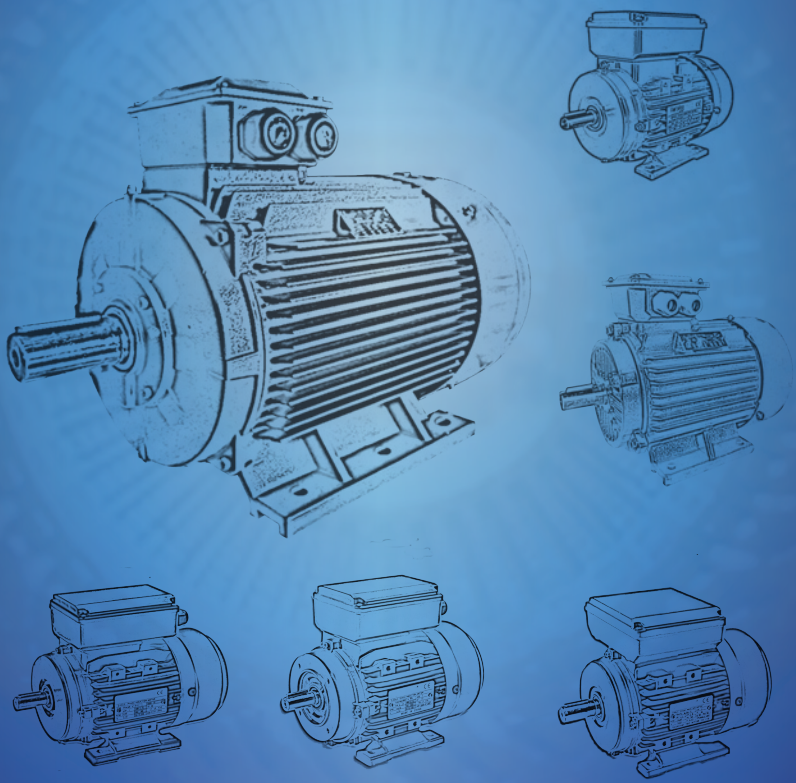
# ROTOMAQ

## *Low Votage Electric Motors*

## High Efficiency IE1, IE2, IE3



RotoMaq MOTORS

# INTRODUCTION

*Rotomaq motors have good performance, safety and reliable operation, nice appearance, and can be maintained very conveniently, while with low noises, little vibration and at the sametime light weight and simple construction.*

*These series motors can be used for general drive.*

*The main dimensions and rated outputs of RotoMaq motors generally conform to International Standards IEC60034 for efficiency IE1, IE2, IE3.*

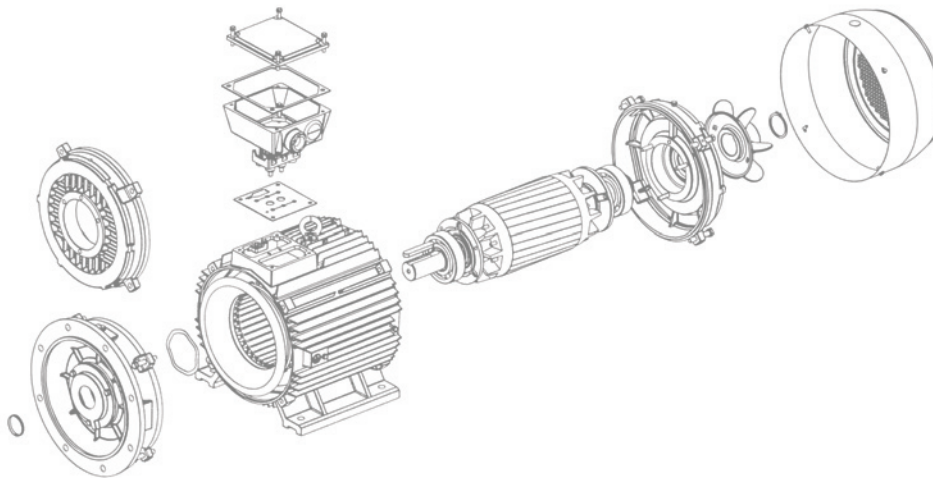
*The motors are totally enclosed, fan cooled, with squirrel cage rotor.*

*Three - phase Rotomaq motors:*

- *RMA: series IE1 standard efficiency motors*
- *RMA2: series IE2 high efficiency motors*
- *RMA3: series IE3 premium efficiency motors*

*Single-phase Rotomaq motors:*

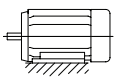
- *RMS: series single-phase capacitor-run motors*
- *RMSC: series single-phase capacitor-start motors*
- *RMSD: series single-phase dual-capacitor motors*



# MECHANICAL DESIGN

## MOUNTING POSITIONS

### *Foot mount*


B3 (IM1001)


V5 (IM1011)

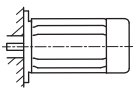

V6 (IM1031)

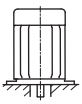

B6 (IM1051)

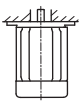

B7 (IM1061)


B8 (IM1071)

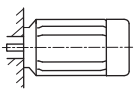
### *Large flange*

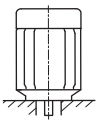

B5 (IM3001)

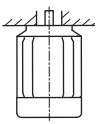

V1 (IM3011)


V3 (IM3031)

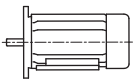
### *Small flange (face)*

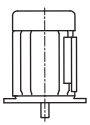

B14 (IM3601)

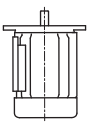

V18 (IM3611)


V19 (IM3631)

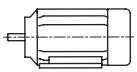
### *Large flange and feet*

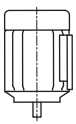

B3/B5 (IM2001)

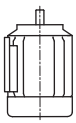

V1/V5 (IM2011)


V3/V6 (IM2031)

### *Small flange (face) and feet*


B3/B14 (IM2101)


V5/V18 (IM2111)


V6/V9 (IM2131)

*Note: Bearing arrangement may require review for vertical shaft mounting*

## MOTOR PROTECTION

### *Protective covers*

Motors to be mounted with the shaft vertically down must be provided with a suitable cover (available on request) to ensure foreign bodies are prevented from entering the motor.

Special care is necessary in fitting protective covers to ensure air flow is not impeded

To maintain IP rating, special additional measures may be required to protect the motor against the ingress of water or foreign bodies. Please contact RotoMaq Motors for further information.

### *Against solar radiation*

High solar radiation will result in undue temperature rise.

In these circumstances motors should be screened from solar radiation by placement of adequate sunshades which do not inhibit air flow.

### *Degree of protection*

Standard levels of enclosure protection for all Rotomaq motors frame sizes for both motor and terminal box is IP55 with IP56, IP65 and IP66 available on request.

Enclosure designations comply with IEC or AS60529. The enclosure protection required will depend upon the environmental and operational conditions within which the motor is to operate.

### *IP standards explanation*

| IP | 5 | 5 |
|---|---|---|
| | 1 | 2 |

International protection rating prefix

*First characteristic numeral*

**4** = Protected against solid object greater than 1.0 mm:
Wires or strips of thickness greater than 1.0 mm, solid objects exceeding 1.0 mm

**5** = Dust protected:
Ingress of dust is not totally prevented but it does not enter in sufficient quantity to interfere with satisfactory operation of the equipment.

**6** = Dust tight:
No ingress of dust.

*Second characteristic numeral*

**4** = Protected against splashing water:
Water splashed against the enclosure from any direction shall have no harmful effect

**5** = Protected against water jets:
Water projected by a nozzle against the enclosure from any direction shall have no harmful effect.

**6** = Protected against heavy seas:
Water from heavy seas or water projected in powerful jets (larger nozzle and higher pressure than second numeral 5) shall not enter the enclosure in harmful quantities.

### *Shaft*

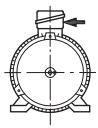
Rotomaq motors have standard shaft extension lengths and are provided with standard key, and drilled and tapped hole.
Non standard shaft extensions are available upon special order, with shaft design outlined on a detailed drawing.
Shaft extension run out, concentricity and perpendicularity to face of standard flange mount motors, comply with normal grade tolerance as specified in IEC 60072-1 .
Precision grade tolerance is available upon special order.

### *Finish*

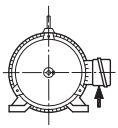
Standard Rotomaq motor color is RAL 5008. Other colors are also available. All castings and steel parts are provided with a prime coat of rust-resistant paint.
The finishing coat of enamel paint is sufficient for normal conditions, however special paint systems can be provided to accommodate stringent requirements for motors in corrosive environments.
Different colors and paint systems apply for varieties as described later in this catalogue

### *Teminal box*

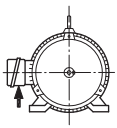
Rotomaq motors have a cast iron terminal box with a one piece nitrile rubber barrier gasket between terminal box and motor, and a flat gasket under the terminal box lid.
As standard the terminal box is the top mounting. Motors are also available with terminal boxes on the left hand side or on the right hand side.



Standard terminal top mounting



Optional RHS mounting



Optional LHS mounting

*Indicates conduit entry position*

### *Lubrication*

Rotomaq motors standard bearings are lubricated with lithium based rolling contact bearing grease suitable for operation within the cooling air temperature range of -20°C to +55°C. For operation outside this temperature rangespecial lubricants are required

Special lubricants or additional maintenance may be required in the case of motors exposed to comparatively high degrees of pollution, high humidity, increased or changed bearings loads, or prolonged continuous operation.

## VIBRATION, BALANCING AND NOISE

### *Vibration*

Rotomaq motors fall within the limits of vibration severity set out in standard IEC 60034-14 which are listed below. As specified in the standard, these values relate to rotating machinery measured in soft suspension.

### *Vibration severity limit, Level N*

| Motor frame | 71 | 80 | 90 | 100 | 112 | 132 | 160 | 180 | 200 | 225 | 250 | 280 | 315 | 355 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum vibration velocity [mm/s] | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.8 | 2.8 |

### *Balancing*

Rotors have been dynamically balanced with a half key. Pulleys or couplings used with motors must also be appropriately balanced.

### *Noise*

Noise levels for Rotomaq motors comply with limits set by IEC 60034.9 and AS1359.109. Rotomaq sound pressure levels at 1 metre (Data relates to motors tested at no load) are set out in the table (above right).

### *Sound pressure level*

| | Out put [kW] | 0.37 | 0.55 | 0.75 | 1.1 | 1.5 | 2.2 | 3.0 | 4.0 | 5.5 | 7.5 | 11 | 15 | 18.5 | 22 | 30 | 37 | 45 | 55 | 75 | 90 | 110 | 132 | 160 | 200 | 220 | 250 | 250 | 315 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sound pressure level dB (A) at 1 metre | 3000 r/min | - | - | 65 | 65 | 69 | 69 | 72 | 72 | 76 | 76 | 80 | 80 | 80 | 85 | 87 | 87 | 89 | 89 | 91 | 91 | 92 | 92 | 92 | 92 | 95 | 95 | 95 | 95 |
| | 1500 r/min | 61 | 61 | 61 | 61 | 61 | 63 | 63 | 67 | 68 | 71 | 72 | 74 | 74 | 74 | 76 | 76 | 76 | 78 | 81 | 81 | 84 | 86 | 87 | 89 | 92 | 92 | 92 | 92 |
| | 1000 r/min | 57 | 57 | 59 | 60 | 60 | 60 | 64 | 64 | 68 | 68 | 70 | 70 | 70 | 70 | 73 | 73 | 76 | 76 | 78 | 78 | 79 | 80 | 85 | 85 | 88 | 88 | 88 | - |
| | 750 r/min | - | - | - | 56 | 56 | 56 | 59 | 59 | 65 | 65 | 65 | 67 | 67 | 68 | 70 | 70 | 70 | 74 | 76 | 76 | 76 | 77 | 82 | 82 | - | - | - | - |

## INSULATION

Standard motors are wound with F class insulation and winding designs limit the temperature rise to 80K (unless otherwise noted) for which B Class insulation would normally be sufficient. The use of F class insulation provides an additional safety margin of 25K, as shown in the accompanying table, together with an extended operating life.

Due to their conservative design many sizes in the RotoMaq range of motors have temperature rises considerably less than 80K and therefore provideeven greater safety margins.

| Insulation class | B | F | H |
|---|---|---|---|
| Max. permissible winding temp. (°C) | 130 | 155 | 180 |
| Less ambient temp. (°C) | - 40 | -40 | -40 |
| Less hotspot allowance (K) | - 10 | -10 | -15 |
| Equals max. permissible temp.rise (K) | 80 | 105 | 125 |
| Less max. design temp. rise (K) | - 80 | -80 | - 80 |
| Equals min. safety margin (K) | - | 25 | 45 |

## THERMAL PROTECTION

Motors can be protected against excessive temperature rise by inserting, at various positions within the windings, thermal probes which can either give a warning signal or cut off the supply to the motor in the event of a temperature abnormality.

The units fitted to Rotomaq motors, frame sizes 160 and above, are PTC thermistors. These thermovariable resistors, with positive temperature co-efficient, are fitted one per phase, series connected and are terminated in a terminal strip located in the terminal box. Trip temperature is 160°C (180°C for RMCH series). Additional 130°C thermistors can be fitted as an option for alarm connection.

# INSTALLATION, OPERATION AND MAINTENANCE

The RotoMaq motors are designed and manufactured to be robust and reliable with minimal maintenance. The following items should be taken into consideration to ensure a trouble free installation and reliable running throughout the motor's life.

## INSPECTION

RotoMaq motors are delivered through safe and reliable transport in appropriate packing as to remain in as manufactured condition during transit. On receipt of the motor thoroughly inspect the unit for any transit damage, if need be in the presence of an insurance surveyor. Any equipment damage or shortfall should be immediately advised to the nearest RotoMaq motors office.
Check the following:

- Rating plate details and enclosure are as ordered
- Shaft turns freely (in absence of shaft locking clamp)
- Condensation drain holes are in the correct position for the motor mounting application (they should be
- located at the lowest point of the motor when it is in its operating position)
- If the winding is Insulation Resistance (IR) tested to earth, ensure that the thermal protectors are not
- inadvertently damaged. (The thermistor leads should be shorted together whilst IR testing takes place)

## STORAGE

When the motor is not for immediate use store as follows:

- Clean and dry location
- Free from vibration (vibration can damage bearings)
- Shaft locking clamps, where supplied, are fitted securely
- Remove shaft locking clamps and turn rotor by one full rotation at least once a fortnight and replace shaft locking clamps
- Anti-condensation heaters, where fitted, should be energised if the environment is likely to be damp

## INSTALLATION

The following items should be considered on installation to ensure reliable operation of the motor.

### *Surroundings*

- Ensure that the motor is properly protected against ingress of oil, water or dust especially if construction
- work is in progress around the motor.
- Ensure air intake is not obstructed. Refer to dimension BL in the catalogue.
- When installing hazardous location motors, make sure that the zone and gas group or dust and temperature
- classification on motor nameplate are complied with

### *Mounting*

- Bed plates or slide rails should be firmly fixed to a solid, level foundation to ensure the motor remains rigid and vibration free.
- Shims or packers (if required) must be of adequate size and placed adjacent to and between base fixing screws
- Protective transport coatings on shafts and/or flanges must be removed prior to connection to the driven load
- A light coating of grease to shafts and/or flanges will inhibit corrosion during service and assist removal of pulleys or couplings.

## OPERATION

- Before running the motor make sure that the terminal box lid is closed and secured with appropriate clearance to live parts
- Make sure that appropriate earthing is done.
- Make sure that the coupling and/or transmission is adequately guarded for safety.
- Check the mounting bolts and/or flanges are firmly secured.
- Make sure of no loose objects around that may be sucked by the cooling fan on the motor.
- Make sure that the load applied is within the nameplate specification.
- Make sure that the ambient temperature is inside 40ºC or nameplate specification.
- Avoid frequent starting of motor. Refer to motor catalogue or nearest office for recommendation on frequency and duration of starts.
- If a VVVF drive is used on Ex nA motor, make sure that the applied load is inside the limits specified by the loadability curve shown in drawing.
- On Ex e motors, make sure that the starting method employed keeps the starting current and duration within the nameplate figures of $I_A/I_N$ ratio and $t_E$ time.
- Check that the running current on no load and full load are reasonably balanced within 10% of the average and record the figures in the log book for future reference. Note that the current imbalance can be higher, typically 10 times the voltage imbalance if there is an imbalance in supply voltage.
- Brake motors used in hazardous locations must have a limited number of repeat stops to 20 per hour

### *Number of starts per hour*

The number of starts per hour is dependant on the inertia of the driven load and the load torque demand.
A guide to generally acceptable starts per hour would be as per table.
For greater number of starts per hour, please contact your nearest RotoMaq Motors office for advice

| Starts per hour | | | | |
|---|---|---|---|---|
| Frame | 2 Pole | 4 Pole | 6 Pole | 8 Pole |
| **71 *** | - | 40 | - | - |
| **80 *** | 20 | 40 | 40 | - |
| **90** | 16 | 30 | 40 | - |
| **100** | 16 | 30 | 40 | 40 |
| **112** | 16 | 30 | 40 | 40 |
| **132** | 10 | 20 | 25 | 25 |
| **160** | 10 | 20 | 25 | 25 |
| **180** | 8 | 15 | 20 | 20 |
| **200** | 6 | 12 | 12 | 12 |
| **225** | 5 | 10 | 10 | 10 |
| **250** | 4 | 8 | 8 | 8 |
| **280** | 3 | 6 | 6 | 6 |
| **315** | 3 | 4 | 4 | 4 |

* 20 Starts / Hour for Ex tD brake Motors

## MAINTENANCE

Reliable, trouble free operation of a motor needs regular maintenance. Exact maintenance needs vary based on the site conditions. To obtain reliable service from the motor, the following maintenance schedule may be used as a guide. An authorised service agent must carry out maintenance of hazardous location motors.

A. Ensure air intake space is unobstructed
B. On a weekly basis use an air hose to ensure all air ways are clear and free of dust
C. Once every month, check motor for condensation. Replace drain plugs before starting if they are blocked or found missing
D. Do not wash the motor down unless it is IP66 rated
E. On a quarterly basis

- E1. Check the motor terminals for tightness and proper contact
- E2. If terminal lug/s are discoloured, re-terminate with fresh lugs
- E3. Check operation of starting equipment, ensuring all terminations are tight
- E4. Check mechanical operation of thermal overload relays, if any
- E5. Check mechanical operation of thermistor relays, if fitted
- E6. Check operation of anti-condensation heaters, if fitted

F. On a six monthly basis, in addition to the items in 'E'

- F1. Check winding resistance between supply terminals and compare to original value and enter in log book
- F2. Check supply voltage at motor terminals and record in log book.
- F3. Check bearings for abnormal noise/overheating

G. On an annual basis, in addition to the items in 'E' and 'F'

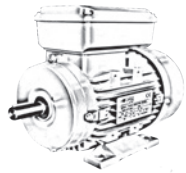
- G1. Re-grease the bearings as recommended in the following table. Frames 71-180 use sealed bearings. Frames 200-280 use open re-greasable bearings. When re-greasing bearings ensure that the correct type of grease is used. If in doubt about the existing grease type, clean out the old grease thoroughly from bearings and bearing housings, prior to regreasing
  WARNING: NEVER MIX GREASE OF DIFFERENT TYPES
- G2. Completely disassemble stator, rotor apart and clean thoroughly
- G3. Check bearings for wear/damage – replace as necessary.
- G4. Check all bolts and nuts for cracks or damage – replace as necessary.
- G5. Check all holding down bolts for signs of fatigue or damage – replace as necessary
- G6. After re-assembly, check and record in the log book
  Insulation resistance by megger
  No load current and voltages
  Full load current and voltages
  Ensure that these figures compare well with the original records in the log book
- G7. Check and ensure that the cooling fan is operational

# THREE PHASES ELECTRIC MOTORS

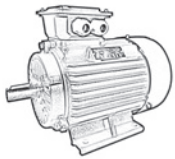
Three-phase Rotomaq motors are designed and manufactured in accordance with the parameters of the international standard 60034-30-1 for efficiency IE1, IE2, IE3.

The motors are totally enclosed, fan cooled, with squirrel cage rotor, aluminium frame.

