# **Commercial & Appliance Motors**





#### **Global Presence**

With more than 30.000 employees worldwide, WEG is one of the largest electric motors, electronic equipments and systems manufacturers. We are constantly expanding our portfolio of products and services with expertise and market knowledge. We create integrated and customized solutions ranging from innovative products to complete after-sales service.

WEG's know-how guarantees our *Motors* are the right choice for your application and business, assuring safety, efficiency and reliability.

Doing business in over 135 countries, with revenues of about US\$ 3.2 billion, WEG global presence is supported trough its branches established in 29 countries, manufacturing plants and up to network of distributors and agents in the five continents.

All WEG customers in many industry segments have up to long-lasting relationship with the company due to the commitment and reputation the company has established with them in order to keep their industry operating.





Availability is to have up to global support network



Partnership is to create solutions that suits your needs



Competitive edge is to unite technology and inovation



# Commercial & Appliance Motors

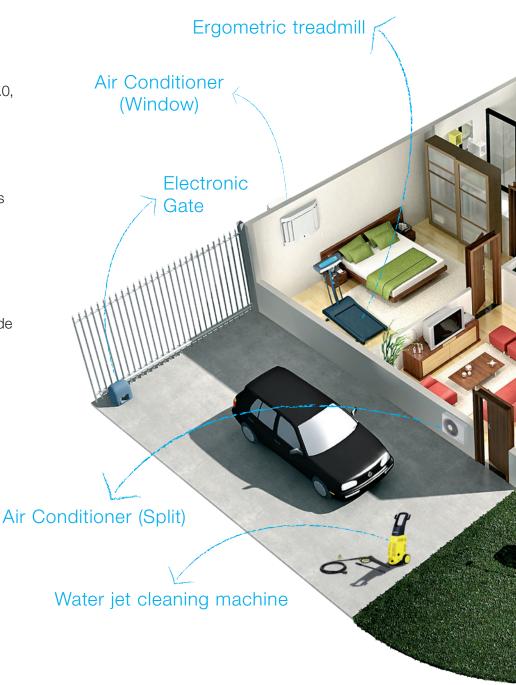
WEG has up to wide range of products for the commercial, appliance and industrial segments, including technologies for industry 4.0, offering solutions for all types of applications.

Always focusing on the customer's needs, WEG customizes its products and develops new solutions for the most varied segments.

We have versatile and compact motors, designed with maximum technology and suitable for up to wide variety of commercial, rural and residential applications.

High performance with maximum energy efficiency.

This is the essence of WEG's electric motors.



# WEG motors in your day-to-day



### Index



### W12



- Single-phase motor

   Output: 0,09 up to 0,55 kW

   Number of poles: 2, 4 or 6

   Voltage: 230 or 230/460 V Single-phase
  220-240/380-415 V Three-phase
- Frequency: 50 and 60 HzFrame: IEC56, W63 and W71
- Aluminum frame
- Degree of protection: IP55



#### **Optionals**

■ Insulation class F (△T 105K)

#### **Application**

Gearboxes, pumps and fans.

Features	Benefits
WISE® insulation system (Three-phase)	Allows the motor operation by frequency inverters up to 380 V.
Running capacitor (Single-phase)	Developed to meet a wide range of performance applications that require low starting torque.
Motors with and without ventilation	The W12 motors have the cooling system with an external fan (TEFC) as a standard feature, where the fan cover ensures increased ventilation efficiency, keeping the motor cooled with less effort. As an option, when installed in an air flow suitable for their operation, W12 motors can operate without a fan (TEAO).
Degree of protection IP55	Protection against contact, ingress of dust and water projected from any direction.
Aluminum frame	In addition to providing mass reduction, it ensures thermal dissipation and mechanical rigidity for applications.
Versatility	The W12 motors have a snap fit quick coupling for fixing the terminal box cover, fan cover and feet. For the W63 and W71 frame motors, the feet can be mounted in the 90 °, 180 ° and 270 ° positions from the terminal box, allowing a configuration to suit any application.
Interchangeability	Interchangeable feet and flanges with the frames IEC56, 63 and 71.

