



**EMERSON**  
Industrial Automation

## Unimotor

055 to 250 Frames

0.72 Nm to 136 Nm  
(408 Nm Peak)

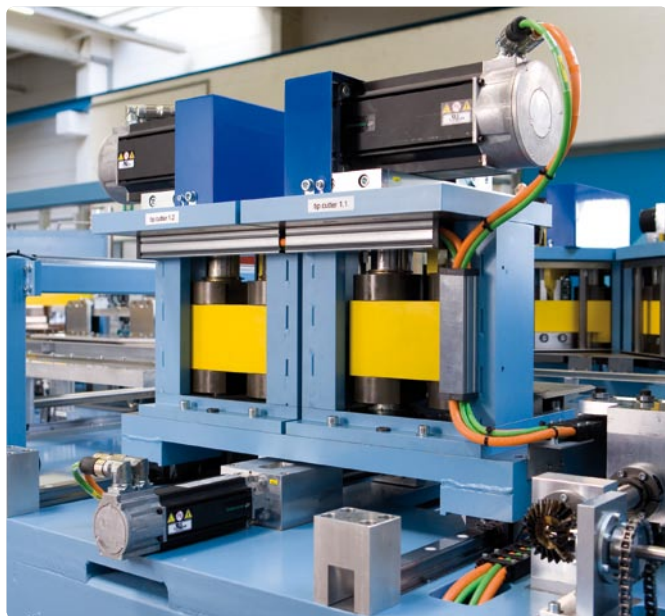


**CONTROL  
TECHNIQUES**

[www.controltechniques.com](http://www.controltechniques.com)

## Unimotor fm

**Unimotor fm is a high performance brushless AC servo motor range matched for use with Control Techniques drives. 'fm' stands for flexible motor, designed to accommodate a wide range of applications. The motors are available in seven frame sizes with various mounting arrangements and motor lengths.**



### Reliability and innovation

Unimotor fm is designed using a proven development process that prioritises innovation and reliability. This process has resulted in Control Techniques' market leading reputation for both performance and quality.

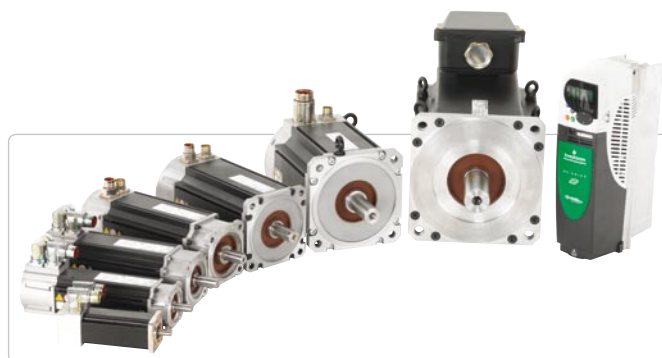
### Matched motor and drive combinations

Control Techniques motors and drives are designed to function as an optimised system. Unimotor fm is the perfect partner for Unidrive SP, Digitax ST and Epsilon EP drives.

### Features

Unimotor fm is suitable for a wide range of industrial applications, due to its extensive range of features

- Torque range: from 0.72 Nm to 136 Nm
- Standard and high energy parking brakes
- Numerous connector variants, e.g. vertical, 90° low profile, 90° rotatable and hybrid box on frame size 250
- Variety of flange possibilities (IEC/NEMA)
- Various shaft diameters; keyed or plain
- IP65 conformance; sealed against water spray and dust when mounted and connected
- Low inertia for high dynamic performance; high inertia option available
- World class performance
- Supported by rigorous testing for performance and reliability
- Optional high peak torque motors; up to 5 times stall torque
- Winding voltages of 400V and 220V
- Rated speeds include 1500 rpm, 2000 rpm, 3000 rpm, 4000 rpm, 6000 rpm and others available







## Faster set-up, optimised performance

When a Control Techniques servo drive is connected to a Unimotor fm fitted with a SinCos or Absolute encoder, it can recognise and communicate with the motor to obtain the “electronic nameplate” data. This motor data can then be used to automatically optimise the drive settings. This feature simplifies commissioning and maintenance, ensures consistent performance and saves time.

## Accuracy and resolution to suit your application requirement

Choosing the right feedback device for your application is critical in getting optimum performance. Unimotor fm has a range of feedback options that offer different levels of accuracy and resolution to suit most applications:

- Resolver: robust for extreme applications and conditions - low accuracy, medium resolution
- Inductive absolute: medium accuracy medium resolution
- Incremental encoder: high accuracy, medium resolution
- Optical SinCos: high accuracy, high resolution
- Single turn and multi-turn: Hiperface and EnDAT protocols supported

## Conformance and standards



LISTED E214439



### **Ideal for retrofit**

Unimotor fm is an ideal retrofit choice with features to ensure it can integrate easily with your existing servo motor applications. Unimotor fm has been designed so that existing Unimotor customers can easily migrate to the new platform. All connector interface types and mounting dimensions remain the same. If you are planning to retrofit your system, Unimotor fm is the obvious choice.

### **Custom built motors**

As part of our commitment to you, we can design special products to meet your application specific requirements.

