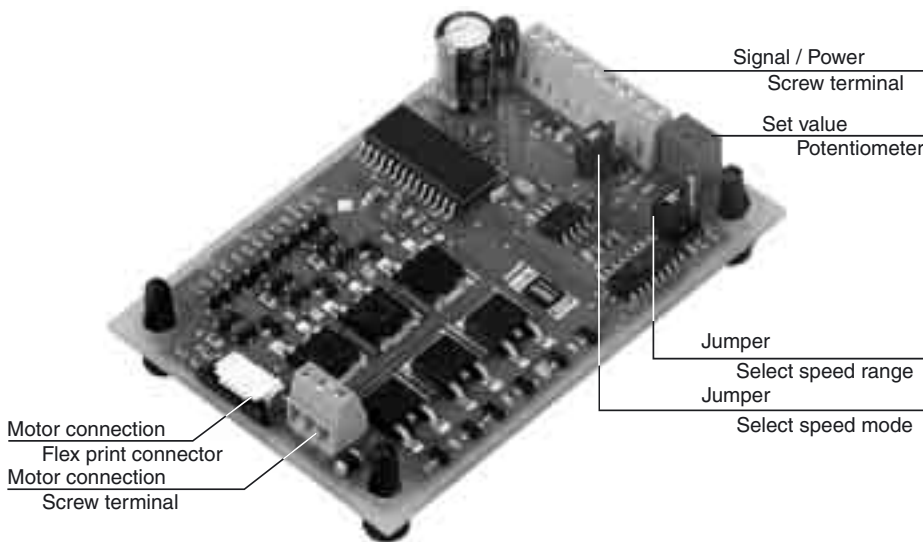


1-Q-EC Amplifier AECS 35/3 sensorless



Advantages

- Sensorless
- Flexible
- Small design
- Different operating modes
- Significant functionality

Features

1-Q-EC Amplifier for the control of brushless EC motors without Hall sensors up to 120 Watt. With Back-EMF sensing, the actual rotor position is evaluated and the partial winding are controlled

Wide input voltage range 8 - 35 VDC. Screw terminals as well as flex print connectors (FPC) matching maxon flat motors are provided for motor connection

Open and compact electronic board. Easy mounting with hexagonal distance pins with inner winding

Simple speed control as well as pure commutation (motor speed determined via supply voltage and load) selectable with pluggable jumpers

Direction can be set via a logic signal. The motor shaft can be either disabled or braked. The set current limitation limits the motor current to max. 5 A. The motor speed can be regulated, either with the built-in potentiometer or an external analogue set value

Electrical Data

- Supply voltage V_{CC} 8 - 35 VDC
- Max. output current I_{max} (limited internally) 5 A
- Continuous output current I_{cont} 3 A
- Speed range (motor with 2 poles) typical 1000 ... 90 000 rpm

Inputs

- Direction logic signal (5 V) or switch against GND
Open or high level = clockwise at GND = counter-clockwise
- Brake logic signal (5 V) or switch against GND
Open or high level = motor shaft turns at GND = motor shaft stops
- Disable logic signal (5 V)
Open or low level = motor shaft turns
High level = motor is separated from supply
- Set value analogue input (0.8 ... 5 V)

Outputs

- Monitor n Open Collector (pull-up 22 kΩ at 5 V, 10 mA)
- Speed monitoring NOS Open Collector (pull-up 4.7 kΩ at 5 V, 10 mA)
- Control voltage OUT analogue output (0 ... 5 V)

Motor connections

- Motor winding 1
- Motor winding 2
- Motor winding 3

Ambient temperature

- Operation 0 ... +40°C
- Storage -40 ... +85°C

Humidity range

- No condensation 20 ... 80 %

Mechanical data

- Weight approx. 20 g
- Dimensions (L x W x H) 74 x 51 x 20 mm
- Fixation 4 distance pins hexagonal M3
- Mounting hole separation 63.2 x 40.6 mm

Connector

Power / Signal

- Screw terminal J1 9 poles
- Pitch 2.54 mm
- AWG 26 - 20 0.14 - 0.5 mm²

Motor connection

- Screw terminal J2 3 poles
- Pitch 2.54 mm
- AWG 26 - 20 0.14 - 0.5 mm²
- Flexprint connector J3 4 poles
- Pitch 1.0 mm

Order Number

AECS 35/3
215738

1-Q-EC Amplifier
sensorless

Dimensions in [mm]

