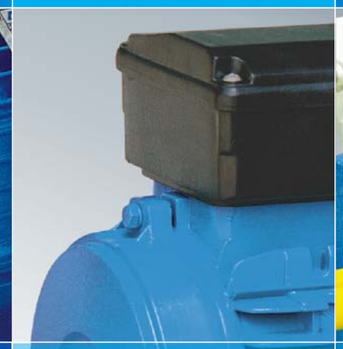
*Stream Sign Of Quality*



# MOTOR
# ALTERNATOR

2006

**ISO9001**


**TIANJIN ELECMOTOR CO., LTD.**

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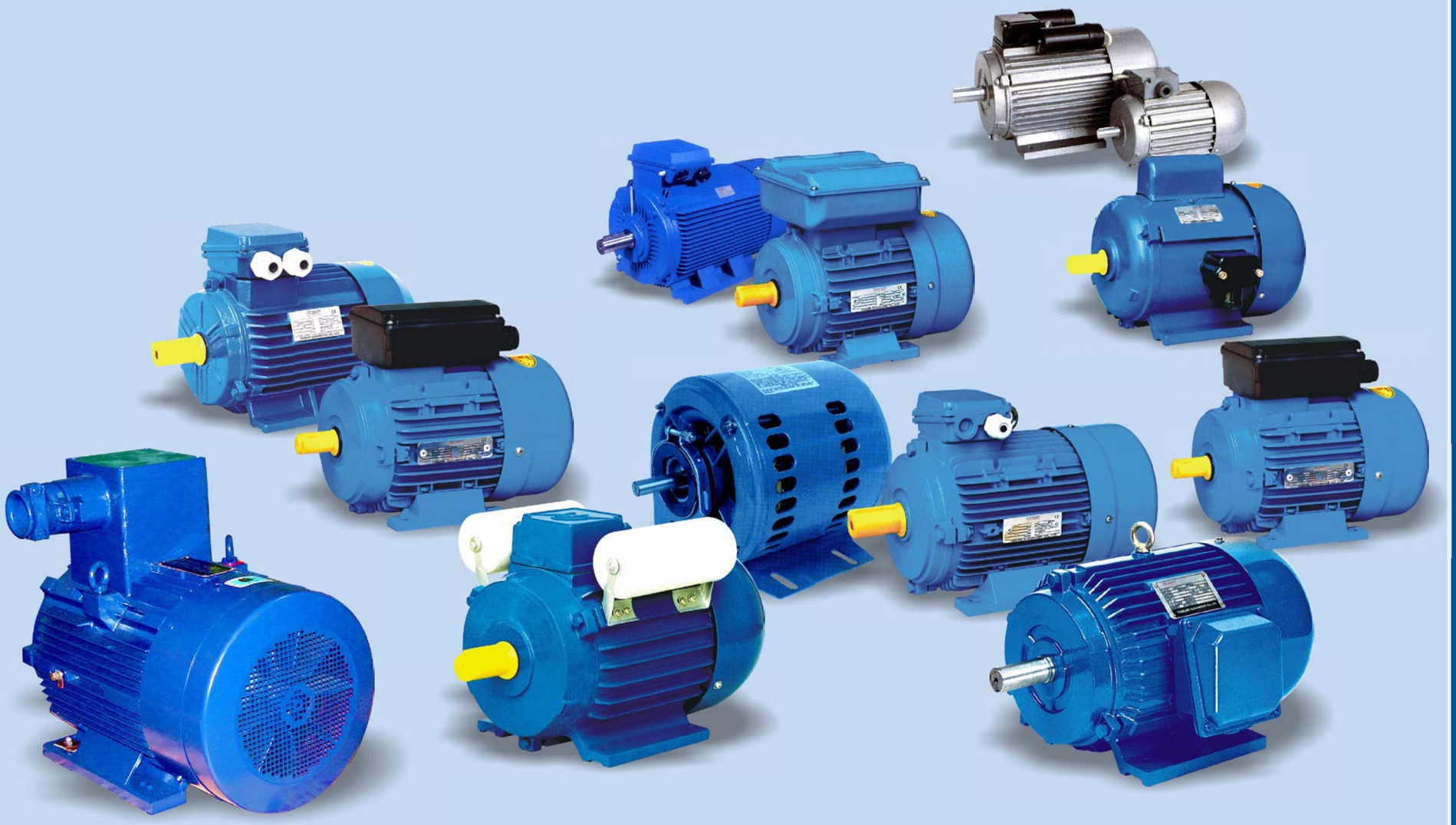
Stream®
Sign of Quality



# BRIEF
## *Introduction*

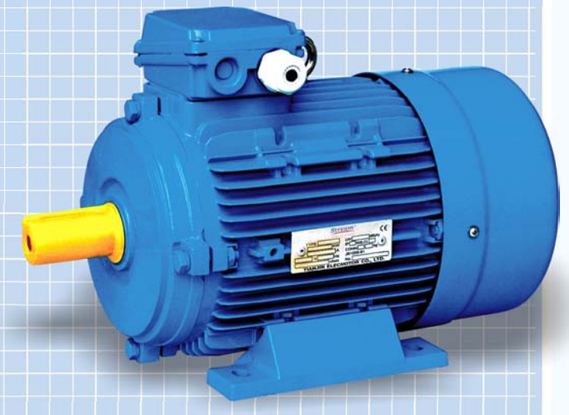
Over the years, *Stream* has specialized in designing, manufacturing, sourcing of different kinds of electric motors. Since 1997, *Stream* has established strategic, technological and commercial relationship with global companies from Europe, Asia and U.S. Today we have a range of motor to drive home appliances, Agriculture machinery, Industrial Machine, Civil Construction Machine etc. , from micro 6W up to High voltage industrial use 3000KW.

As *Stream* our goal is to provide the products with full scale services to our global customer, which could be measured by:

- The right quality of products
- Optimizing the total logistics costs
- Deliveries just in time
- Exchange of information concerning the products and technologies
- Securing a high degree of ethical and environmental consciousness.

*Stream* understand that to meet the challenge in the new millennium, the best is to align and continuously cooperate with its customers with qualified products, more competitive commercial conditions, more efficient service.

# MS



# SERIES THREE-PHASE ASYNCHRONOUS MOTOR

**ALUMINUM HOUSING**

*EFF2* CE

Conform to the IEC standard
Be made of selected quality materials, lastest design in entirety.
Good performance, low noise, little vibration, and safety and reliable operation.
Nice appearance, light weight.
Be maintained very conveniently, simple construction.
Be used for general drive.
The Efficiency meet **EFF2** standards.

### MOTOR FEATURES

- Utilise IP54 enclosures, IP55 on request
- Multiple feet locations
- Aluminium frame, end shields and base
- High strength cable gland
- Shaft key and protector supplied
- Superior paint finish
- Motors made to heavy duty service factors
- Can be made with stainless steel shaft
- Motors made for continuos S1 duty
- Utilise Vacuum impregnated Class B insulation
- Class F insulation on request
- High performance and efficiency

### CUSTOMER BENEFITS

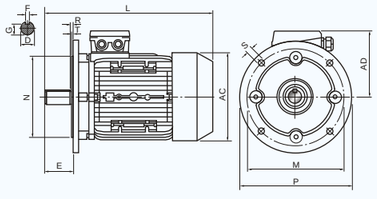
- Water dust and vermin resistant
- Quiet operation
- Electricity saving
- Easy installation (bolt on feet or brackets as required)
- Corrosion resistant
- Dependable
- Superior life
- Reliable in country, city or factory environments

## TECHNICAL DATA (EFF2)

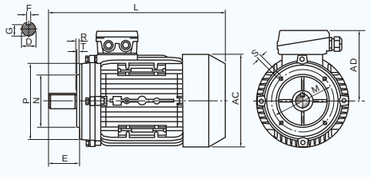
| Model | Power (kW) | Voltage (V) | Current (A) | Speed (r/min) | Eff. (%) | Power factor | Locked rotor torque / Rated torque | Locked rotor current / Rated current | Max torque / Rated torque |
|---|---|---|---|---|---|---|---|---|---|
| Synchronous Speed 3000r/min(2p)50Hz | | | | | | | | | |
| MS-802-2 | 1.1 | 220/380 | 4.24/2.45 | 2825 | ≥76.2 | 0.84 | 2.2 | 7.0 | 2.2 |
| MS-90S-2 | 1.5 | 220/380 | 5.76/3.68 | 2840 | ≥78.5 | 0.85 | 2.2 | 7.0 | 2.2 |
| MS-90L-2 | 2.2 | 220/380 | 8.26/4.85 | 2840 | ≥81.0 | 0.85 | 2.2 | 7.0 | 2.2 |
| MS-100L-2 | 3.0 | 220/380 | 10.6/6.23 | 2880 | ≥82.6 | 0.87 | 2.2 | 7.0 | 2.2 |
| MS-112M-2 | 4.0 | 380/660 | 7.8/4.5 | 2890 | ≥84.2 | 0.90 | 2.2 | 8.0 | 2.2 |
| MS-132S1-2 | 5.5 | 380/660 | 10.5/6.1 | 2900 | ≥85.7 | 0.90 | 2.2 | 8.0 | 2.2 |
| MS-132S2-2 | 7.5 | 380/660 | 14.4/8.4 | 2900 | ≥87.0 | 0.90 | 2.2 | 8.0 | 2.2 |
| MS-160M1-2 | 11.0 | 380/660 | 19.6/11.5 | 2930 | ≥88.4 | 0.90 | 2.2 | 8.0 | 2.2 |
| MS-160M2-2 | 15.0 | 380/660 | 26.5/15.6 | 2930 | ≥89.4 | 0.90 | 2.2 | 8.0 | 2.2 |
| MS-160L-2 | 18.5 | 380/660 | 32.7/19.2 | 2930 | ≥90.0 | 0.90 | 2.2 | 8.0 | 2.2 |
| MS-180M-2 | 22.0 | 380/660 | 39.1/23.1 | 2940 | ≥90.5 | 0.90 | 2.2 | 8.0 | 2.2 |
| Synchronous Speed 1500r/min(4p)50Hz | | | | | | | | | |
| MS-90S-4 | 1.1 | 220/380 | 4.55/2.67 | 1400 | ≥76.2 | 0.75 | 2.2 | 6.0 | 2.2 |
| MS-90L-4 | 1.5 | 220/380 | 6.05/3.55 | 1400 | ≥78.5 | 0.77 | 2.2 | 6.0 | 2.2 |
| MS-100L1-4 | 2.2 | 220/380 | 8.3/4.8 | 1420 | ≥81.0 | 0.78 | 2.2 | 6.5 | 2.2 |
| MS-100L2-4 | 3.0 | 220/380 | 11.2/6.5 | 1420 | ≥82.6 | 0.78 | 2.2 | 6.5 | 2.2 |
| MS-112M-4 | 4.0 | 380/660 | 8.4/4.9 | 1440 | ≥84.2 | 0.81 | 2.2 | 7.0 | 2.2 |
| MS-132S-4 | 5.5 | 380/660 | 11.5/6.7 | 1440 | ≥85.7 | 0.82 | 2.2 | 7.0 | 2.2 |
| MS-132M-4 | 7.5 | 380/660 | 14.6/8.6 | 1440 | ≥87.0 | 0.82 | 2.2 | 7.0 | 2.2 |
| MS-160M-4 | 11.0 | 380/660 | 20.8/12.2 | 1460 | ≥88.4 | 0.83 | 2.2 | 7.0 | 2.2 |
| MS-160L-4 | 15.0 | 380/660 | 28.2/16.6 | 1460 | ≥89.4 | 0.85 | 2.2 | 7.0 | 2.2 |
| MS-180M-4 | 18.5 | 380/660 | 33.7/19.8 | 1470 | ≥90.0 | 0.85 | 2.2 | 7.5 | 2.2 |
| MS-180L-4 | 22.0 | 380/660 | 40.1/23.5 | 1470 | ≥90.5 | 0.85 | 2.2 | 7.5 | 2.2 |

