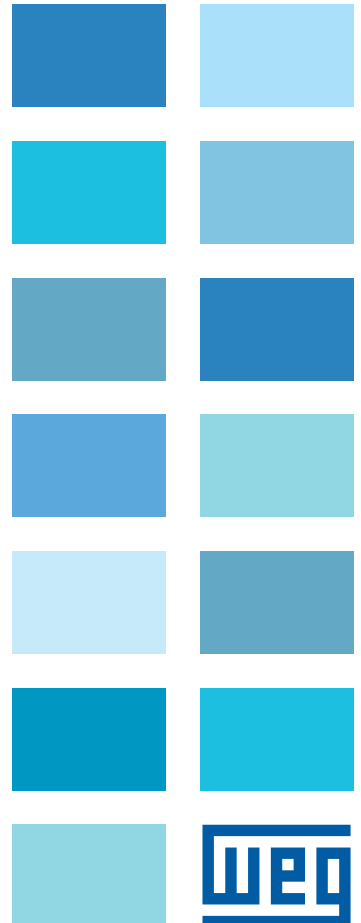
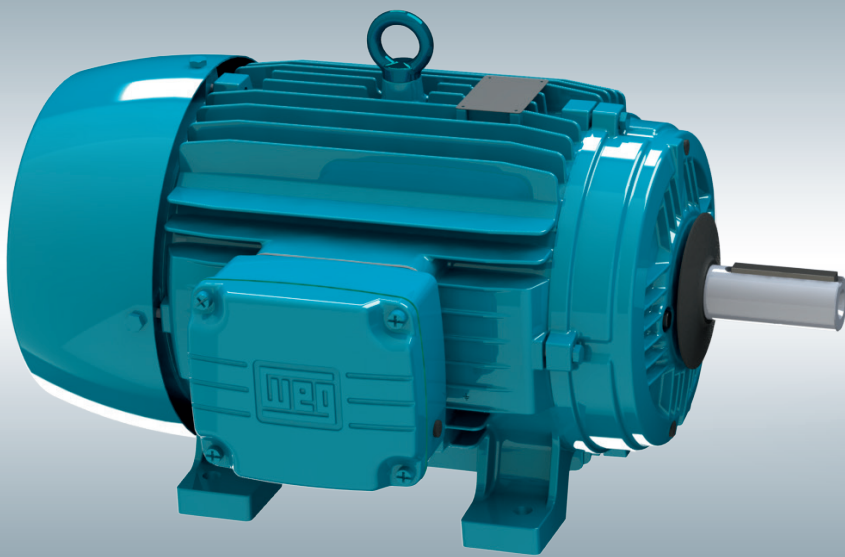
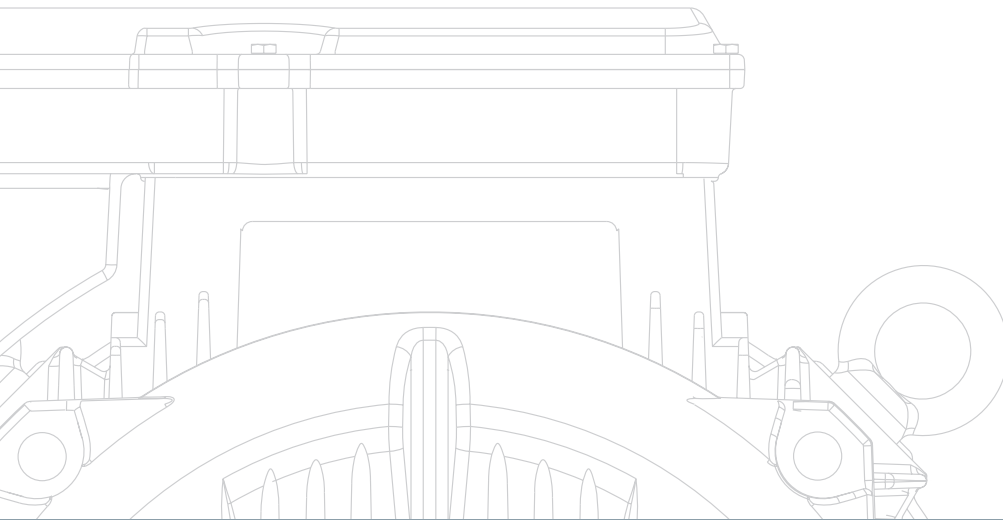