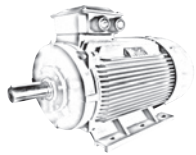
IEC60034-30-1 standard defines IE (International Effiiciency) efficiency class of single speed three phase cage induction motors: 50 Hz and 60Hz; 2, 4, 6, 8 pole; rated voltage up to 1000V; S1 duty



*RMA: series IE1 standard efficiency motors*



*RMA2: series IE2 high efficiency motors*



*RMA3: series IE3 premium efficiency motors*

# PERFORMANCE DATA

## IE1, RMA MOTORS
## THREE PHASE 380V 50HZ, IP55, F CLASS INSULATION, B CLASS TEMPERATURE RISE

| Nominal Output | Frame Size | Speed | Efficiency at % full load | | | | Power factor at % full load | | | | Class | Current | | | Torque | | | Moment of inertia | Weight of Foot mount motor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 125% Load | 100% Load | 75% Load | 50% Load | 125% Load | 100% Load | 75% Load | 50% Load | | Full Load $I_N$ | Lock rotor $I_L/I_N$ | $t_E$ time | Full Load $T_N$ | Lock rotor $T_L/T_N$ | Break down $T_B/T_N$ | $J=\frac{1}{4}GD^2$ | |
| [kW] | | [r/min] | [%] | [%] | [%] | [%] | [cosφ] | [cosφ] | [cosφ] | [cosφ] | | [A] | | [sec] | [Nm] | | | [kg*m²] | [kg] |
| ***3000 r/min = 2 poles - CENELEC frame allocations*** | | | | | | | | | | | | | | | | | | | |
| 0.09 | 56A | 2800 | 74.4 | 55.6 | 49.6 | 39.2 | 0.88 | 0.67 | 0.78 | 0.67 | IE1 | 0.37 | 6.1 | 17 | 2.5 | 2.8 | 4.0 | 0.0001 | 3 |
| 0.12 | 56B | 2840 | 74.4 | 65.6 | 61.8 | 53.2 | 0.88 | 0.71 | 0.78 | 0.67 | IE1 | 0.39 | 6.1 | 17 | 2.5 | 2.8 | 4.0 | 0.0001 | 3 |
| 0.18 | 56C | 2780 | 74.4 | 66.5 | 64.2 | 56.8 | 0.88 | 0.77 | 0.78 | 0.67 | IE1 | 0.53 | 6.1 | 17 | 2.5 | 2.8 | 4.0 | 0.0001 | 4 |
| 0.18 | 63A | 2780 | 74.4 | 66.5 | 64.2 | 56.8 | 0.88 | 0.77 | 0.78 | 0.67 | IE1 | 0.53 | 6.1 | 17 | 2.5 | 2.8 | 4.0 | 0.0002 | 4 |
| 0.25 | 63B | 2780 | 74.4 | 69.8 | 68.8 | 62.8 | 0.88 | 0.79 | 0.78 | 0.67 | IE1 | 0.69 | 6.1 | 17 | 2.5 | 2.8 | 4.0 | 0.0002 | 4 |
| 0.37 | 63C | 2750 | 74.4 | 71.4 | 71.2 | 65.9 | 0.88 | 0.79 | 0.78 | 0.67 | IE1 | 1.00 | 6.1 | 17 | 2.5 | 2.8 | 4.0 | 0.0002 | 5 |
| 0.37 | 71A | 2830 | 74.4 | 71.3 | 70.4 | 65.2 | 0.88 | 0.8 | 0.78 | 0.67 | IE1 | 0.99 | 6.1 | 17 | 2.5 | 2.8 | 4.0 | 0.0003 | 5 |
| 0.55 | 71B | 2815 | 74.4 | 71.6 | 71 | 66.1 | 0.88 | 0.8 | 0.78 | 0.67 | IE1 | 1.46 | 6.1 | 17 | 2.5 | 2.8 | 4.0 | 0.0004 | 6 |
| 0.75 | 71C | 2820 | 74.4 | 73.8 | 73.9 | 70.3 | 0.88 | 0.82 | 0.78 | 0.67 | IE1 | 1.88 | 6.1 | 17 | 2.5 | 2.8 | 4.0 | 0.0005 | 7 |
| 0.55 | 80A | 2810 | 74.4 | 73.1 | 73.4 | 69.7 | 0.88 | 0.83 | 0.78 | 0.67 | IE1 | 1.38 | 6.1 | 17 | 2.5 | 2.8 | 4.0 | 0.0008 | 7 |
| 0.75 | 80B | 2830 | 74.4 | 75.2 | 75.6 | 72.2 | 0.88 | 0.83 | 0.78 | 0.67 | IE1 | 1.83 | 6.1 | 17 | 2.5 | 2.8 | 4.0 | 0.0009 | 9 |
| 1.1 | 80C | 2840 | 76.7 | 79 | 79.8 | 77.7 | 0.89 | 0.83 | 0.82 | 0.72 | IE1 | 2.55 | 5.9 | 11 | 3.7 | 2.7 | 3.0 | 0.0011 | 11 |
| 1.5 | 80D | 2820 | 79.3 | 81.2 | 82.5 | 81.3 | 0.88 | 0.85 | 0.80 | 0.70 | IE1 | 3.30 | 6.7 | 11 | 5.0 | 2.9 | 3.5 | 0.0013 | 11 |
| 1.5 | 90S | 2850 | 79.3 | 80.8 | 81.2 | 78.9 | 0.88 | 0.85 | 0.80 | 0.70 | IE1 | 3.32 | 6.7 | 11 | 5.0 | 2.9 | 3.5 | 0.0016 | 12 |
| 1.85 | 90M | 2850 | 79.4 | 82.1 | 82.6 | 80.7 | 0.89 | 0.84 | 0.82 | 0.72 | IE1 | 4.08 | 6.6 | 9 | 6 | 2.9 | 3.2 | 0.0018 | 13 |
| 2.2 | 90LA | 2860 | 79.5 | 82.9 | 83.4 | 81.4 | 0.9 | 0.85 | 0.83 | 0.74 | IE1 | 4.74 | 6.4 | 6 | 7.4 | 2.8 | 2.8 | 0.0021 | 15 |
| 3 | 90LB | 2830 | 82.0 | 82.4 | 83.5 | 82.3 | 0.9 | 0.86 | 0.84 | 0.76 | IE1 | 6.43 | 7.5 | 7 | 10.0 | 2.8 | 3.4 | 0.0025 | 15 |
| 3 | 100LA | 2875 | 82.0 | 83.9 | 84.5 | 83 | 0.9 | 0.86 | 0.84 | 0.76 | IE1 | 6.32 | 7.5 | 7 | 10.0 | 2.8 | 3.4 | 0.0035 | 20 |
| 4 | 100LB | 2870 | 85.3 | 85.5 | 86.5 | 85.8 | 0.9 | 0.89 | 0.84 | 0.75 | IE1 | 7.99 | 7.9 | 7 | 13.2 | 2.7 | 3.5 | 0.0042 | 24 |
| 4 | 112M | 2870 | 85.3 | 85.6 | 87.0 | 86.8 | 0.9 | 0.93 | 0.84 | 0.75 | IE1 | 7.63 | 7.9 | 7 | 13.2 | 2.7 | 3.5 | 0.0058 | 26 |
| 5.5 | 112L | 2890 | 86.7 | 87.1 | 88 | 87.6 | 0.89 | 0.92 | 0.82 | 0.69 | IE1 | 10.4 | 7.0 | 11 | 18.0 | 2.4 | 2.3 | 0.0074 | 29 |
| 5.5 | 132SA | 2900 | 86.7 | 86.6 | 87.4 | 86.5 | 0.89 | 0.90 | 0.82 | 0.69 | IE1 | 10.7 | 7.0 | 11 | 18.0 | 2.4 | 2.3 | 0.0112 | 38 |
| 7.5 | 132SB | 2900 | 86.0 | 88.0 | 88.8 | 88.3 | 0.91 | 0.91 | 0.89 | 0.84 | IE1 | 14.2 | 7.2 | 7 | 24.7 | 2.1 | 2.8 | 0.0138 | 41 |
| 9.2 | 132MA | 2930 | 87.1 | 88 | 88 | 86.4 | 0.90 | 0.89 | 0.88 | 0.84 | IE1 | 17.8 | 7.1 | 16 | 30 | 2.1 | 2,8 | 0.0166 | 48 |
| 11 | 132MB | 2930 | 88.3 | 88.4 | 88.6 | 87.5 | 0.89 | 0.9 | 0.87 | 0.83 | IE1 | 21.0 | 7.0 | 25 | 35.8 | 2.2 | 2.9 | 0.0186 | 53 |
| 11 | 160MA | 2920 | 88.3 | 88.8 | 89.4 | 88.6 | 9.89 | 0.89 | 0.87 | 0.83 | IE1 | 21.1 | 7.0 | 25 | 35.8 | 2.2 | 2.9 | 0.0412 | 76 |
| 15 | 160MB | 2910 | 89.4 | 89.1 | 90.0 | 89.6 | 0.92 | 0.90 | 0.92 | 0.83 | IE1 | 28.5 | 7.2 | 10 | 48.7 | 1.8 | 2.6 | 0.0490 | 83 |
| 18.5 | 160L | 2930 | 90.1 | 90.3 | 90.9 | 90.3 | 0.91 | 0.91 | 0.90 | 0.87 | IE1 | 34.4 | 7.3 | 10 | 60.3 | 2.3 | 2.9 | 0.0599 | 92 |
| 22 | 180M | 2950 | 90.3 | 90 | 90.2 | 89.7 | 0.91 | 0.9 | 0.88 | 0.86 | IE1 | 41.3 | 6.8 | 7 | 71.3 | 2.3 | 2.4 | 0.0902 | 121 |
| ***1500 r/min = 4 poles - CENELEC frame allocations*** | | | | | | | | | | | | | | | | | | | |
| 0.06 | 56A | 1400 | 70.4 | 52.8 | 47.7 | 38.7 | 0.76 | 0.55 | 0.59 | 0.46 | IE1 | 0.31 | 4.5 | 35 | 2.6 | 3.3 | 2.7 | 0.0002 | 3 |
| 0.09 | 56B | 1400 | 70.4 | 56.2 | 51.7 | 43.1 | 0.76 | 0.59 | 0.59 | 0.46 | IE1 | 0.41 | 4.5 | 35 | 2.6 | 3.3 | 2.7 | 0.0002 | 3 |
| 0.12 | 56C | 1390 | 70.4 | 58.5 | 54.3 | 45.6 | 0.76 | 0.61 | 0.59 | 0.46 | IE1 | 0.51 | 4.5 | 35 | 2.6 | 3.3 | 2.7 | 0.0003 | 4 |
| 0.12 | 63A | 1390 | 70.4 | 58.5 | 54.3 | 45.6 | 0.76 | 0.61 | 0.59 | 0.46 | IE1 | 0.51 | 4.5 | 35 | 2.6 | 3.3 | 2.7 | 0.0003 | 4 |
| 0.18 | 63B | 1365 | 70.4 | 64.2 | 62.5 | 55.9 | 0.76 | 0.64 | 0.59 | 0.46 | IE1 | 0.67 | 4.5 | 35 | 2.6 | 3.3 | 2.7 | 0.0003 | 4 |
| 0.25 | 63C | 1370 | 70.4 | 68.3 | 67.5 | 62.1 | 0.76 | 0.66 | 0.59 | 0.46 | IE1 | 0.84 | 4.5 | 35 | 2.6 | 3.3 | 2.7 | 0.0004 | 5 |
| 0.25 | 71A | 1395 | 70.4 | 65.1 | 63.1 | 55.8 | 0.76 | 0.73 | 0.59 | 0.46 | IE1 | 0.80 | 4.5 | 35 | 2.6 | 3.3 | 2.7 | 0.0006 | 5 |
| 0.37 | 71B | 1390 | 70.4 | 68.6 | 68.2 | 62.9 | 0.76 | 0.74 | 0.59 | 0.46 | IE1 | 1.10 | 4.5 | 35 | 2.6 | 3.3 | 2.7 | 0.0007 | 6 |
| 0.55 | 71C | 1390 | 71.0 | 71.9 | 71.6 | 66.8 | 0.80 | 0.72 | 0.67 | 0.54 | IE1 | 1.63 | 4.8 | 25 | 3.8 | 2.5 | 2.6 | 0.0009 | 7 |

This data is provided for guidance only.

# PERFORMANCE DATA

## IE1, RMA MOTORS

## THREE PHASE 380V 50HZ, IP55, F CLASS INSULATION, B CLASS TEMPERATURE RISE

| Nominal Output | Frame Size | Speed | Efficiency at % full load | | | | Power factor at % full load | | | | Class | Current | | | Torque | | | Moment of inertia | Weight of Foot mount motor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 125% Load | 100% Load | 75% Load | 50% Load | 125% Load | 100% Load | 75% Load | 50% Load | | Full Load $I_N$ | Lock rotor $I_L/I_N$ | $t_E$ time | Full Load $T_N$ | Lock rotor $T_L/T_N$ | Break down $T_B/T_N$ | $J=\frac{1}{4}GD^2$ | |
| [kW] | | [r/min] | [%] | [%] | [%] | [%] | [cosφ] | [cosφ] | [cosφ] | [cosφ] | | [A] | | [sec] | [Nm] | | | [kg*m²] | [kg] |
| ***1500 r/min = 4 poles - CENELEC frame allocations*** | | | | | | | | | | | | | | | | | | | |
| 0.55 | 80A | 1400 | 71.0 | 70.9 | 70.5 | 65.5 | 0.80 | 0.74 | 0.67 | 0.54 | IE1 | 1.59 | 4.8 | 25 | 3.8 | 2.5 | 2.6 | 0.0014 | 8 |
| 0.75 | 80B | 1390 | 73.7 | 74.4 | 76.0 | 73.9 | 0.81 | 0.79 | 0.68 | 0.55 | IE1 | 1.94 | 5.0 | 24 | 5.1 | 2.4 | 2.5 | 0.0018 | 10 |
| 1.1 | 80C | 1390 | 75.2 | 74.6 | 75.7 | 73.3 | 0.83 | 0.79 | 0.71 | 0.58 | IE1 | 2.84 | 5.4 | 10 | 7.4 | 2.8 | 2.4 | 0.0022 | 12 |
| 1.1 | 90S | 1400 | 75.2 | 75.5 | 76.7 | 74.4 | 0.83 | 0.78 | 0.71 | 0.58 | IE1 | 2.83 | 5.4 | 10 | 7.4 | 2.8 | 2.4 | 0.0024 | 12 |
| 1.5 | 90LA | 1410 | 76.7 | 79.6 | 80.2 | 78.0 | 0.87 | 0.76 | 0.81 | 0.72 | IE1 | 3.75 | 5.7 | 12 | 10.2 | 1.8 | 2.4 | 0.0032 | 15 |
| 2.2 | 90LB | 1410 | 81.4 | 78.9 | 79.4 | 77 | 0.86 | 0.75 | 0.76 | 0.65 | IE1 | 5.65 | 6.6 | 11 | 14.7 | 2.8 | 3.5 | 0.0040 | 18 |
| 2.2 | 100LA | 1420 | 81.4 | 82.0 | 83.3 | 82.3 | 0.86 | 0.81 | 0.76 | 0.65 | IE1 | 5.05 | 6.6 | 11 | 14.7 | 2.8 | 3.5 | 0.0060 | 19 |
| 3 | 100LB | 1430 | 81.1 | 83.7 | 84.8 | 83.8 | 0.87 | 0.82 | 0.78 | 0.66 | IE1 | 6.64 | 8.3 | 7 | 20.1 | 2.9 | 3.1 | 0.0076 | 23 |
| 4 | 100LC | 1430 | 84.4 | 84.2 | 85.5 | 85.3 | 0.86 | 0.82 | 0.76 | 0.64 | IE1 | 8.80 | 7.6 | 7 | 26.4 | 3.1 | 3.5 | 0.0096 | 27 |
| 4 | 112M | 1440 | 84.4 | 84.7 | 86.0 | 85.4 | 0.86 | 0.83 | 0.76 | 0.64 | IE1 | 8.60 | 7.6 | 7 | 26.4 | 3.1 | 3.5 | 0.0121 | 29 |
| 5.5 | 112L | 1435 | 86.0 | 85.9 | 87.1 | 86.6 | 0.87 | 0.82 | 0.81 | 0.71 | IE1 | 11.8 | 6.8 | 11 | 36.2 | 2.3 | 3.1 | 0.0142 | 36 |
| 5.5 | 132S | 1445 | 86.0 | 86.4 | 87.8 | 87.7 | 0.87 | 0.85 | 0.81 | 0.71 | IE1 | 11.4 | 6.8 | 11 | 36.2 | 2.3 | 3.1 | 0.0248 | 39 |
| 7.5 | 132M | 1450 | 87.0 | 87.6 | 88.8 | 88.5 | 0.88 | 0.87 | 0.83 | 0.74 | IE1 | 15.0 | 7.5 | 9 | 49.4 | 2.5 | 2.9 | 0.0331 | 49 |
| 9.2 | 132LA | 1450 | 87.7 | 88.6 | 89.5 | 89.1 | 0.87 | 0.87 | 0.83 | 0.74 | IE1 | 18.1 | 7.2 | 10 | 60.4 | 2.3 | 2.9 | 0.0393 | 57 |
| 11 | 132LB | 1450 | 88.4 | 90.1 | 91.1 | 91 | 0.86 | 0.86 | 0.83 | 0.75 | IE1 | 21.6 | 6.9 | 12 | 72 | 2.0 | 2.8 | 0.0455 | 64 |
| 11 | 160M | 1450 | 88.4 | 87.7 | 89.6 | 90.3 | 0.86 | 0.83 | 0.83 | 0.75 | IE1 | 23.0 | 6.9 | 12 | 72 | 2.0 | 2.8 | 0.0774 | 73 |
| 15 | 160LA | 1455 | 89.3 | 88.7 | 90.0 | 90.2 | 0.87 | 0.86 | 0.83 | 0.76 | IE1 | 30.1 | 7.2 | 10 | 98 | 2.3 | 2.9 | 0.1012 | 89 |
| 18.5 | 160LB | 1460 | 90.2 | 90.5 | 91 | 90.6 | 0.90 | 0.85 | 0.86 | 0.77 | IE1 | 36.5 | 7.0 | 17 | 120 | 2.1 | 3.0 | 0.1276 | 98 |
| 18.5 | 180M | 1460 | 90.2 | 90.5 | 90.7 | 89.9 | 0.90 | 0.86 | 0.86 | 0.77 | IE1 | 36.1 | 7.0 | 17 | 120 | 2.1 | 3.0 | 0.1551 | 118 |
| 22 | 180L | 1460 | 91.2 | 91 | 91.3 | 90.6 | 0.91 | 0.86 | 0.85 | 0.76 | IE1 | 42.7 | 7.7 | 14 | 143 | 2.2 | 3.5 | 0.1733 | 128 |
| ***960 r/min = 6 poles - CENELEC frame allocations*** | | | | | | | | | | | | | | | | | | | |
| 0.09 | 63A | 890 | 64.3 | 50.7 | 47.6 | 39.8 | 0.77 | 0.62 | 0.60 | 0.48 | IE1 | 0.44 | 3.4 | 55 | 3.9 | 1.8 | 4.5 | 0.0004 | 4 |
| 0.12 | 63B | 895 | 64.3 | 53.7 | 50.9 | 43.2 | 0.77 | 0.60 | 0.60 | 0.48 | IE1 | 0.56 | 3.4 | 55 | 3.9 | 1.8 | 4.5 | 0.0005 | 5 |
| 0.18 | 71A | 905 | 64.3 | 63.0 | 61.6 | 55.4 | 0.77 | 0.67 | 0.60 | 0.48 | IE1 | 0.64 | 3.4 | 55 | 3.9 | 1.8 | 4.5 | 0.0008 | 6 |
| 0.25 | 71B | 885 | 64.3 | 62.6 | 62.0 | 55.8 | 0.77 | 0.67 | 0.60 | 0.48 | IE1 | 0.90 | 3.4 | 55 | 3.9 | 1.8 | 4.5 | 0.0010 | 6 |
| 0.37 | 71C | 890 | 64.3 | 65.4 | 64.4 | 58.2 | 0.77 | 0.64 | 0.60 | 0.48 | IE1 | 1.34 | 3.4 | 55 | 3.9 | 1.8 | 4.5 | 0.0012 | 7 |
| 0.37 | 80A | 920 | 64.3 | 68.1 | 67.7 | 62.2 | 0.77 | 0.69 | 0.60 | 0.48 | IE1 | 1.19 | 3.4 | 55 | 3.9 | 1.8 | 4.5 | 0.0016 | 8 |
| 0.55 | 80B | 920 | 64.7 | 72.5 | 73.0 | 69.3 | 0.78 | 0.73 | 0.58 | 0.45 | IE1 | 1.59 | 3.3 | 40 | 5.7 | 1.4 | 2.1 | 0.0021 | 10 |
| 0.75 | 80C | 910 | 72.8 | 72.9 | 74.2 | 71.3 | 0.78 | 0.74 | 0.63 | 0.50 | IE1 | 2.11 | 4.6 | 30 | 7.7 | 2.4 | 2.6 | 0.0026 | 10 |
| 0.75 | 90S | 920 | 72.8 | 72.5 | 73.3 | 70.0 | 0.78 | 0.71 | 0.63 | 0.50 | IE1 | 2.22 | 4.6 | 30 | 7.7 | 2.4 | 2.6 | 0.0031 | 11 |
| 1.1 | 90LA | 910 | 72.9 | 73.5 | 75.2 | 72.9 | 0.81 | 0.72 | 0.70 | 0.57 | IE1 | 3.17 | 4.5 | 25 | 11.3 | 2.3 | 2.4 | 0.0041 | 14 |
| 1.5 | 90LB | 900 | 76.1 | 74.7 | 77 | 75.5 | 0.79 | 0.74 | 0.66 | 0.53 | IE1 | 4.12 | 5.1 | 8 | 15.1 | 2.2 | 3.0 | 0.0051 | 16 |
| 1.5 | 100LA | 935 | 76.1 | 78.5 | 79.9 | 78.2 | 0.79 | 0.74 | 0.66 | 0.53 | IE1 | 3.92 | 5.1 | 8 | 15.1 | 2.2 | 3.0 | 0.0079 | 19 |
| 2.2 | 100LB | 950 | 78.9 | 77 | 78.4 | 77.8 | 0.80 | 0.76 | 0.67 | 0.53 | IE1 | 5.71 | 5.6 | 12 | 22.2 | 2.7 | 3.0 | 0.0112 | 23 |
| 2.2 | 112M | 925 | 78.9 | 79.2 | 81.8 | 81.7 | 0.80 | 0.78 | 0.67 | 0.53 | IE1 | 5.38 | 5.6 | 12 | 22.2 | 2.7 | 3.0 | 0.0138 | 25 |
| 3 | 112L | 950 | 83.5 | 79 | 80.9 | 80.9 | 0.82 | 0.77 | 0.70 | 0.57 | IE1 | 7.49 | 6.7 | 12 | 29.5 | 2.3 | 3.2 | 0.0182 | 30 |
| 3 | 132S | 955 | 83.5 | 82.5 | 84.5 | 84.3 | 0.82 | 0.77 | 0.70 | 0.57 | IE1 | 7.22 | 6.7 | 12 | 29.5 | 2.3 | 3.2 | 0.0299 | 35 |
| 4 | 132MA | 965 | 83.6 | 85.2 | 85.8 | 84.4 | 0.81 | 0.76 | 0.68 | 0.58 | IE1 | 9.39 | 6.7 | 9 | 39.6 | 2.5 | 3.2 | 0.0373 | 48 |
| 5.5 | 132MB | 960 | 84.4 | 85.9 | 87.2 | 86.8 | 0.84 | 0.78 | 0.76 | 0.64 | IE1 | 12.4 | 6.9 | 9 | 54.4 | 2.4 | 3.0 | 0.0490 | 51 |
| 7.5 | 132L | 960 | 87.5 | 85 | 86.4 | 86.4 | 0.79 | 0.77 | 0.70 | 0.59 | IE1 | 17.4 | 6.0 | 20 | 74 | 2.2 | 2.6 | 0.0608 | 57 |
| 7.5 | 160M | 970 | 87.5 | 86.8 | 87.6 | 86.7 | 0.79 | 0.75 | 0.70 | 0.59 | IE1 | 17.6 | 6.0 | 20 | 74 | 2.2 | 2.6 | 0.0845 | 69 |
| 11 | 160L | 965 | 88.1 | 87.2 | 88.6 | 88.6 | 0.80 | 0.78 | 0.74 | 0.65 | IE1 | 24.6 | 5.8 | 16 | 108 | 2.2 | 2.4 | 0.1182 | 86 |
| 15 | 180L | 970 | 88.4 | 89 | 89 | 88.6 | 0.85 | 0.81 | 0.79 | 0.69 | IE1 | 31.6 | 6.0 | 20 | 146 | 2.0 | 2.7 | 0.2541 | 124 |