## INSTALLATION DIMENSIONS

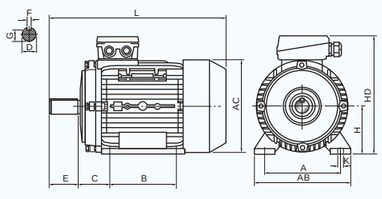
**IMB5**




**IMB14**




**IMB3**

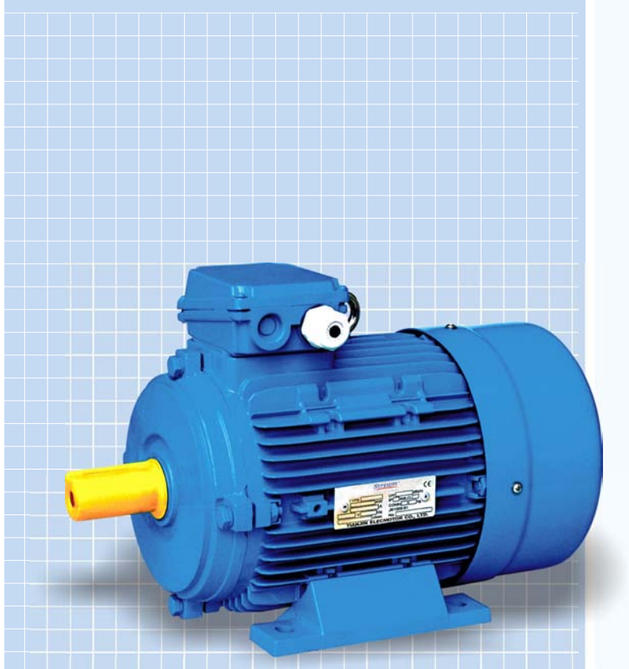



| Frame Size | Mounting Dimensions (mm) | | | | | | | | | | | | | | | | | | | | Frame Dimensions (mm) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | IMB3 | | | | | | | | | IMB14 | | | | | | IMB5 | | | | | | | | | |
| | A | B | C | D | E | F | G | H | K | M | N | P | R | S | T | M | N | P | R | S | T | AB | AC | AD | HD | L |
| 56 | 90 | 71 | 36 | 9 | 20 | 3 | 7.2 | 56 | 5.8 | 65 | 50 | 80 | 0 | M5 | 2.5 | 98 | 80 | 120 | 0 | 7 | 3.0 | 110 | 120 | 110 | 155 | 195 |
| 63 | 100 | 80 | 40 | 11 | 23 | 4 | 8.5 | 63 | 7 | 75 | 60 | 90 | 0 | M5 | 2.5 | 115 | 95 | 140 | 0 | 10 | 3.0 | 130 | 130 | 115 | 165 | 230 |
| 71 | 112 | 90 | 45 | 14 | 30 | 5 | 11 | 71 | 7 | 85 | 70 | 105 | 0 | M6 | 2.5 | 130 | 110 | 160 | 0 | 10 | 3.5 | 145 | 145 | 125 | 185 | 255 |
| 80 | 125 | 100 | 50 | 19 | 40 | 6 | 15.5 | 80 | 10 | 100 | 80 | 120 | 0 | M6 | 3.0 | 165 | 130 | 200 | 0 | 12 | 3.5 | 160 | 165 | 135 | 215 | 295 |
| 90S | 140 | 100 | 56 | 24 | 50 | 8 | 20 | 90 | 10 | 115 | 95 | 140 | 0 | M8 | 3.0 | 165 | 130 | 200 | 0 | 12 | 3.5 | 180 | 185 | 145 | 235 | 335 |
| 90L | 140 | 125 | 56 | 24 | 50 | 8 | 20 | 90 | 10 | 115 | 95 | 140 | 0 | M8 | 3.0 | 165 | 130 | 200 | 0 | 12 | 3.5 | 180 | 185 | 145 | 235 | 360 |
| 100L | 160 | 140 | 63 | 28 | 60 | 8 | 24 | 100 | 12 | 130 | 110 | 160 | 0 | M8 | 3.5 | 215 | 180 | 250 | 0 | 15 | 4.0 | 205 | 215 | 170 | 255 | 380 |
| 112M | 190 | 140 | 70 | 28 | 60 | 8 | 24 | 112 | 12 | 130 | 110 | 160 | 0 | M8 | 3.5 | 215 | 180 | 250 | 0 | 15 | 4.0 | 245 | 240 | 180 | 285 | 400 |
| 132S | 216 | 140 | 89 | 38 | 80 | 10 | 33 | 132 | 12 | 165 | 130 | 200 | 0 | M10 | 4.0 | 265 | 230 | 300 | 0 | 15 | 4.0 | 280 | 275 | 195 | 325 | 475 |
| 132M | 216 | 178 | 89 | 38 | 80 | 10 | 33 | 132 | 12 | 165 | 130 | 200 | 0 | M10 | 4.0 | 265 | 230 | 300 | 0 | 15 | 4.0 | 280 | 275 | 195 | 325 | 515 |
| 160M | 254 | 210 | 108 | 43 | 110 | 12 | 37 | 160 | 15 | 215 | 180 | 250 | 0 | M12 | 4.0 | 300 | 250 | 350 | 0 | 15 | 5.0 | 320 | 330 | 255 | 420 | 615 |
| 160L | 254 | 254 | 108 | 42 | 110 | 12 | 37 | 160 | 15 | 215 | 180 | 250 | 0 | M12 | 4.0 | 300 | 250 | 350 | 0 | 15 | 5.0 | 320 | 330 | 255 | 420 | 670 |
| 180M | 279 | 241 | 121 | 48 | 110 | 14 | 42.5 | 180 | 15 | 265 | 230 | 300 | 0 | M15 | 4.0 | 300 | 250 | 350 | 0 | 19 | 5.0 | 355 | 380 | 280 | 455 | 700 |
| 180L | 279 | 279 | 121 | 48 | 110 | 14 | 42.5 | 180 | 15 | 265 | 230 | 300 | 0 | M15 | 4.0 | 300 | 250 | 350 | 0 | 19 | 5.0 | 355 | 380 | 280 | 455 | 740 |

## TECHNICAL DATA (HIGH POWER WITH SMALL FRAME)

| Model | Power (kW) | Voltage (V) | Current (A) | Speed (r.p.m.) | Eff (%) | Power factor | Tstart/Tn | Tmax/Tn | Ist/In | Net weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| MS633-2 | 0.37 | 220/380 | 2.0/1.15 | 2800 | 68 | 0.74 | 2.5 | 2.7 | 6 | 5.6 |
| MS713-2 | 0.75 | 220/380 | 3.6/2.1 | 2800 | 73 | 0.8 | 2.6 | 2.9 | 6 | 8.1 |
| MS803-2 | 1.5 | 220/380 | 5.87/3.4 | 2800 | 77 | 0.85 | 2.8 | 3.1 | 6 | 12 |
| MS90L2-2 | 3 | 220/380 | 11.64/6.74 | 2800 | 80 | 0.83 | 3 | 3.2 | 6 | 19.5 |
| MS100L2-2 | 4 | 220/380 | 13.6/7.87 | 2850 | 82 | 0.87 | 2.5 | 2.7 | 7 | 28.8 |
| MS112M2-2 | 5.5 | 380/660 | 12.5/7.3 | 2890 | 84 | 0.88 | 2.5 | 2.7 | 7 | 36 |
| MS112M3-2 | 7.5 | 380/660 | 15.4/8.9 | 2890 | 85 | 0.88 | 2.5 | 2.7 | 7.5 | 39 |
| MS132M1-2 | 11 | 380/660 | 23/13.3 | 2900 | 85 | 0.89 | 2.5 | 2.7 | 7.5 | 60.5 |
| MS132M2-2 | 15 | 380/660 | 30/17.4 | 2900 | 85 | 0.89 | 2.5 | 2.7 | 7.5 | 68 |
| MS633-4 | 0.25 | 220/380 | 1.52/0.88 | 1360 | 60 | 0.69 | 2.2 | 2.4 | 3.5 | 5.4 |
| MS713-4 | 0.55 | 220/380 | 2.73/1.58 | 1355 | 68 | 0.72 | 2.2 | 2.4 | 5 | 8.1 |
| MS803-4 | 1.1 | 220/380 | 5/2.9 | 1400 | 75 | 0.76 | 2.3 | 2.5 | 5 | 13.2 |
| MS90L2-4 | 1.85 | 220/380 | 7.77/4.5 | 1400 | 77 | 0.79 | 2.5 | 2.7 | 5.5 | 18 |
| MS100L3-4 | 4 | 220/380 | 15.5/9 | 1400 | 81 | 0.8 | 2.5 | 2.7 | 6 | 29.1 |
| MS112M2-4 | 5.5 | 380/660 | 12.2/7.06 | 1410 | 82 | 0.81 | 2.7 | 3 | 7 | 36.7 |
| MS132M2-4 | 9.2 | 380/660 | 19.5/11.3 | 1420 | 85 | 0.83 | 2.7 | 3 | 7 | 61.5 |
| MS132M3-4 | 11 | 380/660 | 22/12.7 | 1420 | 85 | 0.85 | 2.5 | 2.7 | 7.5 | 67 |

# MS



## SERIES THREE-PHASE ASYNCHRONOUS MOTOR

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Be made of selected quality materials, lastest design in entirety.
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Nice appearance, light weight.
Be maintained very conveniently, simple construction.
Be used for general drive.

### MOTOR FEATURES

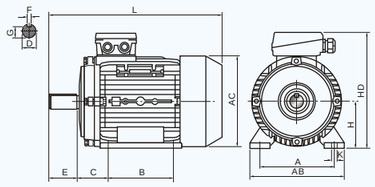
- Utilise IP54 enclosures, IP55 on request
- Multiple feet locations
- Aluminium frame, end shields and base
- High strength cable gland
- Shaft key and protector supplied
- Superior paint finish
- Motors made to heavy duty service factors
- Can be made with stainless steel shaft
- Motors made for continuos S1 duty
- Utilise Vacuum impregnated Class B insulation
- Class F insulation on request
- High performance and efficiency

### CUSTOMER BENEFITS

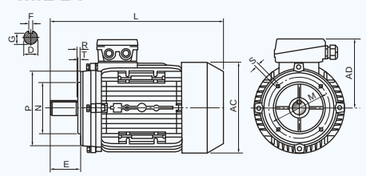
- Water dust and vermin resistant
- Quiet operation
- Electricity saving
- Easy installation (bolt on feet or brackets as required)
- Corrosion resistant
- Dependable
- Superior life
- Reliable in country, city or factory environments

## INSTALLATION DIMENSIONS

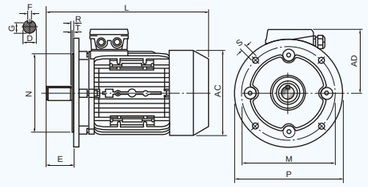
**IMB3**




**IMB14**




**IMB5**




| Frame Size | Mounting Dimensions (mm) | | | | | | | | | | | | | | | | | | | | Frame Dimensions (mm) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | IMB3 | | | | | | | | | IMB14 | | | | | | IMB5 | | | | | | | | | | |
| | A | B | C | D | E | F | G | H | K | M | N | P | R | S | T | M | N | P | R | S | T | AB | AC | AD | HD | L |
| 56 | 90 | 71 | 36 | 9 | 20 | 3 | 7.2 | 56 | 5.8 | 65 | 50 | 80 | 0 | M5 | 2.5 | 98 | 80 | 120 | 0 | 7 | 3.0 | 110 | 120 | 110 | 155 | 195 |
| 63 | 100 | 80 | 40 | 11 | 23 | 4 | 8.5 | 63 | 7 | 75 | 60 | 90 | 0 | M5 | 2.5 | 115 | 95 | 140 | 0 | 10 | 3.0 | 130 | 130 | 115 | 165 | 230 |
| 71 | 112 | 90 | 45 | 14 | 30 | 5 | 11 | 71 | 7 | 85 | 70 | 105 | 0 | M6 | 2.5 | 130 | 110 | 160 | 0 | 10 | 3.5 | 145 | 145 | 125 | 185 | 255 |
| 80 | 125 | 100 | 50 | 19 | 40 | 6 | 15.5 | 80 | 10 | 100 | 80 | 120 | 0 | M6 | 3.0 | 165 | 130 | 200 | 0 | 12 | 3.5 | 160 | 165 | 135 | 215 | 295 |
| 90S | 140 | 100 | 56 | 24 | 50 | 8 | 20 | 90 | 10 | 115 | 95 | 140 | 0 | M8 | 3.0 | 165 | 130 | 200 | 0 | 12 | 3.5 | 180 | 185 | 145 | 235 | 335 |
| 90L | 140 | 125 | 56 | 24 | 50 | 8 | 20 | 90 | 10 | 115 | 95 | 140 | 0 | M8 | 3.0 | 165 | 130 | 200 | 0 | 12 | 3.5 | 180 | 185 | 145 | 235 | 360 |
| 100L | 160 | 140 | 63 | 28 | 60 | 8 | 24 | 100 | 12 | 130 | 110 | 160 | 0 | M8 | 3.5 | 215 | 180 | 250 | 0 | 15 | 4.0 | 205 | 215 | 170 | 255 | 380 |
| 112M | 190 | 140 | 70 | 28 | 60 | 8 | 24 | 112 | 12 | 130 | 110 | 160 | 0 | M8 | 3.5 | 215 | 180 | 250 | 0 | 15 | 4.0 | 245 | 240 | 180 | 285 | 400 |
| 132S | 216 | 140 | 89 | 38 | 80 | 10 | 33 | 132 | 12 | 165 | 130 | 200 | 0 | M10 | 4.0 | 265 | 230 | 300 | 0 | 15 | 4.0 | 280 | 275 | 195 | 325 | 475 |
| 132M | 216 | 178 | 89 | 38 | 80 | 10 | 33 | 132 | 12 | 165 | 130 | 200 | 0 | M10 | 4.0 | 265 | 230 | 300 | 0 | 15 | 4.0 | 280 | 275 | 195 | 325 | 515 |
| 160M | 254 | 210 | 108 | 43 | 110 | 12 | 37 | 160 | 15 | 215 | 180 | 250 | 0 | M12 | 4.0 | 300 | 250 | 350 | 0 | 15 | 5.0 | 320 | 330 | 255 | 420 | 615 |
| 160L | 254 | 254 | 108 | 42 | 110 | 12 | 37 | 160 | 15 | 215 | 180 | 250 | 0 | M12 | 4.0 | 300 | 250 | 350 | 0 | 15 | 5.0 | 320 | 330 | 255 | 420 | 670 |
| 180M | 279 | 241 | 121 | 48 | 110 | 14 | 42.5 | 180 | 15 | 265 | 230 | 300 | 0 | M15 | 4.0 | 300 | 250 | 350 | 0 | 19 | 5.0 | 355 | 380 | 280 | 455 | 700 |
| 180L | 279 | 279 | 121 | 48 | 110 | 14 | 42.5 | 180 | 15 | 265 | 230 | 300 | 0 | M15 | 4.0 | 300 | 250 | 350 | 0 | 19 | 5.0 | 355 | 380 | 280 | 455 | 740 |