# Cooling Tower Motors

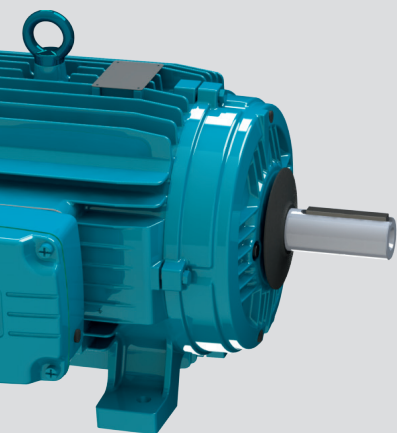
## 冷却塔电机



## Cooling Tower Motors 冷却塔电机

WEG Cooling Tower motors are designed with a carefully selected set of features that allows reliable operation in 100% humidity applications and high corrosive environments. The line is suitable for frequency inverter operation, being capable to operate in either horizontal or vertical mounting. The Cooling Tower motors design is based on the W21 Cast Iron mechanical platform, which present improved cooling system and solid feet for cooler operation and reduced vibration and noise extending the motor.

WEG冷却塔电机经过精心设计, 具备多种功能特性, 能够在100%湿度和强腐蚀性环境应用中可靠运行。此系列电机适用于变频器驱动, 可水平或垂直安装。冷却塔电机是在W21铸铁机壳电机平台的基础上设计研发, 采用优化的冷却系统, 拥有适合冷却器运行的坚固底座, 不仅具有减振降噪的特性, 还能延长电机使用寿命。



### Cooling Tower Motor #1

Motors installed in the top of the cooling tower or directly subjected to the cooling tower air flow.

- Efficiency levels: Standard Efficiency - IE1  
High Efficiency - IE2  
Premium Efficiency - IE3  
Super Premium Efficiency - IE4 <sup>1)</sup>
- Cooling Method: TEFC (TEAO upon request)
- Degree of protection: IP55
- Rated output: 1.1 to 90kW
- Number of poles: 2, 4, 6, 8
- Frame sizes: 90 to 280S/M
- Voltage: single or multi-voltage design
- Insulation class: F
- Squirrel cage rotor in aluminum die cast
- Double sealed 2RS bearings (up to 200L)
- Internal epoxy coating (tropicalization)
- Sealing compound at fitting joints
- Space heaters (Optional)
- Rubber drain plugs in endshields and terminal box
- Shaft slinger
- Dedicated Nameplate
- Dedicated painting plan
- Color: RAL 5009 - Blue (for IE1, IE2 and IE3 motors)  
RAL 6002 - Green (for IE4 motors)

### 冷却塔电机类型#1

电机安装在冷却塔顶部, 或面对冷却塔气流。

- 效率等级: 标准效率 - IE1  
高效 - IE2  
超高效率 - IE3  
超超高效率 - IE4 <sup>1)</sup>
- 冷却方式: TEFC (全封闭式风扇冷却, 应客户要求可提供TEAO冷却方式)
- 防护等级: IP55
- 额定输出: 1.1 - 90kW
- 极数: 2,4,6和8
- 机座尺寸: 90至280S/M
- 电压: 单电压或多电压设计
- 绝缘等级: F
- 铸铝鼠笼转子
- 双密封2RS轴承 (最高至200 L机座)
- 内部环氧漆涂层 (防潮防腐涂装)
- 连接处密封
- 加热带(选配)
- 端盖和接线盒中的橡胶塞
- 轴甩油环
- 专用铭牌
- 专用的喷漆计划
- 颜色: RAL 5009 - 蓝色 (适用于IE1,IE2和IE3电机)  
RAL 6002 - 绿色 (适用于IE4电机)

