

Wolong EC Motors

Version 27/07/2022

> Content

01 | EC Motors range

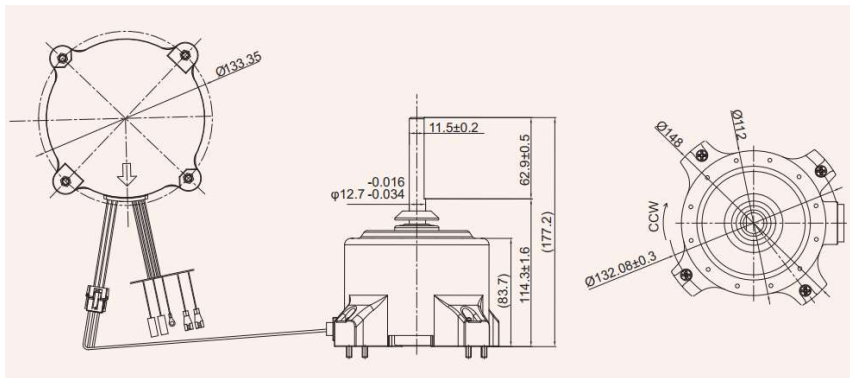
> I. EC motors Product Range

I.I. Standard EM42

> Major technical parameters:

Model	Voltage	Frequency	Speed	Control model	Efficiency	Status
1/3HP	Single-phase 240V	50/60Hz	200-1200RPM	PWM Serial Speed	>IE4	Available for Order

> Dimensions:



EM42 boundary dimension

height	177.2mm
external diameter	132mm
diameter of axle	$\phi 11.5$ mm
weight	5kg

※ Motor shaft diameter, shaft length and lead length can be customized

Standard features

Temperature range $-20^{\circ}\text{C}/+55^{\circ}\text{C}$

Power factor $> 0,9$

Speed precision $\pm 1\%$

Control mode: PWM and Serial Speed

Protection level IP44

Plastic frame

CCC certified

UL certified

CE certified

EMC certified

Integrated Drive

[More options one request...]

> I. EC motors Product Range

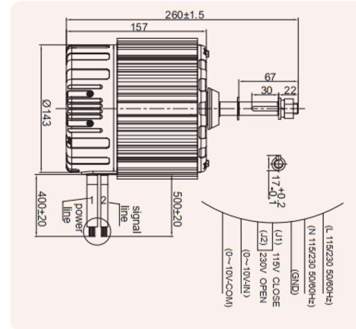
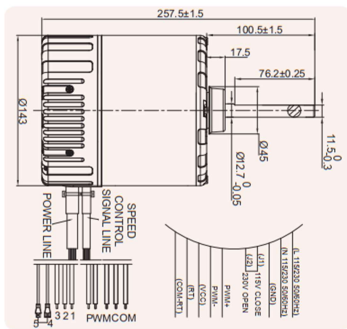
I.II. Standard EM48

> Major technical parameters:

Model	Voltage	Frequency	Input current	Speed	Efficiency	Status
1/4HP	Single Phase 115,230VAC	50/60Hz	3.3A / 1.77A	200-2200 RPM	>IE4	Available for Order
1/3HP	Single Phase 115,230VAC	50/60Hz	4A / 2.2A	200-2200 RPM	>IE4	
1/2HP	Single Phase 115,230VAC	50/60Hz	5.9A / 3.2A	200-2200 RPM	>IE4	
3/4HP	Single Phase 115,230VAC	50/60Hz	8.4A / 4.5A	200-2200 RPM	>IE4	
1HP	Single Phase 115,230VAC	50/60Hz	10.7A / 5.9A	200-2200 RPM	>IE4	

Standard features
Temperature range -20°C/+55°C
Power factor > 0,9
Speed precision +/- 1%
Control mode: 0-10V and Serial Port
Protection level IP20
Steel frame, unprotected
CCC certified
UL certified (Up to 1800RPM)
CE certified
EMC certified
Integrated Drive
<i>[More options one request...]</i>

> Dimensions:



EM48 boundary dimension

height	257.5mm
external diameter	φ143
diameter of axle	Φ12/Φ12.7/ Φ15/Φ17
weight	7kg

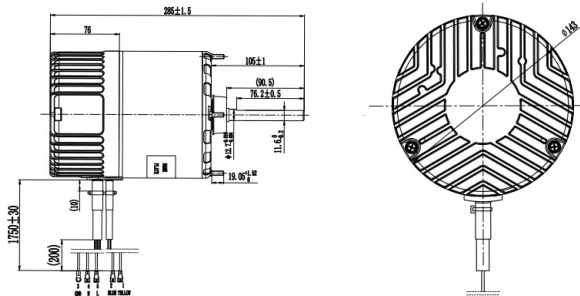
> I. EC motors Product Range

I.III. Standard EM48H

> Major technical parameters:

Model	Voltage	Frequency	Input current	Speed	Efficiency	Status
1/4HP	Three-phase 380-480V	50/60Hz	0.52 - 0.45A	120-2200 RPM	>IE4	Available for Order
1/2HP	Three-phase 380-480V	50/60Hz	0.95 - 0.84A	120-2200 RPM	>IE4	
3/4HP	Three-phase 380-480V	50/60Hz	1.33 - 1.16A	120-2200 RPM	>IE4	
1HP	Three-phase 380-480V	50/60Hz	1.77 - 1.52A	120-2200 RPM	>IE4	
1/4HP	Single-phase 460-480V	50/60Hz	0.85A	120-2200 RPM	>IE4	
1/2HP	Single-phase 460-480V	50/60Hz	1.6A	120-2200 RPM	>IE4	
3/4HP	Single-phase 460-480V	50/60Hz	2.25A	120-2200 RPM	>IE4	
1HP	Single-phase 460-480V	50/60Hz	3A	120-2200 RPM	>IE4	

> Dimensions:



EM48H boundary dimension

height	257.5mm
external diameter	φ143
diameter of axle	Φ12/Φ12.7/Φ15/Φ17
weight	7kg

Standard features
Temperature range -20°C/+55°C
Power factor > 0,9
Speed precision +/- 1%
Control mode: 0-10V and Serial Port
Protection level IP20
Steel frame, unprotected
CCC certified
UL certified (Up to 1800RPM)
CE certified
EMC certified
Integrated Drive
<i>[More options one request...]</i>

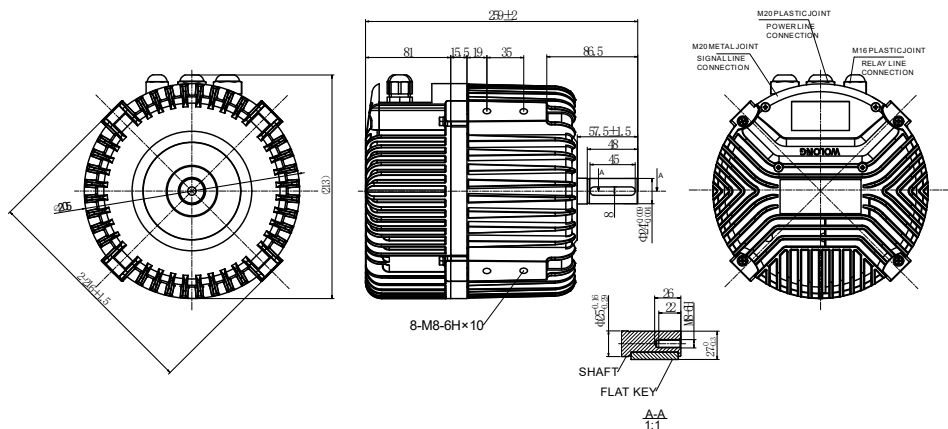
> I. EC motors Product Range

I.IV. Standard EC112

> Major technical parameters:

Model	Voltage	Frequency	Input current	Speed	Efficiency	Status
1.1kW	Three-phase 380-480V	50/60Hz	2.2 - 1.8A	200-2200 RPM	≥IE4	Available for Order
1.3kW	Three-phase 380-480V	50/60Hz	2.6 - 2.1A	200-2200 RPM	≥IE4	
1.5kW	Three-phase 380-480V	50/60Hz	3.0 - 2.4A	200-2200 RPM	≥IE4	
1.8kW	Three-phase 380-480V	50/60Hz	3.5 - 2.8A	200-2200 RPM	≥IE4	

> Dimensions:



EC112 boundary dimension

Height	214mm
External diameter	φ205
Diameter of axle	Φ17/Φ20
Weight	12kg

※ Motor shaft diameter, shaft length and lead length can be customized.

Standard features
Temperature range -25°C/+55°C
Power factor > 0,9
Speed precision +/- 1%
Control mode: 0-10V and Serial Port
Protection level IP55
Steel frame, unprotected
CCC certified
UL certified (Up to 1800RPM)
CE certified
EMC certified
Integrated Drive
[More options one request...]