| Model | Power (kW) | Voltage (V) | Current (A) | Speed (r.p.m.) | Eff (%) | Power factor | Tstart/Tn | Tmax/Tn | Ist/In |
|---|---|---|---|---|---|---|---|---|---|
| MS561-2 | 0.09 | 220/380 | 0.57/0.33 | 2800 | 62 | 0.68 | 2.3 | 2.4 | 6 |
| MS562-2 | 0.12 | 220/380 | 0.67/0.38 | 2800 | 67 | 0.71 | 2.3 | 2.4 | 6 |
| MS631-2 | 0.18 | 220/380 | 0.91/0.53 | 2800 | 69 | 0.75 | 2.2 | 2.4 | 6 |
| MS632-2 | 0.25 | 220/380 | 1.17/0.68 | 2800 | 72 | 0.78 | 2.2 | 2.4 | 6 |
| MS711-2 | 0.37 | 220/380 | 1.65/0.95 | 2800 | 73.5 | 0.80 | 2.2 | 2.4 | 6 |
| MS712-2 | 0.55 | 220/380 | 2.33/1.35 | 2800 | 75.5 | 0.82 | 2.2 | 2.4 | 6 |
| MS801-2 | 0.75 | 220/380 | 3.03/1.75 | 2800 | 76.5 | 0.85 | 2.2 | 2.4 | 6 |
| MS802-2 | 1.1 | 220/380 | 4.42/2.55 | 2800 | 77 | 0.85 | 2.2 | 2.4 | 6 |
| MS90S-2 | 1.5 | 220/380 | 6.01/3.84 | 2800 | 77 | 0.85 | 2.2 | 2.4 | 6 |
| MS90L-2 | 2.2 | 220/380 | 8.61/4.98 | 2800 | 78 | 0.86 | 2.2 | 2.4 | 6 |
| MS100L-2 | 3.0 | 220/380 | 11.1/6.4 | 2870 | 82 | 0.87 | 2.2 | 2.3 | 7 |
| MS112M-2 | 4.0 | 380/660 | 8.2/4.7 | 2890 | 85.5 | 0.87 | 2.2 | 2.3 | 7 |
| MS132S1-2 | 5.5 | 380/660 | 11/6.3 | 2900 | 85.5 | 0.88 | 2.0 | 2.2 | 7 |
| MS132S2-2 | 7.5 | 380/660 | 15/8.6 | 2900 | 86.2 | 0.88 | 2.0 | 2.2 | 7 |
| MS160M1-2 | 11.0 | 380/660 | 21.3/12.2 | 2930 | 88 | 0.88 | 2.0 | 2.2 | 7 |
| MS160M2-2 | 15.0 | 380/660 | 28.7/16.4 | 2930 | 89 | 0.89 | 2.0 | 2.2 | 7 |
| MS160L-2 | 18.5 | 380/660 | 34.6/19.8 | 2930 | 90 | 0.90 | 2.0 | 2.2 | 7 |
| MS180M-2 | 22.0 | 380/660 | 40.9/23.4 | 2930 | 90.5 | 0.90 | 2.0 | 2.2 | 7 |
| MS561-4 | 0.06 | 220/380 | 0.49/0.28 | 1400 | 56 | 0.58 | 2.3 | 2.4 | 6 |
| MS562-4 | 0.09 | 220/380 | 0.67/0.39 | 1400 | 58 | 0.61 | 2.3 | 2.4 | 6 |
| MS631-4 | 0.12 | 220/380 | 0.84/0.48 | 1400 | 60 | 0.63 | 2.2 | 2.4 | 6 |
| MS632-4 | 0.18 | 220/380 | 1.12/0.65 | 1400 | 64 | 0.66 | 2.2 | 2.4 | 6 |
| MS711-4 | 0.25 | 220/380 | 1.44/0.83 | 1400 | 67 | 0.68 | 2.2 | 2.4 | 6 |
| MS712-4 | 0.37 | 220/380 | 1.94/1.12 | 1400 | 69.5 | 0.72 | 2.2 | 2.4 | 6 |
| MS801-4 | 0.55 | 220/380 | 2.69/1.56 | 1400 | 73.5 | 0.73 | 2.2 | 2.4 | 6 |
| MS802-4 | 0.75 | 220/380 | 3.48/2.01 | 1400 | 75.5 | 0.75 | 2.2 | 2.4 | 6 |
| MS90S-4 | 1.1 | 220/380 | 4.74/2.75 | 1400 | 78 | 0.78 | 2.2 | 2.4 | 6 |
| MS90L-4 | 1.5 | 220/380 | 6.31/3.65 | 1400 | 79 | 0.79 | 2.2 | 2.4 | 6 |
| MS100L1-4 | 2.2 | 220/380 | 8.6/5.0 | 1430 | 81 | 0.82 | 2.2 | 2.3 | 7 |
| MS100L2-4 | 3.0 | 220/380 | 11.7/6.8 | 1430 | 82.5 | 0.81 | 2.2 | 2.3 | 7 |
| MS112M-4 | 4.0 | 380/660 | 8.8/5.1 | 1440 | 84.5 | 0.82 | 2.2 | 2.3 | 7 |
| MS132S-4 | 5.5 | 380/660 | 12/6.9 | 1440 | 85.5 | 0.84 | 2.2 | 2.2 | 7 |
| MS132M-4 | 7.5 | 380/660 | 15/8.6 | 1440 | 87 | 0.85 | 2.2 | 2.2 | 7 |
| MS160M-4 | 11 | 380/660 | 22.3/12.7 | 1460 | 88 | 0.85 | 2.0 | 2.2 | 7 |
| MS160L-4 | 15 | 380/660 | 30/17.1 | 1460 | 89 | 0.85 | 2.0 | 2.2 | 7 |
| MS180M-4 | 18.5 | 380/660 | 36.4/20.8 | 1470 | 90.5 | 0.85 | 2.2 | 2.2 | 7.5 |
| MS180L-4 | 22 | 380/660 | 43.1/24.6 | 1470 | 91 | 0.85 | 2.2 | 2.2 | 7.5 |
| MS90S-6 | 0.75 | 220/380 | 4.0/2.3 | 910 | 72.5 | 0.70 | 2.2 | 2.2 | 5.5 |
| MS90L-6 | 1.1 | 220/380 | 5.5/3.2 | 910 | 73.5 | 0.72 | 2.2 | 2.2 | 5.5 |
| MS100L-6 | 1.5 | 220/380 | 6.9/4.0 | 940 | 77.5 | 0.74 | 2.2 | 2.2 | 6 |
| MS112M-6 | 2.2 | 220/380 | 9.7/5.6 | 940 | 80.5 | 0.74 | 2.2 | 2.2 | 6 |
| MS132S-6 | 3.0 | 220/380 | 12.4/7.2 | 960 | 83 | 0.76 | 2.0 | 2.0 | 6.5 |
| MS132M1-6 | 4.0 | 380/660 | 9.4/5.4 | 960 | 84 | 0.77 | 2.0 | 2.0 | 6.5 |
| MS132M2-6 | 5.5 | 380/660 | 13/7.5 | 960 | 85.3 | 0.78 | 2.0 | 2.0 | 6.5 |
| MS160M-6 | 7.5 | 380/660 | 16.5/9.43 | 970 | 86 | 0.80 | 2.0 | 2.0 | 6.5 |
| MS160L-6 | 11.0 | 380/660 | 24.1/13.8 | 970 | 87.5 | 0.79 | 2.0 | 2.0 | 6.5 |
| MS180L-6 | 15.0 | 380/660 | 31.5/18 | 970 | 89 | 0.81 | 2.0 | 2.0 | 7.0 |
| MS132S-8 | 2.2 | 220/380 | 10/5.8 | 710 | 85.5 | 0.71 | 2.0 | 2.0 | 5.5 |
| MS132M-8 | 3.0 | 220/380 | 13.3/7.7 | 710 | 82 | 0.72 | 2.0 | 2.0 | 5.5 |
| MS160M1-8 | 4.0 | 380/660 | 10.2/5.8 | 720 | 81 | 0.73 | 2.0 | 2.0 | 6.0 |
| MS160M2-8 | 5.5 | 380/660 | 13.6/7.8 | 720 | 83 | 0.74 | 2.0 | 2.0 | 6.0 |
| MS160L-8 | 7.5 | 380/660 | 17.7/10.1 | 720 | 85.5 | 0.75 | 2.0 | 2.0 | 6.0 |
| MS180L-8 | 11 | 380/660 | 25.1/14.3 | 730 | 87.5 | 0.76 | 2.0 | 2.0 | 6.5 |

# MC

# SERIES SING-PHASE CAPACITOR START ASYNCHRONOUS MOTOR

## ALUMINUM HOUSING

CE

Conform to the IEC standard
Be made of selected quality materials, lastest design in entirety.
Good performance, low noise, little vibration, and safety and reliable operation.
Nice appearance, light weight.
Be maintained very conveniently, simple construction.
Higher starting torque, 2.5times more than the rated torque.
Be used in a multitude of application where the higher starting torque is demanded, such as air-compressors, pumps, refrigerators, medical apparatus, instruments, and many other machines needing full-load start.

### MOTOR FEATURES

- Utilise IP54 enclosures, IP55 on request
- Multiple feet locations
- Aluminium frame, end shields and base
- High strength cable gland
- Shaft key and protector supplied
- Superior paint finish
- Motors made to heavy duty service factors
- Can be made with stainless steel shaft
- Motors made for continuos S1 duty
- Utilise Vacuum impregnated Class B insulation
- Class F insulation on request
- High performance and efficiency

### CUSTOMER BENEFITS

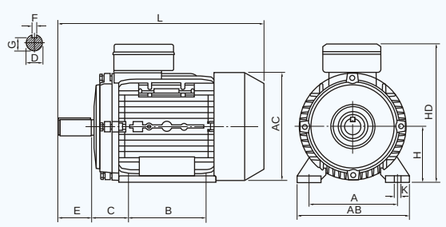
- Water dust and vermin resistant
- Quiet operation
- Electricity saving
- Easy installation (bolt on feet or brackets as required)
- Corrosion resistant
- Dependable
- Superior life
- Reliable in country, city or factory environments

## TECHNICAL DATA

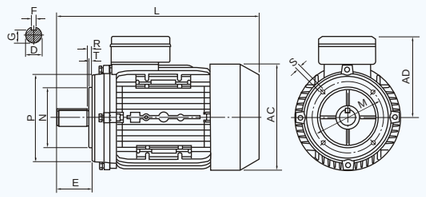
| Model | Power (kW) | Voltage (V) | Current (A) | Speed (r.p.m.) | Eff (%) | Power factor | Tstart/Tn | Tmax/Tn | Start current (A) | Net weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| MC711-2 | 0.18 | 220 | 1.89 | 2800 | 60 | 0.72 | 3.0 | 1.8 | 12 | 6.5 |
| MC712-2 | 0.25 | 220 | 2.40 | 2800 | 64 | 0.74 | 3.0 | 1.8 | 15 | 6.8 |
| MC801-2 | 0.37 | 220 | 3.36 | 2800 | 65 | 0.77 | 2.8 | 1.8 | 21 | 8.3 |
| MC802-2 | 0.55 | 220 | 4.65 | 2800 | 68 | 0.79 | 2.8 | 1.8 | 29 | 9 |
| MC90S-2 | 0.75 | 220 | 6.09 | 2800 | 70 | 0.80 | 2.5 | 1.8 | 37 | 12.5 |
| MC90L-2 | 1.10 | 220 | 8.68 | 2800 | 72 | 0.80 | 2.5 | 1.8 | 60 | 14 |
| MC100L1-2 | 1.50 | 220 | 11.38 | 2900 | 74 | 0.81 | 2.5 | 1.8 | 80 | 22.5 |
| MC100L2-2 | 2.20 | 220 | 16.46 | 2900 | 75 | 0.81 | 2.2 | 1.8 | 120 | 25.5 |
| MC112M-2 | 3.00 | 220 | 21.88 | 2900 | 76 | 0.82 | 2.2 | 1.8 | 150 | 26 |
| MC711-4 | 0.12 | 220 | 1.88 | 1400 | 50 | 0.58 | 3.0 | 1.8 | 9 | 6.5 |
| MC712-4 | 0.18 | 220 | 2.49 | 1400 | 53 | 0.62 | 2.8 | 1.8 | 12 | 6.7 |
| MC801-4 | 0.25 | 220 | 3.11 | 1400 | 58 | 0.63 | 2.8 | 1.8 | 15 | 8.9 |
| MC802-4 | 0.37 | 220 | 4.24 | 1400 | 62 | 0.64 | 2.5 | 1.8 | 21 | 9.6 |
| MC90S-4 | 0.55 | 220 | 5.49 | 1400 | 66 | 0.69 | 2.5 | 1.8 | 29 | 12.5 |
| MC90L-4 | 0.75 | 220 | 6.87 | 1400 | 68 | 0.73 | 2.5 | 1.8 | 37 | 15 |
| MC100L1-4 | 1.10 | 220 | 9.52 | 1450 | 71 | 0.74 | 2.5 | 1.8 | 60 | 23 |
| MC100L2-4 | 1.50 | 220 | 12.45 | 1450 | 73 | 0.75 | 2.5 | 1.8 | 80 | 27 |
| MC112M-4 | 2.20 | 220 | 17.78 | 1450 | 74 | 0.76 | 2.2 | 1.8 | 120 | 35 |

## INSTALLATION DIMENSIONS

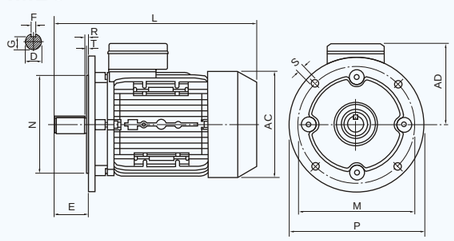
### IMB3




### IMB14




### IMB5




## INSTALLATION DIMENSIONS

| Frame Size | Mounting Dimensions (mm) | | | | | | | | | | | | | | | | | | | | Frame Dimensions (mm) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | IMB3 | | | | | | | | | IMB14 | | | | | | IMB5 | | | | | | | | | |
| | A | B | C | D | E | F | G | H | K | M | N | P | R | S | T | M | N | P | R | S | T | AB | AC | AD | HD | L |
| 71 | 112 | 90 | 45 | 14 | 30 | 5 | 11 | 71 | 7 | 85 | 70 | 105 | 0 | M6 | 2.5 | 130 | 110 | 160 | 0 | 10 | 3.5 | 145 | 145 | 125 | 205 | 255 |
| 80 | 125 | 100 | 50 | 19 | 40 | 6 | 15.5 | 80 | 10 | 100 | 80 | 120 | 0 | M6 | 3.0 | 165 | 130 | 200 | 0 | 12 | 3.5 | 160 | 165 | 135 | 235 | 295 |
| 90S | 140 | 100 | 56 | 24 | 50 | 8 | 20 | 90 | 10 | 115 | 95 | 140 | 0 | M8 | 3.0 | 165 | 130 | 200 | 0 | 12 | 3.5 | 180 | 185 | 145 | 265 | 335 |
| 90L | 140 | 125 | 56 | 24 | 50 | 8 | 20 | 90 | 10 | 115 | 95 | 140 | 0 | M8 | 3.0 | 165 | 130 | 200 | 0 | 12 | 3.5 | 180 | 185 | 145 | 265 | 360 |
| 100L | 160 | 140 | 63 | 28 | 60 | 8 | 24 | 100 | 12 | - | - | - | - | - | - | 215 | 180 | 250 | 0 | 15 | 4.0 | 205 | 215 | 170 | 280 | 380 |
| 112M | 190 | 140 | 70 | 28 | 60 | 8 | 24 | 112 | 12 | - | - | - | - | - | - | 215 | 180 | 250 | 0 | 15 | 4.0 | 245 | 240 | 180 | 310 | 400 |

# MY

# SERIES SING-PHASE CAPACITOR RUN ASYNCHRONOUS MOTOR

**ALUMINUM HOUSING**

CE

Conform to the IEC standard
Be made of selected quality materials, lastest design in entirety.
Good performance, low noise, little vibration, and safety and reliable operation.
Nice appearance, light weight.
Be maintained very conveniently, simple construction.
Lower starting torque,0.3 to 0.7 times more than the rated torque.
Be used in a multitude of application where the lower starting torque is demanded, such as home electric appliances, pumps, fans and recording meters, etc.