### Cooling Tower Motor #2

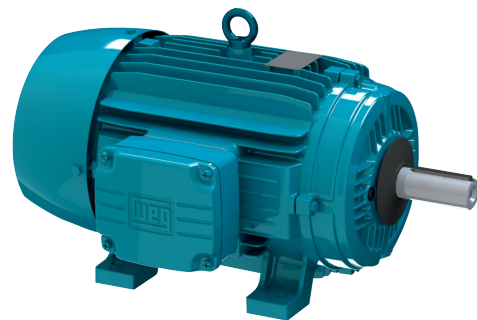
Motors installed besides the cooling tower equipment but not directly subjected to the cooling tower air flow.

- Efficiency levels: Standard Efficiency - IE1  
High Efficiency - IE2  
Super Premium Efficiency - IE3  
Premium Efficiency - IE4 <sup>1)</sup>
- Cooling method: TEFC (TEAO upon request)
- Degree of protection: IP55
- Rated output: 1.1 to 90kW
- Number of poles: 2, 4, 6, 8
- Frame sizes: 90 to 280S/M
- Voltage: single or multi-voltage design
- Insulation class: F
- Squirrel cage rotor in aluminum die cast
- Sealing compound at fitting joints
- Shaft slinger
- Dedicated Nameplate
- Color: RAL 5009 - Blue (for IE1, IE2 and IE3)  
RAL 6002 - Green (for IE4 motors)

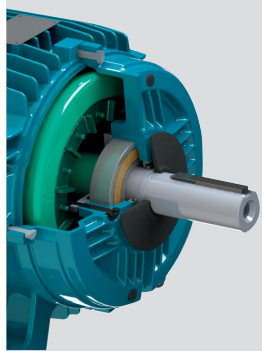
### 冷却塔电机类型#2

电机安装在冷却塔设备侧面, 但不直接面对冷却塔气流。

- 效率等级: 标准效率 - IE1  
高效 - IE2  
超高效率 - IE3  
超超高效率 - IE4 <sup>1)</sup>
- 冷却方式: TEFC(全封闭式风扇冷却)  
应客户要求可提供TEAO冷却方式)
- 防护等级: IP55
- 额定输出: 1.1 - 90kW
- 极数: 2、4、6和8
- 机座尺寸: 90至 280S/M
- 电压: 单电压或多电压设计
- 绝缘等级: F
- 铸铝鼠笼转子
- 连接处密封
- 轴甩油环
- 专用铭牌
- 颜色 RAL 5009 - 蓝色(适用于IE1, IE2 和IE3电机)  
RAL 6002 -绿色 (适用于 IE4 电机)



## Benefits 优势



### Double Sealed 2RS (Two Rubber Seals) Bearings

WEG Cooling Tower motors are supplied with 2RS type bearings. They are fitted with nitrile rubber seals on both bearing sides to provide additional protection against the ingress of liquid contaminant agents to the bearing and motor enclosures.