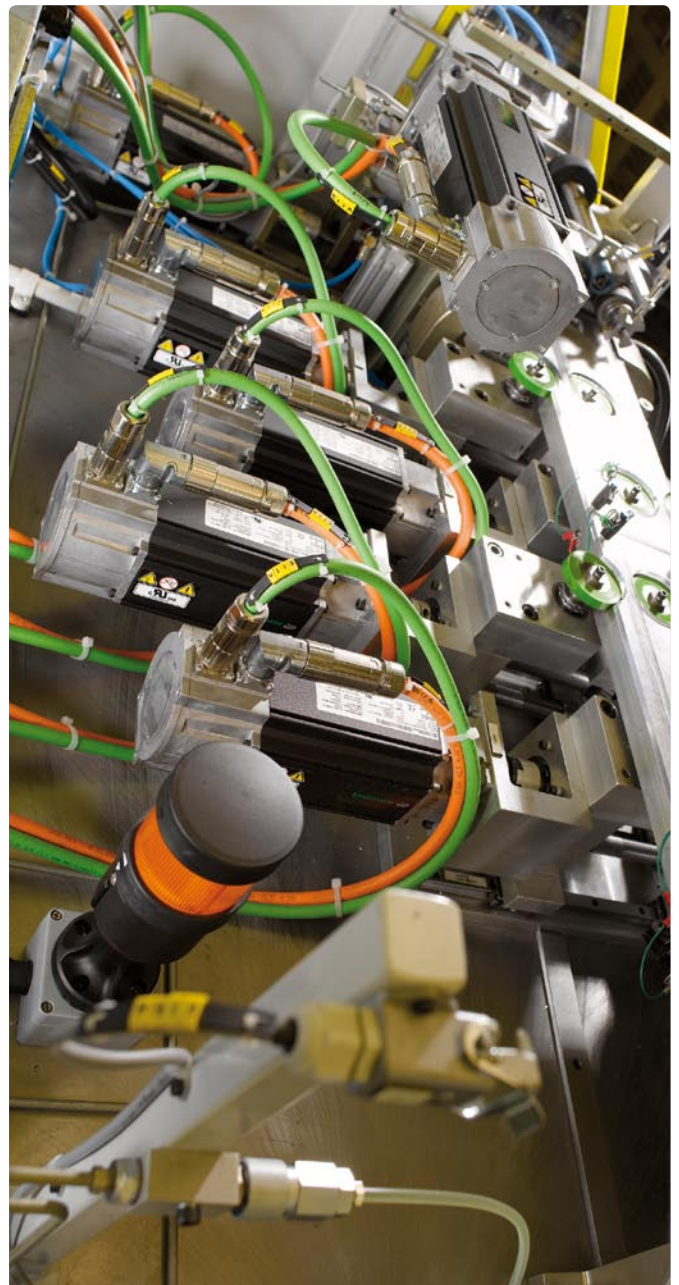
### **Wide range of complementary accessories**

Unimotor fm has a wide range of complementary accessories to meet all your system requirements:

- Feedback and power cables for static and dynamic applications
- Fan boxes
- Gearboxes
- Connectors

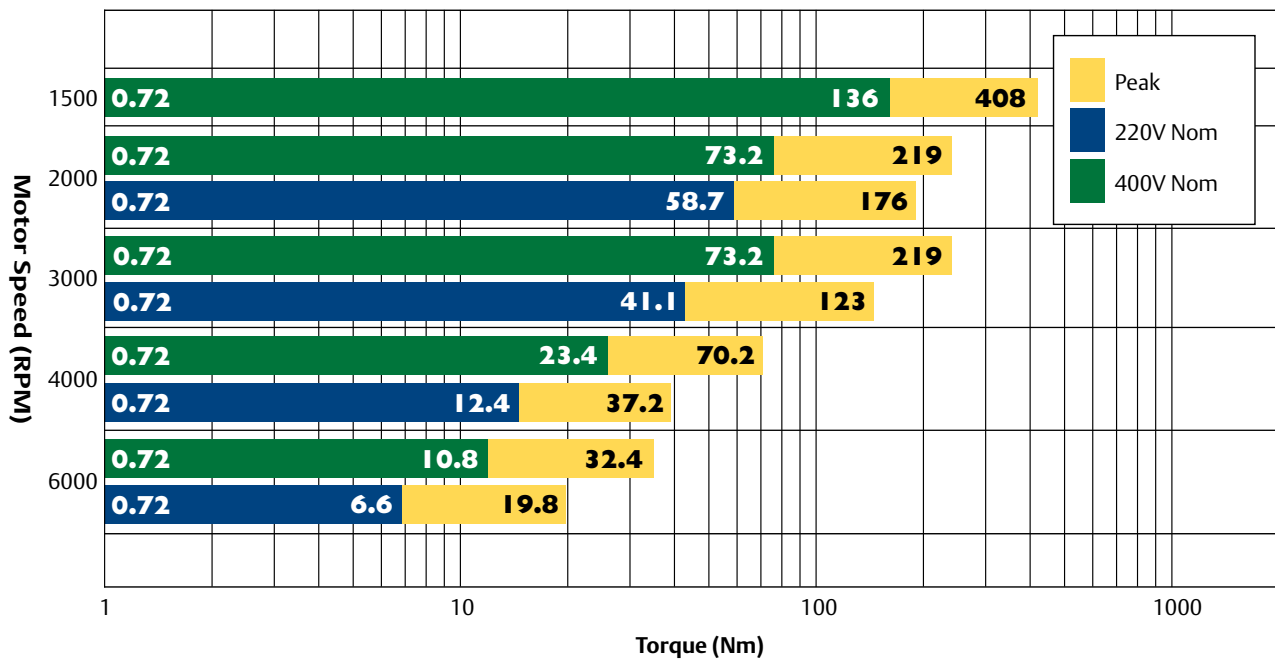
### **All around the world, just around the corner**

Backed by Control Techniques' world wide support network in 65 countries through 90 subsidiary Drive Centres and resellers.





## Torque performance



NB: The selection of Drive-Motor combinations should be based on Duty/Load Profiles of the application

