

# Technical information in accordance with Commission Regulation (EC) No 640/2009



This document provides compliance with the Ecodesign Directive 2009/125/EC for the WEG Low Voltage Motors.

## 1.1 List of Applicable Standards

**a) EN 60034-2-1:2014** - ROTATING ELECTRICAL MACHINES - PART 2-1: STANDARD METHODS FOR DETERMINING LOSSES AND EFFICIENCY FROM TESTS (EXCLUDING MACHINES FOR TRACTION VEHICLES)

**b) EN 60034-30-1:2014** - ROTATING ELECTRICAL MACHINES - PART 30: EFFICIENCY CLASSES OF SINGLE-SPEED, THREE-PHASE, CAGE-INDUCTION MOTORS (IE-CODE)

## 1.2 Product lines

WEG three-phase motors are available in accordance with IEC 60034-30-1:2014, in the following lines:

**a) W22 Super Premium Efficiency – IE4** – manufacturing site WEG EQUIPAMENTOS ELÉTRICOS S.A.;

**b) W22 Premium Efficiency – IE3** – manufacturing site WEG EQUIPAMENTOS ELÉTRICOS S.A.;

**c) W22 High Efficiency – IE2** – manufacturing site WEG EQUIPAMENTOS ELÉTRICOS S.A.;

**d) W21 Premium Efficiency – IE3** – manufacturing site WEG (Nantong) Electric Motor Manufacturing CO., LTD.;

**e) W21 High Efficiency – IE2** – manufacturing site WEG (Nantong) Electric Motor Manufacturing CO., LTD.

## 1.3 Technical data

The technical data for electric motors required by Annex 1 of European Commission Regulation (EC) No 640/2009 is:

1. Nominal efficiency ( $\eta$ ) at the full, 75 % and 50 % rated load and nominal voltage – see item 1.4;
2. Efficiency level – see item 1.4;
3. The year of manufacture – see item 1.4;
4. Manufacturer's name or trade mark, commercial registration number and place of manufacturer – see items 1.4, 1.7 and 1.8;
5. Product's model number – see items 1.4 and 1.8;
6. Number of poles of the motor – see items 1.4 and 1.8;
7. The rated power output(s) or range of rated power output (kW) – see items 1.4 and 1.8;
8. The rated input frequency(s) of the motor (Hz) – see item 1.4 and 1.8;
9. The rated voltage(s) or range of rated voltage (V) – see item 1.4 and 1.8;
10. The rated speed(s) or range of rated speed (rpm) – see item 1.4 and 1.8;
11. Information relevant for disassembly, recycling or disposal at end-of-life – see item 1.6;
12. Information on the range of operating conditions for which the motor is specifically designed – see item 1.5.

## 1.4 Nameplate data

The nameplate supplies information determining motor construction and performance characteristics. The product line name is given on the first line of the nameplate together with nominal efficiency levels as required by IEC 60034-30-1.