# PERFORMANCE DATA

## IE1, RMA MOTORS
## THREE PHASE 380V 50HZ, IP55, F CLASS INSULATION, B CLASS TEMPERATURE RISE

| Nominal Output | Frame Size | Speed | Efficiency at % full load | | | | Power factor at % full load | | | | Class | Current | | | Torque | | | Moment of inertia | Weight of Foot mount motor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 125% Load | 100% Load | 75% Load | 50% Load | 125% Load | 100% Load | 75% Load | 50% Load | | Full Load $I_N$ | Lock rotor $I_L/I_N$ | $t_E$ time | Full Load $T_N$ | Lock rotor $T_L/T_N$ | Break down $T_B/T_N$ | $J=¼GD^2$ | |
| [kW] | | [r/min] | [%] | [%] | [%] | [%] | [cosφ] | [cosφ] | [cosφ] | [cosφ] | | [A] | | [sec] | [Nm] | | | [kg*m²] | [kg] |
| ***750 r/min = 8 poles - CENELEC frame allocations*** | | | | | | | | | | | | | | | | | | | |
| 0.09 | 71A | 680 | 71.4 | 44.9 | 39.6 | 31.1 | 0.70 | 0.54 | 0.54 | 0.41 | IE1 | 0.56 | 4.2 | 16 | 14.8 | 2.3 | 2.8 | 0.0007 | 6 |
| 0.12 | 71B | 680 | 71.4 | 51.7 | 47.1 | 38.4 | 0.70 | 0.53 | 0.54 | 0.41 | IE1 | 0.67 | 4.2 | 16 | 14.8 | 2.3 | 2.8 | 0.0008 | 6 |
| 0.18 | 71C | 670 | 71.4 | 55.8 | 52.5 | 44.4 | 0.70 | 0.56 | 0.54 | 0.41 | IE1 | 0.88 | 4.2 | 16 | 14.8 | 2.3 | 2.8 | 0.0010 | 7 |
| 0.18 | 80A | 705 | 71.4 | 64.4 | 61.3 | 53.9 | 0.70 | 0.59 | 0.54 | 0.41 | IE1 | 0.72 | 4.2 | 16 | 14.8 | 2.3 | 2.8 | 0.0021 | 9 |
| 0.25 | 80B | 700 | 71.4 | 66.3 | 64.3 | 57.8 | 0.70 | 0.60 | 0.54 | 0.41 | IE1 | 0.95 | 4.2 | 16 | 14.8 | 2.3 | 2.8 | 0.0025 | 10 |
| 0.37 | 90S | 690 | 71.4 | 66.3 | 65.4 | 59.6 | 0.70 | 0.62 | 0.54 | 0.41 | IE1 | 1.37 | 4.2 | 16 | 14.8 | 2.3 | 2.8 | 0.0031 | 13 |
| 0.55 | 90L | 680 | 71.4 | 69.0 | 69.9 | 65.8 | 0.70 | 0.64 | 0.54 | 0.41 | IE1 | 1.89 | 4.2 | 16 | 14.8 | 2.3 | 2.8 | 0.0041 | 15 |
| 0.75 | 100LA | 700 | 71.4 | 75.2 | 74.8 | 70.8 | 0.70 | 0.68 | 0.54 | 0.41 | IE1 | 2.24 | 4.2 | 16 | 14.8 | 2.3 | 2.8 | 0.0060 | 17 |
| 1.1 | 100LB | 685 | 71.4 | 74.6 | 76.7 | 75.1 | 0.70 | 0.75 | 0.54 | 0.41 | IE1 | 2.99 | 4.2 | 16 | 14.8 | 2.3 | 2.8 | 0.0075 | 20 |
| 1.5 | 112M | 700 | 75.6 | 78.3 | 78.9 | 76.4 | 0.79 | 0.69 | 0.59 | 0.46 | IE1 | 4.19 | 4.4 | 25 | 20.3 | 2.1 | 2.6 | 0.0135 | 26 |
| 2.2 | 132S | 705 | 81.5 | 78.8 | 80.7 | 79.6 | 0.79 | 0.73 | 0.66 | 0.52 | IE1 | 5.81 | 5.3 | 20 | 29.1 | 2.1 | 3.0 | 0.0290 | 34 |
| 3 | 132M | 705 | 81.4 | 80.9 | 82.6 | 81.9 | 0.79 | 0.75 | 0.67 | 0.54 | IE1 | 7.51 | 5.6 | 20 | 40.0 | 2.3 | 3.0 | 0.0380 | 40 |
| 4 | 160MA | 710 | 84.4 | 81.7 | 83.0 | 82.0 | 0.78 | 0.72 | 0.66 | 0.54 | IE1 | 10.4 | 6.1 | 30 | 53.0 | 2.4 | 3.3 | 0.0672 | 59 |
| 5.5 | 160MB | 715 | 84.9 | 84.6 | 85.7 | 84.9 | 0.80 | 0.73 | 0.71 | 0.59 | IE1 | 13.5 | 5.7 | 25 | 73.5 | 2.1 | 2.9 | 0.0906 | 69 |
| 7.5 | 160L | 715 | 84.8 | 85.8 | 87.1 | 86.7 | 0.82 | 0.76 | 0.73 | 0.62 | IE1 | 17.5 | 5.8 | 30 | 100 | 2.3 | 2.9 | 0.1241 | 87 |
| 11 | 180L | 715 | 86.6 | 87.4 | 87.2 | 85.7 | 0.80 | 0.73 | 0.70 | 0.57 | IE1 | 26.2 | 6.0 | 14 | 144 | 1.8 | 2.3 | 0.2611 | 124 |

# PERFORMANCE DATA

## IE2, RMA2 MOTORS
## THREE PHASE 380V 50HZ, IP55, F CLASS INSULATION, B CLASS TEMPERATURE RISE

| Nominal Output | Frame Size | Speed | Efficiency at % full load | | | | Power factor at % full load | | | | Class | Current | | | Torque | | | Moment of inertia | Weight of Foot mount motor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 125% Load | 100% Load | 75% Load | 50% Load | 125% Load | 100% Load | 75% Load | 50% Load | | Full Load $I_N$ | Lock rotor $I_L/I_N$ | $t_E$ time | Full Load $T_N$ | Lock rotor $T_L/T_N$ | Break down $T_B/T_N$ | $J=\frac{1}{4}GD^2$ | |
| [kW] | | [r/min] | [%] | [%] | [%] | [%] | [cosφ] | [cosφ] | [cosφ] | [cosφ] | | [A] | | [sec] | [Nm] | | | [kg*m²] | [kg] |
| ***3000 r/min = 2 poles - CENELEC frame allocations*** | | | | | | | | | | | | | | | | | | | |
| 0.55 | 71A | 2810 | 74.4 | 74.1 | 72.3 | 69.3 | 0.88 | 0.79 | 0.78 | 0.67 | IE2 | 1.43 | 6.1 | 17 | 2.5 | 2.8 | 4.0 | 0.0004 | 7 |
| 0.75 | 71B | 2830 | 74.4 | 77.4 | 76.4 | 74.3 | 0.88 | 0.8 | 0.78 | 0.67 | IE2 | 1.84 | 6.1 | 17 | 2.5 | 2.8 | 4.0 | 0.0005 | 8 |
| 0.75 | 80A | 2860 | 74.4 | 77.4 | 76.8 | 72.7 | 0.88 | 0.78 | 0.78 | 0.67 | IE2 | 1.89 | 6.1 | 17 | 2.5 | 2.8 | 4.0 | 0.0009 | 9 |
| 1.1 | 80B | 2860 | 76.7 | 79.6 | 79.7 | 77 | 0.89 | 0.81 | 0.92 | 0.72 | IE2 | 2.59 | 5.9 | 11 | 3.7 | 2.7 | 3.0 | 0.0010 | 11 |
| 1.5 | 80C | 2860 | 79.3 | 81.3 | 81.2 | 79.7 | 0.88 | 0.82 | 0.80 | 0.70 | IE2 | 3.42 | 6.7 | 11 | 5.0 | 2.9 | 3.5 | 0.0013 | 13 |
| 1.5 | 90S | 2870 | 79.3 | 81.3 | 80.9 | 79.3 | 0.88 | 0.82 | 0.80 | 0.70 | IE2 | 3.42 | 6.7 | 11 | 5.0 | 2.9 | 3.5 | 0.0016 | 13 |
| 2.2 | 90LA | 2880 | 79.5 | 83.2 | 82.9 | 81.5 | 0.90 | 0.84 | 0.83 | 0.74 | IE2 | 4.78 | 6.4 | 6 | 7.4 | 2.8 | 2.8 | 0.0022 | 16 |
| 3 | 90LB | 2890 | 82.0 | 84.6 | 83.9 | 82.4 | 0.90 | 0.83 | 0.84 | 0.76 | IE2 | 6.49 | 7.5 | 7 | 10.0 | 2.8 | 3.4 | 0.0028 | 20 |
| 3 | 100LA | 2880 | 82.0 | 84.6 | 85 | 84 | 0.90 | 0.87 | 0.84 | 0.76 | IE2 | 6.19 | 7.5 | 7 | 10.0 | 2.8 | 3.4 | 0.0035 | 23 |
| 4 | 100LB | 2860 | 85.3 | 85.8 | 87.1 | 86.6 | 0.90 | 0.89 | 0.84 | 0.75 | IE2 | 7.96 | 7.9 | 7 | 13.2 | 2.7 | 3.5 | 0.0042 | 26 |
| 4 | 112M | 2890 | 85.3 | 85.8 | 87.1 | 87 | 0.90 | 0.91 | 0.84 | 0.75 | IE2 | 7.78 | 7.9 | 7 | 13.2 | 2.7 | 3.5 | 0.0060 | 26 |
| 5.5 | 112L | 2920 | 86.7 | 87 | 87.4 | 86.4 | 0.89 | 0.88 | 0.82 | 0.69 | IE2 | 10.9 | 7.0 | 11 | 18.0 | 2.4 | 2.3 | 0.0078 | 32 |
| 5.5 | 132SA | 2900 | 86.7 | 87 | 87.5 | 86.7 | 0.89 | 0.89 | 0.82 | 0.69 | IE2 | 10.8 | 7.0 | 11 | 18.0 | 2.4 | 2.3 | 0.0115 | 42 |
| 7.5 | 132SB | 2910 | 86.0 | 88.1 | 89.3 | 89 | 0.91 | 0.9 | 0.89 | 0.84 | IE2 | 14.4 | 7.2 | 7 | 24.7 | 2.1 | 2.8 | 0.0141 | 46 |
| 9.2 | 132MA | 2900 | 87.1 | 88.7 | 89 | 88 | 0.90 | 0.88 | 0.88 | 0.84 | IE2 | 17.9 | 7.1 | 16 | 30.1 | 2.1 | 2.9 | 0.0163 | 52 |
| 11 | 132MB | 2930 | 88.3 | 89.4 | 89.4 | 88 | 0.89 | 0.86 | 0.87 | 0.83 | IE2 | 21.7 | 7.0 | 25 | 35.8 | 2.2 | 2.9 | 0.0194 | 55 |
| 11 | 160MA | 2940 | 88.3 | 89.4 | 89.6 | 89 | 0.89 | 0.89 | 0.87 | 0.83 | IE2 | 21.0 | 7.0 | 25 | 35.8 | 2.2 | 2.9 | 0.0485 | 79 |
| 15 | 160MB | 2930 | 89.4 | 90.3 | 90.5 | 89.9 | 0.92 | 0.89 | 0.92 | 0.83 | IE2 | 28.4 | 7.2 | 10 | 48.7 | 1.8 | 2.6 | 0.0594 | 97 |
| 18.5 | 160LA | 2940 | 90.1 | 90.9 | 91.3 | 90.6 | 0.91 | 0.9 | 0.90 | 0.87 | IE2 | 34.4 | 7.3 | 10 | 60.3 | 2.3 | 2.9 | 0.0657 | 103 |
| 22 | 160LB | 2940 | 90.3 | 91.3 | 90.8 | 88.9 | 0.91 | 0.9 | 0.88 | 0.86 | IE2 | 40.7 | 6.8 | 7 | 71.3 | 2.3 | 2.4 | 0.0798 | 115 |
| 22 | 180M | 2950 | 90.3 | 91.3 | 90.9 | 88.8 | 0.91 | 0.91 | 0.88 | 0.86 | IE2 | 40.2 | 6.8 | 7 | 71.3 | 2.3 | 2.4 | 0.0950 | 128 |
| ***1500 r/min = 4 poles - CENELEC frame allocations*** | | | | | | | | | | | | | | | | | | | |
| 0.55 | 80A | 1400 | 71.0 | 77.1 | 77.5 | 76.3 | 0.80 | 0.76 | 0.67 | 0.54 | IE2 | 1.43 | 4.8 | 25 | 3.8 | 2.5 | 2.6 | 0.0014 | 10 |
| 0.75 | 80B | 1410 | 73.7 | 79.6 | 80.8 | 79.6 | 0.81 | 0.76 | 0.68 | 0.55 | IE2 | 1.88 | 5.0 | 24 | 5.1 | 2.4 | 2.5 | 0.0020 | 11 |
| 1.1 | 90S | 1420 | 75.2 | 81.4 | 82.2 | 81.0 | 0.83 | 0.73 | 0.71 | 0.58 | IE2 | 2.81 | 5.4 | 10 | 7.4 | 2.8 | 2.4 | 0.0027 | 14 |
| 1.5 | 90L | 1420 | 76.7 | 82.8 | 83.7 | 82.6 | 0.87 | 0.74 | 0.81 | 0.72 | IE2 | 3.72 | 5.7 | 12 | 10.2 | 1.8 | 2.4 | 0.0036 | 17 |
| 2.2 | 100LA | 1440 | 81.4 | 84.3 | 83.9 | 82.5 | 0.86 | 0.77 | 0.76 | 0.65 | IE2 | 5.15 | 6.6 | 11 | 14.7 | 2.8 | 3.5 | 0.0067 | 22 |
| 3 | 100LB | 1440 | 81.1 | 85.5 | 85.3 | 84 | 0.87 | 0.77 | 0.78 | 0.66 | IE2 | 6.92 | 8.3 | 7 | 20.1 | 2.9 | 3.1 | 0.0088 | 26 |
| 4 | 112M | 1450 | 84.4 | 86.6 | 87 | 86.1 | 0.86 | 0.81 | 0.76 | 0.64 | IE2 | 8.66 | 7.6 | 7 | 26.4 | 3.1 | 3.5 | 0.0133 | 32 |
| 5.5 | 132S | 1460 | 86.0 | 87.7 | 88.4 | 87.8 | 0.87 | 0.83 | 0.81 | 0.71 | IE2 | 11.5 | 6.8 | 11 | 36.2 | 2.3 | 3.1 | 0.0267 | 43 |
| 7.5 | 132M | 1460 | 87.0 | 88.7 | 89.2 | 88.5 | 0.88 | 0.83 | 0.83 | 0.74 | IE2 | 15.5 | 7.5 | 9 | 49.4 | 2.6 | 2.9 | 0.0349 | 53 |
| 9.2 | 132L | 1450 | 87.7 | 89.2 | 90 | 89.5 | 0.87 | 0.85 | 0.83 | 0.78 | IE2 | 18.4 | 7.2 | 11 | 73.0 | 2.5 | 2.9 | 0.0420 | 59 |

# PERFORMANCE DATA

## IE2, RMA2 MOTORS
## THREE PHASE 380V 50HZ, IP55, F CLASS INSULATION, B CLASS TEMPERATURE RISE

| Nominal Output | Frame Size | Speed | Efficiency at % full load | | | | Power factor at % full load | | | | Class | Current | | | Torque | | | Moment of inertia | Weight of Foot mount motor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 125% Load | 100% Load | 75% Load | 50% Load | 125% Load | 100% Load | 75% Load | 50% Load | | Full Load $I_N$ | Lock rotor $I_L/I_N$ | $t_E$ time | Full Load $T_N$ | Lock rotor $T_L/T_N$ | Break down $T_B/T_N$ | $J=\frac{1}{4}GD^2$ | |
| [kW] | | [r/min] | [%] | [%] | [%] | [%] | [cosφ] | [cosφ] | [cosφ] | [cosφ] | | [A] | | [sec] | [Nm] | | | [kg*m²] | [kg] |
| ***1500 r/min = 4 poles - CENELEC frame allocations*** | | | | | | | | | | | | | | | | | | | |
| 11 | 160M | 1460 | 88.4 | 89.8 | 90.3 | 89.6 | 0.86 | 0.84 | 0.83 | 0.83 | IE2 | 22.2 | 6.9 | 12 | 72 | 2.0 | 2.8 | 0.0896 | 83 |
| 15 | 160LA | 1460 | 89.3 | 90.6 | 90.8 | 89.8 | 0.87 | 0.84 | 0.83 | 0.83 | IE2 | 29.9 | 7.2 | 10 | 98 | 2.3 | 2.9 | 0.1184 | 104 |
| 18.5 | 160LB | 1460 | 90.2 | 91.2 | 91.5 | 91.0 | 0.90 | 0.85 | 0.86 | 0.86 | IE2 | 36.3 | 7.0 | 17 | 120 | 2.1 | 3.0 | 0.1366 | 115 |
| 18.5 | 180M | 1460 | 90.2 | 91.2 | 91.6 | 91.1 | 0.90 | 0.87 | 0.86 | 0.86 | IE2 | 35.4 | 7.0 | 17 | 120 | 2.1 | 3.0 | 0.1551 | 119 |
| 22 | 180L | 1460 | 91.2 | 91.6 | 92.2 | 91.9 | 0.91 | 0.88 | 0.85 | 0.85 | IE2 | 41.5 | 7.7 | 14 | 143 | 2.2 | 3.5 | 0.1733 | 129 |
| ***960 r/min = 6 poles - CENELEC frame allocations*** | | | | | | | | | | | | | | | | | | | |
| 0.75 | 90S | 930 | 72.8 | 75.9 | 75.9 | 74.0 | 0.78 | 0.73 | 0.63 | 0.50 | IE2 | 2.06 | 2.4 | 2.6 | 7.7 | 2.4 | 2.6 | 0.0032 | 13 |
| 1.1 | 90L | 930 | 72.9 | 78.1 | 78.6 | 77.0 | 0.81 | 0.72 | 0.70 | 0.57 | IE2 | 2.97 | 2.3 | 2.4 | 11.3 | 2.3 | 2.4 | 0.0044 | 16 |
| 1.5 | 100LA | 950 | 76.1 | 79.8 | 79.4 | 77.6 | 0.79 | 0.71 | 0.66 | 0.53 | IE2 | 4.02 | 2.2 | 3.0 | 15.1 | 2.2 | 3.0 | 0.0087 | 22 |
| 2.2 | 100LB | 950 | 78.9 | 81.8 | 81.8 | 80.3 | 0.80 | 0.72 | 0.67 | 0.53 | IE2 | 5.68 | 2.7 | 3.0 | 22.2 | 2.7 | 3.0 | 0.0124 | 27 |
| 2.2 | 112M | 940 | 78.9 | 81.8 | 82.7 | 81.7 | 0.80 | 0.75 | 0.67 | 0.53 | IE2 | 5.45 | 2.7 | 3.0 | 22.2 | 2.7 | 3.0 | 0.0157 | 27 |
| 3 | 132S | 960 | 83.5 | 83.3 | 84.4 | 83.4 | 0.82 | 0.76 | 0.70 | 0.57 | IE2 | 7.20 | 2.3 | 3.2 | 29.5 | 2.3 | 3.2 | 0.0299 | 35 |
| 4 | 132MA | 965 | 83.6 | 84.6 | 84.9 | 83.9 | 0.81 | 0.75 | 0.68 | 0.58 | IE2 | 9.58 | 2.5 | 3.2 | 39.6 | 2.5 | 3.2 | 0.0388 | 45 |
| 5.5 | 132MB | 965 | 84.4 | 86.0 | 86.7 | 85.9 | 0.84 | 0.75 | 0.76 | 0.64 | IE2 | 13.0 | 2.4 | 3.0 | 54.4 | 2.4 | 3.0 | 0.0505 | 54 |
| 7.5 | 132L | 970 | 87.5 | 87.2 | 87.5 | 86.2 | 0.79 | 0.75 | 0.70 | 0.59 | IE2 | 17.4 | 2.2 | 2.6 | 74 | 2.2 | 2.6 | 0.0681 | 66 |
| 7.5 | 160M | 970 | 87.5 | 87.2 | 87.8 | 86.7 | 0.79 | 0.74 | 0.70 | 0.59 | IE2 | 17.7 | 2.2 | 2.6 | 74 | 2.2 | 2.6 | 0.0897 | 73 |
| 11 | 160L | 970 | 88.1 | 88.7 | 89.0 | 88.1 | 0.80 | 0.75 | 0.74 | 0.65 | IE2 | 25.1 | 2.2 | 2.4 | 108 | 2.2 | 2.4 | 0.1227 | 90 |
| 15 | 180L | 975 | 88.4 | 89.7 | 89.5 | 88.7 | 0.85 | 0.83 | 0.79 | 0.69 | IE2 | 30.6 | 2.0 | 2.7 | 146 | 2.0 | 2.7 | 0.2541 | 130 |

