

## Servo Amplifier ECOBASIC 410

Focus on the essentials



**CANopen**



### Very compact housing

Low space requirement in the cabinet



### Cost-efficient alternative

For applications that only require basic functionalities



### Reliable connectivity

CANopen, RS232



### Easy commissioning

Intuitive parameterization and commissioning via JAT engineering software ECOSTUDIO®



### Numerous I/O

7 digital inputs, 5 digital outputs, 2 analog inputs

#### Power supply:

230 V<sub>AC</sub>

#### Control of:

3-phase brushless synchronous motors or synchronous linear motors

#### Position feedback:

Incremental encoder RS422

Encoder output for master-slave operation

Interpolating operation via CANopen

Clock / direction interface

# Servo Amplifier ECOBASIC 410

## → Technical data

1-phase AC supply		
Rated supply voltage	[V <sub>AC</sub> ]	230
Mains frequency	[Hz]	47 ... 63
Rated installed load	[kVA]	1
Rated power loss	[W]	28

Logic supply		
Logic supply voltage	[V]	18 ... 30
Input current at 24 V <sub>DC</sub> (maximum)	[A]	1,0*
*) without external loads like digital I/O or encoders		

Power output stage		
Effective phase current (maximum)	[A <sub>eff</sub> ]	10,6 (5 s)
Phase current (maximum)	[A <sub>DC</sub> ]	15
Rated output current	[A <sub>eff</sub> ]	4
Output voltage (maximum)	[V <sub>DC</sub> ]	380*
Rated output voltage	[V <sub>DC</sub> ]	325
Overvoltage shutdown	[V <sub>DC</sub> ]	400
Installed load (maximum)	[kW]	3,6
Rated installed load	[W]	830
*) Chopper threshold of braking chopper: 380 V		

Digital inputs/outputs		
7 digital control signal inputs	[V <sub>DC</sub> ]	LOW 0 ... 7, HIGH 12,5 ... 30
	[mA]	10 (at 24 V)
5 digital control signal outputs	[V <sub>DC</sub> ]	24
	[A]	0,1 (OUT1 ... OUT4) 0,5 (holding brake)

Analog inputs		
2 analog inputs	[V]	-10 ... +10
Resolution	[Bit]	12

Ambient conditions		
Class	3K3 according to EN 50178	
Storage temperature	[°C]	-10 ... +70
Ambient temperature during operation	[°C]	+5 ... +40
Degree of humidity, non-condensing	[% relative humidity]	90 (maximum)
Installation altitude above sea level	[m]	< 1000
Mounting position	The technical data refer to a vertical mounting position.	
Protection class	IP20	
Pollution degree	2	
Cooling	In a closed cabinet, sufficient circulating air movement must be provided.	

Dimensions and weight		
Dimensions W x H x D	[mm]	62 x 166 x 142,5
Weight	[kg]	1,2

Standards	
Applied standards for CE certification	EMC according to EN IEC 61800-3, Electrical safety acc. to EN 61800-5-1, RoHS according to EN IEC 63000