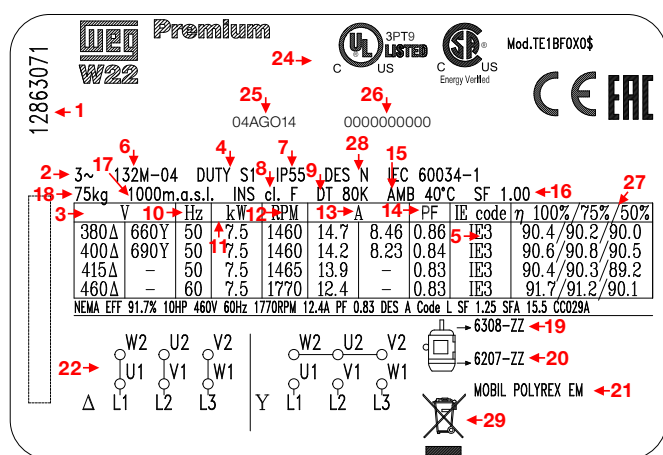


Figure 1 – Example of nameplate layout for frame sizes IEC 63 to 132

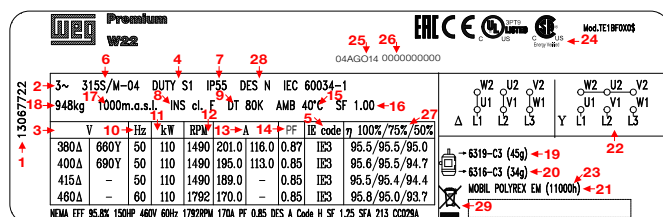


Figure 2 – Example of nameplate layout for frame sizes IEC 160 to 355

- 1 - Motor code
- 2 - Number of phases
- 3 - Rated operating voltage
- 4 - Service duty
- 5 - Efficiency Code - IE
- 6 - Frame size and number of poles
- 7 - Degree of protection
- 8 - Insulation class
- 9 - Temperature rise
- 10 - Frequency
- 11 - Motor rated power
- 12 - Full load speed (rpm)
- 13 - Rated operating current
- 14 - Power factor
- 15 - Ambient temperature
- 16 - Service factor
- 17 - Altitude
- 18 - Motor weight
- 19 - Drive end bearing type and amount of grease (where applicable)
- 20 - Non-drive end bearing type and amount of grease (where applicable)
- 21 - Type of grease for bearings
- 22 - Connection diagram

- 23 - Relubrication intervals in hours
- 24 - Certification labels
- 25 - Manufacturing date
- 26 - Serial number
- 27 - Partial load efficiencies
- 28 - Design
- 29 - In accordance with Directive 2012/19/EU, on Waste Electrical and Electronic Equipment (WEEE).

## 1.5 Operating conditions

Unless otherwise specified, the rated power outputs refer to continuous duty operation S1, as per IEC 60034-1 and under the following conditions:

- a) With ambient temperature range -20°C to +40°C;
- b) With altitudes up to 1000 meters above sea level;
- c) Maximum operating temperature for thermal class F (155°C);
- d) Potentially explosive atmospheres, as optional.

## 1.6 Environmental Information

### 1.6.1 Packaging

WEG electric motors are supplied in cardboard, plastic or wooden packaging. These materials can be recycled and must be disposed according to the applicable laws and regulations in each country. All wood used in the packaging of WEG motors come from the company reforestation program and is not submitted to any chemical conservation treatment.

### 1.6.2 Product

Electric motors consist mainly of ferrous metals (steel plates and cast iron), non ferrous metals (copper and aluminum) and plastic materials. In general, electric motors have relatively long service life. However when they must be discarded, WEG recommends to dismantle the motor, sort the different materials and send them for recycling. Non-recyclable materials should be disposed of at industrial landfills according to the applicable environmental laws and regulations in each country, or co-processed in cement kilns or incinerated. The recycling service providers, the disposal in industrial landfills, the waste co-processing or the incineration process must be properly authorized by the state environment agency to carry out these activities.

## 1.7 Manufacturing sites

### WEG Equipamentos Elétricos S.A.

Av. Prefeito Waldemar Grubba, 3000  
89256-900 - Jaraguá do Sul – SC – Brazil  
[www.weg.net](http://www.weg.net)

### WEG MEXICO, S.A. DE C.V

Carretera Jorobas - Tula Km 3.5, Manzana  
5, Lote 1, Fraccionamiento Parque  
Industrial Huehuetoca,  
Municipio de Huehuetoca, C.P. 54680, CD.  
de Mexico y Área Metropolitana – Mexico  
[www.weg.net/mx](http://www.weg.net/mx)

### WEG (Jiangsu) Electric Equipment CO., LTD.

No. 15 Group, North City Street, Dengyuan  
Community  
Rugao City, Jiangsu Province – China  
[www.weg.net/cn](http://www.weg.net/cn)

### WEG (Nantong) Electric Motor Manufacturing CO., LTD.

No. 128# - Xinkai South Road, Nantong  
Economic & Technical Development  
Zone, Nantong, Jiangsu Province – China  
[www.weg.net/cn](http://www.weg.net/cn)