# PERFORMANCE DATA

## IE3, RMA3 MOTORS
## THREE PHASE 380V 50HZ, IP55, F CLASS INSULATION, B CLASS TEMPERATURE RISE

| Nominal Output | Frame Size | Speed | Efficiency at % full load | | | | Power factor at % full load | | | | Class | Current | | | Torque | | | Moment of inertia | Weight of Foot mount motor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 125% Load | 100% Load | 75% Load | 50% Load | 125% Load | 100% Load | 75% Load | 50% Load | | Full Load $I_N$ | Lock rotor $I_L/I_N$ | $t_E$ time | Full Load $T_N$ | Lock rotor $T_L/T_N$ | Break down $T_B/T_N$ | $J=\frac{1}{4}GD^2$ | |
| [kW] | | [r/min] | [%] | [%] | [%] | [%] | [cosφ] | [cosφ] | [cosφ] | [cosφ] | | [A] | | [sec] | [Nm] | | | [kg*m²] | [kg] |
| ***3000 r/min = 2 poles - CENELEC frame allocations*** | | | | | | | | | | | | | | | | | | | |
| 0.18 | 63A | 2850 | 74.4 | 65.9 | 63.5 | 56.2 | 0.88 | 0.75 | 0.78 | 0.67 | IE3 | 0.55 | 6.1 | 17 | 2.40 | 2.8 | 4.0 | 0.0002 | 4 |
| 0.25 | 63B | 2840 | 74.4 | 69.7 | 68.4 | 62.5 | 0.88 | 0.78 | 0.78 | 0.67 | IE3 | 0.70 | 6.1 | 17 | 2.40 | 2.8 | 4.0 | 0.0003 | 4 |
| 0.37 | 71A | 2860 | 74.4 | 73.8 | 72.4 | 66.5 | 0.88 | 0.76 | 0.78 | 0.67 | IE3 | 1.00 | 6.1 | 17 | 2.40 | 2.8 | 4.0 | 0.0004 | 5 |
| 0.55 | 71B | 2860 | 74.4 | 77.8 | 63.5 | 56.2 | 0.88 | 0.8 | 0.78 | 0.67 | IE3 | 1.34 | 6.1 | 17 | 2.40 | 2.8 | 4.0 | 0.0005 | 6 |
| 0.75 | 71C | 2870 | 74.4 | 80.7 | 80.8 | 78.2 | 0.88 | 0.82 | 0.78 | 0.67 | IE3 | 1.72 | 6.1 | 17 | 2.40 | 2.8 | 4.0 | 0.0006 | 7 |
| 0.75 | 80A | 2890 | 74.4 | 80.7 | 80.3 | 77.2 | 0.88 | 0.81 | 0.78 | 0.67 | IE3 | 1.74 | 6.1 | 17 | 2.40 | 2.8 | 4.0 | 0.0010 | 9 |
| 1.1 | 80B | 2900 | 76.7 | 82.7 | 82.5 | 79.9 | 0.89 | 0.82 | 0.82 | 0.72 | IE3 | 2.46 | 5.9 | 11 | 3.63 | 2.7 | 3.0 | 0.0013 | 11 |
| 1.5 | 80C | 2910 | 79.3 | 84.2 | 83.9 | 81.5 | 0.89 | 0.81 | 0.80 | 0.70 | IE3 | 3.34 | 6.7 | 11 | 4.95 | 2.9 | 3.5 | 0.0017 | 13 |
| 1.5 | 90S | 2900 | 79.3 | 84.2 | 83.8 | 81.4 | 0.89 | 0.82 | 0.80 | 0.70 | IE3 | 3.30 | 6.7 | 11 | 4.95 | 2.9 | 3.5 | 0.0022 | 14 |
| 2.2 | 90LA | 2910 | 79.5 | 85.9 | 86.1 | 84.7 | 0.90 | 0.84 | 0.83 | 0.74 | IE3 | 4.63 | 6.4 | 6 | 7.26 | 2.8 | 2.8 | 0.0026 | 16 |
| 3 | 90LB | 2910 | 82.0 | 87.1 | 87.1 | 84.2 | 0.90 | 0.8 | 0.84 | 0.76 | IE3 | 6.54 | 7.5 | 7 | 9.90 | 2.8 | 3.4 | 0.0034 | 19 |
| 3 | 100LA | 2910 | 82.0 | 87.1 | 87.5 | 86.3 | 0.90 | 0.89 | 0.84 | 0.76 | IE3 | 5.88 | 7.5 | 7 | 9.90 | 2.8 | 3.4 | 0.0048 | 24 |
| 4 | 100LB | 2910 | 85.3 | 88.1 | 88.8 | 88.1 | 0.90 | 0.92 | 0.84 | 0.75 | IE3 | 7.50 | 7.9 | 7 | 13.1 | 2.7 | 3.5 | 0.0059 | 28 |
| 4 | 112MA | 2920 | 85.3 | 88.1 | 88.2 | 87 | 0.90 | 0.91 | 0.84 | 0.75 | IE3 | 7.58 | 7.9 | 7 | 13.1 | 2.7 | 3.5 | 0.0075 | 30 |
| 5.5 | 112MB | 2920 | 86.7 | 89.2 | 89.6 | 89.1 | 0.89 | 0.91 | 0.82 | 0.69 | IE3 | 10.3 | 7.0 | 11 | 17.9 | 2.4 | 2.3 | 0.0093 | 36 |
| 7.5 | 112MC | 2920 | 86.0 | 90.1 | 91.0 | 90.0 | 0.91 | 0.92 | 0.89 | 0.84 | IE3 | 13.7 | 7.2 | 7 | 24.3 | 2.1 | 2.8 | 0.0113 | 40 |
| 5.5 | 132SA | 2930 | 86.7 | 89.2 | 89.4 | 88.2 | 0.89 | 0.89 | 0.82 | 0.69 | IE3 | 10.5 | 7.0 | 11 | 17.9 | 2.4 | 2.3 | 0.0152 | 44 |
| 7.5 | 132SB | 2930 | 86.0 | 90.1 | 90.9 | 90.7 | 0.91 | 0.92 | 0.89 | 0.84 | IE3 | 13.7 | 7.2 | 7 | 24.3 | 2.1 | 2.5 | 0.0190 | 52 |
| 9.2 | 132MA | 2930 | 87.7 | 90.6 | 91.2 | 90.5 | 0.90 | 0.91 | 0.88 | 0.84 | IE3 | 17.0 | 7.1 | 16 | 30 | 2.1 | 2.7 | 0.0216 | 58 |
| 11 | 132MB | 2930 | 89.4 | 91.2 | 91.5 | 91.2 | 0.89 | 0.92 | 0.87 | 0.83 | IE3 | 19.9 | 7.0 | 25 | 35.6 | 2.2 | 2.9 | 0.0241 | 64 |
| 15 | 132MC | 2940 | 88.3 | 91.9 | 92.1 | 91.2 | 0.92 | 0.9 | 0.92 | 0.83 | IE3 | 27.6 | 7.2 | 10 | 48.6 | 1.6 | 2.6 | 0.0286 | 75 |
| 11 | 160MA | 2960 | 89.4 | 91.2 | 91 | 89.6 | 0.89 | 0.88 | 0.87 | 0.83 | IE3 | 20.8 | 7.0 | 25 | 35.6 | 2.2 | 2.9 | 0.0596 | 86 |
| 15 | 160MB | 2960 | 88.3 | 91.9 | 91.5 | 89.9 | 0.92 | 0.89 | 0.92 | 0.83 | IE3 | 27.9 | 7.2 | 10 | 48.6 | 1.6 | 2.6 | 0.0768 | 104 |
| 18.5 | 160LA | 2950 | 89.4 | 92.4 | 92.8 | 91.8 | 0.91 | 0.91 | 0.9 | 0.87 | IE3 | 33.4 | 7.3 | 10 | 59.9 | 2.3 | 2.9 | 0.0923 | 121 |
| 22 | 160LB | 2960 | 90.1 | 92.7 | 92.8 | 92.5 | 0.91 | 0.91 | 0.88 | 0.86 | IE3 | 39.6 | 6.8 | 7 | 70.9 | 2.3 | 2.4 | 0.1075 | 132 |
| 22 | 180M | 2960 | 90.3 | 92.7 | 93 | 92.4 | 0.91 | 0.91 | 0.88 | 0.86 | IE3 | 39.6 | 6.8 | 7 | 70.9 | 2.3 | 2.4 | 0.1047 | 131 |
| ***1500 r/min = 4 poles - CENELEC frame allocations*** | | | | | | | | | | | | | | | | | | | |
| 0.12 | 63A | 1360 | 70.4 | 64.8 | 63.7 | 57.6 | 0.76 | 0.7 | 0.59 | 0.46 | IE3 | 0.40 | 3.3 | 2.7 | 3.62 | 3.3 | 2.7 | 0.0003 | 4 |
| 0.18 | 63B | 1400 | 70.4 | 69.9 | 69.6 | 65.4 | 0.76 | 0.7 | 0.59 | 0.46 | IE3 | 0.56 | 3.3 | 2.7 | 3.62 | 3.3 | 2.7 | 0.0004 | 5 |
| 0.25 | 63C | 1395 | 70.4 | 75 | 75.1 | 71.5 | 0.76 | 0.69 | 0.59 | 0.46 | IE3 | 0.73 | 3.3 | 2.7 | 3.62 | 3.3 | 2.7 | 0.0005 | 5 |
| 0.25 | 71A | 1410 | 70.4 | 73.5 | 73.2 | 69 | 0.76 | 0.69 | 0.59 | 0.46 | IE3 | 0.75 | 3.3 | 2.7 | 3.62 | 3.3 | 2.7 | 0.0007 | 6 |
| 0.37 | 71B | 1420 | 70.4 | 77.3 | 77.1 | 73.6 | 0.76 | 0.68 | 0.59 | 0.46 | IE3 | 1.07 | 3.3 | 2.7 | 3.62 | 3.3 | 2.7 | 0.0010 | 7 |
| 0.55 | 80A | 1440 | 71.0 | 80.8 | 79.9 | 76 | 0.80 | 0.64 | 0.67 | 0.54 | IE3 | 1.62 | 2.5 | 2.6 | 3.62 | 2.5 | 2.6 | 0.0017 | 10 |
| 0.75 | 80B | 1440 | 73.7 | 82.5 | 82.5 | 80.1 | 0.81 | 0.69 | 0.68 | 0.55 | IE3 | 2.00 | 2.4 | 2.5 | 4.97 | 2.4 | 2.5 | 0.0023 | 12 |
| 1.1 | 80C | 1430 | 75.2 | 84.1 | 84.9 | 83.7 | 0.83 | 0.74 | 0.71 | 0.58 | IE3 | 2.69 | 2.8 | 2.4 | 7.32 | 2.8 | 2.4 | 0.0030 | 14 |
| 1.1 | 90S | 1440 | 75.2 | 84.1 | 84.1 | 81.8 | 0.83 | 0.74 | 0.71 | 0.58 | IE3 | 2.69 | 2.8 | 2.4 | 7.32 | 2.8 | 2.4 | 0.0038 | 15 |

# PERFORMANCE DATA

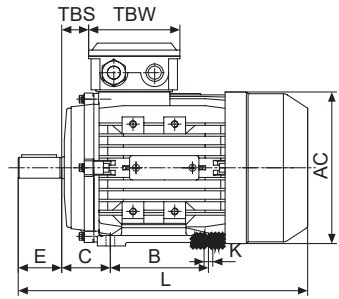
## IE3, RMA3 MOTORS
## THREE PHASE 380V 50HZ, IP55, F CLASS INSULATION, B CLASS TEMPERATURE RISE

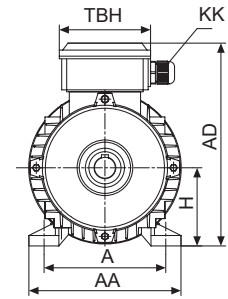
| Nominal Output | Frame Size | Speed | Efficiency at % full load | | | | Power factor at % full load | | | | Class | Current | | | Torque | | | Moment of inertia | Weight of Foot mount motor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 125% Load | 100% Load | 75% Load | 50% Load | 125% Load | 100% Load | 75% Load | 50% Load | | Full Load $I_N$ | Lock rotor $I_L/I_N$ | $t_E$ time | Full Load $T_N$ | Lock rotor $T_L/T_N$ | Break down $T_B/T_N$ | $J=\frac{1}{4}GD^2$ | |
| [kW] | | [r/min] | [%] | [%] | [%] | [%] | [cosφ] | [cosφ] | [cosφ] | [cosφ] | | [A] | | [sec] | [Nm] | | | [kg*m²] | [kg] |
| ***1500 r/min = 4 poles - CENELEC frame allocations*** | | | | | | | | | | | | | | | | | | | |
| 1.5 | 90L | 1440 | 76.7 | 85.3 | 85.3 | 83.1 | 0.87 | 0.73 | 0.81 | 0.81 | IE3 | 3.66 | 5.7 | 12 | 9.8 | 1.8 | 2.4 | 0.0047 | 18 |
| 2.2 | 100LA | 1450 | 81.4 | 86.7 | 87.2 | 86.2 | 0.86 | 0.82 | 0.76 | 0.76 | IE3 | 4.70 | 6.6 | 11 | 14.5 | 2.8 | 3.5 | 0.0088 | 24 |
| 3 | 100LB | 1450 | 81.1 | 87.7 | 88 | 86.9 | 0.87 | 0.78 | 0.78 | 0.78 | IE3 | 6.66 | 8.3 | 7 | 19.8 | 2.9 | 3.1 | 0.0111 | 28 |
| 4 | 112MA | 1450 | 84.4 | 88.6 | 88.8 | 88.2 | 0.86 | 0.82 | 0.76 | 0.76 | IE3 | 8.37 | 7.6 | 7 | 26.2 | 3.1 | 3.5 | 0.0153 | 34 |
| 5.5 | 112MB | 1450 | 86.0 | 89.6 | 89.9 | 89.1 | 0.87 | 0.8 | 0.81 | 0.81 | IE3 | 11.7 | 6.8 | 11 | 36.0 | 2.3 | 3.1 | 0.0488 | 39 |
| 5.5 | 132S | 1460 | 86.0 | 89.6 | 89.8 | 89.4 | 0.87 | 0.84 | 0.81 | 0.81 | IE3 | 11.1 | 6.8 | 11 | 36.0 | 2.3 | 3.1 | 0.0345 | 47 |
| 7.5 | 132MA | 1460 | 87.0 | 90.4 | 90.9 | 90.3 | 0.88 | 0.84 | 0.83 | 0.83 | IE3 | 15.0 | 7.5 | 9 | 49.1 | 2.6 | 2.9 | 0.0436 | 57 |
| 9.2 | 132MB | 1460 | 87.7 | 90.8 | 91.3 | 90.7 | 0.87 | 0.82 | 0.83 | 0.83 | IE3 | 18.8 | 7.2 | 10.5 | 60.2 | 2.3 | 2.9 | 0.0513 | 60 |
| 11 | 132MC | 1460 | 88.4 | 91.4 | 92 | 91.6 | 0.86 | 0.84 | 0.83 | 0.83 | IE3 | 21.8 | 6.9 | 12 | 72.0 | 2.0 | 2.8 | 0.0604 | 67 |
| 11 | 160M | 1470 | 88.4 | 91.4 | 91.7 | 89.8 | 0.86 | 0.83 | 0.83 | 0.83 | IE3 | 22.0 | 6.9 | 12 | 72.0 | 2.0 | 2.8 | 0.1054 | 89 |
| 15 | 160L | 1470 | 89.3 | 92.1 | 92.3 | 91.3 | 0.87 | 0.85 | 0.83 | 0.83 | IE3 | 29.1 | 7.2 | 10 | 97.4 | 2.3 | 2.9 | 0.1370 | 111 |
| 18.5 | 180M | 1470 | 90.2 | 92.6 | 92.8 | 92.1 | 0.90 | 0.86 | 0.86 | 0.86 | IE3 | 35.3 | 7.0 | 17 | 120 | 2.1 | 3.0 | 0.1733 | 130 |
| 22 | 180L | 1470 | 91.2 | 93 | 93.1 | 92.3 | 0.91 | 0.86 | 0.85 | 0.85 | IE3 | 41.8 | 7.7 | 14 | 142.4 | 2.2 | 3.5 | 0.2006 | 145 |
| ***960 r/min = 6 poles - CENELEC frame allocations*** | | | | | | | | | | | | | | | | | | | |
| 0.18 | 71A | 930 | 64.3 | 63.9 | 61 | 53.4 | 0.77 | 0.62 | 0.60 | 0.48 | IE3 | 0.69 | 3.4 | 55 | 3.78 | 1.8 | 4.5 | 0.0008 | 5 |
| 0.25 | 71B | 920 | 64.3 | 68.6 | 67.2 | 61.2 | 0.77 | 0.65 | 0.60 | 0.48 | IE3 | 0.85 | 3.4 | 55 | 3.78 | 1.8 | 4.5 | 0.0010 | 6 |
| 0.37 | 80A | 930 | 64.3 | 73.5 | 73.8 | 70.5 | 0.77 | 0.68 | 0.60 | 0.48 | IE3 | 1.12 | 3.4 | 55 | 3.78 | 1.8 | 4.5 | 0.0022 | 9 |
| 0.55 | 80B | 930 | 64.7 | 77.2 | 78.1 | 75.7 | 0.74 | 0.71 | 0.58 | 0.45 | IE3 | 1.52 | 3.3 | 21 | 5.59 | 1.4 | 2.1 | 0.0029 | 11 |
| 0.75 | 80C | 935 | 72.8 | 78.9 | 78.2 | 74.4 | 0.78 | 0.63 | 0.63 | 0.50 | IE3 | 2.29 | 4.6 | 26 | 7.54 | 2.4 | 2.6 | 0.0032 | 13 |
| 0.75 | 90S | 950 | 72.8 | 78.9 | 80.1 | 78.1 | 0.78 | 0.67 | 0.63 | 0.50 | IE3 | 2.16 | 4.6 | 26 | 7.54 | 2.4 | 2.6 | 0.0041 | 14 |
| 1.1 | 90LA | 950 | 72.9 | 81 | 81.1 | 78.4 | 0.81 | 0.67 | 0.70 | 0.57 | IE3 | 3.08 | 4.5 | 24 | 11.1 | 2.3 | 2.4 | 0.0055 | 16 |
| 1.5 | 90LB | 950 | 76.1 | 82.5 | 82.7 | 80.5 | 0.79 | 0.67 | 0.66 | 0.53 | IE3 | 4.12 | 5.1 | 30 | 15 | 2.2 | 3.0 | 0.0069 | 21 |
| 1.5 | 100LA | 955 | 76.1 | 82.5 | 83 | 81.8 | 0.79 | 0.7 | 0.66 | 0.53 | IE3 | 3.95 | 5.1 | 30 | 15 | 2.2 | 3.0 | 0.0091 | 22 |
| 2.2 | 100LB | 955 | 78.9 | 84.3 | 85.1 | 83.9 | 0.80 | 0.72 | 0.67 | 0.53 | IE3 | 5.51 | 5.6 | 30 | 21.9 | 2.7 | 3.0 | 0.0127 | 28 |
| 2.2 | 112MA | 965 | 78.9 | 84.3 | 84.5 | 83.2 | 0.80 | 0.68 | 0.67 | 0.53 | IE3 | 5.83 | 5.6 | 30 | 21.9 | 2.7 | 3.0 | 0.0177 | 27 |
| 3 | 112MB | 965 | 83.5 | 85.6 | 86.2 | 84.8 | 0.82 | 0.69 | 0.70 | 0.57 | IE3 | 7.72 | 6.7 | 32 | 29.5 | 2.3 | 3.2 | 0.0214 | 33 |
| 3 | 132S | 965 | 83.5 | 85.6 | 86 | 85.1 | 0.82 | 0.74 | 0.70 | 0.57 | IE3 | 7.20 | 6.7 | 32 | 29.5 | 2.3 | 3.2 | 0.0338 | 39 |
| 4 | 132MA | 970 | 83.6 | 86.8 | 87.1 | 86.2 | 0.81 | 0.74 | 0.68 | 0.58 | IE3 | 9.46 | 6.7 | 32 | 39.4 | 2.5 | 3.2 | 0.0439 | 48 |
| 5.5 | 132MB | 975 | 84.4 | 88 | 88.3 | 87.1 | 0.84 | 0.71 | 0.68 | 0.64 | IE3 | 13.4 | 6.9 | 30 | 54.1 | 2.4 | 3.0 | 0.0540 | 56 |
| 7.5 | 132MC | 970 | 87.5 | 89.1 | 89.6 | 88.6 | 0.79 | 0.72 | 0.70 | 0.59 | IE3 | 17.8 | 6.0 | 26 | 73.5 | 2.2 | 2.6 | 0.0707 | 68 |
| 7.5 | 160M | 975 | 87.5 | 89.1 | 89.5 | 88.5 | 0.79 | 0.76 | 0.70 | 0.59 | IE3 | 16.8 | 6.0 | 26 | 73.5 | 2.2 | 2.6 | 0.1090 | 80 |
| 11 | 160L | 975 | 88.1 | 90.3 | 90.8 | 89.9 | 0.80 | 0.78 | 0.74 | 0.65 | IE3 | 23.7 | 5.8 | 24 | 107.7 | 2.2 | 2.4 | 0.1549 | 105 |
| 15 | 180L | 980 | 88.4 | 91.2 | 91 | 89.8 | 0.85 | 0.83 | 0.79 | 0.69 | IE3 | 30.1 | 6.0 | 27 | 146 | 2.0 | 2.7 | 0.2752 | 125 |