Supplied as Standard for: up to 200L frame

### 双密封2RS (双橡胶密封) 轴承

WEG冷却塔电机采用了2RS型轴承。这种轴承的两侧均使用丁腈橡胶密封,能有效防止液体污染物进入轴承及电机外壳内。

标准配置: 最高至200L机座

### Space Heaters(Optional)

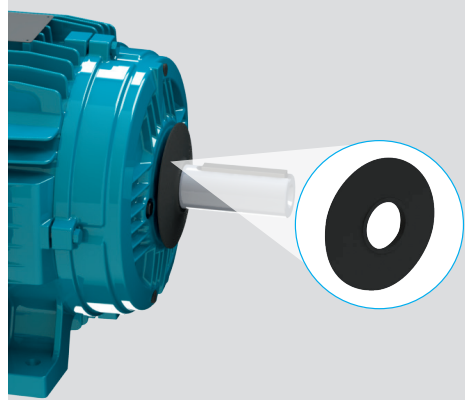
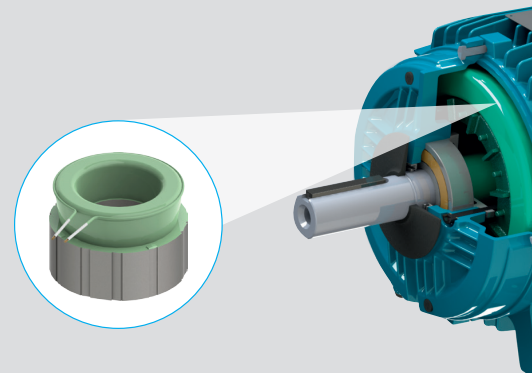
Prevent water condensation accumulation inside the motor and maintain winding insulation resistance within acceptable levels, prolonging the electric motor lifespan.

Voltage (110-127 or 200-240 or 380-480V)  
For frames 90 to 100 - Single  
For frames 112 to 280 - Dual

### 加热带(可选配置)

加热带(可选配置)可防止冷凝水在电机内部积聚,并将绕组的绝缘电阻保持在可接受范围内,延长电机的寿命。

电压(110-127或200-240或380-480V)  
机座90至100 - 单电压  
机座112至280 - 双电压



### Shaft Slinger

In order to offer an additional protection against the ingress of liquid contaminant agents through the shaft end bearing, specially for vertical shaft up applications, Cooling Tower motor shafts are supplied with a rubber slinger ring.

This slinger operates as a centrifuge element that, when the motor is running, expels the liquids with its rotation movement.

### 轴用油环

为防止液体污染物进入轴端轴承,特别是对于轴垂直向上的应用,冷却塔电机轴上配置一个橡胶甩油环。

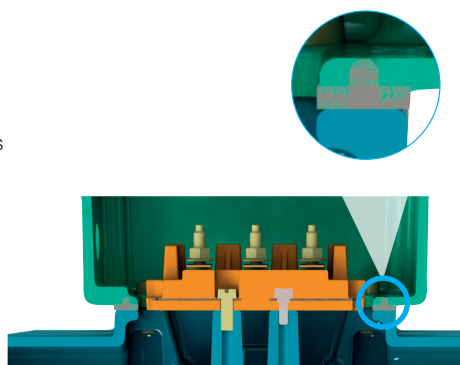
当电机运行时,此甩油环将作为离心元件,通过旋转运动将液体甩出。

### Sealing Compound at Fitting Joints

Applied to drive end and non-drive end shield joints and terminal box fixing screws, the Loctite 5923 compound forms an elastic film, improving the sealing on machined surfaces and threaded connections.