## MOTOR FEATURES

- Utilise IP54 enclosures, IP55 on request
- Multiple feet locations
- Aluminium frame, end shields and base
- High strength cable gland
- Shaft key and protector supplied
- Superior paint finish
- Motors made to heavy duty service factors
- Can be made with stainless steel shaft
- Motors made for continuos S1 duty
- Utilise Vacuum impregnated Class B insulation
- Class F insulation on request
- High performance and efficiency

## CUSTOMER BENEFITS

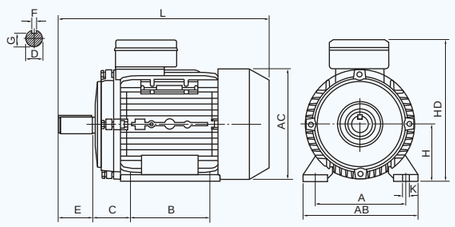
- Water dust and vermin resistant
- Quiet operation
- Electricity saving
- Easy installation (bolt on feet or brackets as required)
- Corrosion resistant
- Dependable
- Superior life
- Reliable in country, city or factory environments

## TECHNICAL DATA

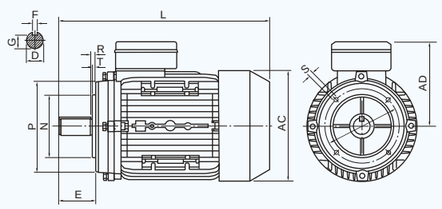
| Model | Power (kW) | Voltage (V) | Current (A) | Speed (r.p.m.) | Eff (%) | Power factor | Tstart/Tn | Tmax/Tn | Start current (A) | Net weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| **MY631-2** | 0.18 | 220 | 1.48 | 2800 | 60 | 0.92 | 0.4 | 1.7 | 5 | 3.9 |
| **MY632-2** | 0.25 | 220 | 1.96 | 2800 | 63 | 0.92 | 0.4 | 1.7 | 7 | 4.4 |
| **MY711-2** | 0.37 | 220 | 2.73 | 2800 | 67 | 0.92 | 0.35 | 1.7 | 10 | 6.2 |
| **MY712-2** | 0.55 | 220 | 3.88 | 2800 | 70 | 0.92 | 0.35 | 1.7 | 15 | 6.5 |
| **MY801-2** | 0.75 | 220 | 5.15 | 2800 | 72 | 0.92 | 0.33 | 1.7 | 20 | 8.3 |
| **MY802-2** | 1.10 | 220 | 7.02 | 2800 | 75 | 0.95 | 0.33 | 1.7 | 30 | 9 |
| **MY90S-2** | 1.50 | 220 | 9.44 | 2800 | 76 | 0.95 | 0.3 | 1.7 | 45 | 13 |
| **MY90L-2** | 2.20 | 220 | 13.67 | 2800 | 77 | 0.95 | 0.3 | 1.7 | 65 | 15 |
| **MY631-4** | 0.12 | 220 | 1.10 | 1400 | 55 | 0.90 | 0.4 | 1.7 | 3.5 | 4 |
| **MY632-4** | 0.18 | 220 | 1.62 | 1400 | 56 | 0.90 | 0.4 | 1.7 | 5 | 4.5 |
| **MY711-4** | 0.25 | 220 | 2.02 | 1400 | 61 | 0.92 | 0.35 | 1.7 | 7 | 6.1 |
| **MY712-4** | 0.37 | 220 | 2.95 | 1400 | 62 | 0.92 | 0.35 | 1.7 | 10 | 7 |
| **MY801-4** | 0.55 | 220 | 4.25 | 1400 | 64 | 0.92 | 0.35 | 1.7 | 15 | 9.5 |
| **MY802-4** | 0.75 | 220 | 5.45 | 1400 | 68 | 0.92 | 0.32 | 1.7 | 20 | 10 |
| **MY90S-4** | 1.10 | 220 | 7.45 | 1400 | 71 | 0.95 | 0.32 | 1.7 | 30 | 13 |
| **MY90L-4** | 1.50 | 220 | 9.83 | 1400 | 73 | 0.95 | 0.3 | 1.7 | 45 | 16 |

## INSTALLATION DIMENSIONS

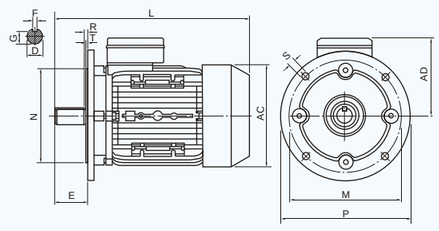
### IMB3




### IMB14



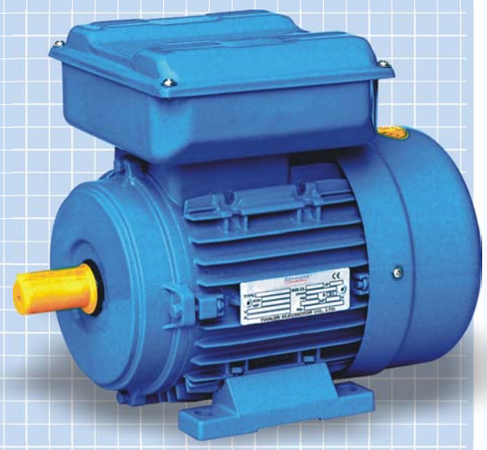

### IMB5




## INSTALLATION DIMENSIONS

| Frame Size | Mounting Dimensions (mm) | | | | | | | | | | | | | | | | | | | | Frame Dimensions (mm) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | IMB3 | | | | | | | | | IMB14 | | | | | | IMB5 | | | | | | | | | |
| | A | B | C | D | E | F | G | H | K | M | N | P | R | S | T | M | N | P | R | S | T | AB | AC | AD | HD | L |
| **63** | 100 | 80 | 40 | 11 | 23 | 4 | 8.5 | 63 | 7 | 75 | 60 | 90 | 0 | M5 | 2.5 | 115 | 95 | 140 | 0 | 10 | 3.0 | 130 | 130 | 115 | 185 | 230 |
| **71** | 112 | 90 | 45 | 14 | 30 | 5 | 11 | 71 | 7 | 85 | 70 | 105 | 0 | M6 | 2.5 | 130 | 110 | 160 | 0 | 10 | 3.5 | 145 | 145 | 125 | 205 | 255 |
| **80** | 125 | 100 | 50 | 19 | 40 | 6 | 15.5 | 80 | 10 | 100 | 80 | 120 | 0 | M6 | 3.0 | 165 | 130 | 200 | 0 | 12 | 3.5 | 160 | 165 | 135 | 235 | 295 |
| **90S** | 140 | 100 | 56 | 24 | 50 | 8 | 20 | 90 | 10 | 115 | 95 | 140 | 0 | M8 | 3.0 | 165 | 130 | 200 | 0 | 12 | 3.5 | 180 | 185 | 145 | 265 | 335 |
| **90L** | 140 | 125 | 56 | 24 | 50 | 8 | 20 | 90 | 10 | 115 | 95 | 140 | 0 | M8 | 3.0 | 165 | 130 | 200 | 0 | 12 | 3.5 | 180 | 185 | 145 | 265 | 360 |

ML



# SERIES SING-PHASE DUAL-CAPACITOR ASYNCHRONOUS MOTOR

## ALUMINUM HOUSING

CE

Conform to the IEC standard
Be made of selected quality materials, lastest design in entirety.
Good performance, low noise, little vibration, and safety and reliable operation.
Nice appearance, light weight.
Be maintained very conveniently, simple construction.
Good general performance, 1.8 to 2.5 times more than the rated torque.

### MOTOR FEATURES

- Utilise IP54 enclosures, IP55 on request
- Multiple feet locations
- Aluminium frame, end shields and base
- High strength cable gland
- Shaft key and protector supplied
- Superior paint finish
- Motors made to heavy duty service factors
- Can be made with stainless steel shaft
- Motors made for continuos S1 duty
- Utilise Vacuum impregnated Class B insulation
- Class F insulation on request
- High performance and efficiency

### CUSTOMER BENEFITS

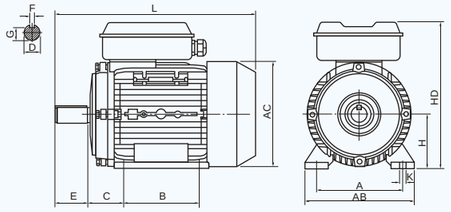
- Water dust and vermin resistant
- Quiet operation
- Electricity saving
- Easy installation (bolt on feet or brackets as required)
- Corrosion resistant
- Dependable
- Superior life
- Reliable in country, city or factory environments

## TECHNICAL DATA

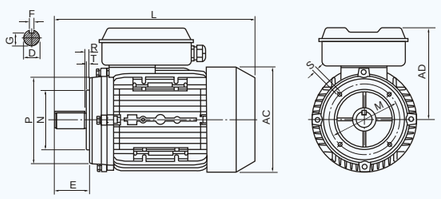
| Model | Power (kW) | Voltage (V) | Current (A) | Speed (r.p.m.) | Eff (%) | Power factor | Tstart/Tn | Tmax/Tn | Start current (A) | Net weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| ML711-2 | 0.37 | 220 | 2.73 | 2800 | 67 | 0.92 | 2.3 | 1.8 | 16 | 7 |
| ML712-2 | 0.55 | 220 | 3.88 | 2800 | 70 | 0.92 | 2.5 | 1.8 | 21 | 8 |
| ML801-2 | 0.75 | 220 | 5.15 | 2800 | 72 | 0.92 | 2.5 | 1.8 | 30 | 8.5 |
| ML802-2 | 1.10 | 220 | 7.02 | 2800 | 75 | 0.95 | 2.5 | 1.8 | 40 | 9.5 |
| ML90S-2 | 1.50 | 220 | 9.44 | 2800 | 76 | 0.95 | 2.5 | 1.8 | 55 | 12.5 |
| ML90L-2 | 2.20 | 220 | 13.67 | 2800 | 77 | 0.95 | 2.5 | 1.8 | 80 | 14 |
| ML100L-2 | 3.00 | 220 | 18.2 | 2800 | 79 | 0.95 | 2.5 | 1.8 | 110 | 20.5 |
| ML711-4 | 0.25 | 220 | 1.99 | 1400 | 62 | 0.92 | 2.5 | 1.8 | 12 | 6.9 |
| ML712-4 | 0.37 | 220 | 2.81 | 1400 | 65 | 0.92 | 2.5 | 1.8 | 16 | 8.1 |
| ML801-4 | 0.55 | 220 | 4.0 | 1400 | 68 | 0.92 | 2.5 | 1.8 | 21 | 8.9 |
| ML802-4 | 0.75 | 220 | 5.22 | 1400 | 71 | 0.92 | 2.5 | 1.8 | 30 | 9.6 |
| ML90S-4 | 1.10 | 220 | 7.2 | 1400 | 73 | 0.95 | 2.5 | 1.8 | 40 | 13 |
| ML90L-4 | 1.50 | 220 | 9.57 | 1400 | 75 | 0.95 | 2.5 | 1.8 | 55 | 16 |
| ML100L1-4 | 2.20 | 220 | 13.9 | 1400 | 76 | 0.95 | 2.5 | 1.8 | 80 | 23 |
| ML100L2-4 | 3.00 | 220 | 18.6 | 1400 | 77 | 0.95 | 2.5 | 1.8 | 110 | 27 |

## INSTALLATION DIMENSIONS

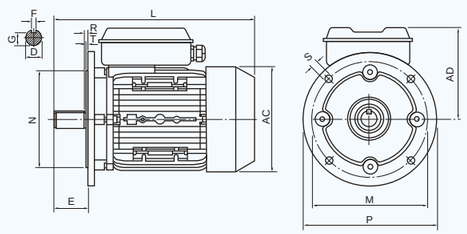
### IMB3




### IMB14



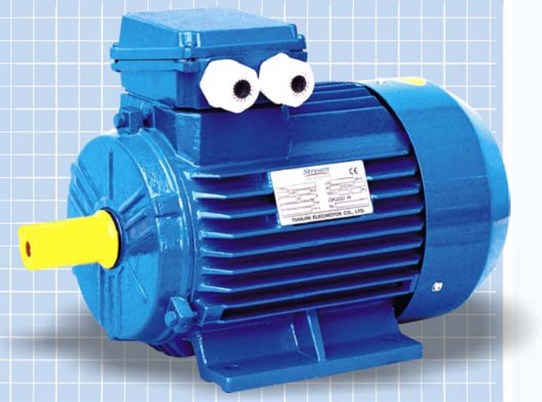

### IMB5




## INSTALLATION DIMENSIONS

| Frame Size | Mounting Dimensions (mm) | | | | | | | | | | | | | | | | | | | | | Frame Dimensions (mm) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | IMB3 | | | | | | | | | IMB14 | | | | | | IMB5 | | | | | | | | | | |
| | A | B | C | D | E | F | G | H | K | M | N | P | R | S | T | M | N | P | R | S | T | AB | AC | AD | HD | L |
| 71 | 112 | 90 | 45 | 14 | 30 | 5 | 11 | 71 | 7 | 85 | 70 | 105 | 0 | M6 | 2.5 | 130 | 110 | 160 | 0 | 10 | 3.5 | 145 | 145 | 125 | 210 | 255 |
| 80 | 125 | 100 | 50 | 19 | 40 | 6 | 15.5 | 80 | 10 | 100 | 80 | 120 | 0 | M6 | 3.0 | 165 | 130 | 200 | 0 | 12 | 3.5 | 160 | 165 | 135 | 240 | 295 |
| 90S | 140 | 100 | 56 | 24 | 50 | 8 | 20 | 90 | 10 | 115 | 95 | 140 | 0 | M8 | 3.0 | 165 | 130 | 200 | 0 | 12 | 3.5 | 180 | 185 | 145 | 270 | 335 |
| 90L | 140 | 125 | 56 | 24 | 50 | 8 | 20 | 90 | 10 | 115 | 95 | 140 | 0 | M8 | 3.0 | 165 | 130 | 200 | 0 | 12 | 3.5 | 180 | 185 | 145 | 270 | 360 |
| 100L | 160 | 140 | 63 | 28 | 60 | 8 | 24 | 100 | 12 | - | - | - | - | - | - | 215 | 180 | 250 | 0 | 15 | 4.0 | 205 | 215 | 170 | 280 | 380 |

# Y2



## SERIES THREE-PHASE ASYNCHRONOUS MOTOR

CE

These three phase motors are made to IEC standards. These are superior motors having excellent power factors efficiencies and starting torques. These motors are widely used in the agricultural, pumping, manufacturing and building service industries.