# DRAWING DIMENSIONS

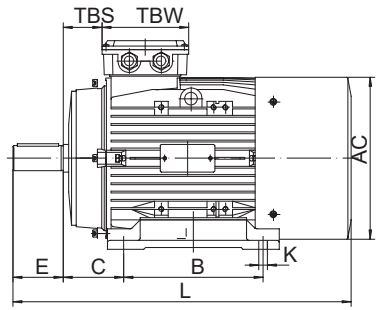
## RMA (IE1) , RMA2 (IE2) MOTORS

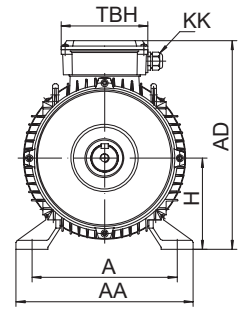
**Foot mount B3**




Framesize 56-160



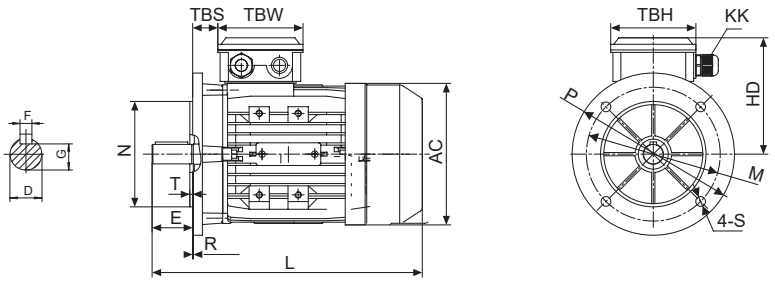




Framesize 180

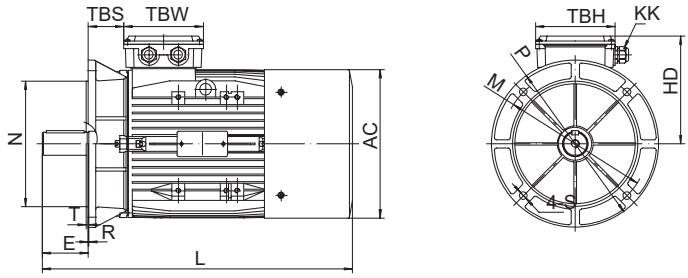
| Type | A | B | C | D | E | F | G | H | K | AA | AC | AD | KK | TBS | TBW | TBH | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 56 | 90 | 71 | 36 | 9 | 20 | 3 | 7.2 | 56 | 5.8*8.8 | 110 | 110 | 152 | 1-M16*1.5 | 14 | 88 | 88 | 196 |
| 63 | 100 | 80 | 40 | 11 | 23 | 4 | 8.5 | 63 | 7*10 | 120 | 121 | 169 | 1-M16*1.5 | 14 | 94 | 94 | 220 |
| 71 | 112 | 90 | 45 | 14 | 30 | 5 | 11 | 71 | 7*10 | 132 | 139 | 184 | 1-M20*1.5 | 20 | 94 | 94 | 241(255) |
| 80 | 125 | 100 | 50 | 19 | 40 | 6 | 15.5 | 80 | 10*13 | 160 | 156 | 211 | 1-M20*1.5 | 27 | 105 | 105 | 290 |
| 90S | 140 | 100 | 56 | 24 | 50 | 8 | 20 | 90 | 10*13 | 175 | 175 | 228 | 1-M20*1.5 | 30 | 105 | 105 | 312 |
| 90L1/L2 | 140 | 125 | 56 | 24 | 50 | 8 | 20 | 90 | 10*13 | 175 | 175 | 228 | 1-M20*1.5 | 30 | 105 | 105 | 337/367 |
| 100 | 160 | 140 | 63 | 28 | 60 | 8 | 24 | 100 | 12*15 | 198 | 196 | 248 | 2-M20*1.5 | 26 | 105 | 105 | 368(386) |
| 112 | 190 | 140 | 70 | 28 | 60 | 8 | 24 | 112 | 12*15 | 220 | 221 | 278 | 2-M25*1.5 | 32 | 112 | 112 | 397 |
| 132S | 216 | 140 | 89 | 38 | 80 | 10 | 33 | 132 | 12*15 | 252 | 256 | 316 | 2-M25*1.5 | 38 | 112 | 112 | 437 |
| 132M/L | 216 | 178 | 89 | 38 | 80 | 10 | 33 | 132 | 12*15 | 252 | 256 | 316 | 2-M25*1.5 | 38 | 112 | 112 | 475/501 |
| 160M/L | 254 | 210/254 | 108 | 42 | 110 | 12 | 37 | 160 | 15*19 | 290 | 313 | 382 | 2-M32*1.5 | 64 | 143 | 143 | 641 |
| 180M/L | 279 | 241/279 | 121 | 48 | 110 | 14 | 42.5 | 180 | 15*25 | 340 | 355 | 440 | 2-M32*1.5 | 73 | 190 | 190 | 730 |

# DRAWING DIMENSIONS

**Flange mount B5**




Framesize 56-160



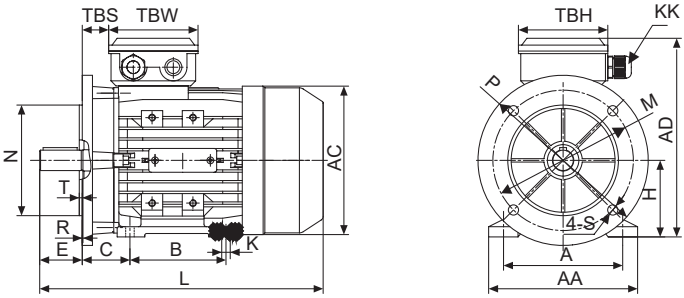

Framesize 180

| Type | E | F | G | AC | HD | KK | TBS | TBW | TBH | L | M | N | P | S | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 56 | 20 | 3 | 7.2 | 110 | 96 | 1-M16*1.5 | 14 | 88 | 88 | 196 | 100 | 80 | 120 | 7 | 3 |
| 63 | 23 | 4 | 8.5 | 121 | 106 | 1-M16*1.5 | 14 | 94 | 94 | 220 | 115 | 95 | 140 | 10 | 3 |
| 71 | 30 | 5 | 11 | 139 | 113 | 1-M20*1.5 | 20 | 94 | 94 | 241(255) | 130 | 110 | 160 | 10 | 3.5 |
| 80 | 40 | 6 | 15.5 | 156 | 131 | 1-M20*1.5 | 27 | 105 | 105 | 290 | 165 | 130 | 200 | 12 | 3.5 |
| 90S | 50 | 8 | 20 | 175 | 138 | 1-M20*1.5 | 30 | 105 | 105 | 312 | 165 | 130 | 200 | 12 | 3.5 |
| 90L1/L2 | 50 | 8 | 20 | 175 | 138 | 1-M20*1.5 | 30 | 105 | 105 | 337/367 | 165 | 130 | 200 | 12 | 3.5 |
| 100 | 60 | 8 | 24 | 196 | 148 | 2-M20*1.5 | 26 | 105 | 105 | 368(386) | 215 | 180 | 250 | 15 | 4 |
| 112 | 60 | 8 | 24 | 221 | 166 | 2-M25*1.5 | 32 | 112 | 112 | 397 | 215 | 180 | 250 | 15 | 4 |
| 132S | 80 | 10 | 33 | 256 | 184 | 2-M25*1.5 | 38 | 112 | 112 | 437 | 265 | 230 | 300 | 15 | 4 |
| 132M/L | 80 | 10 | 33 | 256 | 184 | 2-M25*1.5 | 38 | 112 | 112 | 475/501 | 265 | 230 | 300 | 15 | 4 |
| 160M/L | 110 | 12 | 37 | 313 | 222 | 2-M32*1.5 | 64 | 143 | 143 | 641 | 300 | 250 | 350 | 19 | 5 |
| 180M/L | 110 | 14 | 42.5 | 355 | 260 | 2-M32*1.5 | 73 | 190 | 190 | 730 | 350 | 250 | 350 | 19 | 5 |

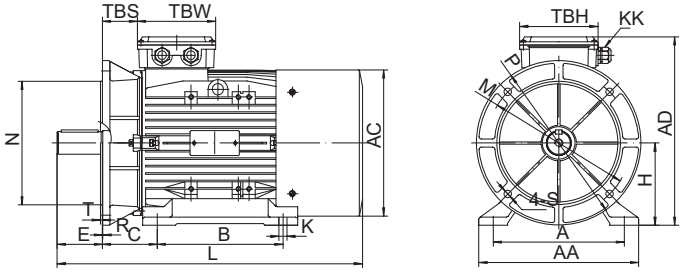
This data is provided for guidance only.

# DRAWING DIMENSIONS

**Flange mount B35**




Framesize 56-160



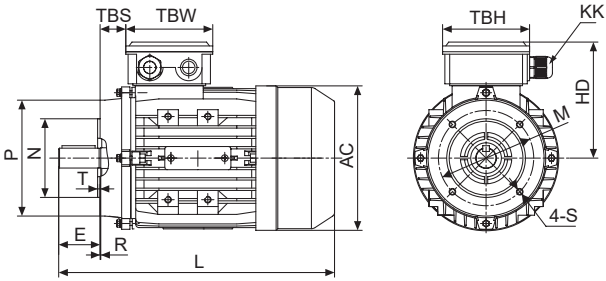

Framesize 180

| Type | A | B | C | D | E | F | G | H | K | AA | AC | AD | KK | TBS | TBW | TBH | L | M | N | P | S | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 56 | 90 | 71 | 36 | 9 | 20 | 3 | 7.2 | 56 | 5.8*8.8 | 110 | 110 | 152 | 1-M16*1.5 | 14 | 88 | 88 | 196 | 100 | 80 | 120 | 7 | 3 |
| 63 | 100 | 80 | 40 | 11 | 23 | 4 | 8.5 | 63 | 7*10 | 120 | 121 | 169 | 1-M16*1.5 | 14 | 94 | 94 | 220 | 115 | 95 | 140 | 10 | 3 |
| 71 | 112 | 90 | 45 | 14 | 30 | 5 | 11 | 71 | 7*10 | 132 | 139 | 184 | 1-M20*1.5 | 20 | 94 | 94 | 241(255) | 130 | 110 | 160 | 10 | 3.5 |
| 80 | 125 | 100 | 50 | 19 | 40 | 6 | 15.5 | 80 | 10*13 | 160 | 156 | 211 | 1-M20*1.5 | 27 | 105 | 105 | 290 | 165 | 130 | 200 | 12 | 3.5 |
| 90S | 140 | 100 | 56 | 24 | 50 | 8 | 20 | 90 | 10*13 | 175 | 175 | 228 | 1-M20*1.5 | 30 | 105 | 105 | 312 | 165 | 130 | 200 | 12 | 3.5 |
| 90L1/L2 | 140 | 125 | 56 | 24 | 50 | 8 | 20 | 90 | 10*13 | 175 | 175 | 228 | 1-M20*1.5 | 30 | 105 | 105 | 337/367 | 165 | 130 | 200 | 12 | 3.5 |
| 100 | 160 | 140 | 63 | 28 | 60 | 8 | 24 | 100 | 12*15 | 198 | 196 | 248 | 2-M20*1.5 | 26 | 105 | 105 | 368(386) | 215 | 180 | 250 | 15 | 4 |
| 112 | 190 | 140 | 70 | 28 | 60 | 8 | 24 | 112 | 12*15 | 220 | 221 | 278 | 2-M25*1.5 | 32 | 112 | 112 | 397 | 215 | 180 | 250 | 15 | 4 |
| 132S | 216 | 140 | 89 | 38 | 80 | 10 | 33 | 132 | 12*15 | 252 | 256 | 316 | 2-M25*1.5 | 38 | 112 | 112 | 437 | 265 | 230 | 300 | 15 | 4 |
| 132M/L | 216 | 178 | 89 | 38 | 80 | 10 | 33 | 132 | 12*15 | 252 | 256 | 316 | 2-M25*1.5 | 38 | 112 | 112 | 475/501 | 265 | 230 | 300 | 15 | 4 |
| 160M/L | 254 | 210/254 | 108 | 42 | 110 | 12 | 37 | 160 | 15*19 | 290 | 313 | 382 | 2-M32*1.5 | 64 | 143 | 143 | 641 | 300 | 250 | 350 | 19 | 5 |
| 180M/L | 279 | 241/279 | 121 | 48 | 110 | 14 | 42.5 | 180 | 15*25 | 340 | 355 | 440 | 2-M32*1.5 | 73 | 190 | 190 | 730 | 300 | 250 | 350 | 19 | 5 |

# DRAWING DIMENSIONS

## Flange mount B14

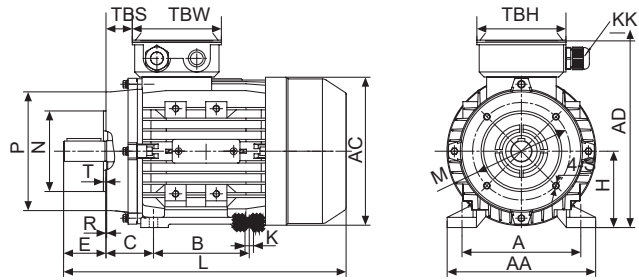
Framesize 56-160




| Type | E | F | G | AC | HD | KK | TBS | TBW | TBH | L | M | N | P | S | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 56 | 20 | 3 | 7.2 | 110 | 96 | 1-M16*1.5 | 14 | 88 | 88 | 196 | 65 | 50 | 80 | 5 | 2.5 |
| 63 | 23 | 4 | 8.5 | 121 | 106 | 1-M16*1.5 | 14 | 94 | 94 | 220 | 75 | 60 | 90 | 5 | 2.5 |
| 71 | 30 | 5 | 11 | 139 | 113 | 1-M20*1.5 | 20 | 94 | 94 | 241(255) | 85 | 70 | 105 | 6 | 2.5 |
| 80 | 40 | 6 | 15.5 | 156 | 131 | 1-M20*1.5 | 27 | 105 | 105 | 290 | 100 | 80 | 120 | 6 | 3 |
| 90S | 50 | 8 | 20 | 175 | 138 | 1-M20*1.5 | 30 | 105 | 105 | 312 | 115 | 95 | 140 | 8 | 3 |
| 90L1/L2 | 50 | 8 | 20 | 175 | 138 | 1-M20*1.5 | 30 | 105 | 105 | 337/367 | 115 | 95 | 140 | 8 | 3 |
| 100 | 60 | 8 | 24 | 196 | 148 | 2-M20*1.5 | 26 | 105 | 105 | 368(386) | 130 | 110 | 160 | 8 | 3.5 |
| 112 | 60 | 8 | 24 | 221 | 166 | 2-M25*1.5 | 32 | 112 | 112 | 397 | 130 | 110 | 160 | 8 | 3.5 |
| 132S | 80 | 10 | 33 | 256 | 184 | 2-M25*1.5 | 38 | 112 | 112 | 437 | 165 | 130 | 200 | 10 | 3.5 |
| 132M/L | 80 | 10 | 33 | 256 | 184 | 2-M25*1.5 | 38 | 112 | 112 | 475/501 | 165 | 130 | 200 | 10 | 3.5 |
| 160M/L | 110 | 12 | 37 | 313 | 222 | 2-M32*1.5 | 64 | 143 | 143 | 641 | 215 | 180 | 250 | 12 | 4 |

## Flange mount B34

Framesize 56-160

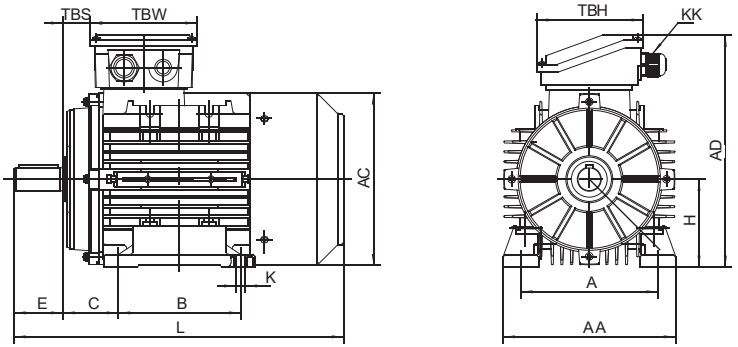



| Type | A | B | C | D | E | F | G | H | K | AA | AC | AD | KK | TBS | TBW | TBH | L | M | N | P | S | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 56 | 90 | 71 | 36 | 9 | 20 | 3 | 7.2 | 56 | 5.8*8.8 | 110 | 110 | 152 | 1-M16*1.5 | 14 | 88 | 88 | 196 | 65 | 50 | 80 | 5 | 2.5 |
| 63 | 100 | 80 | 40 | 11 | 23 | 4 | 8.5 | 63 | 7*10 | 120 | 121 | 169 | 1-M16*1.5 | 14 | 94 | 94 | 220 | 75 | 60 | 90 | 5 | 2.5 |
| 71 | 112 | 90 | 45 | 14 | 30 | 5 | 11 | 71 | 7*10 | 132 | 139 | 184 | 1-M20*1.5 | 20 | 94 | 94 | 241(255) | 85 | 70 | 105 | 6 | 2.5 |
| 80 | 125 | 100 | 50 | 19 | 40 | 6 | 15.5 | 80 | 10*13 | 160 | 156 | 211 | 1-M20*1.5 | 27 | 105 | 105 | 290 | 100 | 80 | 120 | 6 | 3 |
| 90S | 140 | 100 | 56 | 24 | 50 | 8 | 20 | 90 | 10*13 | 175 | 175 | 228 | 1-M20*1.5 | 30 | 105 | 105 | 312 | 115 | 95 | 140 | 8 | 3 |
| 90L1/L2 | 140 | 125 | 56 | 24 | 50 | 8 | 20 | 90 | 10*13 | 175 | 175 | 228 | 1-M20*1.5 | 30 | 105 | 105 | 337/367 | 115 | 95 | 140 | 8 | 3 |
| 100 | 160 | 140 | 63 | 28 | 60 | 8 | 24 | 100 | 12*15 | 198 | 196 | 248 | 2-M20*1.5 | 26 | 105 | 105 | 368(386) | 130 | 110 | 160 | 8 | 3.5 |
| 112 | 190 | 140 | 70 | 28 | 60 | 8 | 24 | 112 | 12*15 | 220 | 221 | 278 | 2-M25*1.5 | 32 | 112 | 112 | 397 | 130 | 110 | 160 | 8 | 3.5 |
| 132S | 216 | 140 | 89 | 38 | 80 | 10 | 33 | 132 | 12*15 | 252 | 256 | 316 | 2-M25*1.5 | 38 | 112 | 112 | 437 | 165 | 130 | 200 | 10 | 3.5 |
| 132M/L | 216 | 178 | 89 | 38 | 80 | 10 | 33 | 132 | 12*15 | 252 | 256 | 316 | 2-M25*1.5 | 38 | 112 | 112 | 475/501 | 165 | 130 | 200 | 10 | 3.5 |
| 160M/L | 254 | 210/254 | 108 | 42 | 110 | 12 | 37 | 160 | 15*19 | 290 | 313 | 382 | 2-M32*1.5 | 64 | 143 | 143 | 641 | 215 | 180 | 250 | 12 | 4 |