### 连接处密封

使用Loctite 5923胶水涂抹在驱动端和非驱动端的端盖连接点以及接线盒的固定螺钉上,增强加工表面和螺纹连接处的密封效果。



### Dedicated Nameplate

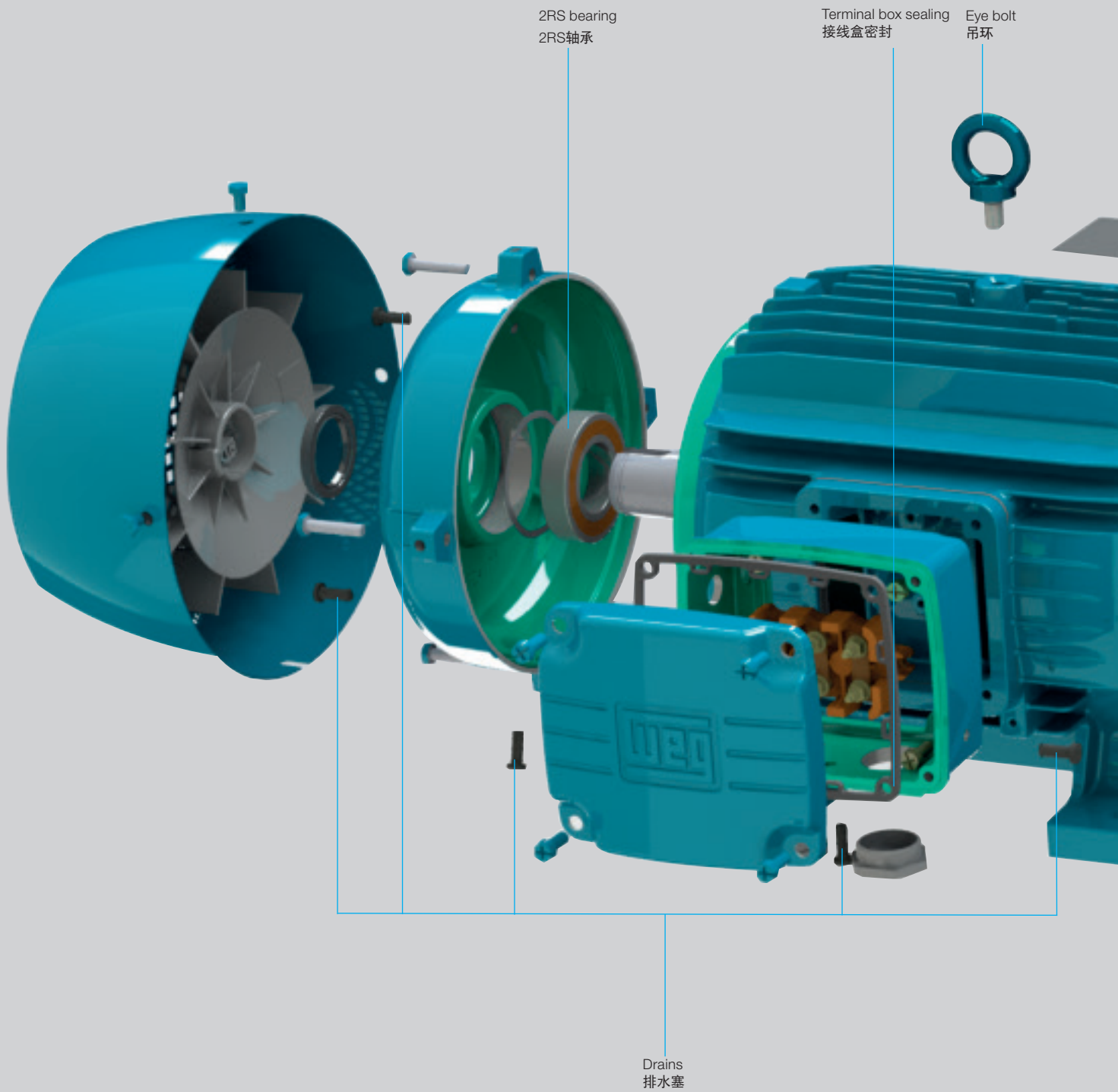
Clear identification allowing correct replacement.