### **WECM**



#### Single-phase motor

- Output: 0,12 to 1,1 kW at 1500, 1800 or 3000 rpm
- Voltage: 220 to 277 VAC
- Frequency: 50/60 Hz input
- Frame: IEC80
- Aluminum frame
- Degree of protection: IP55
- Efficiency (motor+drive): IE5
- Efficiency (motor): IE6

#### Three-phase motor

- Output: 0,12 to 4 kW at 1500, 1800 or 3000 rpm
- Voltage: 380-480 VAC
- Frequency: 50/60 Hz input
- Frame: IEC80 and IEC100
- Aluminum frame
- Degree of protection: IP55
- Efficiency (motor+drive): IE4
- Efficiency (motor): IE6



#### **Optionals**

Continuous speed adjustment (200 to 1500/1800 rpm and 500 to 3000 rpm) by:

- Tact buttons (local)
- DC voltage (remote): 2 to 10 VDC
- DC current (remote): 4 to 20 mA DC
- PWM (remote): 10 to 95%
- Modbus Communication

#### **Application**

Radial fan, axial fan, ceiling fan, air extractors, fans, industrial air conditioners.

Features	Benefits
Speed adjustment	Ensures energy-saving airflow performance.
IE5	Developed to meet a wide range of Applications that demand high starting torque, flexibility and performance.
Technology	Motor with built-in drive and permanent magnets.
Degree of protection IP55	Protection against contact, ingress of dust and water projected from any direction.



### Poultry Fan Motors



#### **WECM**

#### Single-phase motor

- Output: 0,12 to 1,1 kW at 1500, 1800 or 3000 rpm
- Voltage: 220 to 277 VAC
- Frequency: 50/60 Hz input
- Frame: IEC80
- Aluminum frame
- Degree of protection: IP55
- Efficiency (motor+drive): IE5

#### **Three-phase motor**

- Output: 0,12 to 4 kW at 1500, 1800 or 3000 rpm
- Voltage: 380-480 VAC
- Frequency: 50/60 Hz input
- Frame: IEC80 and IEC100
- Aluminum frame
- Degree of protection: IP55
- Efficiency (motor+drive): IE4

#### W12

#### Single-phase motor

- Output: 0,09 up to 3 kW
- Number of poles: 2 and 4
- Voltage: 230 V
- Frequency: 50 Hz
- Frame: IEC56 up to W100
- Aluminum frame
- Degree of protection: IP55





#### **Application**

Poultry fans.

Features	Benefits
Speed adjustment (WECM Motors)	Ensures energy-saving airflow performance.
IE5 (WECM Motors)	Developed to meet a wide range of Applications that demand high starting torque, flexibility and performance.
Technology (WECM Motors)	Motor with built-in drive and permanent magnets.
WISE® insulation system (Three-phase)	Allows the motor operation by frequency inverters up to 380 V.
Running capacitor (Single-phase W12 Motors)	Developed to meet a wide range of performance applications that require low starting torque.
Motors with and without ventilation (W12 Motors)	The W12 motors have the cooling system with an external fan (TEFC) as a standard feature, where the fan cover ensures increased ventilation efficiency, keeping the motor cooled with less effort. As an option, when installed in an air flow suitable for their operation, W12 motors can operate without a fan (TEAO).
Degree of protection IP55	Protection against contact, ingress of dust and water projected from any direction.
Aluminum frame	In addition to providing mass reduction, it ensures thermal dissipation and mechanical rigidity for applications.
Versatility (W12 Motors)	The W12 motors have a snap fit quick coupling for fixing the terminal box cover, fan cover and feet. For the W63 and W71 frame motors, the feet can be mounted in the 90 °, 180 ° and 270 ° positions from the terminal box, allowing a configuration to suit any application.
Interchangeability (W12 Motors)	Interchangeable feet and flanges with the frames IEC56, 63 and 71.



### Pool Filter Motors



#### Single-phase motor

- Output: 0,09 up to 3 kW
- Number of poles: 2 or 4
- Voltage: 230 V
- Frequency: 50 Hz
- Frame: IEC56, W63 and W71
- Aluminum frame
- Degree of protection: IP55



#### **Optionals**

- Insulation class F (△T 105K)
- Flange: C-DIN, FC149 and special

#### **Application**

Pool filters.