### MOTOR FEATURES

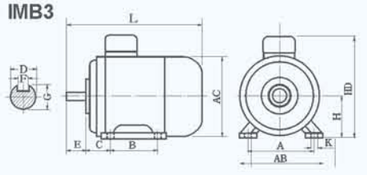
- IP54 enclosure, IP55 available on request
- Class F insulation, Class H available on request
- 380/415 Volt 50/60 Hz windings
- High quality magnet wire
- Vacuum varnish impregnation for superior tropic proof insulation
- Continuous SI operation
- Industrial type service factors
- Heavy duty ball bearings
- High strength cast iron frame
- Balanced rotors

### CUSTOMER BENEFITS

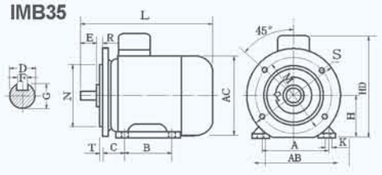
- Water dust and vermin resistant
- Quiet operation
- Corrosion resistant
- Reliable in country, city or factory environments
- Very low vibration
- Very low power consumption
- Superior life

## INSTALLATION DIMENSIONS

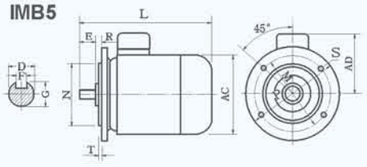
IMB3




IMB35




IMB5




| Frame Size | Mounting Dimensions(mm) | | | | | | | | | | | | | | | | Frame Dimensions(mm) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | | E | | F | | G | | H | K | M | N | P | R | S | T | AB | AC | AD | HD | L | |
| | | | | 2P | 4,6,8,10P | 2P | 4,6,8,10P | 2P | 4,6,8,10P | 2P | 4,6,8,10P | | | | | | | | | | | | | 2P | 4,6,8,10P |
| 63 | 100 | 80 | 40 | 11 | | 23 | | 4 | | 8.5 | | 63 | 7 | 115 | 95 | 140 | 0 | 10 | 3 | 135 | 130 | 70 | 180 | 230 | |
| 71 | 112 | 90 | 45 | 14 | | 30 | | 5 | | 11 | | 71 | 7 | 130 | 110 | 160 | 0 | 10 | 3 | 150 | 145 | 80 | 195 | 255 | |
| 80 | 125 | 100 | 50 | 19 | | 40 | | 6 | | 15.5 | | 80 | 10 | 165 | 130 | 200 | 0 | 12 | 3.5 | 165 | 175 | 145 | 220 | 295 | |
| 90S | 140 | 100 | 56 | 24 | | 50 | | 8 | | 20 | | 90 | 10 | 165 | 130 | 200 | 0 | 12 | 3.5 | 180 | 195 | 155 | 250 | 320 | |
| 90L | 140 | 125 | 56 | 24 | | 50 | | 8 | | 20 | | 90 | 10 | 165 | 130 | 200 | 0 | 12 | 3.5 | 180 | 195 | 155 | 250 | 345 | |
| 100L | 160 | 140 | 63 | 28 | | 60 | | 8 | | 24 | | 100 | 12 | 215 | 180 | 250 | 0 | 15 | 4 | 205 | 215 | 180 | 270 | 385 | |
| 112M | 190 | 140 | 70 | 28 | | 60 | | 8 | | 24 | | 112 | 12 | 215 | 180 | 250 | 0 | 15 | 4 | 230 | 240 | 190 | 300 | 400 | |
| 132S | 216 | 140 | 89 | 38 | | 80 | | 10 | | 33 | | 132 | 12 | 265 | 230 | 300 | 0 | 15 | 4 | 270 | 275 | 210 | 345 | 470 | |
| 132M | 216 | 178 | 89 | 38 | | 80 | | 10 | | 33 | | 132 | 12 | 265 | 230 | 300 | 0 | 15 | 4 | 270 | 275 | 210 | 345 | 510 | |
| 160M | 254 | 210 | 108 | 42 | | 110 | | 12 | | 37 | | 160 | 15 | 300 | 250 | 350 | 0 | 19 | 5 | 320 | 330 | 255 | 420 | 615 | |
| 160L | 254 | 254 | 108 | 42 | | 110 | | 12 | | 37 | | 160 | 15 | 300 | 250 | 350 | 0 | 19 | 5 | 320 | 330 | 255 | 420 | 670 | |
| 180M | 279 | 241 | 121 | 48 | | 110 | | 14 | | 42.5 | | 180 | 15 | 300 | 250 | 350 | 0 | 19 | 5 | 355 | 380 | 280 | 455 | 700 | |
| 180L | 279 | 279 | 121 | 48 | | 110 | | 14 | | 42.5 | | 180 | 15 | 300 | 250 | 350 | 0 | 19 | 5 | 355 | 380 | 280 | 455 | 740 | |
| 200L | 318 | 305 | 133 | 55 | | 110 | | 16 | | 49 | | 200 | 19 | 350 | 300 | 400 | 0 | 19 | 5 | 395 | 420 | 305 | 505 | 770 | |
| 225S | 356 | 286 | 149 | - | 60 | - | 140 | - | 18 | - | 53 | 225 | 19 | 400 | 350 | 450 | 0 | 19 | 5 | 435 | 470 | 335 | 560 | - | 820 |
| 225M | 356 | 311 | 149 | 55 | 60 | 110 | 140 | 16 | 18 | 49 | 53 | 225 | 19 | 400 | 350 | 450 | 0 | 19 | 5 | 435 | 470 | 335 | 560 | 815 | 845 |
| 250M | 406 | 349 | 168 | 60 | 65 | 140 | | 18 | | 53 | 58 | 250 | 24 | 500 | 450 | 550 | 0 | 19 | 5 | 490 | 510 | 370 | 615 | 910 | |
| 280S | 457 | 368 | 190 | 65 | 75 | 140 | | 18 | 20 | 58 | 67.5 | 280 | 24 | 500 | 450 | 550 | 0 | 19 | 5 | 550 | 580 | 410 | 680 | 985 | |
| 280M | 457 | 419 | 190 | 65 | 75 | 140 | | 18 | 20 | 58 | 67.5 | 280 | 24 | 500 | 450 | 550 | 0 | 19 | 5 | 550 | 580 | 410 | 680 | 1035 | |
| 315S | 508 | 406 | 216 | 65 | 80 | 140 | 170 | 18 | 22 | 58 | 71 | 315 | 28 | 600 | 550 | 660 | 0 | 24 | 6 | 635 | 645 | 630 | 845 | 1185 | 1215 |
| 315M | 508 | 457 | 216 | 65 | 80 | 140 | 170 | 18 | 22 | 58 | 71 | 315 | 28 | 600 | 550 | 660 | 0 | 24 | 6 | 635 | 645 | 630 | 845 | 1295 | 1325 |
| 315L | 508 | 508 | 216 | 65 | 80 | 140 | 170 | 18 | 22 | 58 | 71 | 315 | 28 | 600 | 550 | 660 | 0 | 24 | 6 | 635 | 645 | 630 | 845 | 1295 | 1325 |
| 355M | 610 | 560 | 254 | 75 | 95 | 140 | 170 | 20 | 25 | 67.5 | 86 | 355 | 28 | 740 | 680 | 800 | 0 | 24 | 6 | 730 | 710 | 655 | 1010 | 1500 | 1530 |
| 355L | 610 | 630 | 254 | 75 | 95 | 140 | 170 | 20 | 25 | 67.5 | 86 | 355 | 28 | 740 | 680 | 800 | 0 | 24 | 6 | 730 | 710 | 655 | 1010 | 1500 | 1530 |

## TECHNICAL DATA

| Model | Power (kW) | Curren at 380Vt (A) | Speed (r/min) | Eff. (%) | Power factor | Locked rotor torque / Rated torque | Locked rotor current / Rated current | Max torque / Rated torque |
|---|---|---|---|---|---|---|---|---|
| Synchronous Speed 3000r/min(2 poles)50Hz | | | | | | | | |
| Y2-631-2 | 0.18 | 0.52 | 2825 | 65 | 0.80 | 2.2 | 5.5 | 2.2 |
| Y2-632-2 | 0.25 | 0.69 | 2840 | 68 | 0.81 | 2.2 | 5.1 | 2.2 |
| Y2-711-2 | 0.37 | 0.99 | 2840 | 70 | 0.81 | 2.2 | 6.0 | 2.2 |
| Y2-712-2 | 0.55 | 1.4 | 2880 | 73 | 0.82 | 2.2 | 6.0 | 2.2 |
| Y2-801-2 | 0.75 | 1.8 | 2890 | 75 | 0.83 | 2.2 | 6.0 | 2.2 |
| Y2-802-2 | 1.1 | 2.6 | 2900 | 77 | 0.84 | 2.2 | 7.0 | 2.2 |
| Y2-90S-2 | 1.5 | 3.4 | 2900 | 79 | 0.84 | 2.2 | 7.0 | 2.2 |
| Y2-90L-2 | 2.2 | 4.8 | 2930 | 81 | 0.85 | 2.2 | 7.0 | 2.2 |
| Y2-100L-2 | 3.0 | 6.3 | 2930 | 83 | 0.87 | 2.2 | 7.0 | 2.2 |
| Y2-112M-2 | 4.0 | 8.1 | 2930 | 85 | 0.88 | 2.2 | 8.0 | 2.2 |
| Y2-132S1-2 | 5.5 | 11 | 2940 | 86 | 0.88 | 2.2 | 8.0 | 2.2 |
| Y2-132S2-2 | 7.5 | 15 | 2950 | 87 | 0.88 | 2.2 | 8.0 | 2.2 |
| Y2-160M1-2 | 11.0 | 21.3 | 2950 | 88 | 0.88 | 2.0 | 8.0 | 2.2 |
| Y2-160M2-2 | 15.0 | 28.7 | 2970 | 89 | 0.89 | 2.0 | 8.0 | 2.2 |
| Y2-160L-2 | 18.5 | 34.6 | 2970 | 90 | 0.90 | 2.0 | 8.0 | 2.2 |
| Y2-180M-2 | 22.0 | 40.9 | 2970 | 90.5 | 0.90 | 2.0 | 8.0 | 2.2 |
| Y2-200L1-2 | 30.0 | 55.4 | 2970 | 91.2 | 0.90 | 2.0 | 8.0 | 2.2 |
| Y2-200L2-2 | 37.0 | 67.7 | 2980 | 92 | 0.90 | 2.0 | 8.0 | 2.2 |
| Y2-225M-2 | 45.0 | 82.3 | 2980 | 92.3 | 0.90 | 1.8 | 8.0 | 2.2 |
| Y2-250M-2 | 55 | 101 | 2980 | 92.5 | 0.90 | 1.8 | 7.0 | 2.2 |
| Y2-280S-2 | 75 | 134 | 2980 | 93.0 | 0.90 | 1.8 | 7.0 | 2.2 |
| Y2-280M-2 | 90 | 160 | 2980 | 93.8 | 0.91 | 1.8 | 7.0 | 2.2 |
| Y2-315S-2 | 110 | 195 | 2980 | 94.0 | 0.91 | 1.8 | 6.8 | 2.2 |
| Y2-315M-2 | 132 | 233 | 2980 | 94.5 | 0.91 | 1.8 | 6.8 | 2.2 |
| Y2-315L1-2 | 160 | 279 | 2980 | 94.6 | 0.92 | 1.8 | 6.8 | 2.2 |
| Y2-315L2-2 | 200 | 348 | 2980 | 94.8 | 0.92 | 1.8 | 6.8 | 2.2 |
| Y2-355M-2 | 250 | 433 | 2980 | 95.3 | 0.92 | 1.6 | 7.0 | 2.2 |
| Y2-355L-2 | 315 | 544 | 2980 | 95.6 | 0.92 | 1.6 | 7.1 | 2.2 |
| Synchronous Speed 1500r/min(4 poles)50Hz | | | | | | | | |
| Y2-631-4 | 0.12 | 0.44 | 1400 | 57 | 0.72 | 2.2 | 4.5 | 2.2 |
| Y2-632-4 | 0.18 | 0.62 | 1400 | 60 | 0.73 | 2.2 | 4.5 | 2.2 |
| Y2-711-4 | 0.25 | 0.79 | 1400 | 65 | 0.74 | 2.2 | 5.5 | 2.2 |
| Y2-712-4 | 0.37 | 1.12 | 1400 | 67 | 0.75 | 2.2 | 5.5 | 2.2 |
| Y2-801-4 | 0.55 | 1.6 | 1400 | 71 | 0.75 | 2.2 | 5.5 | 2.2 |
| Y2-802-4 | 0.75 | 2.0 | 1400 | 73 | 0.77 | 2.2 | 6.0 | 2.2 |
| Y2-90S-4 | 1.1 | 2.9 | 1400 | 75 | 0.77 | 2.2 | 6.0 | 2.2 |
| Y2-90L-4 | 1.5 | 3.7 | 1400 | 78 | 0.79 | 2.2 | 6.0 | 2.2 |
| Y2-100L1-4 | 2.2 | 5.1 | 1420 | 80 | 0.81 | 2.2 | 7.0 | 2.2 |
| Y2-100L2-4 | 3.0 | 6.8 | 1420 | 82 | 0.82 | 2.2 | 7.0 | 2.2 |
| Y2-112M-4 | 4.0 | 8.8 | 1440 | 84 | 0.82 | 2.2 | 7.0 | 2.2 |
| Y2-132S-4 | 5.5 | 11.8 | 1440 | 85 | 0.83 | 2.2 | 7.0 | 2.2 |
| Y2-132M-4 | 7.5 | 15.5 | 1440 | 87 | 0.84 | 2.0 | 7.0 | 2.0 |
| Y2-160M-4 | 11.0 | 22.3 | 1460 | 88 | 0.85 | 2.0 | 7.0 | 2.2 |
| Y2-160L-4 | 15.0 | 30 | 1460 | 89 | 0.85 | 2.0 | 7.0 | 2.2 |
| Y2-180M-4 | 18.5 | 36.4 | 1470 | 90.5 | 0.85 | 2.2 | 7.5 | 2.2 |
| Y2-180L-4 | 22.0 | 43.1 | 1470 | 91 | 0.85 | 2.2 | 7.5 | 2.2 |
| Y2-200L-4 | 30.0 | 57.4 | 1470 | 92 | 0.86 | 2.2 | 7.5 | 2.2 |
| Y2-225S-4 | 37.0 | 69.9 | 1480 | 92.5 | 0.87 | 2.2 | 7.5 | 2.2 |
| Y2-225M-4 | 45.0 | 84.7 | 1480 | 92.8 | 0.87 | 2.2 | 7.5 | 2.2 |
| Y2-250M-4 | 55 | 103 | 1480 | 93.0 | 0.89 | 2.2 | 7.0 | 2.2 |
| Y2-280S-4 | 75 | 140 | 1480 | 93.8 | 0.86 | 2.2 | 7.0 | 2.2 |
| Y2-280M-4 | 90 | 167 | 1490 | 94.2 | 0.86 | 2.2 | 7.0 | 2.2 |
| Y2-315S-4 | 110 | 201 | 1490 | 94.5 | 0.87 | 2.1 | 6.9 | 2.2 |
| Y2-315M-4 | 132 | 240 | 1490 | 94.8 | 0.87 | 2.1 | 6.9 | 2.2 |
| Y2-315L1-4 | 160 | 287 | 1490 | 94.9 | 0.88 | 2.1 | 6.9 | 2.2 |
| Y2-315L2-4 | 200 | 359 | 1490 | 95.0 | 0.88 | 2.3 | 6.9 | 2.2 |
| Y2-355M-4 | 250 | 443 | 1485 | 95.3 | 0.88 | 2.3 | 6.8 | 2.2 |
| Y2-355L-4 | 315 | 556 | 1485 | 95.6 | 0.89 | 2.2 | 6.9 | 2.2 |