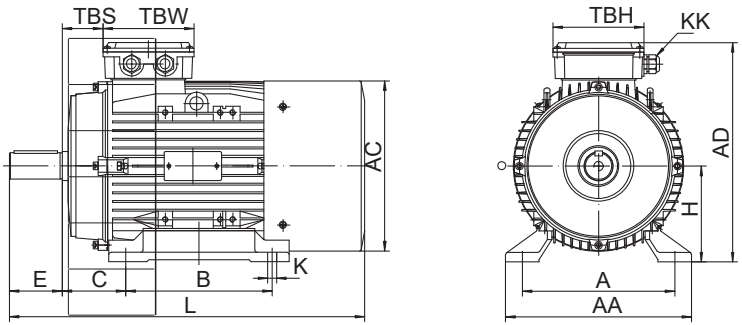
# DRAWING DIMENSIONS

## *RMA3 (IE3) MOTORS*

### Foot mount B3




### Framesize 56-160

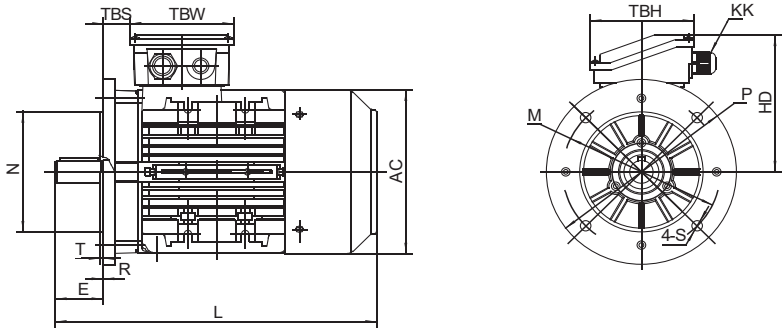



### Framesize 180

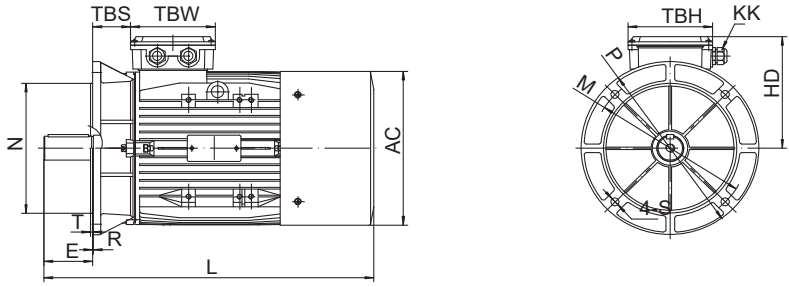
| Type | A | B | C | D | E | F | G | H | K | AA | AC | AD | KK | TBS | TBW | TBH | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 56 | 90 | 71 | 36 | 9 | 20 | 3 | 7.2 | 56 | 6×9 | 112 | 110 | 151 | 1-M16*1.5 | 16.5 | 83 | 83 | 195 |
| 63 | 100 | 80 | 40 | 11 | 23 | 4 | 8.5 | 63 | 7×10 | 124 | 122 | 172 | 1-M16*1.5 | 10 | 98 | 98 | 217 |
| 71 | 112 | 90 | 45 | 14 | 30 | 5 | 11 | 71 | 7×10 | 140 | 138 | 189 | 1-M20*1.5 | 16 | 98 | 98 | 245 |
| 80 | 125 | 100 | 50 | 19 | 40 | 6 | 15.5 | 80 | 10×15 | 160 | 157 | 214 | 1-M20*1.5 | 26.5 | 109 | 109 | 227/304 |
| 90S | 140 | 100 | 56 | 24 | 50 | 8 | 20 | 90 | 10×15 | 176 | 177 | 235 | 1-M20*1.5 | 28.5 | 109 | 109 | 315/340 |
| 90L | 140 | 125 | 56 | 24 | 50 | 8 | 20 | 90 | 10×15 | 176 | 177 | 235 | 2-M20*1.5 | 28.5 | 109 | 109 | 340/365 |
| 100 | 160 | 140 | 63 | 28 | 60 | 8 | 24 | 100 | 12×16 | 200 | 199 | 260 | 2-M25*1.5 | 32 | 118 | 118 | 376/411 |
| 112 | 190 | 140 | 70 | 28 | 60 | 8 | 24 | 112 | 12×16 | 224 | 220 | 283 | 2-M25*1.5 | 33 | 118 | 118 | 398 |
| 132S/M | 216 | 140/178 | 89 | 38 | 80 | 10 | 33 | 132 | 12×16 | 260 | 261 | 323 | 2-M32*1.5 | 36.5 | 118 | 118 | 460/498 |
| 160M/L | 254 | 210/254 | 108 | 42 | 110 | 12 | 37 | 160 | 15×21 | 314 | 314 | 391 | 2-M32*1.5 | 64 | 148 | 148 | 616/660 |
| 180 | 279 | 241/279 | 121 | 48 | 110 | 14 | 42.5 | 180 | 15×25 | 340 | 355 | 440 | 2-M32*1.5 | 73 | 190 | 190 | 730 |

# DRAWING DIMENSIONS

## Flange mount B5




**Framesize 56-160**

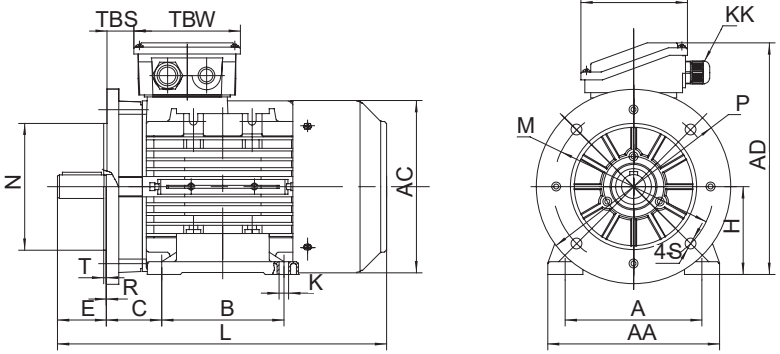



**Framesize 180**

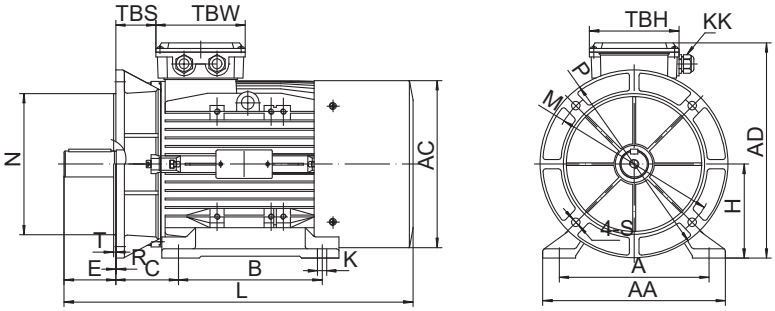
| Type | E | F | G | AC | HD | KK | TBS | TBW | TBH | L | M | N | P | S | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 56 | 20 | 3 | 7.2 | 110 | 95 | 1-M16*1.5 | 16.5 | 83 | 83 | 195 | 100 | 80 | 120 | 7 | 3 |
| 63 | 23 | 4 | 8.5 | 122 | 109 | 1-M16*1.5 | 10 | 98 | 98 | 217 | 115 | 95 | 140 | 10 | 3 |
| 71 | 30 | 5 | 11 | 138 | 118 | 1-M20*1.5 | 16 | 98 | 98 | 245 | 130 | 110 | 160 | 10 | 3.5 |
| 80 | 40 | 6 | 15.5 | 157 | 134 | 1-M20*1.5 | 26.5 | 109 | 109 | 227/304 | 165 | 130 | 200 | 12 | 3.5 |
| 90S | 50 | 8 | 20 | 177 | 145 | 1-M20*1.5 | 28.5 | 109 | 109 | 315/340 | 165 | 130 | 200 | 12 | 3.5 |
| 90L | 50 | 8 | 20 | 177 | 145 | 2-M20*1.5 | 28.5 | 109 | 109 | 340/365 | 165 | 130 | 200 | 12 | 3.5 |
| 100 | 60 | 8 | 24 | 199 | 160 | 2-M25*1.5 | 32 | 118 | 118 | 376/411 | 215 | 180 | 250 | 15 | 4 |
| 112 | 60 | 8 | 24 | 220 | 171 | 2-M25*1.5 | 33 | 118 | 118 | 398 | 215 | 180 | 250 | 15 | 4 |
| 132S/M | 80 | 10 | 33 | 261 | 191 | 2-M32*1.5 | 36.5 | 118 | 118 | 460/498 | 265 | 230 | 300 | 15 | 4 |
| 160M/L | 110 | 12 | 37 | 314 | 231 | 2-M32*1.5 | 64 | 148 | 148 | 616/660 | 300 | 250 | 350 | 19 | 5 |
| 180 | 110 | 14 | 42.5 | 355 | 260 | 2-M32*1.5 | 73 | 190 | 190 | 730 | 300 | 250 | 350 | 19 | 5 |

# DRAWING DIMENSIONS

## Flange mount B35




**Framesize 56-160**



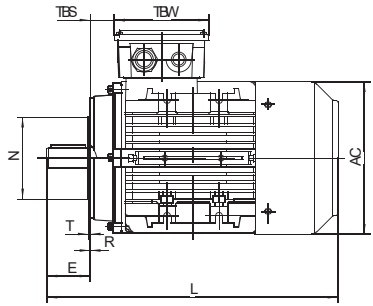

**Framesize 180**

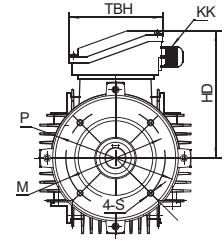
| Type | A | B | C | D | E | F | G | H | K | AA | AC | AD | KK | TBS | TBW | TBH | L | M | N | P | S | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 56 | 90 | 71 | 36 | 9 | 20 | 3 | 7.2 | 56 | 6×9 | 112 | 110 | 151 | 1-M16*1.5 | 16.5 | 83 | 83 | 195 | 100 | 80 | 120 | 7 | 3 |
| 63 | 100 | 80 | 40 | 11 | 23 | 4 | 8.5 | 63 | 7×10 | 124 | 122 | 172 | 1-M16*1.5 | 10 | 98 | 98 | 217 | 115 | 95 | 140 | 10 | 3 |
| 71 | 112 | 90 | 45 | 14 | 30 | 5 | 11 | 71 | 7×10 | 140 | 138 | 189 | 1-M20*1.5 | 16 | 98 | 98 | 245 | 130 | 110 | 160 | 10 | 3.5 |
| 80 | 125 | 100 | 50 | 19 | 40 | 6 | 15.5 | 80 | 10×15 | 160 | 157 | 214 | 1-M20*1.5 | 26.5 | 109 | 109 | 227/304 | 165 | 130 | 200 | 12 | 3.5 |
| 90S | 140 | 100 | 56 | 24 | 50 | 8 | 20 | 90 | 10×15 | 176 | 177 | 235 | 1-M20*1.5 | 28.5 | 109 | 109 | 315/340 | 165 | 130 | 200 | 12 | 3.5 |
| 90L | 140 | 125 | 56 | 24 | 50 | 8 | 20 | 90 | 10×15 | 176 | 177 | 235 | 2-M20*1.5 | 28.5 | 109 | 109 | 340/365 | 165 | 130 | 200 | 12 | 3.5 |
| 100 | 160 | 140 | 63 | 28 | 60 | 8 | 24 | 100 | 12×16 | 200 | 199 | 260 | 2-M25*1.5 | 32 | 118 | 118 | 376/411 | 215 | 180 | 250 | 15 | 4 |
| 112 | 190 | 140 | 70 | 28 | 60 | 8 | 24 | 112 | 12×16 | 224 | 220 | 283 | 2-M25*1.5 | 33 | 118 | 118 | 398 | 215 | 180 | 250 | 15 | 4 |
| 132S/M | 216 | 140/178 | 89 | 38 | 80 | 10 | 33 | 132 | 12×16 | 260 | 261 | 323 | 2-M32*1.5 | 36.5 | 118 | 118 | 460/498 | 265 | 230 | 300 | 15 | 4 |
| 160M/L | 254 | 210/254 | 108 | 42 | 110 | 12 | 37 | 160 | 15×21 | 314 | 314 | 391 | 2-M32*1.5 | 64 | 148 | 148 | 616/660 | 300 | 250 | 350 | 19 | 5 |
| 180 | 279 | 241/279 | 121 | 48 | 110 | 14 | 42.5 | 180 | 15×25 | 340 | 355 | 440 | 2-M32*1.5 | 73 | 190 | 190 | 730 | 300 | 250 | 350 | 19 | 5 |

# DRAWING DIMENSIONS

## Flange mount B14

Framesize 56-160

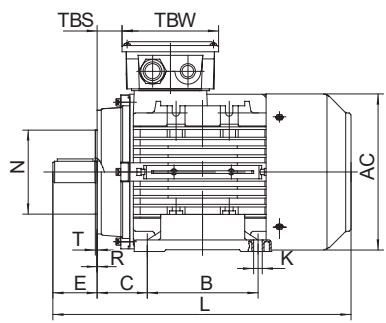


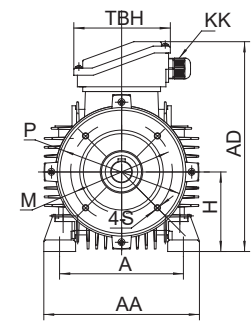




| Type | E | F | G | AC | HD | KK | TBS | TBW | TBH | L | M | N | P | S | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 56 | 20 | 3 | 7.2 | 110 | 95 | 1-M16*1.5 | 16.5 | 83 | 83 | 195 | 65 | 50 | 80 | 5 | 2.5 |
| 63 | 23 | 4 | 8.5 | 122 | 109 | 1-M16*1.5 | 10 | 98 | 98 | 217 | 75 | 60 | 90 | 5 | 2.5 |
| 71 | 30 | 5 | 11 | 138 | 118 | 1-M20*1.5 | 16 | 98 | 98 | 245 | 85 | 70 | 105 | 6 | 2.5 |
| 80 | 40 | 6 | 15.5 | 157 | 134 | 1-M20*1.5 | 26.5 | 109 | 109 | 227/304 | 100 | 80 | 120 | 6 | 3 |
| 90S | 50 | 8 | 20 | 177 | 145 | 1-M20*1.5 | 28.5 | 109 | 109 | 315/340 | 115 | 95 | 140 | 8 | 3 |
| 90L | 50 | 8 | 20 | 177 | 145 | 2-M20*1.5 | 28.5 | 109 | 109 | 340/365 | 115 | 95 | 140 | 8 | 3 |
| 100 | 60 | 8 | 24 | 199 | 160 | 2-M20*1.5 | 32 | 118 | 118 | 376/411 | 130 | 110 | 160 | 8 | 3.5 |
| 112 | 60 | 8 | 24 | 220 | 171 | 2-M25*1.5 | 33 | 118 | 118 | 398 | 130 | 110 | 160 | 8 | 3.5 |
| 132S/M | 80 | 10 | 33 | 261 | 191 | 2-M25*1.5 | 36.5 | 118 | 118 | 460/498 | 165 | 130 | 200 | 10 | 3.5 |
| 160M/L | 110 | 12 | 37 | 314 | 231 | 2-M32*1.5 | 64 | 148 | 148 | 616/660 | 215 | 180 | 250 | 12 | 4 |

## Flange mount B34

Framesize 56-160



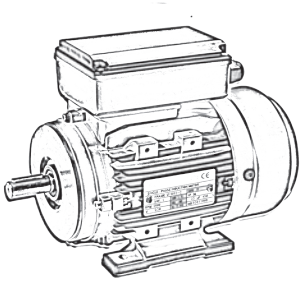




| Type | A | B | C | D | E | F | G | H | K | AA | AC | AD | KK | TBS | TBW | TBH | L | M | N | P | S | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 56 | 90 | 71 | 36 | 9 | 20 | 3 | 7.2 | 56 | 6×9 | 112 | 110 | 151 | 1-M16*1.5 | 16.5 | 83 | 83 | 195 | 65 | 50 | 80 | 5 | 2.5 |
| 63 | 100 | 80 | 40 | 11 | 23 | 4 | 8.5 | 63 | 7×10 | 124 | 122 | 172 | 1-M16*1.5 | 10 | 98 | 98 | 217 | 75 | 60 | 90 | 5 | 2.5 |
| 71 | 112 | 90 | 45 | 14 | 30 | 5 | 11 | 71 | 7×10 | 140 | 138 | 189 | 1-M20*1.5 | 16 | 98 | 98 | 245 | 85 | 70 | 105 | 6 | 2.5 |
| 80 | 125 | 100 | 50 | 19 | 40 | 6 | 15.5 | 80 | 10×15 | 160 | 157 | 214 | 1-M20*1.5 | 26.5 | 109 | 109 | 227/304 | 100 | 80 | 120 | 6 | 3 |
| 90S | 140 | 100 | 56 | 24 | 50 | 8 | 20 | 90 | 10×15 | 176 | 177 | 235 | 1-M20*1.5 | 28.5 | 109 | 109 | 315/340 | 115 | 95 | 140 | 8 | 3 |
| 90L | 140 | 125 | 56 | 24 | 50 | 8 | 20 | 90 | 10×15 | 176 | 177 | 235 | 2-M20*1.5 | 28.5 | 109 | 109 | 340/365 | 115 | 95 | 140 | 8 | 3 |
| 100 | 160 | 140 | 63 | 28 | 60 | 8 | 24 | 100 | 12×16 | 200 | 199 | 260 | 2-M20*1.5 | 32 | 118 | 118 | 376/411 | 130 | 110 | 160 | 8 | 3.5 |
| 112 | 190 | 140 | 70 | 28 | 60 | 8 | 24 | 112 | 12×16 | 224 | 220 | 283 | 2-M25*1.5 | 33 | 118 | 118 | 398 | 130 | 110 | 160 | 8 | 3.5 |
| 132S/M | 216 | 140/178 | 89 | 38 | 80 | 10 | 33 | 132 | 12×16 | 260 | 261 | 323 | 2-M25*1.5 | 36.5 | 118 | 118 | 460/498 | 165 | 130 | 200 | 10 | 3.5 |
| 160M/L | 254 | 210/254 | 108 | 42 | 110 | 12 | 37 | 160 | 15×21 | 314 | 314 | 391 | 2-M32*1.5 | 64 | 148 | 148 | 616/660 | 215 | 180 | 250 | 12 | 4 |

# SINGLE PHASE ELECTRIC MOTORS

## RMS MOTORS

RMS series aluminum housing single-phase capacitor-run asynchronous motors, with latest design in entirety, are made of selected quality materials and conform to the IEC standard.

