

# DC Motor Series GE 53x30 and GE 53x58

The motors in the GE 53 series are permanent magnet DC motors.

Practically any operating point nominal voltage, speed and torque can be realized by a suitable choice of winding.

Due to their small dimensions and high efficiency they are especially suitable for industrial applications, such as

- Picture reading equipment
- Document reading apparatus
- Recording equipment
- Welding technics
- Photo, cinema and television.

## Design

The motors are rigidly built and do not require maintenance during their lifetime.

Two case-length with continuous torque of 10 resp. 17Ncm.

The motor runs in ball bearings.

The bearing plates are of die-cast zinc.

It is possible to combine these motors with gears and actual value encoders resp. generators.

The GE 53 series motors can be delivered with brakes and/or actual value encoders resp. generators.

## Features

- Mount-on dimensions according to DIN 42016.
- Independent of mounting position.
- Clockwise and counter-clockwise rotation.
- Insulation according to VDE 0530, insulation class E .
- Surface protection.

## Standard program

Motors with nominal voltages 12V and 24V represent our standard motor program and should preferably be used.

## Load characteristics

The characteristics are examples for the standard program with the possible winding configurations of the motors, type GE 53.

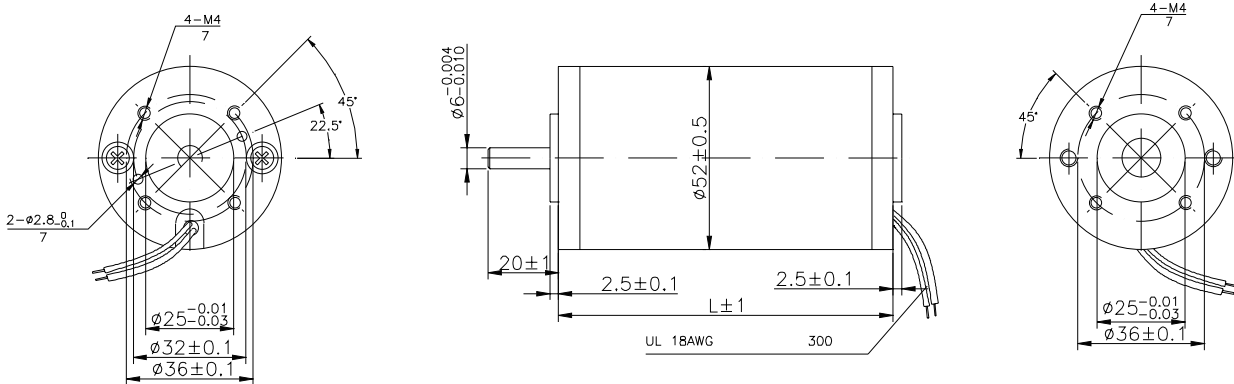
| Performance data of motor GE 53x30 |                   |        |        |        |      |
|------------------------------------|-------------------|--------|--------|--------|------|
| Nominal voltage                    | V                 | 12     | 24     | 40     | 60   |
| Nominal speed                      | min <sup>-1</sup> | 3790   | 3600   | 3680   | 4000 |
| Nominal torque                     | Ncm               | 9.0    | 10     | 9.6    | 9.6  |
| Nominal current                    | A                 | ≤4.5   | ≤2.3   | ≤1.3   | 0.9  |
| Demagnetization current            | A                 | ≥42    | ≥20    | ≥12    | 8.5  |
| No load speed                      | min <sup>-1</sup> | 4490   | 4200   | 4280   | 4500 |
| No load current                    | A                 | ≤0.580 | ≤0.280 | ≤0.170 | 0.12 |
| Starting torque                    | Ncm               | 57     | 67     | 66     | 69   |
| Efficiency                         | %                 | 66     | 68     | 68     | 72   |
| Moment of inertia                  | gcm <sup>2</sup>  | 233    | 229    | 227    | 227  |
| Weight                             | kg                | 0.85   | 0.85   | 0.85   | 0.85 |

| Performance data of motor GE 53 x58 |   |       |       |       |       |
|-------------------------------------|---|-------|-------|-------|-------|
| Nominal voltage                     | V                                       | 12    | 24    | 40    | 60    |
| Nominal speed                       | min <sup>-1</sup>                       | 3000  | 3000  | 3300  | 3450  |
| Nominal torque                      | Ncm                                     | 15.5  | 17    | 17    | 17    |
| Nominal current                     | A                                       | 5.5   | 2.9   | 1.9   | 1.3   |
| Demagnetization current             | A                                       | 61    | 31    | 20    | 13.5  |
| No load speed                       | min <sup>-1</sup>                       | 3200  | 3250  | 3450  | 3600  |
| No load current                     | A                                       | 0.435 | 0.200 | 0.135 | 0.100 |
| Starting torque                     | Ncm                                     | 114   | 143   | 139   | 144   |
| Efficiency                          | %                                       | 73    | 76    | 77    | 78    |
| Moment of inertia                   | gcm <sup>2</sup>                        | 460   | 460   | 460   | 460   |
| Weight                              | kg                                      | 1.16  | 1.16  | 1.16  | 1.16  |
| Shaft load capacity axial max       | 130N                                    |       |       |       |       |
| Shaft load capacity radial max      | 90N applied 20 mm from mounting surface |       |       |       |       |

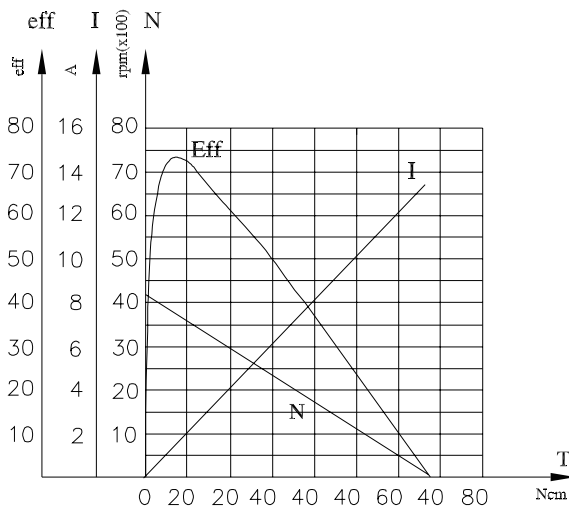


# DC Motor Series GE 53x30 and GE 53x58

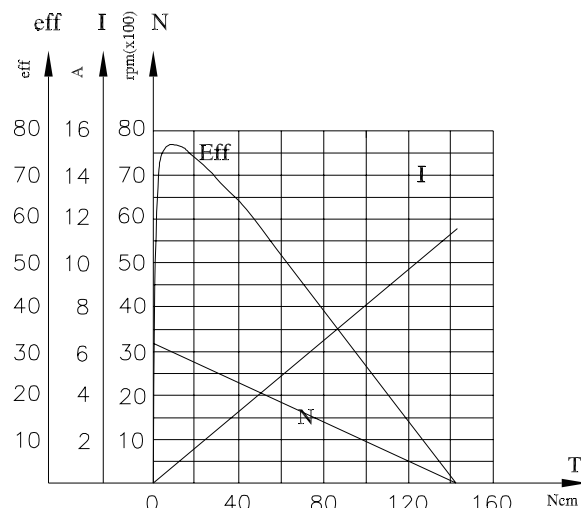
## Mechanical Dimensions



- GE53x30, L= 95mm
- GE53x58, L= 125mm



Typical Curve, 24V, GE53X30



Typical Curve, 24V, GE53X58

## Customization

- Special Shaft Configuration
- Leadwire With Connectors
- With Brake
- With Gearbox
- With Encoder