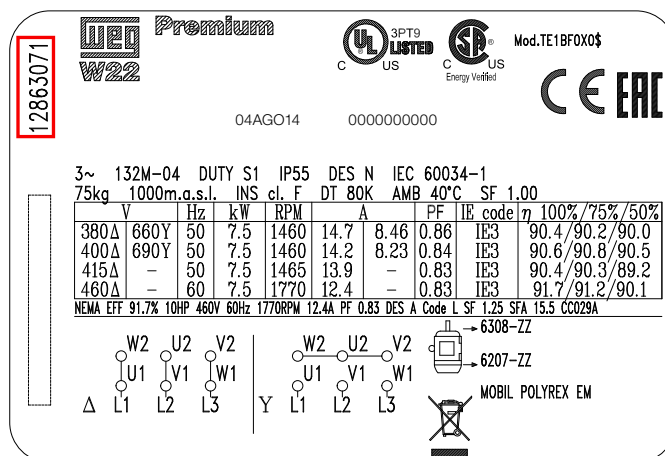
### WEGeuro – Indústria Eléctrica, S.A.

Rua Eng. Frederico Ulrich,  
Zona Industrial da Maia Sector V  
4470-605 – Maia – Portugal  
[www.weg.net/pt](http://www.weg.net/pt)

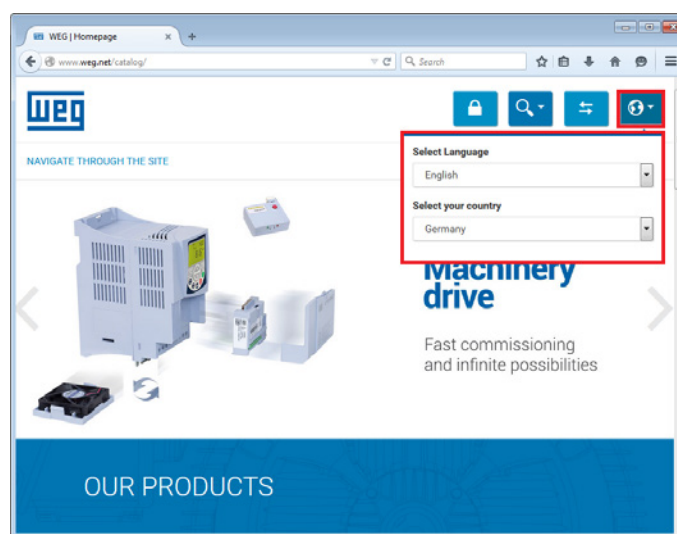
## 1.8 How to get the information?

To download the product documentation for each Product Code proceed as follows:

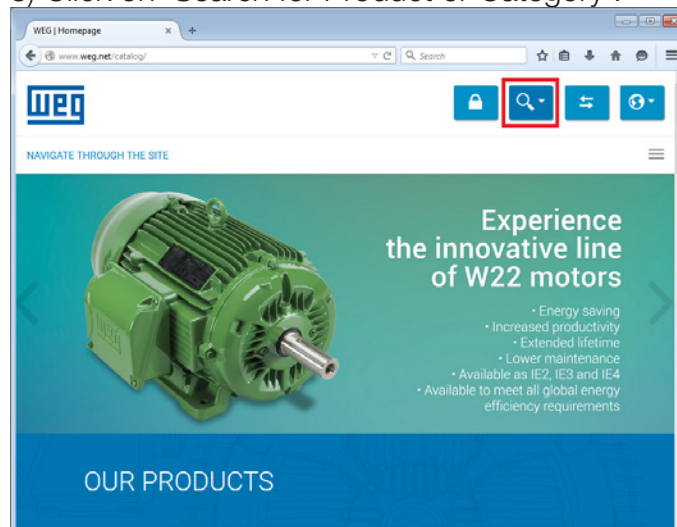
1) Find the Product Code on the nameplate:



2) Go to the website [www.weg.net/catalog](http://www.weg.net/catalog) and define your Language and Country:



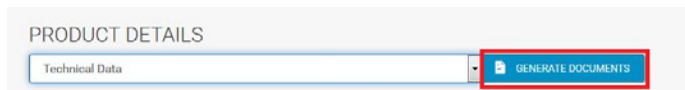
3) Click on 'Search for Product or Category':



