog interface (2 x 6 pins)

1 x analogue GND	
3 x analogue inputs	0 – 10 V
3 x analogue outputs	0 – 10 V
2 x temperature measurement input	PT100
1 x auxiliary power supply	10 V, 100 mA



**Celeroton AG**  
Industriestrasse 22  
CH-8604 Volketswil

Tel.: +41 44 250 52 20  
Fax: +41 44 250 52 29

info@celeroton.com  
www.celeroton.com

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