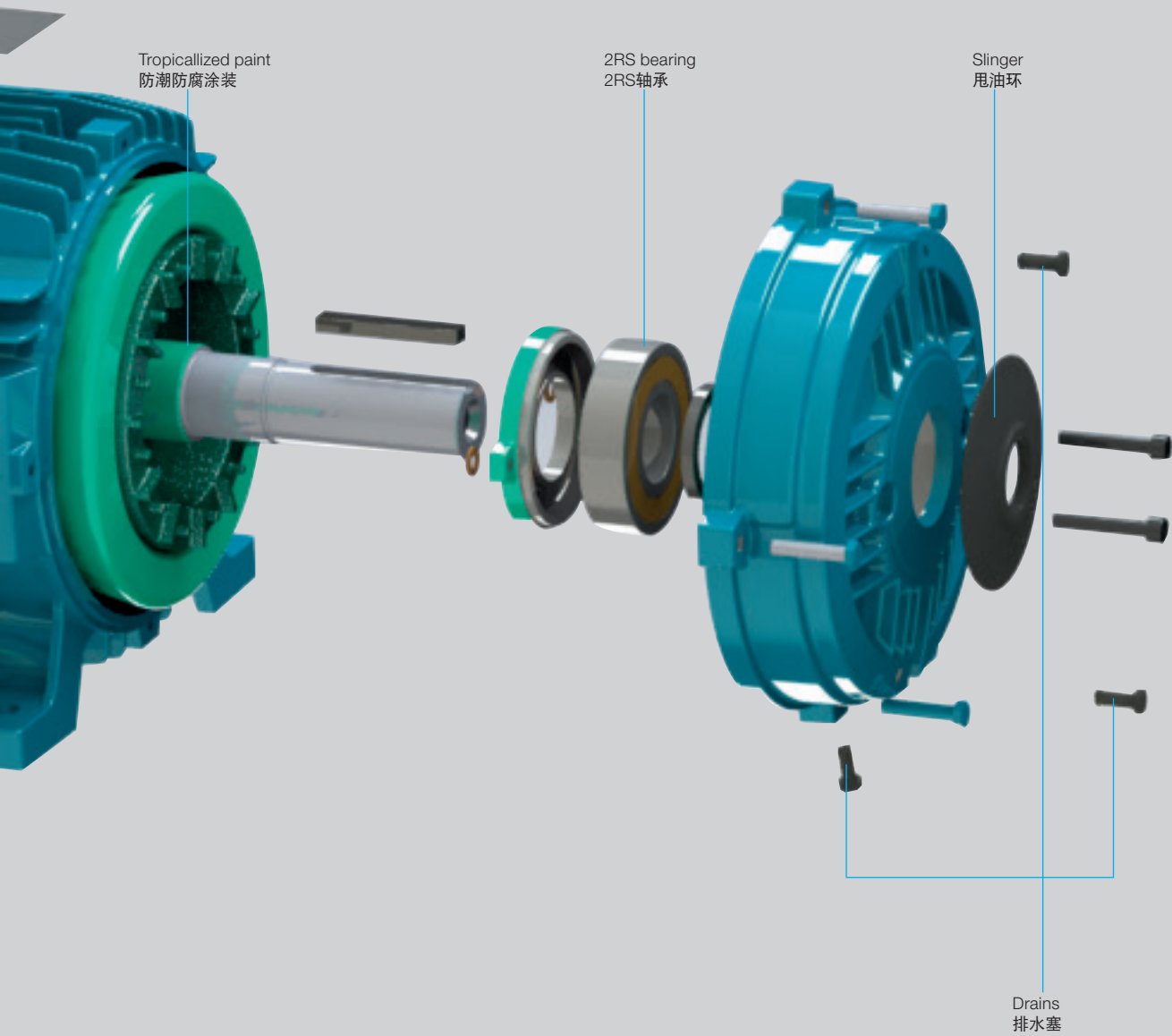
### 专用铭牌

信息清晰明了,方便正确替换电机。

WEG		13740561	
W21 COOLING TOWER			
WNT	3 ~ 160L-04		
AMB	40°C		
IP55	INS CL. F	ΔT 80 K	S1 SF 1.00
V	Hz	kW	RPM
415	△ / -	50 15	1460 28.2 / -
-	/ -		- / -
-	/ -		- / -
-	/ -		- / -
415		89.0 (100%)	88.5 (75%) 88.0 (50%)
- / -	IE1	- (100%)	- (75%) - (50%)
-		- (100%)	- (75%) - (50%)
W2 U2 V2	W1 U1 V1	W2 U2 V2	W1 U1 V1
L1 L2 L3	L1 L2 L3	L1 L2 L3	L1 L2 L3
Δ - ONLY START			
NEMA	Eff - %	-HP	- V - Hz - RPM
-	A PF	- DES - CODE - SF	-
6309-2RS-C3		MOBIL POLYREX EM	121 kg
6209-2RS-C3			
MOD.TE01FOX0X0000301180			
EAC		IEC 60034-1	