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## TECHNICAL DATA

| Model | Power (kW) | Curren at 380Vt (A) | Speed (r/min) | Eff. (%) | Power factor | Locked rotor torque / Rated torque | Locked rotor current / Rated current | Max torque / Rated torque |
|---|---|---|---|---|---|---|---|---|
| Synchronous Speed 1000r/min(6 poles)50Hz | | | | | | | | |
| Y2-711-6 | 0.18 | 0.74 | 900 | 56 | 0.66 | 2.2 | 4.0 | 2.2 |
| Y2-712-6 | 0.25 | 0.94 | 900 | 59 | 0.68 | 2.0 | 4.0 | 2.2 |
| Y2-801-6 | 0.37 | 1.3 | 900 | 62 | 0.70 | 2.0 | 5.0 | 2.2 |
| Y2-802-6 | 0.55 | 1.8 | 900 | 65 | 0.72 | 2.0 | 5.0 | 2.2 |
| Y2-90S-6 | 0.75 | 2.3 | 910 | 69 | 0.72 | 2.0 | 5.5 | 2.2 |
| Y2-90L-6 | 1.1 | 3.2 | 910 | 72 | 0.73 | 2.0 | 5.5 | 2.2 |
| Y2-100L-6 | 1.5 | 3.9 | 940 | 76 | 0.76 | 2.0 | 5.5 | 2.2 |
| Y2-112M-6 | 2.2 | 5.6 | 940 | 79 | 0.76 | 2.0 | 6.5 | 2.2 |
| Y2-132S-6 | 3.0 | 7.4 | 960 | 81 | 0.76 | 2.0 | 6.5 | 2.2 |
| Y2-132M1-6 | 4.0 | 9.7 | 960 | 82 | 0.76 | 2.0 | 6.5 | 2.2 |
| Y2-132M2-6 | 5.5 | 12.9 | 960 | 84 | 0.77 | 2.0 | 6.5 | 2.0 |
| Y2-160M | 7.5 | 16.5 | 970 | 86 | 0.80 | 2.0 | 6.5 | 2.0 |
| Y2-160L-6 | 11.0 | 24.1 | 970 | 87.5 | 0.79 | 2.0 | 6.5 | 2.0 |
| Y2-180L-6 | 15.0 | 31.5 | 970 | 89 | 0.81 | 2.0 | 7.0 | 2.0 |
| Y2-200L1-6 | 18.5 | 38.5 | 970 | 90 | 0.81 | 2.0 | 7.0 | 2.0 |
| Y2-200L2-6 | 22.0 | 44.6 | 970 | 90 | 0.83 | 2.0 | 7.0 | 2.0 |
| Y2-225M-6 | 30.0 | 59.3 | 980 | 91.5 | 0.84 | 2.0 | 7.0 | 2.1 |
| Y2-250M-6 | 37.0 | 71.0 | 980 | 92.0 | 0.86 | 2.0 | 7.0 | 2.1 |
| Y2-280S-6 | 45.0 | 86.0 | 980 | 92.5 | 0.86 | 2.0 | 7.0 | 2.0 |
| Y2-280M-6 | 55 | 105 | 980 | 92.8 | 0.86 | 2.0 | 7.0 | 2.0 |
| Y2-315S-6 | 75 | 141 | 990 | 93.5 | 0.86 | 2.0 | 7.0 | 2.0 |
| Y2-315M-6 | 90 | 169 | 990 | 93.8 | 0.86 | 2.0 | 7.0 | 2.0 |
| Y2-315L1-6 | 110 | 206 | 990 | 94.0 | 0.86 | 2.0 | 6.7 | 2.0 |
| Y2-315L2-6 | 132 | 244 | 990 | 94.2 | 0.87 | 2.0 | 6.7 | 2.0 |
| Y2-355M1-6 | 160 | 292 | 990 | 94.5 | 0.88 | 1.9 | 6.7 | 2.0 |
| Y2-355M2-6 | 200 | 365 | 990 | 94.7 | 0.88 | 1.9 | 6.7 | 2.0 |
| Y2-355L-6 | 250 | 455 | 990 | 94.9 | 0.88 | 1.9 | 6.7 | 2.0 |
| Synchronous Speed 750r/min(8 poles)50Hz | | | | | | | | |
| Y2-801-8 | 0.18 | 0.88 | 680 | 51 | 0.61 | 1.8 | 3.3 | 1.9 |
| Y2-802-8 | 0.25 | 1.15 | 680 | 54 | 0.61 | 1.8 | 3.3 | 1.9 |
| Y2-90S-8 | 0.37 | 1.5 | 680 | 62 | 0.61 | 1.8 | 4.0 | 1.9 |
| Y2-90L-8 | 0.55 | 2.2 | 700 | 63 | 0.61 | 1.8 | 4.0 | 2.2.0 |
| Y2-100L1-8 | 0.75 | 2.4 | 700 | 71 | 0.67 | 1.8 | 4.0 | 2.0 |
| Y2-100L2-8 | 1.1 | 3.3 | 700 | 73 | 0.69 | 1.8 | 5.0 | 2.0 |
| Y2-112M-8 | 1.5 | 4.5 | 700 | 75 | 0.68 | 1.8 | 5.0 | 2.0 |
| Y2-132S-8 | 2.2 | 6.0 | 710 | 78 | 0.71 | 2.0 | 6.0 | 2.0 |
| Y2-132M-8 | 3.0 | 7.9 | 710 | 79 | 0.73 | 2.0 | 6.0 | 2.0 |
| Y2-160M1-8 | 4.0 | 10.2 | 720 | 81 | 0.73 | 2.0 | 6.0 | 2.0 |
| Y2-160M2-4 | 5.5 | 13.6 | 720 | 83 | 0.74 | 2.0 | 6.0 | 2.0 |
| Y2-160L-8 | 7.5 | 17.7 | 720 | 85.5 | 0.75 | 2.0 | 6.0 | 2.0 |
| Y2-180L-8 | 11.0 | 25.1 | 730 | 87.5 | 0.76 | 2.0 | 6.5 | 2.0 |
| Y2-200L-8 | 15.0 | 34.0 | 730 | 88 | 0.76 | 2.0 | 6.5 | 2.0 |
| Y2-225S-8 | 18.5 | 40.6 | 740 | 90.0 | 0.76 | 1.9 | 6.6 | 2.0 |
| Y2-225M-8 | 22.0 | 47.4 | 740 | 90.5 | 0.78 | 1.9 | 6.6 | 2.0 |
| Y2-250M-8 | 30.0 | 64.0 | 740 | 91.0 | 0.79 | 1.9 | 6.6 | 2.0 |
| Y2-280S-8 | 37.0 | 78.0 | 740 | 91.5 | 0.79 | 1.9 | 6.6 | 2.0 |
| Y2-280M-4 | 45.0 | 94.0 | 740 | 92.0 | 0.79 | 1.9 | 6.6 | 2.0 |
| Y2-315S-8 | 55 | 111 | 740 | 92.8 | 0.81 | 1.8 | 6.6 | 2.0 |
| Y2-315M-8 | 75 | 151 | 740 | 93.0 | 0.81 | 1.8 | 6.6 | 2.0 |
| Y2-315L1-8 | 90 | 178 | 740 | 93.8 | 0.82 | 1.8 | 6.6 | 2.0 |
| Y2-315L2-8 | 110 | 217 | 740 | 94.0 | 0.82 | 1.8 | 6.4 | 2.0 |
| Y2-355M1-8 | 132 | 261 | 740 | 93.7 | 0.82 | 1.8 | 6.4 | 2.0 |
| Y2-355M2-8 | 160 | 313 | 740 | 94.2 | 0.82 | 1.8 | 6.4 | 2.0 |
| Y2-355L-8 | 200 | 388 | 740 | 94.5 | 0.83 | 1.8 | 6.4 | 2.0 |
| Synchronous Speed 600r/min(10 poles)50Hz | | | | | | | | |
| Y2-315S-10 | 45 | 100 | 590 | 91.5 | 0.75 | 1.5 | 6.2 | 2.0 |
| Y2-315M-10 | 55 | 121 | 590 | 92 | 0.75 | 1.5 | 6.2 | 2.0 |
| Y2-315L1-10 | 75 | 162 | 590 | 92.5 | 0.76 | 1.5 | 6.2 | 2.0 |
| Y2-315L2-10 | 90 | 191 | 590 | 93 | 0.77 | 1.5 | 6.2 | 2.0 |
| Y2-355M1-10 | 110 | 230 | 590 | 93.2 | 0.78 | 1.3 | 6.0 | 2.0 |
| Y2-355M2-10 | 132 | 275 | 590 | 93.5 | 0.78 | 1.3 | 6.0 | 2.0 |
| Y2-355L-10 | 160 | 334 | 590 | 93.5 | 0.78 | 1.3 | 6.0 | 2.0 |

# SERIES THREE-PHASE ASYNCHRONOUS MOTOR

CE

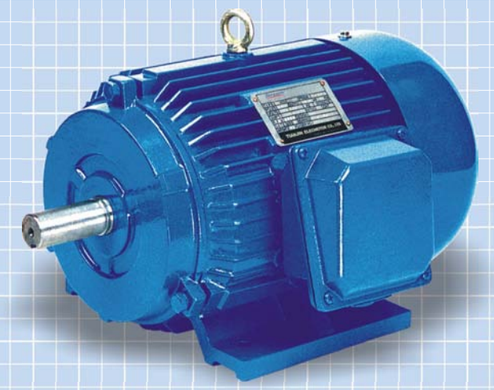
This range of motors are made to IEC standards and incorporate many fine features. These are superior motors that can be used in a multitude of applications in the commercial industrial building service and water treatment fields where superior service quality and reliabilcty is demanded.

### MOTOR FEATURES

- Utilise IP44 enclosure, IP54 and IP55 is available on request
- Class B insulation with class F on request
- Motors are made with IC0141 cooling
- Motors are made for continuous S1 duty
- Motors have high start torque
- Motors have high efficiency
- Y connection to 3 Kw
- ▲connection from 4 to 315 KW
- Voltages on request (220/380V, 380/660V, 220/340V, 220/440, 400/415V)
- Frequency 50 or 60 Hz
- Speed can be single double or multi speed on request
- Tropic proof motors supplied on request
- Flame proof motor supplied on request

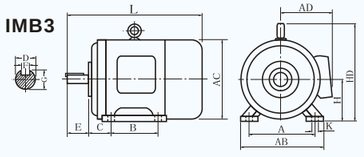
### CUSTOMER BENEFITS

- Water dust and vermin resistant
- Quiet operation
- Corrosion resistant
- Reliable in country, city or
- factory environments
- Very low vibration
- Very low power consumption
- Superior life



## INSTALLATION DIMENSIONS

IMB3

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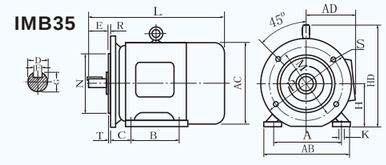
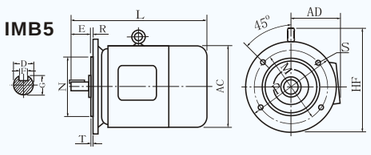



IMB5




| Frame Size | Mounting Dimensions(mm) | | | | | | | | | | | | | | | | | | Frame Dimensions(mm) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | | E | | F | | G | | H | K | M | N | P | R | S | T | AB | AC | AD | HD | L | |
| | | | | 2P | 4,6,8,10P | 2P | 4,6,8,10P | 2P | 4,6,8,10P | 2P | 4,6,8,10P | | | | | | | | | | | | | 2P | 4,6,8,10P |
| 80 | 125 | 100 | 50 | 19 | | 40 | | 6 | | 15.5 | | 80 | 10 | 165 | 130 | 200 | 0 | 12 | 3.5 | 165 | 175 | 150 | - | 285 | |
| 90S | 140 | 100 | 56 | 24 | | 50 | | 8 | | 20 | | 90 | 10 | 165 | 130 | 200 | 0 | 12 | 3.5 | 180 | 195 | 160 | - | 311 | |
| 90L | 140 | 125 | 56 | 24 | | 50 | | 8 | | 20 | | 90 | 10 | 165 | 130 | 200 | 0 | 12 | 3.5 | 180 | 195 | 160 | - | 335 | |
| 100L | 160 | 140 | 63 | 28 | | 60 | | 8 | | 24 | | 100 | 12 | 215 | 180 | 250 | 0 | 15 | 4 | 205 | 215 | 180 | 245 | 380 | |
| 112M | 190 | 140 | 70 | 28 | | 60 | | 8 | | 24 | | 112 | 12 | 215 | 180 | 250 | 0 | 15 | 4 | 245 | 240 | 190 | 265 | 400 | |
| 132S | 216 | 140 | 89 | 38 | | 80 | | 10 | | 33 | | 132 | 12 | 265 | 230 | 300 | 0 | 15 | 4 | 280 | 275 | 210 | 315 | 475 | |
| 132M | 216 | 178 | 89 | 38 | | 80 | | 10 | | 33 | | 132 | 12 | 265 | 230 | 300 | 0 | 15 | 4 | 280 | 275 | 210 | 315 | 515 | |
| 160M | 254 | 210 | 108 | 42 | | 110 | | 12 | | 37 | | 160 | 15 | 300 | 250 | 350 | 0 | 19 | 5 | 325 | 325 | 255 | 385 | 600 | |
| 160L | 254 | 254 | 108 | 42 | | 110 | | 12 | | 37 | | 160 | 15 | 300 | 250 | 350 | 0 | 19 | 5 | 325 | 325 | 255 | 385 | 645 | |
| 180M | 279 | 241 | 121 | 48 | | 110 | | 14 | | 42.5 | | 180 | 15 | 300 | 250 | 350 | 0 | 19 | 5 | 355 | 360 | 285 | 430 | 670 | |
| 180L | 279 | 279 | 121 | 48 | | 110 | | 14 | | 42.5 | | 180 | 15 | 300 | 250 | 350 | 0 | 19 | 5 | 355 | 360 | 285 | 430 | 710 | |
| 200L | 318 | 305 | 133 | 55 | | 110 | | 16 | | 49 | | 200 | 19 | 350 | 300 | 400 | 0 | 19 | 5 | 395 | 420 | 315 | 475 | 775 | |
| 225S | 356 | 286 | 149 | - | 60 | - | 140 | - | 18 | - | 53 | 225 | 19 | 400 | 350 | 450 | 0 | 19 | 5 | 435 | 450 | 345 | 530 | - | 820 |
| 225M | 356 | 311 | 149 | 55 | 60 | 110 | 140 | 16 | 18 | 49 | 53 | 225 | 19 | 400 | 350 | 450 | 0 | 19 | 5 | 435 | 450 | 345 | 530 | 815 | 845 |
| 250M | 406 | 349 | 168 | 60 | 65 | 140 | | 18 | | 53 | 58 | 250 | 24 | 500 | 450 | 550 | 0 | 19 | 5 | 490 | 515 | 385 | 575 | 930 | |
| 280S | 457 | 368 | 190 | 65 | 75 | 140 | | 18 | 20 | 58 | 67.5 | 280 | 24 | 500 | 450 | 550 | 0 | 19 | 5 | 550 | 585 | 410 | 640 | 1100 | |
| 280M | 457 | 419 | 190 | 65 | 75 | 140 | | 18 | 20 | 58 | 67.5 | 280 | 24 | 500 | 450 | 550 | 0 | 19 | 5 | 550 | 585 | 410 | 640 | 1050 | |
| 315S | 508 | 406 | 216 | 65 | 80 | 140 | 170 | 18 | 22 | 58 | 71 | 315 | 28 | 600 | 550 | 660 | 0 | 24 | 6 | 744 | 645 | 576 | 865 | 1270 | |
| 315M | 508 | 457 | 216 | 65 | 80 | 140 | 170 | 18 | 22 | 58 | 71 | 315 | 28 | 600 | 550 | 660 | 0 | 24 | 6 | 744 | 645 | 576 | 865 | 1340 | |
| 315L | 508 | 508 | 216 | 65 | 80 | 140 | 170 | 18 | 22 | 58 | 71 | 315 | 28 | 600 | 550 | 660 | 0 | 24 | 6 | 744 | 645 | 576 | 865 | 1340 | |
| 355M | 610 | 560 | 254 | 75 | 95 | 140 | 170 | 20 | 25 | 67.5 | 86 | 355 | 28 | 740 | 680 | 800 | 0 | 24 | 6 | 730 | 750 | 680 | 860 | 1515 | 1545 |
| 355L | 610 | 630 | 254 | 75 | 95 | 140 | 170 | 20 | 25 | 67.5 | 86 | 355 | 28 | 740 | 680 | 800 | 0 | 24 | 6 | 730 | 750 | 680 | 860 | 1515 | 1545 |