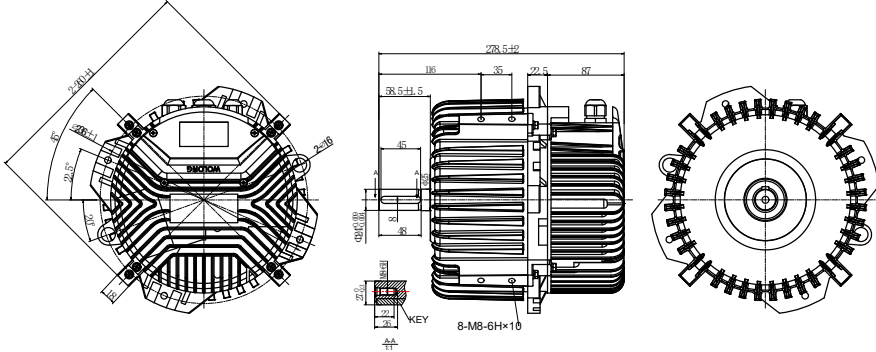
> I. EC motors Product Range

I.V. Standard EC132

> Major technical parameters:

Model	Voltage	Frequency	Input current	Speed	Efficiency	Status
1.5kW	Three-phase 380-480V	50/60Hz	3.0 - 2.4A	200-2200 RPM	≥IE4	Available for Order
1.8kW	Three-phase 380-480V	50/60Hz	3.5 - 2.9A	200-2200 RPM	≥IE4	
2.2kW	Three-phase 380-480V	50/60Hz	4.3 - 3.5A	200-2200 RPM	≥IE4	
2.6kW	Three-phase 380-480V	50/60Hz	5.0 - 4.0A	200-2200 RPM	≥IE4	
3kW	Three-phase 380-480V	50/60Hz	5.8 - 4.5A	200-2200 RPM	≥IE4	

> Dimensions:



EC132 boundary dimension

height	278.5mm
external diameter	φ260
diameter of axle	Φ24/Φ28
weight	19kg

※ Motor shaft diameter, shaft length and lead length can be customized

Standard features
Temperature range -25°C/+55°C
Power factor > 0,9
Speed precision +/- 1%
Control mode: 0-10V and Serial Port
Protection level IP55
Steel frame, unprotected
CCC certified
UL certified (Up to 1800RPM)
CE certified
EMC certified
Integrated Drive
<i>[More options one request...]</i>

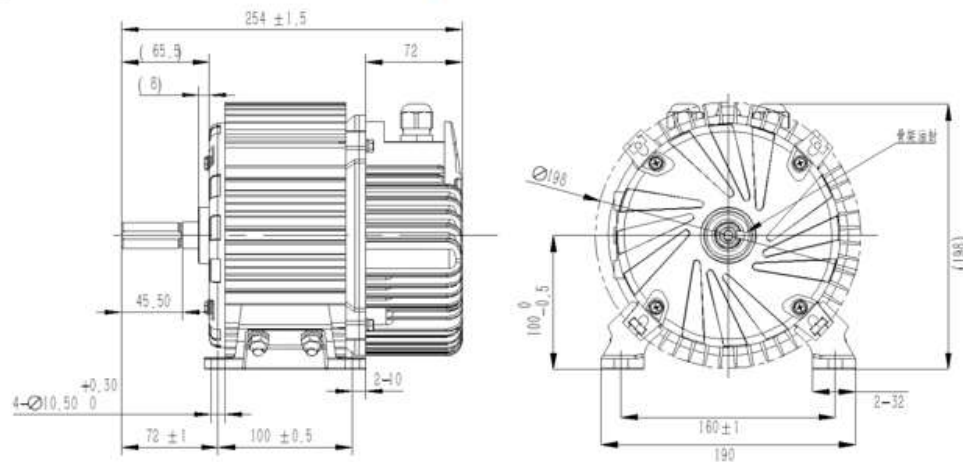
> I. EC motors Product Range

I.VI. Future development – EC56

> Major technical parameter

Typical model	Voltage	Frequency	Input current	Speed	Efficiency	Status
1.1KW	Three-phase 380-480V	50/60Hz	2.2A	200-1800 RPM	>IE4	Available for Order
1.3KW	Three-phase 380-480V	50/60Hz	2.55A	200-1800 RPM	>IE4	
1.5KW	Three-phase 380-480V	50/60Hz	2.90A	200-1800 RPM	>IE4	