Customs tariff number	
Customs tariff number	85371091

## Basic functions

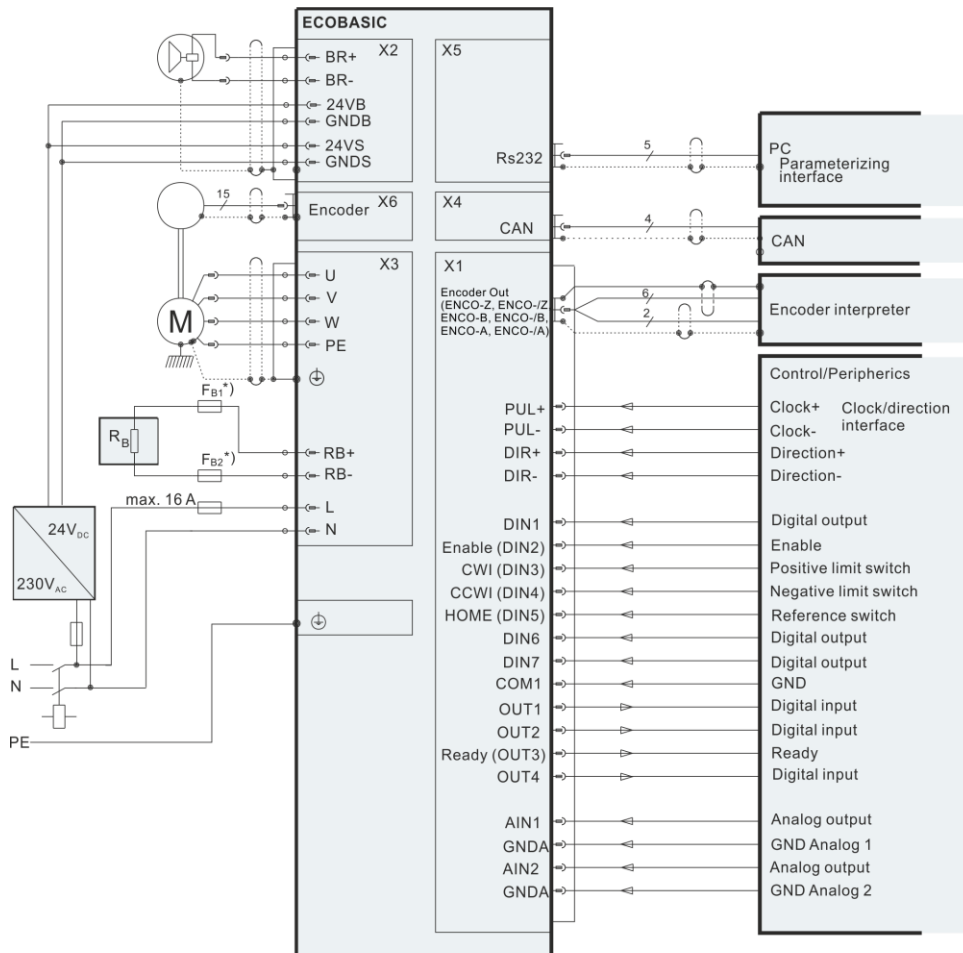
- ✓ Digital current, speed and position control with position, speed and torque limits
- ✓ Digital filtering functions to dampen vibrations in the overall system
- ✓ Scalable analog inputs for velocity and torque specification
- ✓ Short circuit, voltage, temperature, encoder, following error and i<sup>2</sup>t monitoring
- ✓ Intelligent holding brake control
- ✓ Evaluation of limit switches and reference sensor, multiple homing modes
- ✓ Status display and configuration of fieldbus node address and baud rate via 7 segment display and 2 keys on the device's front side

## ECOSTUDIO® - Easy commissioning

- ✓ Intuitive user interface, parameter setting via wizards
- ✓ Displays actual performance parameters
- ✓ Integrated motor, encoder and axis database
- ✓ Extensive oscilloscope function for analysis and diagnosis
- ✓ Easy graphical sequence programming