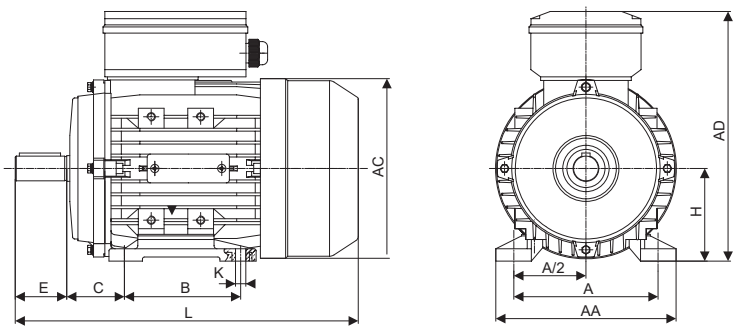


RMS motors have good performance, safety and reliable operation, nice appearance, and can be maintained very conveniently, while with low noises, little vibration and at the same time of light weight and simple construction. The multiple of starting torque is 0.45~0.75

This series motors are suitable for the occasion where there requirements of starting torque is low and long-term continuous woking, such as home electric appliances, pumps, fans, and recording meters, etc

### *DRAWING DIMENSIONS*

**Foot mount B3**

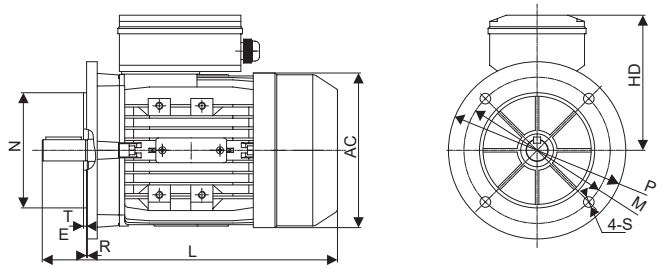



| Type | A | B | C | D | E | F | G | H | K | AA | AC | AD | KK | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 56 | 90 | 71 | 36 | 9 | 20 | 3 | 7.2 | 56 | 5.8×8.8 | 110 | 110 | 144 | 1-M16*1.5 | 196 |
| 63 | 100 | 80 | 40 | 11 | 23 | 4 | 8.5 | 63 | 7×10 | 120 | 121 | 181 | 1-M20*1.5 | 220 |
| 71 | 112 | 90 | 45 | 14 | 30 | 5 | 11 | 71 | 7×10 | 132 | 139 | 196 | 1-M20*1.5 | 241/255 |
| 80 | 125 | 100 | 50 | 19 | 40 | 6 | 15.5 | 80 | 10×13 | 160 | 156 | 226 | 1-M20*1.5 | 290 |
| 90S | 140 | 100 | 56 | 24 | 50 | 8 | 20 | 90 | 10×13 | 175 | 175 | 243 | 1-M20*1.5 | 312 |
| 90L | 140 | 125 | 56 | 24 | 50 | 8 | 20 | 90 | 10×13 | 175 | 175 | 243 | 1-M20*1.5 | 337/367 |
| 100L | 160 | 140 | 63 | 28 | 60 | 8 | 24 | 100 | 12×15 | 198 | 196 | 265 | 1-M20*1.5 | 368/386 |

## RMS MOTORS

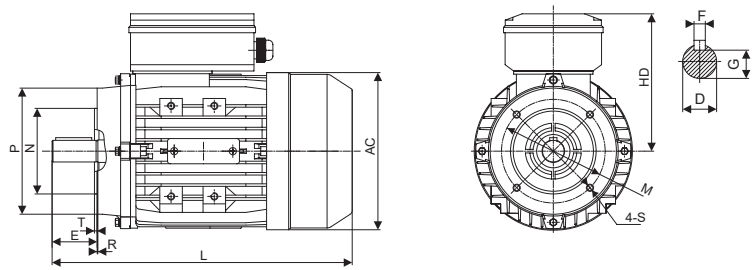
### *DRAWING DIMENSIONS*

### Flange mount B5




| Type | A | B | C | D | E | F | G | H | K | AA | AC | AD | KK | L | M | N | P | S | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 56 | 90 | 71 | 36 | 9 | 20 | 3 | 7.2 | 56 | 5.8×8.8 | 110 | 110 | 144 | 1-M16*1.5 | 196 | 100 | 80 | 120 | 7 | 3 |
| 63 | 100 | 80 | 40 | 11 | 23 | 4 | 8.5 | 63 | 7×10 | 120 | 121 | 181 | 1-M20*1.5 | 220 | 115 | 95 | 140 | 10 | 3 |
| 71 | 112 | 90 | 45 | 14 | 30 | 5 | 11 | 71 | 7×10 | 132 | 139 | 196 | 1-M20*1.5 | 241/255 | 130 | 110 | 160 | 10 | 3.5 |
| 80 | 125 | 100 | 50 | 19 | 40 | 6 | 15.5 | 80 | 10×13 | 160 | 156 | 226 | 1-M20*1.5 | 290 | 165 | 130 | 200 | 12 | 3.5 |
| 90S | 140 | 100 | 56 | 24 | 50 | 8 | 20 | 90 | 10×13 | 175 | 175 | 243 | 1-M20*1.5 | 312 | 165 | 130 | 200 | 12 | 3.5 |
| 90L | 140 | 125 | 56 | 24 | 50 | 8 | 20 | 90 | 10×13 | 175 | 175 | 243 | 1-M20*1.5 | 337/367 | 165 | 130 | 200 | 12 | 3.5 |
| 100L | 160 | 140 | 63 | 28 | 60 | 8 | 24 | 100 | 12×15 | 198 | 196 | 265 | 1-M20*1.5 | 368/386 | 215 | 180 | 250 | 15 | 4 |

### Flange mount B14




| Type | A | B | C | D | E | F | G | H | K | AA | AC | AD | KK | L | M | N | P | S | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 56 | 90 | 71 | 36 | 9 | 20 | 3 | 7.2 | 56 | 5.8×8.8 | 110 | 110 | 144 | 1-M16*1.5 | 196 | 65 | 50 | 80 | 5 | 2.5 |
| 63 | 100 | 80 | 40 | 11 | 23 | 4 | 8.5 | 63 | 7×10 | 120 | 121 | 181 | 1-M20*1.5 | 220 | 75 | 60 | 90 | 5 | 2.5 |
| 71 | 112 | 90 | 45 | 14 | 30 | 5 | 11 | 71 | 7×10 | 132 | 139 | 196 | 1-M20*1.5 | 241/255 | 85 | 70 | 105 | 6 | 2.5 |
| 80 | 125 | 100 | 50 | 19 | 40 | 6 | 15.5 | 80 | 10×13 | 160 | 156 | 226 | 1-M20*1.5 | 290 | 100 | 80 | 120 | 6 | 3 |
| 90S | 140 | 100 | 56 | 24 | 50 | 8 | 20 | 90 | 10×13 | 175 | 175 | 243 | 1-M20*1.5 | 312 | 115 | 95 | 140 | 8 | 3 |
| 90L | 140 | 125 | 56 | 24 | 50 | 8 | 20 | 90 | 10×13 | 175 | 175 | 243 | 1-M20*1.5 | 337/367 | 115 | 95 | 140 | 8 | 3 |
| 100L | 160 | 140 | 63 | 28 | 60 | 8 | 24 | 100 | 12×15 | 198 | 196 | 265 | 1-M20*1.5 | 368/386 | 130 | 110 | 160 | 8 | 3.5 |

## RMS MOTORS

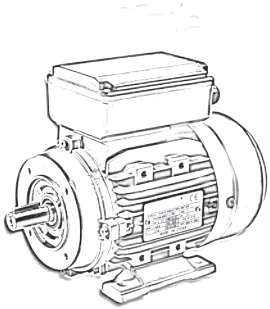
***PERFORMANCE DATA***

### SINGLE PHASE 230V 50HZ, IP55, F CLASS INSULATION, B CLASS TEMPERATURE RISE

| Nominal Output | Frame Size | Speed | Efficiency | Power Factor | Current | | Torque | | | Run Capacitor | Noise | Moment of inertia $J=_{N}GD^2$ | Weight of Foot mount motor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Full Load $I_N$ | Lock rotor $I_L/I_N$ | Full Load $T_N$ | Lock rotor $T_L/T_N$ | Break down $T_B/T_N$ | | | | |
| [kW] | | [r/min] | | | [A] | | [Nm] | | | | dB(A) | [kg*m²] | [kg] |
| ***3000 r/min = 2 poles - CENELEC frame allocations*** | | | | | | | | | | | | | |
| 0.18 | 63A | 2750 | 62 | 0.98 | 1.29 | 4.5 | 0.6 | 0.7 | 1.8 | 10µf/450V | 70 | 0.0001 | 4 |
| 0.25 | 63B | 2750 | 65 | 0.98 | 1.71 | 6 | 0.9 | 0.65 | 1.75 | 12µf/450V | 70 | 0.0002 | 5 |
| 0.37 | 63C | 2740 | 68 | 0.99 | 2.39 | 8 | 1.3 | 0.72 | 1.65 | 16µf/450V | 75 | 0.0002 | 5 |
| 0.37 | 71A | 2640 | 66 | 0.94 | 2.59 | 8 | 1.3 | 0.72 | 1.65 | 14µf/450V | 75 | 0.0004 | 6 |
| 0.55 | 71B | 2760 | 71.5 | 0.95 | 3.52 | 14 | 1.9 | 0.7 | 1.8 | 20µf/450V | 75 | 0.0005 | 7 |
| 0.75 | 80A | 2760 | 69 | 0.97 | 4.87 | 16 | 2.6 | 0.68 | 1.75 | 25µf/450V | 75 | 0.0010 | 9 |
| 1.1 | 80B | 2780 | 74 | 0.99 | 6.53 | 23 | 3.9 | 0.65 | 1.8 | 40µf/450V | 78 | 0.0012 | 12 |
| 1.5 | 90S | 2755 | 77 | 0.99 | 8.56 | 31 | 5.2 | 0.65 | 1.8 | 50µf/450V | 80 | 0.0017 | 13 |
| 2.2 | 90LA | 2765 | 78 | 0.99 | 12.39 | 51 | 7.6 | 0.65 | 1.8 | 70µf/450V | 80 | 0.0021 | 18 |
| 3 | 90LB | 2800 | 79 | 0.99 | 16.68 | 64 | 10.3 | 0.55 | 1.75 | 90µf/450V | 83 | 0.0027 | 22 |
| 2.2 | 100LA | 2825 | 77 | 0.98 | 12.68 | 51 | 7.6 | 0.65 | 1.8 | 70µf/450V | 80 | 0.0048 | 21 |
| 3 | 100LB | 2765 | 77 | 0.99 | 17.11 | 64 | 10.3 | 0.55 | 1.75 | 90µf/450V | 83 | 0.0054 | 24 |
| ***1500 r/min = 4 poles - CENELEC frame allocations*** | | | | | | | | | | | | | |
| 0.06 | 56A | 1410 | 49 | 0.97 | 0.55 | 5 | 1.8 | 0.75 | 1.6 | 4µf/450V | 63 | 0.0002 | 3 |
| 0.09 | 56B | 1390 | 51 | 0.99 | 0.78 | 5 | 1.8 | 0.75 | 1.6 | 6µf/450V | 63 | 0.0002 | 4 |
| 0.12 | 63A | 1400 | 55 | 0.98 | 0.97 | 5 | 1.8 | 0.75 | 1.6 | 8µf/450V | 65 | 0.0003 | 4 |
| 0.18 | 63B | 1380 | 59 | 0.98 | 1.35 | 5 | 1.8 | 0.75 | 1.6 | 10µf/450V | 65 | 0.0004 | 5 |
| 0.25 | 63C | 1380 | 62.5 | 0.99 | 1.76 | 5 | 1.8 | 0.75 | 1.6 | 14µf/450V | 65 | 0.0005 | 5 |
| 0.25 | 71A | 1310 | 60.5 | 0.99 | 1.81 | 5 | 1.8 | 0.75 | 1.6 | 14µf/450V | 65 | 0.0007 | 6 |
| 0.37 | 71B | 1325 | 65.5 | 0.99 | 2.48 | 7 | 2.7 | 0.7 | 1.55 | 20µf/450V | 68 | 0.0009 | 7 |
| 0.37 | 80A | 1350 | 63 | 0.97 | 2.63 | 7 | 2.7 | 0.7 | 1.55 | 16µf/450V | 68 | 0.0014 | 9 |
| 0.55 | 80B | 1330 | 66 | 0.98 | 3.70 | 11 | 3.9 | 0.7 | 1.7 | 25µf/450V | 73 | 0.0017 | 10 |
| 0.75 | 80C | 1355 | 69 | 0.98 | 4.82 | 15 | 5.4 | 0.7 | 1.75 | 35µf/450V | 73 | 0.0024 | 11 |
| 1.1 | 90S | 1355 | 72.5 | 0.95 | 6.94 | 22 | 7.8 | 0.68 | 1.8 | 40µf/450V | 75 | 0.0027 | 14 |
| 1.5 | 90L | 1360 | 74 | 0.95 | 9.28 | 32 | 10.5 | 0.68 | 1.8 | 50µf/450V | 78 | 0.0035 | 17 |
| 2.2 | 100LA | 1390 | 78 | 0.97 | 12.64 | 49 | 15.1 | 0.48 | 1.75 | 70µf/450V | 80 | 0.0087 | 25 |
| 3 | 100LB | 1380 | 79.5 | 0.99 | 16.57 | 61 | 20.8 | 0.45 | 1.6 | 90µf/450V | 80 | 0.0109 | 32 |
| ***960 r/min = 6 poles - CENELEC frame allocations*** | | | | | | | | | | | | | |
| 0.18 | 71A | 930 | 52 | 0.99 | 1.52 | 4 | 1.9 | 0.7 | 1.5 | 14µf/450V | 68 | 0.0006 | 6 |
| 0.25 | 71B | 925 | 54 | 0.95 | 2.12 | 5 | 2.7 | 0.68 | 1.5 | 16µf/450V | 68 | 0.0012 | 7 |
| 0.37 | 80A | 925 | 63 | 0.97 | 2.63 | 8 | 3.9 | 0.68 | 1.6 | 20µf/450V | 68 | 0.0022 | 9 |
| 0.55 | 80B | 915 | 66.5 | 0.97 | 3.71 | 14 | 5.8 | 0.68 | 1.6 | 30µf/450V | 70 | 0.0029 | 12 |
| 0.75 | 90S | 890 | 67.5 | 0.98 | 4.93 | 16 | 8.0 | 0.65 | 1.6 | 40µf/450V | 70 | 0.0035 | 14 |
| 1.1 | 90L | 905 | 69 | 0.97 | 7.15 | 5 | 11.7 | 0.62 | 1.6 | 50µf/450V | 70 | 0.0050 | 16 |

# SINGLE PHASE ELECTRIC MOTORS

## RMSC MOTORS



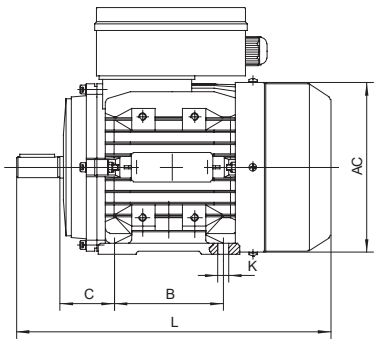
RMSC Series aluminum housing single-phase capacitor-start asynchronous motors, with latest design in entirety, are made of selected quality materials and conform to the IEC standard.

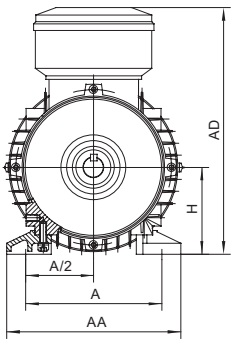
RMSC motors have good performance, safely and reliable operation, nice appearance, and can be maintained very conveniently, while with low noises, little vibration and at the same time of light weight and simple construction. High starting torque, perfect starting performance, generally the multiple of the starting torque can up to 3.0 times.

These series motors are suitable for the occasion where big starting torque and small starting current, such as aircompressors, pumps, refrigerators, medical apparatus, and many other machines needing full-load start.

### *DRAWING DIMENSIONS*

### Foot mount B3



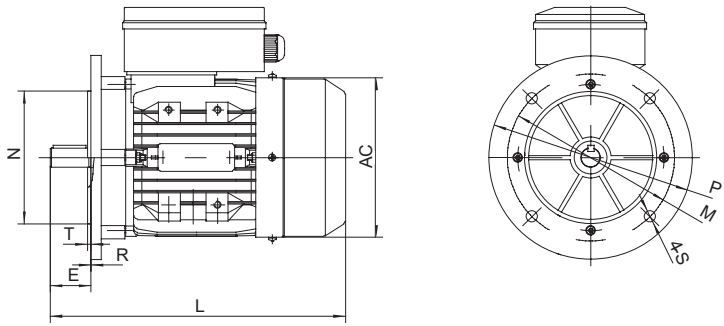




| Type | A | B | C | D | E | F | G | H | K | AA | AC | AD | KK | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 63 | 100 | 80 | 40 | 11 | 23 | 4 | 8.5 | 63 | 7×10 | 120 | 121 | 181 | 1-M20*1.5 | 217 |
| 71 | 112 | 90 | 45 | 14 | 30 | 5 | 11 | 71 | 7×10 | 132 | 139 | 196 | 1-M20*1.5 | 255 |
| 80 | 125 | 100 | 50 | 19 | 40 | 6 | 15.5 | 80 | 10×13 | 160 | 156 | 226 | 1-M20*1.5 | 290 |
| 90S | 140 | 100 | 56 | 24 | 50 | 8 | 20 | 90 | 10×13 | 175 | 174 | 243 | 1-M20*1.5 | 337 |
| 90L | 140 | 125 | 56 | 24 | 50 | 8 | 20 | 90 | 10×13 | 175 | 174 | 243 | 1-M20*1.5 | 367 |
| 100L | 160 | 140 | 63 | 28 | 60 | 8 | 24 | 100 | 12×15 | 198 | 196 | 265 | 1-M20*1.5 | 403(421) |
| 112M | 190 | 140 | 70 | 28 | 60 | 8 | 24 | 112 | 12×15 | 220 | 221 | 297 | 1-M25*1.5 | 431 |

## RMSC MOTORS

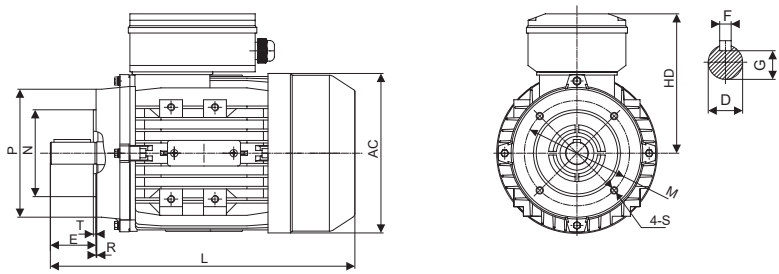
### *DRAWING DIMENSIONS*

### Flange mount B5




| Type | A | B | C | D | E | F | G | H | K | AA | AC | AD | KK | L | M | N | P | S | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 63 | 100 | 80 | 40 | 11 | 23 | 4 | 8.5 | 63 | 7×10 | 120 | 121 | 181 | 1-M20*1.5 | 217 | 115 | 95 | 140 | 10 | 3 |
| 71 | 112 | 90 | 45 | 14 | 30 | 5 | 11 | 71 | 7×10 | 132 | 139 | 196 | 1-M20*1.5 | 255 | 130 | 110 | 160 | 10 | 3.5 |
| 80 | 125 | 100 | 50 | 19 | 40 | 6 | 15.5 | 80 | 10×13 | 160 | 156 | 226 | 1-M20*1.5 | 290 | 165 | 130 | 200 | 12 | 3.5 |
| 90S | 140 | 100 | 56 | 24 | 50 | 8 | 20 | 90 | 10×13 | 175 | 174 | 243 | 1-M20*1.5 | 337 | 165 | 130 | 200 | 12 | 3.5 |
| 90L | 140 | 125 | 56 | 24 | 50 | 8 | 20 | 90 | 10×13 | 175 | 174 | 243 | 1-M20*1.5 | 367 | 165 | 130 | 200 | 12 | 3.5 |
| 100L | 160 | 140 | 63 | 28 | 60 | 8 | 24 | 100 | 12×15 | 198 | 196 | 265 | 1-M20*1.5 | 403(421) | 215 | 180 | 250 | 15 | 4 |
| 112M | 190 | 140 | 70 | 28 | 60 | 8 | 24 | 112 | 12×15 | 220 | 221 | 297 | 1-M25*1.5 | 431 | 215 | 180 | 250 | 15 | 4 |

### Flange mount B14




| Type | A | B | C | D | E | F | G | H | K | AA | AC | AD | KK | L | M | N | P | S | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 63 | 100 | 80 | 40 | 11 | 23 | 4 | 8.5 | 63 | 7×10 | 120 | 121 | 181 | 1-M20*1.5 | 217 | 75 | 60 | 90 | 5 | 2.5 |
| 71 | 112 | 90 | 45 | 14 | 30 | 5 | 11 | 71 | 7×10 | 132 | 139 | 196 | 1-M20*1.5 | 255 | 85 | 70 | 105 | 6 | 2.5 |
| 80 | 125 | 100 | 50 | 19 | 40 | 6 | 15.5 | 80 | 10×13 | 160 | 156 | 226 | 1-M20*1.5 | 290 | 100 | 80 | 120 | 6 | 3 |
| 90S | 140 | 100 | 56 | 24 | 50 | 8 | 20 | 90 | 10×13 | 175 | 174 | 243 | 1-M20*1.5 | 337 | 115 | 95 | 140 | 8 | 3 |
| 90L | 140 | 125 | 56 | 24 | 50 | 8 | 20 | 90 | 10×13 | 175 | 174 | 243 | 1-M20*1.5 | 367 | 115 | 95 | 140 | 8 | 3 |
| 100L | 160 | 140 | 63 | 28 | 60 | 8 | 24 | 100 | 12×15 | 198 | 196 | 265 | 1-M20*1.5 | 403(421) | 130 | 110 | 160 | 8 | 3.5 |
| 112M | 190 | 140 | 70 | 28 | 60 | 8 | 24 | 112 | 12×15 | 220 | 221 | 297 | 1-M25*1.5 | 431 | 130 | 110 | 160 | 8 | 3.5 |

