# D-SINUS motor controller

Sinus-commutated speed controller





+ More
Innovative motor controlle

The innovative motor regulation in the Deutronic® D-SINUS Series is based on state of the art, sinus-commutated speed controller technology.

Compared with the competition the extremely complex control algorithm of the D-SINUS controller enables operation without the need for additional, elaborate sensors.

Therefore a higher degree of synchronisation can be achieved by field-oriented-controlled phase currents. Due to the sinusoidal current characteristic the efficiency is increased and the torque generated is constant in contrast to block commutation.















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## **Advantages**

- Sensorless, sinusoidal commutated motor controller for a soft, steady and quiet running motor
- ✓ No torque ripple, high level synchronisation and high starting torque
- ✓ Up to 95% efficiency (Controller + Motor)
- Low package space
- ✓ Different interfaces: CAN (D-SINUS 180 and 350), Uart, ext. temperature sensors, position sensing (Hall-sensors/Quadrature encoder)
- Telemetry
- Recuperation (current limited) for controlled battery charging
- Highest efficiency

### **Technical data**

| Туре        | Input voltage | Max. Output current |
|-------------|---------------|---------------------|
| D-Sinus 120 | 16-52VDC      | 120A                |
| D-Sinus 180 | 16-52VDC      | 180A                |
| D-Sinus 350 | 22–58VDC      | 350A                |
| D-MIC       | 3,3-8,0VDC    |                     |