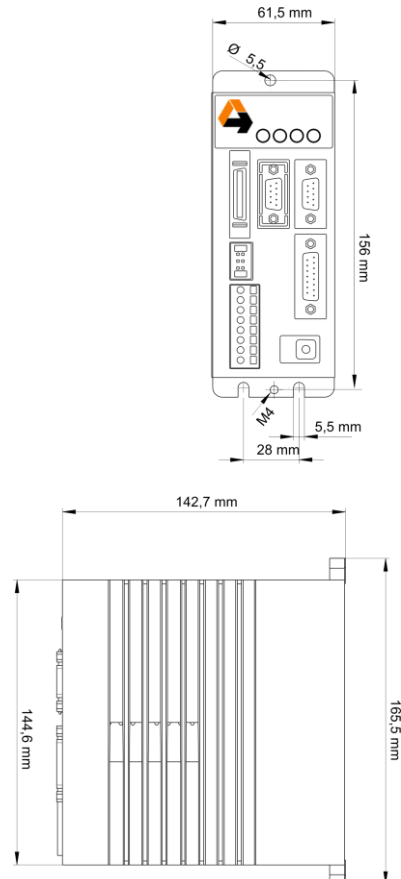
# Servo Amplifier ECOBASIC 410

→ Connection diagram



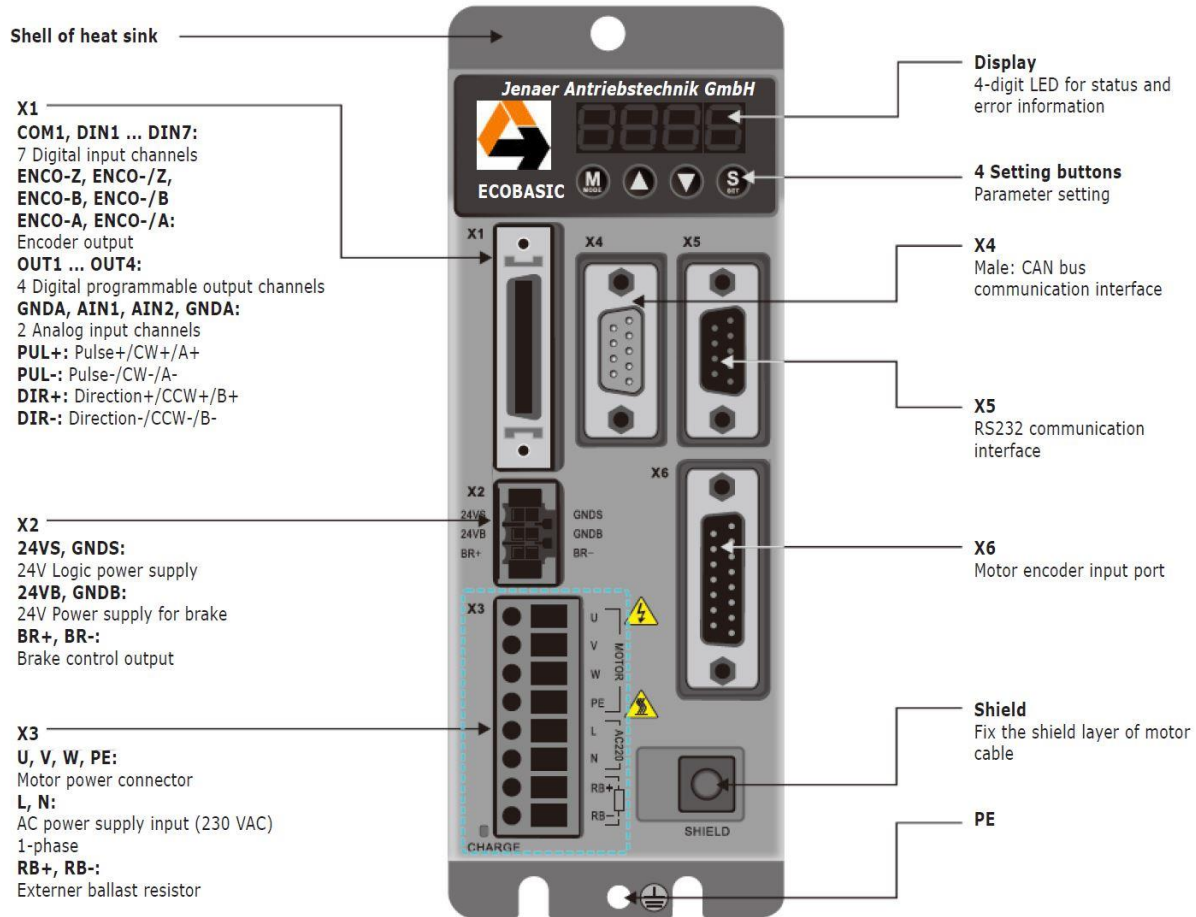
\*) not necessary if ballast resistor DPRxx is used.

→ Dimensions



# Servo Amplifier ECOBASIC 410

## → Interfaces



## → Ordering key

ECOBASIC 410 AN - wx - yyy - zzz

w		x		yyy	zzz
<b>Field bus type</b>		<b>Approval</b>		<b>Firmware number (3 digits)</b>	<b>Parameter set number (3 digits)</b>
B	CAN + RS232 + encoder emulation	A	CE, standard design		
		B-I	CE, custom design		

## → Accessories

### External ballast resistor

DPR47-100	Ballast resistor 47 Ω / 100 W (250 W cooled)
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### Power supply

SV24	1-phase power supply 24 V <sub>DC</sub> / 5 A
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Further details regarding the power supplies can be found in the separate data sheet *Power supplies*.