# Features 特性





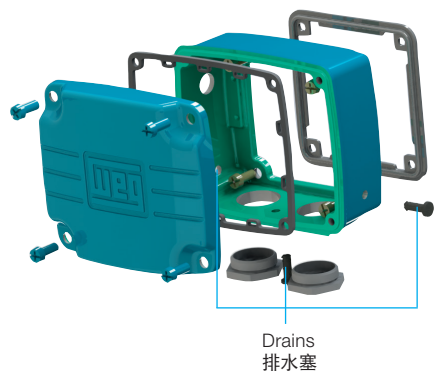
### Dedicated Painting Plan

WEG Cooling Tower motors are supplied with a dedicated epoxy based painting plan (WEG internal designation 202E), specially designed for environments where high humidity is present. This painting plan exceeds the "C3" Corrosivity Category and "High" resistance to the salt spray test (minimum of 500 hours) as per ISO 12944-2 Standard.

### 专用的喷漆计划

WEG冷却塔电机采用专为高湿度环境应用而设计的环氧漆涂层，并采用专用喷漆计划202E。这种喷漆方式的防腐蚀性能达到ISO 12944-2标准要求的“C3”腐蚀性类别以及“高”耐盐雾测试性能（至少500小时）。

### Salt Spray Resistance 耐盐雾性能



### Drains Versatility for Horizontal or Vertical Mounting

The Cooling Tower line motors are supplied with drain holes for draining the water from inside the motor. The location of these drain holes in the endshields (two axial and one radial) and in the terminal box (two in opposite sides and one in cable entrance side) ensures efficient water draining from the motor enclosure.

### 适用于水平或垂直安装的通用排水孔

冷却塔系列电机采用排水孔设计，可将水从电机内部排出。端盖（两个轴向，一个径向）和接线盒（两侧各一个，电缆入口侧一个）中的排水孔可确保高效地将水从电机外壳中排出。

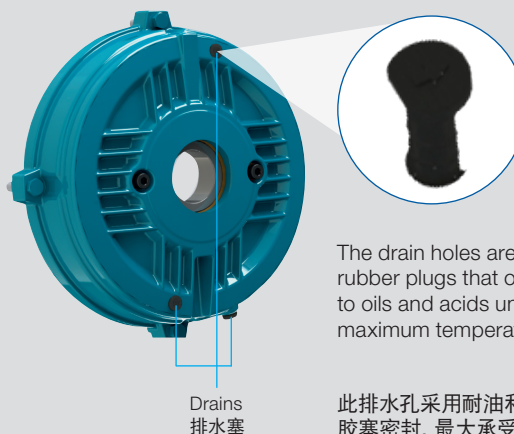
### Internal Epoxy Coating (Tropicalization)

This internal coating ensures additional protection against the harmful effects of high humidity environments that may compromise the integrity of the motor's insulation system leading to premature deterioration.