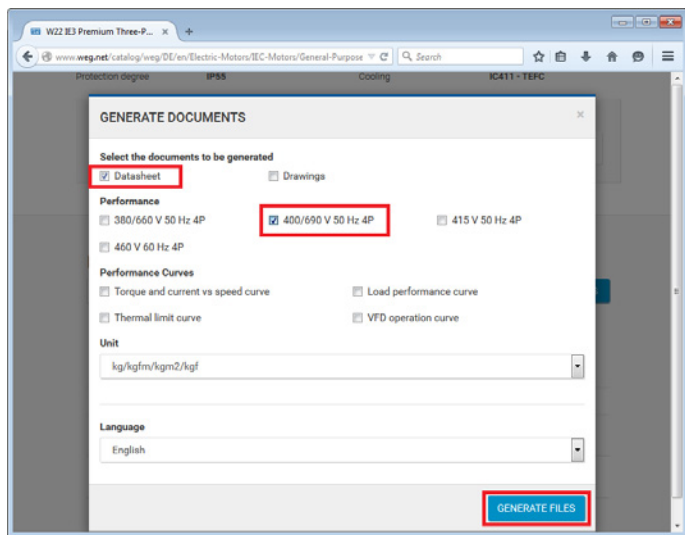
4) Inform the Product Code and click on 'Search':



5) Go to 'Product Details – Technical Data' and click on 'Generate Documents':



6) Select the fields 'Datasheet' and 'Performance' and click on 'Generate Files' to get the required data:



7) Save the file on your computer and open it. The numbers highlighted in red indicate the data required by Annex 1 of European Commission Regulation 640/2009.

DATA SHEET		4	
Customer	:		
Customer reference	:		
Product line	:	W22 IE3 Premium Three-Phase 2	Product code : 12863071 5
	:		Catalog # :
Frame	:	132M	Locked rotor time : 12s (cold) 7s (hot)
Output	:	7.5 kW	Temperature rise : 80 K
Poles	:	4	Duty cycle : S1
Frequency	:	50 Hz	Ambient temperature : -20°C to 40°C 12
Rated voltage	:	400/690 V	Altitude : 1000 m.a.s.l.
Rated current	:	13.9/8.08 A	Protection Degree : IP56
L.R. Amperes	:	115/68.9 A	Cooling method : IC411 - TEFC
LRC	:	8.3	Mounting : B3T
No load current	:	0.82/3.95 A	Rotation <sup>1)</sup> : Both (CW and CCW)
Rated speed	:	1480 rpm	Noise Level <sup>2)</sup> : 50.0 dB(A)
Slip	:	2.67 %	Starting method : Direct On Line
Rated torque	:	5.00 kgfm	Approx. weight <sup>3)</sup> : 75.2 kg
Locked rotor torque	:	240 %	
Breakdown torque	:	350 %	
Insulation class	:	F	
Service factor	:	1.00	
Moment of inertia (J)	:	0.0583 kgm <sup>2</sup>	
Design	:	N	
Output	:	50% 75% 100%	Foundation loads
Efficiency (%)	:	90.5 90.8 90.6	Max. traction : 288 kgf
Power Factor	:	0.69 0.80 0.80	Max. compression : 343 kgf
	:		
	:	Drive end	Non drive end
Bearing type / clearance	:		
Sealing	:	V'Ring	V'Ring
Lubrication interval	:		
Grease amount	:		
Grease type	:		Mobil Polyrex EM
Notes			
This revision replaces and cancel the previous one, which must be eliminated.		These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in	
(1) Looking the motor from the shaft end.			
(2) Measured at 1m and with tolerance of +3dB(A).			
(3) Approximate weight subject to changes after manufacturing process.			
(4) At 100% of full load.			
Rev.	Changes Summary	Performed	Checked
Performed by			DS003487103
Checked by			Page
Date			1 / 1
			Revision
			0.0

Notes:

- A) For the information required by item 3 (the year of manufacture) of the Regulation see item 1.4.
- B) For the information required by item 11 (information relevant for disassembly, recycling or disposal at end-of-life) see item 1.6.

**Do you still have questions?**  
Please, contact the nearest WEG office.  
[www.weg.net](http://www.weg.net)