Features	Benefits
Running capacitor (Single-phase)	Developed to meet a wide range of performance applications that require low starting torque.
Motors with and without ventilation	The W12 motors have the cooling system with an external fan (TEFC) as a standard feature, where the fan cover ensures increased ventilation efficiency, keeping the motor cooled with less effort. As an option, when installed in an air flow suitable for their operation, W12 motors can operate without a fan (TEAO).
Degree of protection IP55	Protection against contact, ingress of dust and water projected from any direction.
Aluminum frame	In addition to providing mass reduction, it ensures thermal dissipation and mechanical rigidity for applications.
Versatility	The W12 motors have a snap fit quick coupling for fixing the terminal box cover, fan cover and feet. For the W63 and W71 frame motors, the feet can be mounted in the 90 °, 180 ° and 270 ° positions from the terminal box, allowing a configuration to suit any application.
Interchangeability	Interchangeable feet and flanges with the frames IEC56, 63 and 71.

### Compressors Motors



#### W01

#### Single-phase motor

- Output: 0,09 up to 1,6 kW
- Number of poles: 2 or 4
- Voltage: 110-127/220-254 V
- Frequency: 60 or 50 Hz
- Frame: 48 or 56
- Rolled steel frame
- Degree of protection: IP21
- Colour: black (Munsell N1)
- Thermal protection: optional

#### W12

#### Single-phase motor

- Output: 0,09 up to 3 kW
- Number of poles: 2 and 4
- Voltage: 230 V
- Frequency: 50 HzFrame: IEC56 up to w100
- Aluminum frame

■ Degree of protection: IP55





#### **Optionals**

■ Insulation class F (△T 105K)

#### **Application**

Compressors

Features	Benefits
Running capacitor (Single-phase W12 Motors)	Developed to meet a wide range of performance applications that require low starting torque.
Motors with and without ventilation (W12 Motors)	The W12 motors have the cooling system with an external fan (TEFC) as a standard feature, where the fan cover ensures increased ventilation efficiency, keeping the motor cooled with less effort. As an option, when installed in an air flow suitable for their operation, W12 motors can operate without a fan (TEAO).
Degree of protection IP55	Protection against contact, ingress of dust and water projected from any direction.
Aluminum frame	In addition to providing mass reduction, it ensures thermal dissipation and mechanical rigidity for applications.
Versatility (W12 Motors)	The W12 motors have a snap fit quick coupling for fixing the terminal box cover, fan cover and feet. For the W63 and W71 frame motors, the feet can be mounted in the 90 °, 180 ° and 270 ° positions from the terminal box, allowing a configuration to suit any application.
Interchangeability (W12 Motors)	Interchangeable feet and flanges with the frames IEC56, 63 and 71.

## Hydroduty



#### Three-phase motor

- Output: 0,55 up to 3,7 kW
- Number of poles: 4
  Voltage: 230/400-415 V
  Frequency: 50 Hz
  Frame: 80 up to 112

- Frame material: Stainless steel
- Degree of protection: IP69-K
- Colour: Stainless Steel



#### **Application**

Food & beverage plants that requiring high hygiene and cleanliness.

Features	Benefits
Breather Vent	Prevents oil and water contamination
Double Sealed Ball Bearings	Provide long service life, drip grooves keep condensation away from bearings
Frame and Construction Hydroduty™	Premium stainless steel for maximum corrosion resistance
Patented Three Stage Sealing System	Ensures watertight fit. Includes custom lip seal, stainless steel shaft slinger and severe duty check seal.











## W22 Single-phase - IP55



#### **Rural Single-phase motor**

- Output: 0,12 to 9,2 kW
- Number of poles: 2 or 4
- Voltage: 230 and 460 V
- Frequency: 50 Hz
- Frame: 63 up to 132M/L
- Cast iron frame
- Degree of protection: IP55
- Colour: blue (RAL 5009)
- Thermal protection: optional
- Starting capacitor



#### **Optionals**

Optional flanges

#### **Application**

Fans, blowers, grain dryers, centrifugal pumps, compressors, high pressure washers, silo unloaders and augers, conveyors / materials handling, grinding machines.