## TECHNICAL DATA

| Model | Rated Output | | Full Load | | | | Ist/IN Locked current | Tst/TN Locked torque | TM/IN max torque | Net weight (B3) Kg |
|---|---|---|---|---|---|---|---|---|---|---|
| | KW | HP | Speed (r.p.m.) | Current (A) | Eff. (%) | Power factor (cosn) | Rated current | Rated current | Rated current | |
| 380V 50Hz Synchronous Speed 3000r/min(2poles) | | | | | | | | | | |
| Y801-2 | 0.75 | 1 | 2830 | 1.81 | 75 | 0.84 | 6.5 | 2.2 | 2.3 | 17 |
| Y802-2 | 1.1 | 1.5 | 2830 | 2.52 | 77 | 0.86 | 7.0 | 2.2 | 2.3 | 18 |
| Y90S-2 | 1.5 | 2 | 2840 | 3.44 | 78 | 0.85 | 7.0 | 2.2 | 2.3 | 22 |
| Y90L-2 | 2.2 | 3 | 2840 | 4.83 | 80.5 | 0.86 | 7.0 | 2.2 | 2.3 | 26 |
| Y100L-2 | 3.0 | 4 | 2870 | 6.39 | 82 | 0.87 | 7.0 | 2.2 | 2.3 | 35 |
| Y112M-2 | 4.0 | 5.5 | 2890 | 8.17 | 85.5 | 0.88 | 7.0 | 2.2 | 2.3 | 45 |
| Y132S1-2 | 5.5 | 7.5 | 2900 | 11.1 | 85.5 | 0.88 | 7.0 | 2.0 | 2.3 | 67 |
| Y132S2-2 | 7.5 | 10 | 2900 | 15.0 | 86.2 | 0.88 | 7.0 | 2.0 | 2.3 | 71 |
| Y160M1-2 | 11 | 15 | 2930 | 21.8 | 87.2 | 0.88 | 7.0 | 2.0 | 2.3 | 118 |
| Y160M2-2 | 15 | 20 | 2930 | 29.4 | 88.2 | 0.89 | 7.0 | 2.0 | 2.3 | 130 |
| Y160L-2 | 18.5 | 25 | 2930 | 35.5 | 89 | 0.89 | 7.0 | 2.0 | 2.2 | 150 |
| Y180M-2 | 22 | 30 | 2940 | 42.2 | 89 | 0.89 | 7.0 | 2.0 | 2.2 | 175 |
| Y200L1-2 | 30 | 40 | 2950 | 56.9 | 90 | 0.89 | 7.0 | 2.0 | 2.2 | 227 |
| Y200L2-2 | 37 | 50 | 2950 | 69.8 | 90.5 | 0.89 | 7.0 | 2.0 | 2.2 | 255 |
| Y225M-2 | 45 | 60 | 2970 | 83.9 | 91.5 | 0.89 | 7.0 | 2.0 | 2.2 | 320 |
| Y250M-2 | 55 | 75 | 2970 | 103 | 91.5 | 0.89 | 7.0 | 2.0 | 2.2 | 389 |
| Y280S-2 | 75 | 100 | 2970 | 139 | 92 | 0.89 | 7.0 | 2.0 | 2.2 | 520 |
| Y280M-2 | 90 | 125 | 2970 | 166 | 92.5 | 0.89 | 7.0 | 2.0 | 2.2 | 577 |
| Y315S-2 | 110 | 150 | 2980 | 203 | 92.5 | 0.89 | 6.8 | 1.8 | 2.2 | 980 |
| Y315M-2 | 132 | 180 | 2980 | 242 | 93 | 0.89 | 6.8 | 1.8 | 2.2 | 1080 |
| Y315L1-2 | 160 | 220 | 2980 | 292 | 93.5 | 0.89 | 6.8 | 1.8 | 2.2 | 1160 |
| Y315L2-2 | 200 | 270 | 2980 | 365 | 93.5 | 0.89 | 6.8 | 1.8 | 2.2 | 1210 |
| Y355M-2 | 250 | 340 | 2980 | 444 | 94.5 | 0.90 | 7.0 | 1.2 | 2.2 | 1760 |
| Y355L-2 | 315 | 430 | 2980 | 556 | 95 | 0.90 | 7.1 | 1.2 | 2.2 | 1900 |
| 380V 50Hz Synchronous Speed 1500r/min(4poles) | | | | | | | | | | |
| Y801-4 | 0.55 | 0.75 | 1390 | 1.51 | 73 | 0.76 | 6.0 | 2.4 | 2.3 | 17 |
| Y802-4 | 0.75 | 1 | 1390 | 2.01 | 74.5 | 0.76 | 6.0 | 2.3 | 2.3 | 18 |
| Y90S-4 | 1.1 | 1.5 | 1400 | 2.75 | 78 | 0.78 | 6.5 | 2.3 | 2.3 | 23 |
| Y90L-4 | 1.5 | 2 | 1400 | 3.65 | 79 | 0.79 | 6.5 | 2.3 | 2.3 | 27 |
| Y100L1-4 | 2.2 | 3 | 1430 | 5.03 | 81 | 0.82 | 7.0 | 2.2 | 2.3 | 35 |
| Y100L2-4 | 3.0 | 4 | 1430 | 6.82 | 82.5 | 0.81 | 7.0 | 2.2 | 2.3 | 38 |
| Y112M-4 | 4.0 | 5.5 | 1440 | 8.77 | 84.5 | 0.82 | 7.0 | 2.2 | 2.3 | 49 |
| Y132S-4 | 5.5 | 7.5 | 1440 | 11.6 | 85.5 | 0.84 | 7.0 | 2.2 | 2.3 | 67 |
| Y132M-4 | 7.5 | 10 | 1440 | 15.4 | 87 | 0.85 | 7.0 | 2.2 | 2.3 | 80 |
| Y160M-4 | 11 | 15 | 1460 | 22.6 | 88 | 0.84 | 7.0 | 2.2 | 2.3 | 124 |
| Y160L-4 | 15 | 20 | 1460 | 30.3 | 88.5 | 0.85 | 7.0 | 2.2 | 2.3 | 147 |
| Y180M-4 | 18.5 | 25 | 1470 | 35.9 | 91 | 0.86 | 7.0 | 2.0 | 2.2 | 169 |
| Y180L-4 | 22 | 30 | 1470 | 42.5 | 91.5 | 0.86 | 7.0 | 2.0 | 2.2 | 184 |
| Y200L-4 | 30 | 40 | 1470 | 56.8 | 92.2 | 0.87 | 7.0 | 2.0 | 2.2 | 241 |
| Y225S-4 | 37 | 50 | 1480 | 70.4 | 91.8 | 0.87 | 7.0 | 1.9 | 2.2 | 300 |
| Y225M-4 | 45 | 60 | 1480 | 84.2 | 92.3 | 0.88 | 7.0 | 1.9 | 2.2 | 330 |
| Y250M-4 | 55 | 75 | 1480 | 103 | 92.6 | 0.88 | 7.0 | 2.0 | 2.2 | 400 |
| Y280S-4 | 75 | 100 | 1480 | 140 | 92.7 | 0.88 | 7.0 | 1.9 | 2.2 | 546 |
| Y280M-4 | 90 | 125 | 1480 | 164 | 93.5 | 0.89 | 7.0 | 1.9 | 2.2 | 620 |
| Y315S-4 | 110 | 150 | 1480 | 201 | 93.5 | 0.89 | 6.8 | 1.8 | 2.2 | 1000 |
| Y315M-4 | 132 | 180 | 1490 | 240 | 94 | 0.89 | 6.8 | 1.8 | 2.2 | 1100 |
| Y315L1-4 | 160 | 220 | 1490 | 289 | 94.5 | 0.89 | 6.8 | 1.8 | 2.2 | 1140 |
| Y315L2-4 | 200 | 270 | 1490 | 361 | 94.5 | 0.89 | 6.8 | 1.8 | 2.2 | 1190 |
| Y355M-4 | 250 | 340 | 1485 | 459 | 94.7 | 0.87 | 6.8 | 1.4 | 2.2 | 1800 |
| Y355L-4 | 315 | 430 | 1485 | 576 | 95.2 | 0.87 | 6.9 | 1.4 | 2.2 | 1940 |