### 内部环氧漆涂层（防潮防腐涂装）

此内部涂层可防止高湿度环境对设备造成的损害，避免高湿度破坏电机绝缘系统的完整性，进而导致提前老化。

### DE Endshield 驱动端端盖



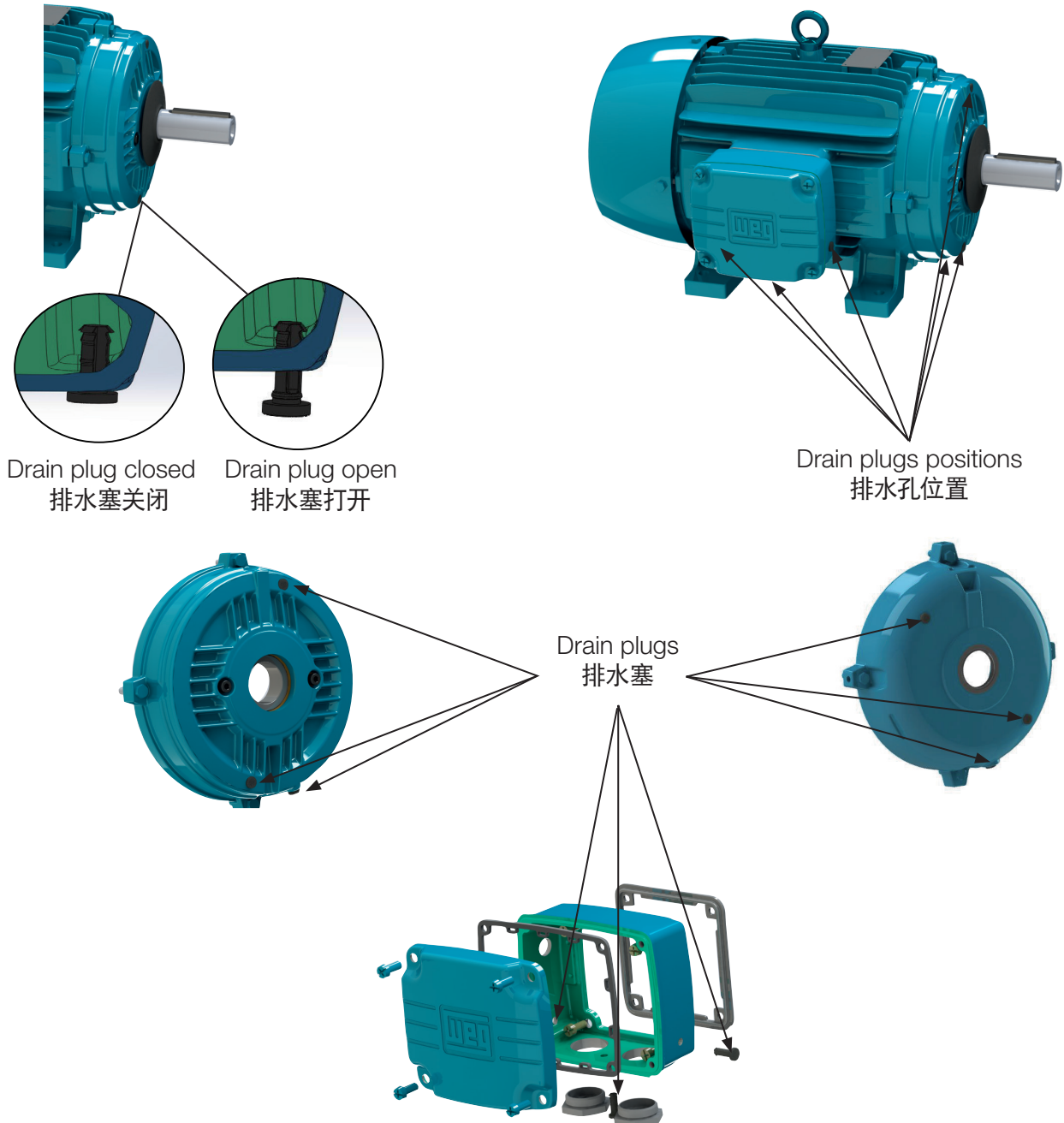
The drain holes are fitted nitrile rubber plugs that offer resistance to oils and acids until the maximum temperature of 110 °C.

此排水孔采用耐油和酸的丁腈橡胶塞密封，最大承受温度为110 °C。

# ATTENTION 注意

## COOLING TOWER DUTY MOTORS

### 冷却塔应用电机



Motor designed for multiple mounting. The drain plugs in the lowest position should be opened during motor installation as shows above.

电机支持多种安装方式。如上所示，在电机安装过程中请打开最低处的排水塞。

The fan cover may need to be removed to access some of the drain plugs.

To access our complete installation, Operation and Maintenance manual please log into the Download Center on our Website at [www.weg.net](http://www.weg.net).

检修某些排水塞时可能需要拆卸风扇。

如需完整的安装、使用和维护手册，请登录公司网站[www.weg.net](http://www.weg.net)访问“Download Center”。

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For those countries where there is not a WEG own operation, find our local distributor at [www.weg.net](http://www.weg.net).



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