	Benefits
Running capacitor	Developed to meet a wide range of performance applications that require low starting torque.
Starting capacitor	Developed to meet a wide range of applications that require high starting torque.
Painting plan	Paint indicated for normal environment with low relative moisture. It provides corrosion protection: withstands salt spray test 120 hours.
Reliability	Designed to meet the needs of the most varied application.
Degree of protection IP55	Protection against contact, ingress of dust and water projected from any direction.



### Motors for Submersible Pumps



#### Three-phase motor

- Output: 0,37 up to 2,2 kW
- Number of poles: 2 and 4
- Voltage: 220/380 V
- Frequency: 50 HzFrame: E56BS
- Cast iron frame
- Degree of protection: IP68

#### Single-phase motor

- Output: 0,37 up to 2,2 kW
- Number of poles: 2 and 4
- Voltage: 220 V
- Frequency: 50 HzFrame: E56BS
- Cast iron frame
- Degree of protection: IP68



#### **Optionals**

- Cable glands
- Special flange

#### **Application**

Submersible pumps, cistern, sewage and stormwater drainage, ground of water tables, non-fibrous effluent pumping, industries, sewage treatment plants, cleaning of water tanks.

Features	Benefits
Degree of protection IP68	Fully protection against dust and complete and continuous immersion in water.



### Rolled Steel



#### Single-phase motor

Output: 0,09 up to 1,6 kW Number of poles: 2 or 4 ■ Voltage: 110-127/220-254 V Frequency: 60 or 50 Hz

Frame: 48 or 56 Rolled steel frame

■ Degree of protection: IP21 Colour: black (Munsell N1)

■ Thermal protection: optional



#### **Optionals**

■ Flange: Aluminum FC-149 (other incorporated flange sizes on request)

- With starting capacitor or starting + running capacitor, according to the output and application (Single-phase).
- Resilient Base optional mounting accessory that reduces vibration and noise, which is generally used for ventilation.

#### **Application**

Fans, compressors, mills, treadmill and others for general use.

Features	Benefits
WISE® insulation system (Three-phase)	Allows the motor operation by frequency inverters.
Adaptability	Shaft and flange couplings in accordance with NEMA standard, facilitating motor fixing.
Internal circuit ventilation system	It provides a homogeneous distribution of the temperature inside, which allows maximum performance with a low sound pressure level.
Starting capacitor (Single-phase)	Developed to meet a wide range of Applications that require high starting torque.
Painting plan	Powder coating on the housing with higher impact resistance to ensure protection against corrosion.
Reliability	Designed to meet the needs of the most varied application.
Degree of protection IP21	Protection against vertical drips and splashes.

### Motors for Air Conditioner (Split)



#### Single-phase motor

- Output: 0,02 up to 0,37 kW
- Number of poles: 4 and 6
- Voltage: 127 and 220 V
- Frequency: 60 or 50 Hz
- Frame: 33, N42 and N48
- Frame material: rolled steel or aluminium
- Degree of protection: IP24 or IP00
- Colour: black (Munsell N1 (rolled steel))
- Thermal protection: automatic (according motor class)

#### **Optionals**

- Shaft material: Steel SAE 1045
- Bearings: shielded bearing ZZ with permanent lubrication
- Motor with 1, 2 or 3 speeds
- Permanent capacitor optionally supplied
- Duty cycle: continuous for ambient temperature from -30 °C up to 40 °C
- Insulation class B, F or H



Split air conditioner.

Features	Benefits
Flexibility	Fixing by bracket, tie rods, resilient rings or on the motor body
Special design	Motors with special projects according to the torque and power requirements requested by the customer.
Permanent capacitor	Developed to serve up to wide range of performance applications requiring low starting torque.

#### Special under request

- Special wiring harnesses
- Motor mounting dedicated for application
- Special shaft





### Minimotor (Air Moving)



#### Single-phase motor - "shaded-pole"

Output: 0,02 , 0,025 or 0,03 kW

Number of poles: 4

■ Voltage: 12, 24, 127, 127/220 or 220 V

Frequency: 60 or 50 Hz Frame: minimotor

Frame material: aluminium

Degree of protection: IP00 or IP44



#### **Optionals**

- Fixing: base or screws on the DE and NDE endshields
- Propeller: aluminium or polypropylene, typo exhauster or blower (on diameters of 8" or 10")
- Duty cycle: continuous for ambient temperature from -30 °C up to 40 °C
- Shaft: steel shaft SAE 1045 with diameter of 8 mm
- Bearings: shielded bearing ZZ with permanent lubrication
- Insulation class B or F

#### **Aplication**

Air moving, kitchen hood, grills, dryers.