> Introduction and characteristic of product



EC56 boundary dimension

height	214mm
external diameter	φ205
diameter of axle	Φ17/Φ20

※ Motor shaft diameter, shaft length and lead length can be customized

> I. EC motors Product Range

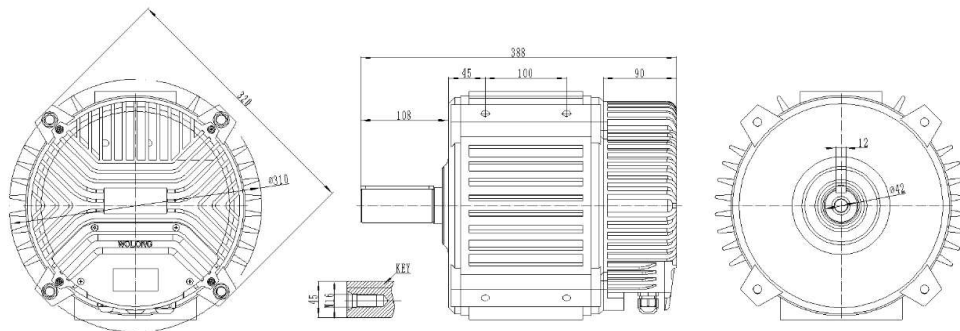
I.VII. Future development – EC160

> Major technical parameter

UL/CE/CCC certification has been opened

Model	Voltage	Input current	Efficiency	Speed	Efficiency	Status
4kW	Three-phase380-480V	7A	90.1%	1000RPM	> IE4	R&D Stage *Customized per customer requirements.
5.5kW	Three-phase380-480V	10A	91.2%	1000RPM	> IE4	
7.5kW	Three-phase380-480V	13A	92.0%	1000RPM	> IE4	
4kW	Three-phase380-480V	7A	91.6%	1500RPM	> IE4	
5.5kW	Three-phase380-480V	10A	92.4%	1500RPM	> IE4	
7.5kW	Three-phase380-480V	13A	93.1%	1500RPM	> IE4	
4kW	Three-phase380-480V	7A	91.8%	1800RPM	> IE4	
5.5kW	Three-phase380-480V	10A	92.5%	1800RPM	> IE4	
7.5kW	Three-phase380-480V	13A	93.3%	1800RPM	> IE4	

> Dimensions



EC160 boundary dimension

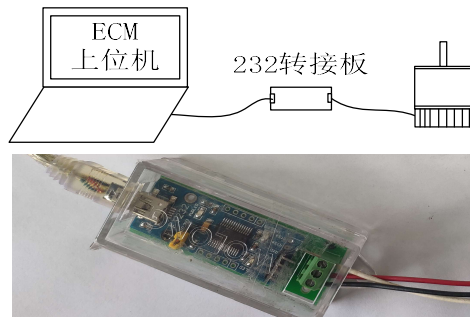
height	388.0mm
external diameter	φ320
diameter of axle	Φ30/Φ36/Φ42
weight	70kg

※ Motor shaft diameter, shaft length and lead length can be customized

> I. EC motors Product Range

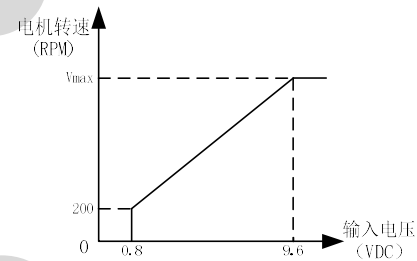
I.VIII. Speed control

Modbus



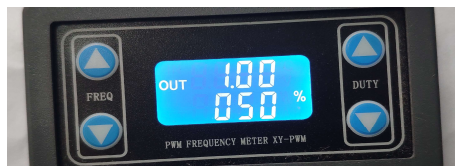
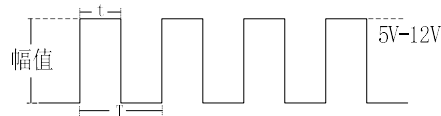
C