## RMSC MOTORS

### *PERFORMANCE DATA*

### SINGLE PHASE 230V 50HZ, IP55, F CLASS INSULATION, B CLASS TEMPERATURE RISE

| Nominal Output [kW] | Frame Size | Speed [r/min] | Efficiency | Power Factor | Current | | Torque | | | Start Capacitor | Noise dB(A) | Moment of inertia $J=\frac{1}{4}GD^2$ [kg*m²] | Weight of Foot mount motor [kg] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Full Load $I_N$ [A] | Lock rotor $I_L/I_N$ | Full Load $T_N$ [Nm] | Lock rotor $T_L/T_N$ | Break down $T_B/T_N$ | | | | |
| ***3000 r/min = 2 poles - CENELEC frame allocations*** | | | | | | | | | | | | | |
| 0.09 | 63A | 2650 | 44 | 0.73 | 1.22 | 4.5 | 0.32 | 0.7 | 1.8 | 30uf/250V | 67 | 0.0001 | 4 |
| 0.12 | 63B | 2730 | 52 | 0.74 | 1.36 | 4.5 | 0.42 | 0.7 | 1.8 | 40uf/250V | 67 | 0.0002 | 4 |
| 0.18 | 71A | 2750 | 60 | 0.70 | 1.86 | 4.5 | 0.63 | 0.7 | 1.8 | 75μF/250V | 70 | 0.0003 | 6 |
| 0.25 | 71B | 2780 | 62 | 0.72 | 2.43 | 6 | 0.86 | 0.65 | 1.75 | 75μF/250V | 70 | 0.0004 | 7 |
| 0.37 | 80A | 2800 | 62 | 0.75 | 3.46 | 8 | 1.26 | 0.72 | 1.65 | 100μF/250V | 75 | 0.0008 | 9 |
| 0.55 | 80B | 2800 | 65 | 0.77 | 4.78 | 14 | 1.88 | 0.7 | 1.8 | 150μF/250V | 75 | 0.0009 | 10 |
| 0.75 | 90S | 2810 | 68 | 0.78 | 6.15 | 16 | 2.55 | 0.68 | 1.75 | 200μF/300V | 75 | 0.0014 | 13 |
| 1.1 | 90L | 2820 | 70 | 0.78 | 8.76 | 23 | 3.73 | 0.66 | 1.8 | 250μF/300V | 78 | 0.0018 | 16 |
| 1.5 | 100LA | 2830 | 72 | 0.79 | 11.5 | 31 | 5.06 | 0.66 | 1.8 | 300μF/300V | 83 | 0.0041 | 22 |
| 2.2 | 100LB | 2840 | 73 | 0.79 | 16.6 | 51 | 7.40 | 0.66 | 1.8 | 400μF/300V | 83 | 0.0057 | 26 |
| 3.0 | 112M | 2850 | 74 | 0.8 | 22.0 | 64 | 10.05 | 0.66 | 1.75 | 600μF/300V | 87 | 0.0080 | 35 |
| ***1500 r/min = 4 poles - CENELEC frame allocations*** | | | | | | | | | | | | | |
| 0.06 | 63A | 1400 | 39 | 0.55 | 1.22 | 6 | 0.41 | 0.75 | 1.6 | 30μF/250V | 63 | 0.0003 | 4 |
| 0.09 | 63B | 1390 | 39.5 | 0.55 | 1.80 | 6 | 0.62 | 0.75 | 1.6 | 30μF/250V | 63 | 0.0003 | 5 |
| 0.12 | 71A | 1360 | 50 | 0.56 | 1.86 | 6 | 0.84 | 0.75 | 1.6 | 50μF/250V | 65 | 0.0006 | 6 |
| 0.18 | 71B | 1380 | 53 | 0.6 | 2.46 | 6 | 1.25 | 0.75 | 1.6 | 75μF/250V | 65 | 0.0007 | 7 |
| 0.25 | 80A | 1390 | 58 | 0.61 | 3.07 | 6 | 1.72 | 0.75 | 1.6 | 100μF/250V | 65 | 0.0014 | 10 |
| 0.37 | 80B | 1400 | 62 | 0.62 | 4.18 | 7 | 2.5 | 0.7 | 1.55 | 100μF/250V | 70 | 0.0016 | 10 |
| 0.55 | 90S | 1400 | 66 | 0.66 | 5.49 | 11 | 3.75 | 0.7 | 1.7 | 150μF/250V | 70 | 0.0023 | 13 |
| 0.75 | 90L | 1410 | 68 | 0.7 | 6.85 | 15 | 5.08 | 0.7 | 1.76 | 150μF/250V | 70 | 0.0030 | 15 |
| 1.1 | 100LA | 1420 | 71 | 0.71 | 9.49 | 22 | 7.04 | 0.68 | 1.8 | 250μF/300V | 73 | 0.0067 | 21 |
| 1.5 | 100LB | 1430 | 73 | 0.72 | 12.4 | 32 | 10.10 | 0.68 | 1.8 | 400μF/300V | 78 | 0.0092 | 25 |
| 2.2 | 112M | 1440 | 74 | 0.73 | 17.7 | 49 | 14.60 | 0.48 | 1.75 | 600μF/300V | 78 | 0.0134 | 34 |

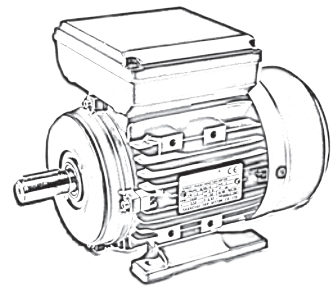
# SINGLE PHASE ELECTRIC MOTORS

## RMSD SERIES

RMSD series aluminum housing single-phase dual-capacitor asynchronous motors, with latest design in entirety, are made of selected quality materials and conform to the IEC standard.

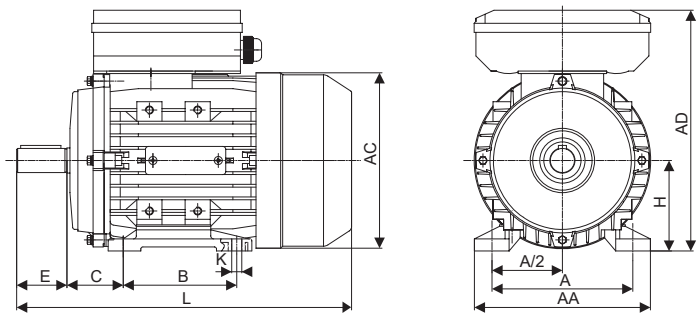
RMSD motors have good performance,safety and reliable operation, the multiple of starting torque is up to 2.5.

These series motors are suitable for the occasion where the requirements of big starting torque and high over load, such as air-compressors, pumps, and many other small machines.



### *DRAWING DIMENSIONS*

### Foot mount B3

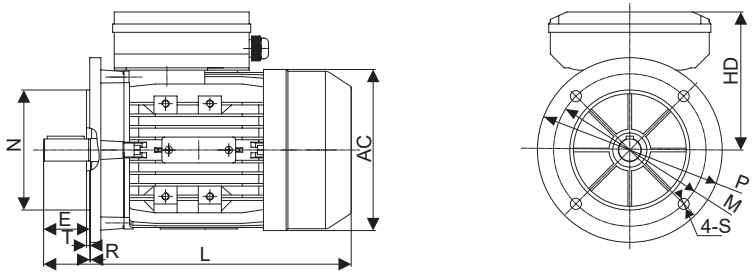



| Type | A | B | C | D | E | F | G | H | K | AA | AC | AD | KK | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 63 | 100 | 80 | 40 | 11 | 23 | 4 | 8.5 | 63 | 7×10 | 120 | 121 | 179 | 1-M20*1.5 | 220 |
| 71 | 112 | 90 | 45 | 14 | 30 | 5 | 11 | 71 | 7×10 | 132 | 139 | 194 | 1-M20*1.5 | 255 |
| 80 | 125 | 100 | 50 | 19 | 40 | 6 | 15.5 | 80 | 10×13 | 160 | 156 | 223 | 1-M20*1.5 | 290 |
| 90S | 140 | 100 | 56 | 24 | 50 | 8 | 20 | 90 | 10×13 | 175 | 175 | 240 | 1-M20*1.5 | 337 |
| 90L | 140 | 125 | 56 | 24 | 50 | 8 | 20 | 90 | 10×13 | 175 | 175 | 240 | 1-M20*1.5 | 367 |
| 100L | 160 | 140 | 63 | 28 | 60 | 8 | 24 | 100 | 12×15 | 198 | 196 | 271 | 1-M20*1.5 | 403(421) |
| 112M | 190 | 140 | 70 | 28 | 60 | 8 | 24 | 112 | 12×15 | 220 | 221 | 297 | 1-M25*1.5 | 431 |

## RMSD SERIES

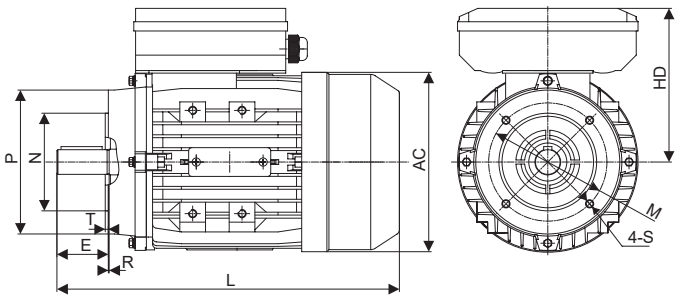
### *DRAWING DIMENSIONS*

### Flange mount B5




| Type | A | B | C | D | E | F | G | H | K | AA | AC | AD | KK | L | M | N | P | S | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 63 | 100 | 80 | 40 | 11 | 23 | 4 | 8.5 | 63 | 7×10 | 120 | 121 | 179 | 1-M20*1.5 | 220 | 115 | 95 | 140 | 10 | 3 |
| 71 | 112 | 90 | 45 | 14 | 30 | 5 | 11 | 71 | 7×10 | 132 | 139 | 194 | 1-M20*1.5 | 255 | 130 | 110 | 160 | 10 | 3.5 |
| 80 | 125 | 100 | 50 | 19 | 40 | 6 | 15.5 | 80 | 10×13 | 160 | 156 | 223 | 1-M20*1.5 | 290 | 165 | 130 | 200 | 12 | 3.5 |
| 90S | 140 | 100 | 56 | 24 | 50 | 8 | 20 | 90 | 10×13 | 175 | 175 | 240 | 1-M20*1.5 | 337 | 165 | 130 | 200 | 12 | 3.5 |
| 90L | 140 | 125 | 56 | 24 | 50 | 8 | 20 | 90 | 10×13 | 175 | 175 | 240 | 1-M20*1.5 | 367 | 165 | 130 | 200 | 12 | 3.5 |
| 100L | 160 | 140 | 63 | 28 | 60 | 8 | 24 | 100 | 12×15 | 198 | 196 | 271 | 1-M20*1.5 | 403(421) | 215 | 180 | 250 | 15 | 4 |
| 112M | 190 | 140 | 70 | 28 | 60 | 8 | 24 | 112 | 12×15 | 220 | 221 | 297 | 1-M25*1.5 | 431 | 215 | 180 | 250 | 15 | 4 |

### Flange mount B14




| Type | A | B | C | D | E | F | G | H | K | AA | AC | AD | KK | L | M | N | P | S | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 63 | 100 | 80 | 40 | 11 | 23 | 4 | 8.5 | 63 | 7×10 | 120 | 121 | 179 | 1-M20*1.5 | 220 | 75 | 60 | 90 | 5 | 2.5 |
| 71 | 112 | 90 | 45 | 14 | 30 | 5 | 11 | 71 | 7×10 | 132 | 139 | 194 | 1-M20*1.5 | 255 | 85 | 70 | 105 | 6 | 2.5 |
| 80 | 125 | 100 | 50 | 19 | 40 | 6 | 15.5 | 80 | 10×13 | 160 | 156 | 223 | 1-M20*1.5 | 290 | 100 | 80 | 120 | 6 | 3 |
| 90S | 140 | 100 | 56 | 24 | 50 | 8 | 20 | 90 | 10×13 | 175 | 175 | 240 | 1-M20*1.5 | 337 | 115 | 95 | 140 | 8 | 3 |
| 90L | 140 | 125 | 56 | 24 | 50 | 8 | 20 | 90 | 10×13 | 175 | 175 | 240 | 1-M20*1.5 | 367 | 115 | 95 | 140 | 8 | 3 |
| 100L | 160 | 140 | 63 | 28 | 60 | 8 | 24 | 100 | 12×15 | 198 | 196 | 271 | 1-M20*1.5 | 403(421) | 130 | 110 | 160 | 8 | 3.5 |
| 112M | 190 | 140 | 70 | 28 | 60 | 8 | 24 | 112 | 12×15 | 220 | 221 | 297 | 1-M25*1.5 | 431 | 130 | 110 | 160 | 8 | 3.5 |

# RMSD SERIES

## *PERFORMANCE DATA*

## SINGLE PHASE 230V 50HZ, IP55, F CLASS INSULATION, B CLASS TEMPERATURE RISE

| Nominal Output | Frame Size | Speed | Efficiency | Power Factor | Current | | Torque | | | Run Capacitor | | Noise | Moment of inertia | Weight of Foot mount motor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Full Load $I_N$ | Lock rotor $I_L/I_N$ | Full Load $T_N$ | Lock rotor $T_L/T_N$ | Break down $T_B/T_N$ | Run Capacitor (µf/V) | Start Capacitor (µf/V) | | $J=_{\chi}GD^2$ | |
| [kW] | | [r/min] | | | [A] | | [Nm] | | | | | dB(A) | [kg*m²] | [kg] |
| ***3000 r/min = 2 poles - CENELEC frame allocations*** | | | | | | | | | | | | | | |
| 0.18 | 63A | 2820 | 62 | 0.93 | 1.36 | 8 | 0.6 | 2.5 | 1.6 | 8µf/450V | 30µf/250V | 70 | 0.0001 | 4 |
| 0.25 | 63B | 2800 | 67.5 | 0.94 | 1.71 | 10 | 0.9 | 2.5 | 1.6 | 10µf/450V | 30µf/250V | 70 | 0.0002 | 4 |
| 0.37 | 71A | 2780 | 70.5 | 0.95 | 2.40 | 15 | 1.3 | 2.5 | 1.8 | 12µf/450V | 40µf/250V | 75 | 0.0003 | 6 |
| 0.55 | 71B | 2790 | 74.5 | 0.97 | 3.31 | 20 | 1.9 | 2.5 | 1.8 | 16µf/450V | 50µf/250V | 75 | 0.0004 | 7 |
| 0.75 | 80A | 2840 | 77.5 | 0.99 | 4.25 | 30 | 2.6 | 2.5 | 1.8 | 20µf/450V | 75µf/250V | 75 | 0.0008 | 9 |
| 1.1 | 80B | 2850 | 79.5 | 0.99 | 6.08 | 40 | 3.7 | 2.5 | 1.8 | 30µf/450V | 120µf/250V | 78 | 0.0009 | 10 |
| 1.5 | 90S | 2860 | 80 | 0.99 | 8.23 | 55 | 5.1 | 2.5 | 1.8 | 40µf/450V | 200µf/300V | 80 | 0.0015 | 14 |
| 1.8 | 90M | 2860 | 81 | 0.99 | 9.76 | 64 | 6.1 | 2.5 | 1.8 | 40µf/450V | 200µf/300V | 80 | 0.0018 | 15 |
| 2.2 | 90L | 2850 | 81 | 0.99 | 11.9 | 75 | 7.5 | 2.5 | 1.8 | 50µf/450V | 250µf/300V | 80 | 0.0020 | 17 |
| 3 | 100L | 2830 | 75 | 0.98 | 17.7 | 110 | 10.1 | 2.5 | 1.7 | 60µf/450V | 300µf/300V | 83 | 0.0048 | 25 |
| 3.7 | 112MA | 2900 | 82.5 | 0.98 | 19.9 | 140 | 12.4 | 2.5 | 1.7 | 60µf/450V | 400µf/300V | 84 | 0.0072 | 31 |
| 4 | 112MB | 2900 | 83.5 | 0.98 | 21.3 | 150 | 13.4 | 2.5 | 1.7 | 60µf/450V | 400µf/300V | 84 | 0.0075 | 33 |
| ***1500 r/min = 4 poles - CENELEC frame allocations*** | | | | | | | | | | | | | | |
| 0.12 | 63A | 1380 | 54.5 | 0.95 | 1.01 | 6 | 0.8 | 2.5 | 1.6 | 8µf/450V | 30µf/250V | 65 | 0.0003 | 4 |
| 0.18 | 63B | 1340 | 60 | 0.96 | 1.36 | 8.5 | 1.3 | 2.5 | 1.6 | 10µf/450V | 30µf/250V | 65 | 0.0003 | 5 |
| 0.25 | 71A | 1415 | 63 | 0.97 | 1.78 | 10 | 1.7 | 2.5 | 1.7 | 12µf/450V | 40µf/250V | 65 | 0.0006 | 6 |
| 0.37 | 71B | 1410 | 65.5 | 0.97 | 2.53 | 15 | 2.6 | 2.5 | 1.7 | 16µf/450V | 50µf/250V | 68 | 0.0008 | 7 |
| 0.37 | 80A | 1420 | 66.5 | 0.96 | 2.52 | 15 | 2.6 | 2.5 | 1.7 | 16µf/450V | 50µf/250V | 68 | 0.0011 | 9 |
| 0.55 | 80B | 1420 | 71.5 | 0.95 | 3.52 | 20 | 3.8 | 2.5 | 1.8 | 20µf/450V | 75µf/250V | 70 | 0.0014 | 10 |
| 0.75 | 80C | 1420 | 73 | 0.98 | 4.56 | 30 | 5.1 | 2.5 | 1.8 | 25µf/450V | 100µf/250V | 70 | 0.0017 | 11 |
| 1.1 | 90S | 1420 | 76 | 0.95 | 6.62 | 40 | 7.5 | 2.5 | 1.8 | 35µf/450V | 150µf/250V | 73 | 0.0025 | 14 |
| 1.5 | 90L | 1420 | 78.5 | 0.97 | 8.56 | 55 | 10.2 | 2.5 | 1.8 | 40µf/450V | 200µf/300V | 75 | 0.0033 | 17 |
| 1.84 | 100LA | 1440 | 79.5 | 0.98 | 10.3 | 64 | 12.4 | 2.5 | 1.8 | 50µf/450V | 200µf/300V | 77 | 0.0068 | 21 |
| 2.2 | 100LB | 1440 | 80.5 | 0.98 | 12.1 | 75 | 14.7 | 2.5 | 1.8 | 50µf/450V | 250µf/300V | 78 | 0.0081 | 23 |
| 3 | 100LC | 1445 | 83 | 0.96 | 16.4 | 110 | 19.9 | 2.5 | 1.8 | 60µf/450V | 300µf/300V | 78 | 0.0105 | 29 |
| 3.7 | 112MA | 1430 | 83.5 | 0.98 | 19.7 | 140 | 24.5 | 2.5 | 1.7 | 60µf/450V | 400µf/300V | 79 | 0.0136 | 31 |
| 4 | 112MB | 1435 | 83.5 | 0.98 | 21.3 | 150 | 26.5 | 2.5 | 1.7 | 60µf/450V | 400µf/300V | 79 | 0.0145 | 33 |
| ***960 r/min = 6 poles - CENELEC frame allocations*** | | | | | | | | | | | | | | |
| 0.18 | 71 | 930 | 60 | 0.97 | 1.3 | 4 | 1.8 | 0.7 | 1.5 | 10µf/450V | 40µf/250V | 68 | 0.0010 | 7 |
| 0.37 | 80A | 935 | 67 | 0.97 | 2.5 | 8 | 3.8 | 0.63 | 1.6 | 16µf/450V | 50µf/250V | 68 | 0.0018 | 10 |
| 0.55 | 80B | 935 | 71 | 0.97 | 3.5 | 14 | 5.6 | 0.63 | 1.6 | 20µf/450V | 75µf/250V | 70 | 0.0024 | 11 |
| 0.75 | 90S | 945 | 71 | 0.97 | 4.7 | 16 | 7.6 | 0.65 | 1.6 | 30µf/450V | 150µf/250V | 70 | 0.0035 | 14 |
| 1.1 | 90L | 945 | 74 | 0.96 | 6.7 | 5 | 11.1 | 0.62 | 1.6 | 45µf/450V | 200µf/300V | 70 | 0.0048 | 17 |
| 1.5 | 100L | 960 | 77 | 0.97 | 8.73 | 9 | 14.9 | 0.62 | 1.6 | 45µf/450V | 200µf/300V | 72 | 0.0108 | 24 |
| 2.2 | 112M | 965 | 82 | 0.97 | 12.0 | 15 | 21.8 | 0.62 | 1.6 | 60µf/450V | 400µf/300V | 75 | 0.0195 | 31 |

RotoMaq MOTORS

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