Features	Benefits
Special design	Motors with special projects according to the torque and power requirements requested by the customer.
Grill application	The motor is self-ventilated to ensure its operation in this environment
Shaded pole motor	Single-phase motor requiring no capacitor

<sup>\*</sup> The motor must be properly protected by fairing of the equipment/application.

#### Special under request

- Thermal protection
- Special wiring harnesses
- Special shaft

### W01 Grain Dryer



#### Three-phase motor

Output: 1,1-2,2 kW up to 7,5-11 kW Output: 1,1-2,2 kW up to 7,5-11 kW

Number of poles: 2 ■ Voltage: 208 - 230/460 V

Frequency: 60 Hz

Frame: 143/5T up to 213/5T

Rolled steel frame

■ Degree of protection: IP55 or IP21

Colour: RAL 7031

■ Thermal protection: thermostat

#### Single-phase motor

Number of poles: 2 ■ Voltage: 230 V

Frequency: 60 Hz

Frame: 143/5T up to 213/5T

Rolled steel frame

■ Degree of protection: IP55 or IP21

Colour: RAL 7031

■ Thermal protection: thermostat



#### **Optionals**

■ Service factor: 1.00

#### **Application**

Air over direct coupling crop dryer axial fans, on TEAO and ODPAO enclosures and thought for environments full of dust and grain powder.

Features	Benefits
Degree of protection IP21	Protection against vertical drips and splashes
Degree of protection IP55	Protection against contact, ingress of dust and water projected from any direction.



## Water Jet Cleaning Machine (Hobby)



#### **Optionals**

- Motor supplied without endshields
- Permanent capacitor

#### **Application**

Water jet cleaning machines.

Features	Benefits
Special design	Motors with special projects according to the torque and power requirements requested by the customer.
Application test	Laboratory capable of testing according to regulatory standards, guaranteeing maximum product quality
Permanent capacitor	Developed to serve up to wide range of performance applications requiring low starting torque.

<sup>\*</sup> The motor must be properly protected by fairing of the equipment/application.



## Water Jet Cleaning Machine (Professional)



### Single-phase motor

Output: 0,09 up to 3 kW

■ Number of poles: 2 or 4

■ Voltage: 230 V

■ Frequency: 50 Hz

■ Frame: IEC56 up to W100

■ Aluminum frame

■ Degree of protection: IP55



#### **Optionals**

■ Insulation class F (△T 105K)

#### **Application**

Water jet cleaning machines.

Features	Benefits
WISE® insulation system (Three-phase)	Allows the motor operation by frequency inverters up to 380 V.
Running capacitor (Single-phase)	Developed to meet a wide range of performance applications that require low starting torque.
Motors with and without ventilation	The W12 motors have the cooling system with an external fan (TEFC) as a standard feature, where the fan cover ensures increased ventilation efficiency, keeping the motor cooled with less effort. As an option, when installed in an air flow suitable for their operation, W12 motors can operate without a fan (TEAO).
Special design	Motors with special projects according to the torque and power requirements requested by the customer.
Degree of protection IP55	Protection against contact, ingress of dust and water projected from any direction.
Aluminum frame	In addition to providing mass reduction, it ensures thermal dissipation and mechanical rigidity for applications.
Versatility	The W12 motors have a snap fit quick coupling for fixing the terminal box cover, fan cover and feet. For the W63 and W71 frame motors, the feet can be mounted in the 90 °, 180 ° and 270 ° positions from the terminal box, allowing a configuration to suit any application.
Interchangeability	Interchangeable feet and flanges with the frames IEC56, 63 and 71.