Speed control 0-10V or 4-20mA



D

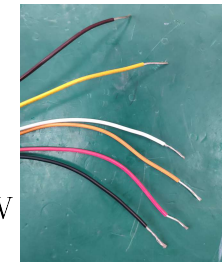
PWM commander



A

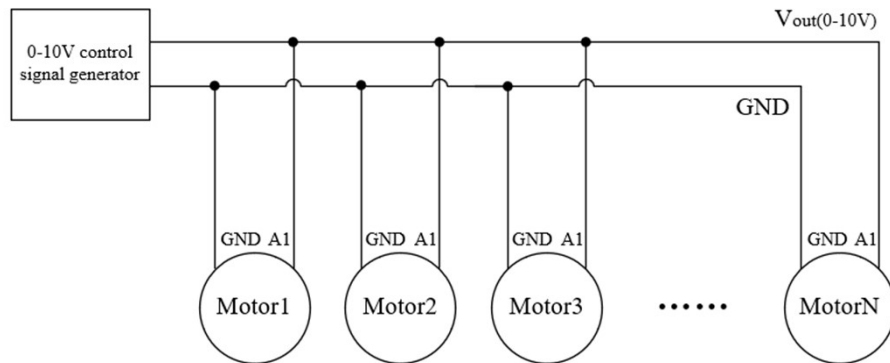
Multiple Speeds

褐色	SP1	~24V
黄色	SP2	
白色	SP3	
橙色	SP4	
红色	SP5	
黑色	COM	

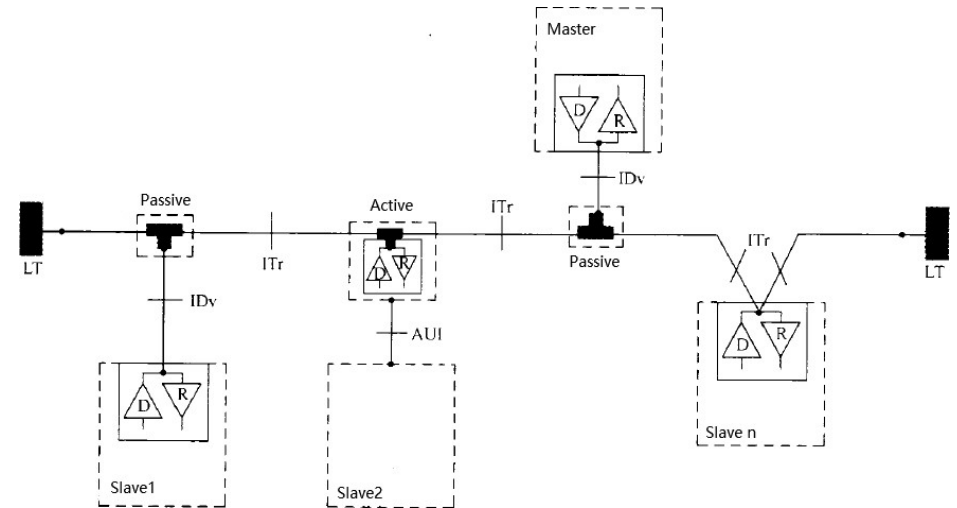


> I. EC motors Product Range

I.IX. Multiple connection



- > Multiple motors connection with 0-10V signal
- > Recommendation: **50 motors** maximum
- > Recommendation: **Signal line 100m** maximum



- > Multiple motors connection with MODBUS
- > **247 motors** maximum
- > Recommendation: **RS485 line 100m** maximum

> I. EC motors Product Range

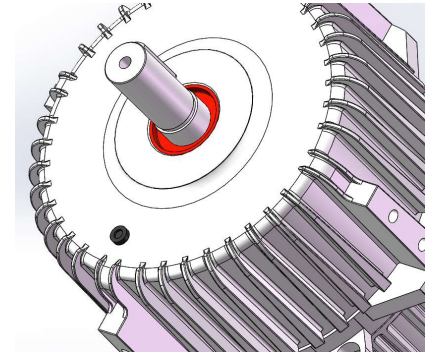
I.X. Control modes

Control mode	Main characteristic	Main application areas
Constant speed control	Control target: Speed Advantages: The control structure is simple and easy to implement, the speed is not affected by the load change, the robustness is good, and the speed control accuracy is high.	Indoor ventilation fans, CNC machine tools, drones
Constant torque control	Control target: Torque Pros: Fast response (Single loop), simple and easy control structure, good robustness. Cons: Low torque control accuracy.	Elevators, cranes, roller shutters, electric curtains

> I. EC motors Product Range

I.XI. Options

- > Non-exhaustive list of available options on request, to be checked case by case:
 - > Higher IP grades up to IP66
 - > Drain holes
 - > Anti-corrosion protection
 - > Adapted shaft length
 - > Extended temperature ranges from -40degC to +70degC
 - > Different certifications



> I. EC motors Product Range

I.XII. Production site – Shangyu, China

- Product range: Single-Phase and 3-Phase Industrial / Commercial ECM motor
- Output power : 0.25 - 10HP
- Yearly production capacity: 200k units
- Total investment: 5M USD





WOLONG

Power your future