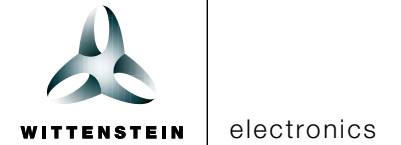


# MINI-IQ-Drives

1 kW on a business card



Modular concept delivers crucial design advantages for our customers

## Your advantages at a glance:

- Modular structure
- Flexible deployment
- Compact assembly
- 24h hotline/Service Center

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**WITTENSTEIN – being *one* with the future**

**[www.wittenstein-electronics.de](http://www.wittenstein-electronics.de)**

up to 1 kW  
on 53x80 mm<sup>2</sup>

## MINI-IQ-Drives

with sensorless capability



**WITTENSTEIN electronics –**  
Advanced electronic solutions  
in a complex world of drives

## MINI-IQ-Drives compact and intelligent

Intelligent Servomotor Controller on the size of a business card!

The MINI-IQ-Drives are intelligent servo controllers developed specifically for control of small 3-phase brushless servomotors with up to 60 V DC supply in industrial automation applications.

Typical applications include machinery for food processing, material handling, packaging, printing, plastics, paper converting, woodworking, semiconductor fabrication and textiles.

The controller interfaces over a CAN-Bus network connection and supports the CANopen protocol standard communication profile DS301 under device profile DSP 402.

MINI-IQ-Drives from WITTENSTEIN electronics are optimized for use with the WITTENSTEIN cyber motor brushless servomotor product line and support the many available feedback options.

Based on a powerful digital signal processor design, the controller provides a 32 kHz update rate for Torque, Velocity and Position modes of operation.



## MINI-IQ-Drives powerful and flexible

Highly integrated modular control architecture offers maximum flexibility and scalability

### Combinations:

Power class			
Version	100 VA	300 VA	500 VA
Supply voltage	12...60 VDC	12...60 VDC	12...60 VDC
Motor nominal current $I_{\text{nom (RMS)}}$	1.4 A / 60 V 2.1 A / 12 V	4 A / 60 V 6 A / 12 V	7 A / 60 V 10.5 A / 12 V
Motor peak current $I_{\text{max (RMS)}}$	2.8 A / 60 V 4.2 A / 12 V	8 A / 60 V 12 A / 12 V	14 A / 60 V 21 A / 12 V
PWM switching frequency	16 kHz	16 kHz	16 kHz

### Features:

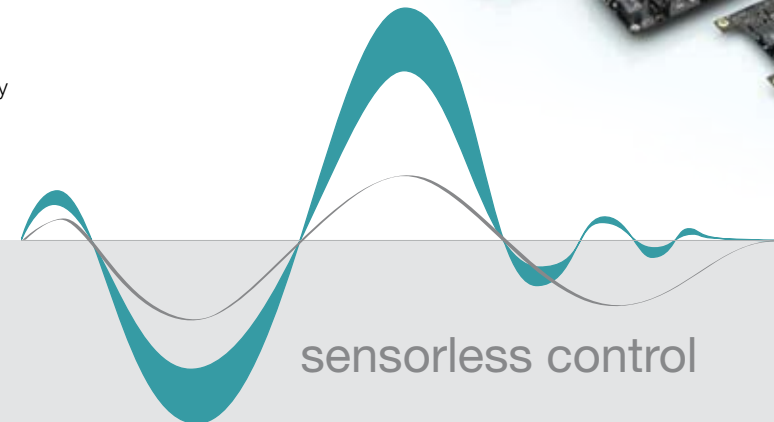
- individual selection of hardware and software levels
- freedom to select and layout drive components to fit available housing design
- optimal motor control from base speed up to field weakened operating region
- multi-axis control architecture
- distributed or DIN rail mounting
- Sine wave commutation for highest power density
- robust design for industrial environments
- ambient temperature range of -40° C to +85° C
- flexible mounting and cooling concept

## MINI-IQ-Drives sensorless control

Efficient sensorless servomotor control

### Sensorless Advantages:

- simplified connections, fewer cables
- reduced space requirements
- no encoder limitation of speed
- delivers maximum torque
- lower installation and service costs
- increased reliability and availability
- higher productivity
- delivered at lower cost



sensorless control