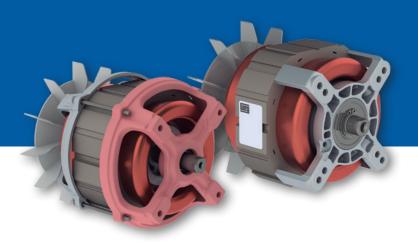


### Lawn Mower Motor



#### Single-phase motor

- Output: 0,55 up to 1,5 kW
- Number of poles: 2
- Voltage: 127 or 220 V
- Frequency: 60 or 50 Hz
- Frame: N48
- Endshields material: cast iron and/or aluminum
- Degree of protection: IP00\*
- Colour: red (Prime N2) for cast iron endshield



#### **Optionals**

- Permanent capacitor
- Motor with or without brake

#### **Application**

Lawn mowers.

Features	Benefits
Special design	Motors with special projects according to the torque and power requirements requested by the customer.
Permanent capacitor	Developed to serve up to wide range of performance applications requiring low starting torque.
Brake system	Motors can be supplied with automatic brake system to ensure the safety of the users when using his equipment.

Notes:
\* The motor must be properly protected by fairing of the equipment/application.

### Electronic Gate Motor



#### Single-phase motor

- Output: 0,18 up to 0,55 kW
- Number of poles: 4

- Voltage: 127 or 220 V
   Frequency: 50 Hz
   Frame: N42 (Rolled steel) and 33 (Aluminum).
   Frame material: rolled steel or aluminum
- Degree of protection: IP44
- Colour: Black Munsell N1 (rolled steel)
- Thermal protection: automatic (according motor class)



#### **Optionals**

- Foot and flange mounting
- Permanent capacitor
- Insulation class B or F

#### **Application**

Sliding, up and over and swinging electronic gates and parking controls.

Features	Benefits
Adaptability	Standardized shaft and flange couplings, making it easy to fix the motor
Permanent capacitor	Developed to serve up to wide range of performance applications requiring low starting torque.
Degree of protection IP44	Machine protected against small solid objects and water projections



### Automatic Clothes Washer Motors (Front Load)



#### **Universal Motors**

- Output: 800, 900 and 1200 W
- Number of poles: 2
- Voltage: 220 V
- Frequency: 50 or 60Hz
- Frame: Stack 38-45-52 mm
- Endshields material: Aluminum
- Degree of protection: IP00\*
- Thermal protection: automatic (according to motor class)

#### **BLDC Motors**

- Output: 0,55 kW
- Number of poles: 8
- Voltage: 220-240 V
- Frequency: 60 or 50 Hz
- Frame: N42
- Endshields material: Aluminum
- Degree of protection: IP00\*
- Thermal protection: automatic (according to motor class)





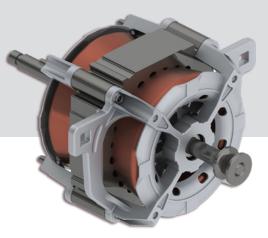
Features	Benefits
Flexibility	Motor mounting, supplied with or without pulley, single capacitor
Application test	WEG carries out tests in the application according to the determination of the regulatory norms
Special design	Motors with special projects according to the torque and power requirements requested by the customer.
Permanent capacitor	Developed to serve up to wide range of performance applications requiring low starting torque.

### **Dryer Motors**



#### **PSC Motors**

- Output: 0,18 kW
- Number of poles: 4
- Voltage: 127 or 220 V
- Frequency: 60 or 50 Hz
- Frame: N42
- Endshields material: aluminum
- Degree of protection: IP00\*
- Thermal protection: automatic (according to motor class)



#### **Optionals**

- Bearings: shielded bearing ZZ with permanent lubrication
- Rotation: clockwise, counter-clockwise or bidirectional
- Shaft material: Steel SAE 1045
- Permanent capacitor coupled on the motor or supplied loose
- Insulation class F or H

#### **Application**

Clothes dryer.

Features	Benefits
Flexibility	Fixing by bracket, tie rods, with or without pulley
Performance	Special projects according to the classification of the equipment desired by the client
Permanent capacitor	Developed to serve up to wide range of performance applications requiring low starting torque.

<sup>\*</sup> The motor must be properly protected by fairing of the equipment/application.

#### **Special under request**

- Special wiring harnesses
- Motor mounting dedicated for application
- Special shaft

The WEG Group's scope of solutions is not limited products and solutions presented in this catalog.

To know our portfolio, consult us.

For WEG's worldwide operations visit our website



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