## TECHNICAL DATA

| Model | Rated Output | | Full Load | | | | Ist/IN Locked current | Tst/TN Locked torque | TM/IN max torque | Net weight (B3) Kg |
|---|---|---|---|---|---|---|---|---|---|---|
| | KW | HP | Speed (r.p.m.) | Current (A) | Eff. (%) | Power factor (cosn) | Rated current | Rated current | Rated current | |
| 380V 50Hz Synchronous Speed 1000r/min(6poles) | | | | | | | | | | |
| Y90S-6 | 0.75 | 1 | 910 | 2.25 | 72.5 | 0.70 | 5.5 | 2.0 | 2.2 | 23 |
| Y90L-6 | 1.1 | 1.5 | 910 | 3.16 | 73.5 | 0.72 | 5.5 | 2.0 | 2.2 | 25 |
| Y100L-6 | 1.5 | 2 | 940 | 3.97 | 77.5 | 0.74 | 6.0 | 2.0 | 2.2 | 33 |
| Y112M-6 | 2.2 | 3 | 940 | 5.61 | 80.5 | 0.74 | 6.0 | 2.0 | 2.2 | 45 |
| Y132S-6 | 3.0 | 4 | 960 | 7.23 | 83 | 0.76 | 6.5 | 2.0 | 2.2 | 63 |
| Y132M1-6 | 4.0 | 5.5 | 960 | 9.40 | 84 | 0.77 | 6.5 | 2.0 | 2.2 | 73 |
| Y132M2-6 | 5.5 | 7.5 | 960 | 12.6 | 85.3 | 0.78 | 6.5 | 2.0 | 2.2 | 84 |
| Y160M-6 | 7.5 | 10 | 970 | 17.0 | 86 | 0.78 | 6.5 | 2.0 | 2.0 | 119 |
| Y160L-6 | 11 | 15 | 970 | 24.6 | 87 | 0.78 | 6.5 | 2.0 | 2.0 | 147 |
| Y180L-6 | 15 | 20 | 970 | 31.4 | 89.5 | 0.81 | 6.5 | 1.8 | 2.0 | 181 |
| Y200L1-6 | 18.5 | 25 | 970 | 37.7 | 89.8 | 0.83 | 6.5 | 1.8 | 2.0 | 215 |
| Y200L2-6 | 22 | 30 | 970 | 44.6 | 90.2 | 0.83 | 6.5 | 1.8 | 2.0 | 235 |
| Y225M-6 | 30 | 40 | 980 | 59.5 | | 0.85 | 6.5 | 1.7 | 2.0 | 294 |
| Y250M-6 | 37 | 50 | 980 | 72 | 90.8 | 0.86 | 6.5 | 1.8 | 2.0 | 390 |
| Y280S-6 | 45 | 60 | 980 | 85.4 | 92 | 0.87 | 6.5 | 1.8 | 2.0 | 506 |
| Y280M-6 | 55 | 75 | 980 | 104 | | 0.87 | 6.5 | 1.8 | 2.0 | 553 |
| Y315S-6 | 75 | 100 | 990 | 141 | 92.8 | 0.87 | 6.5 | 1.6 | 2.0 | 990 |
| Y315M-6 | 90 | 125 | 990 | 169 | 93.2 | 0.87 | 6.5 | 1.6 | 2.0 | 1080 |
| Y315L1-6 | 110 | 150 | 990 | 206 | 93.5 | 0.87 | 6.5 | 1.6 | 2.0 | 1150 |
| Y315L2-6 | 132 | 180 | 990 | 246 | 93.8 | 0.87 | 6.5 | 1.6 | 2.0 | 1210 |
| Y355M1-6 | 160 | 220 | 990 | 300 | 94.1 | 0.86 | 6.7 | 1.3 | 2.0 | 1620 |
| Y355M2-6 | 200 | 270 | 990 | 374 | 94.3 | 0.86 | 6.7 | 1.3 | 2.0 | 1750 |
| Y355L-2 | 250 | 340 | 990 | 465 | 94.7 | 0.86 | 6.7 | 1.3 | 2.0 | 1990 |
| 380V 50Hz Synchronous Speed 750r/min(8poles) | | | | | | | | | | |
| Y132S-8 | 2.2 | 3 | 710 | 5.85 | 80.5 | 0.71 | 5.5 | 2.0 | 2.0 | 63 |
| Y132M-8 | 3.0 | 4 | 710 | 7.72 | 82 | 0.72 | 5.5 | 2.0 | 2.0 | 79 |
| Y160M1-8 | 4.0 | 5.5 | 720 | 9.91 | 84 | 0.73 | 6.0 | 2.0 | 2.0 | 118 |
| Y160M2-8 | 5.5 | 7.5 | 720 | 13.3 | 85 | 0.74 | 6.0 | 2.0 | 2.0 | 119 |
| Y160L-8 | 7.5 | 10 | 720 | 17.7 | 86 | 0.75 | 5.5 | 2.0 | 2.0 | 145 |
| Y180L-8 | 11 | 15 | 730 | 24.8 | 87.5 | 0.77 | 6.0 | 1.7 | 2.0 | 172 |
| Y200L-8 | 15 | 20 | 730 | 34.1 | 88 | 0.76 | 6.0 | 1.8 | 2.0 | 220 |
| Y225S-8 | 18.5 | 25 | 730 | 41.3 | 89.5 | 0.76 | 6.0 | 1.7 | 2.0 | 263 |
| Y225M-8 | 22 | 30 | 730 | 47.6 | 90 | 0.78 | 6.0 | 1.8 | 2.0 | 292 |
| Y250M-8 | 30 | 40 | 740 | 63.0 | 90.5 | 0.80 | 6.0 | 1.8 | 2.0 | 390 |
| Y280S-8 | 37 | 50 | 740 | 78.2 | 91 | 0.79 | 6.0 | 1.8 | 2.0 | 508 |
| Y280M-8 | 45 | 60 | 740 | 93.2 | 91.7 | 0.80 | 6.0 | 1.8 | 2.0 | 533 |
| Y315S-8 | 55 | 75 | 740 | 114 | 92 | 0.80 | 6.5 | 1.6 | 2.0 | 1000 |
| Y315M-8 | 75 | 100 | 740 | 152 | 92.5 | 0.81 | 6.5 | 1.6 | 2.0 | 1100 |
| Y315L1-8 | 90 | 125 | 740 | 179 | 93 | 0.82 | 6.5 | 1.6 | 2.0 | 1160 |
| Y315L2-8 | 110 | 150 | 740 | 218 | 93.3 | 0.82 | 6.3 | 1.6 | 2.0 | 1230 |
| Y355M1-8 | 132 | 180 | 740 | 260 | 93.8 | 0.81 | 6.3 | 1.3 | 2.0 | 1700 |
| Y355M2-8 | 160 | 220 | 740 | 314 | 94.0 | 0.81 | 6.3 | 1.3 | 2.0 | 1780 |
| Y355L-8 | 200 | 270 | 740 | 392 | 94.3 | 0.81 | 6.3 | 1.3 | 2.0 | 2000 |
| 380V 50Hz Synchronous Speed 600r/min(10poles) | | | | | | | | | | |
| Y315S-10 | 45 | 60 | 590 | 101 | 91.5 | 0.74 | 6.0 | 1.4 | 2.0 | 990 |
| Y315M-10 | 55 | 75 | 590 | 123 | 92 | 0.74 | 6.0 | 1.4 | 2.0 | 1150 |
| Y315L2-10 | 75 | 100 | 590 | 164 | 92.5 | 0.75 | 6.0 | 1.4 | 2.0 | 1220 |
| Y355M1-10 | 90 | 120 | 590 | 190 | 93 | 0.77 | 6.0 | 1.2 | 2.0 | 1530 |
| Y355M2-10 | 110 | 150 | 590 | 230 | 93.2 | 0.78 | 6.0 | 1.2 | 2.0 | 1640 |
| Y355L-10 | 132 | 180 | 590 | 275 | 93.5 | 0.78 | 6.0 | 1.2 | 2.0 | 1690 |

# YD

## THREE-PHASE MULTI-SPEED MOTORS

YD series three-phase multi-speed induction motors are one of the derived series of Y2 series induction motors of our national uniform design,It have following features:excellent performance, attractive appearance and good interchangeability for the same kind of products abroad.The protection class is IP.
The motors are designed in three types:double speed,three speed and four speed. These speed rotes can be changed in stages.The motors are widely used on applications in the equipments where the changed rates in stages are needed, such as mechanism,mine,metallurgy,textiles,printing and dyeing,chemical industry, agricultural machinery,etc.They can also simplify or take the place of reduction gearbox in the mechanical drive lines.

### ENVIRONMENT CONDITIONS

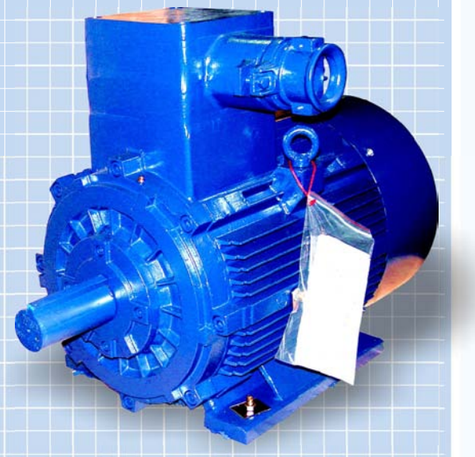
- Ambient temperature:-15C<θ<40C Altitude:not exceed 1000m
  Rated voltage:380(1±5%)V

| Model | | Speed (r/min) | Output (kW) | Current (A) | Eff (%) | Power Fator | Ist/In | Tstar/Tn | Tmax/Tn |
|---|---|---|---|---|---|---|---|---|---|
| YD132M | 8 | 720 | 3 | 9 | 78 | 0.65 | 5.5 | 1.5 | 1.8 |
| | 4 | 1440 | 4.5 | 9.4 | 82 | 0.88 | 6.5 | 1.5 | 1.8 |
| YD160M | 8 | 730 | 5 | 13.9 | 83 | 0.66 | 5.5 | 1.5 | 1.8 |
| | 4 | 1450 | 7.5 | 15.2 | 84 | 0.89 | 6.5 | 1.5 | 1.8 |
| YD160L | 8 | 730 | 7 | 19 | 85 | 0.66 | 5.5 | 1.5 | 1.8 |
| | 4 | 1450 | 11 | 21.8 | 86 | 0.89 | 6.5 | 1.5 | 1.8 |
| YD180L | 8 | 730 | 11 | 26 | 86 | 0.74 | 6 | 1.5 | 1.8 |
| | 4 | 1470 | 17 | 31.5 | 87 | 0.92 | 7 | 1.5 | 1.8 |
| YD200L1 | 8 | 740 | 14 | 33 | 86 | 0.74 | 6 | 1.5 | 1.8 |
| | 4 | 1470 | 22 | 41.3 | 88 | 0.92 | 7 | 1.5 | 1.8 |
| YD200L2 | 8 | 740 | 17 | 40.1 | 87 | 0.74 | 6 | 1.5 | 1.8 |
| | 4 | 1470 | 16 | 48.8 | 88 | 0.92 | 7 | 1.5 | 1.8 |
| YD225M | 8 | 740 | 24 | 53.2 | 89 | 0.77 | 6 | 1.4 | 1.8 |
| | 4 | 1470 | 34 | 66.7 | 88 | 0.88 | 7 | 1.3 | 1.8 |
| YD250M | 8 | 740 | 30 | 64.9 | 90 | 0.78 | 6 | 1.4 | 1.8 |
| | 4 | 1480 | 42 | 78.8 | 89 | 0.91 | 7 | 1.3 | 1.8 |
| YD280S | 8 | 740 | 40 | 83.5 | 91 | 0.8 | 6 | 1.4 | 1.8 |
| | 4 | 1480 | 55 | 102 | 90 | 0.91 | 7 | 1.3 | 1.8 |
| YD280M | 8 | 740 | 47 | 96.9 | 91 | 0.81 | 6 | 1.4 | 1.8 |
| | 4 | 1480 | 67 | 122.9 | 90 | 0.92 | 7 | 1.3 | 1.8 |
| YD90S | 8 | 680 | 0.35 | 1.6 | 56 | 0.6 | 5 | 1.5 | 1.8 |
| | 6 | 930 | 0.45 | 1.4 | 70 | 0.72 | 6 | 1.5 | 1.8 |
| YD90L | 8 | 680 | 0.45 | 1.9 | 59 | 0.6 | 5 | 1.5 | 1.8 |
| | 6 | 930 | 0.65 | 1.9 | 71 | 0.73 | 6 | 1.5 | 1.8 |
| YD100L | 8 | 710 | 0.75 | 2.9 | 65 | 0.6 | 5 | 1.5 | 1.8 |
| | 6 | 950 | 1.1 | 3.1 | 75 | 0.73 | 6 | 1.5 | 1.8 |
| YD112M | 8 | 710 | 1.3 | 4.5 | 72 | 0.61 | 5 | 1.5 | 1.8 |
| | 6 | 950 | 1.8 | 4.8 | 78 | 0.73 | 6 | 1.5 | 1.8 |
| YD132S | 8 | 730 | 1.8 | 5.8 | 75 | 0.62 | 5 | 1.5 | 1.8 |
| | 6 | 970 | 2.4 | 6.2 | 80 | 0.73 | 6 | 1.5 | 1.8 |
| YD132M | 8 | 730 | 2.6 | 8.2 | 78 | 0.62 | 5 | 1.5 | 1.8 |
| | 6 | 970 | 3.7 | 9.4 | 82 | 0.73 | 6 | 1.5 | 1.8 |
| YD160M | 8 | 930 | 4.5 | 13.3 | 83 | 0.62 | 5 | 1.5 | 1.8 |
| | 6 | 980 | 6 | 14.7 | 85 | 0.73 | 6 | 1.5 | 1.8 |
| YD160L | 8 | 930 | 6 | 17.5 | 84 | 0.62 | 5 | 1.5 | 1.8 |
| | 6 | 980 | 8 | 19.4 | 86 | 0.73 | 6 | 1.5 | 1.8 |
| YD180M | 8 | 930 | 7.5 | 21.9 | 84 | 0.62 | 5 | 1.5 | 1.8 |
| | 6 | 980 | 10 | 24.2 | 86 | 0.73 | 6 | 1.5 | 1.8 |
| YD180L | 8 | 730 | 9 | 24.8 | 85 | 0.65 | 5 | 1.5 | 1.8 |
| | 6 | 980 | 12 | 28.3 | 86 | 0.75 | 6 | 1.5 | 1.8 |
| YD200L1 | 8 | 730 | 12 | 32.5 | 86 | 0.65 | 5 | 1.5 | 1.8 |
| | 6 | 980 | 17 | 39.1 | 87 | 0.76 | 6 | 1.5 | 1.8 |
| YD200L2 | 8 | 730 | 15 | 40.3 | 87 | 0.65 | 5 | 1.5 | 1.8 |
| | 6 | 980 | 20 | 45.4 | 88 | 0.76 | 6 | 1.5 | 1.8 |
| YD100L | 6/4/2 | 940/1420/2880 | 0.75/1.3/1.8 | 2.62/3.66/4.53 | 67/72/71 | 0.65/0.75/0.85 | 5.5/6/7 | 1.8/1.6/1.6 | 1.8/1.8/1.8 |
| YD112M | 6/4/2 | 940/1440/2890 | 1.1/2/2.4 | 3.52/5.14/5.80 | 73/74/74 | 0.65/0.81/0.85 | 5.5/6/7 | 1.7/1.4/1.6 | 1.8/1.8/1.8 |
| YD132S | 6/4/2 | 940/1440/2900 | 1.8/2.6/3 | 5.14/6.10/7.38 | 75/78/71 | 0.71/0.83/0.87 | 5.5/6/7 | 1.4/1.3/1.7 | 1.8/1.8/1.8 |
| YD132M1 | 6/4/2 | 940/1440/2900 | 2.2/3.3/4 | 6.03/7.46/8.79 | 77/80/76 | 0.72/0.84/0.91 | 5.5/6/7 | 1.3/1.3/1.7 | 1.8/1.8/1.8 |
| YD132M2 | 6/4/2 | 940/1440/2900 | 2.6/4/5 | 6.86/9.04/10.8 | 80/80/77 | 0.72/0.84/0.91 | 5.5/6/7 | 1.5/1.4/1.7 | 1.8/1.8/1.8 |
| YD160M | 6/4/2 | 970/1490/2930 | 3.7/5/6 | 9.52/11.2/13.2 | 81/81/76 | 0.72/0.84/0.91 | 5.5/6/7 | 1.5/1.3/1.4 | 1.8/1.8/1.8 |
| YD160L | 6/4/2 | 910/1460/2930 | 4.5/7/9 | 11.4/15.1/18.8 | 83/83/79 | 0.72/0.84/0.91 | 5.5/6/7 | 1.5/1.2/1.3 | 1.8/1.8/1.8 |
| YD112M | 8/4/2 | 710/1440/2900 | 0.65/2/2.4 | 2.66/5.14/5.80 | 59/74/74 | 0.63/0.81/0.85 | 4.5/6/7 | 1.4/1.3/1.2 | 1.8/1.8/1.8 |
| YD132S | 8/4/2 | 710/1440/2900 | 1/2.6/3 | 3.16/6.10/7.08 | 69/78/74 | 0.61/0.83/0.87 | 4.5/6/7 | 1.4/1.2/1.4 | 1.8/1.8/1.8 |
| YD132M | 8/4/2 | 710/1440/2900 | 1.3/3.7/4.5 | 4.56/8.37/10.0 | 71/80/75 | 0.61/0.84/0.91 | 4.5/6/7 | 1.5/1.3/1.4 | 1.8/1.8/1.8 |
| YD160M | 8/4/2 | 720/1460/2930 | 2.2/5/6 | 7.55/11.2/13.2 | 75/81/76 | 0.59/0.84/0.91 | 4.5/6/7 | 1.4/1.3/1.4 | 1.8/1.8/1.8 |
| YD160L | 8/4/2 | 720/1460/2930 | 2.8/7/9 | 9.21/15.10/18.80 | 77/83/79 | 0.6/0.85/0.92 | 5.5/6.5/7 | 1.3/1.2/1.3 | 1.8/1.8/1.8 |
| YD112M | 8/6/4 | 710/940/1400 | 0.85/1/1.5 | 3.72/3.06/3.53 | 62/68/75 | 0.56/0.73/0.86 | 5.5/6.5/7 | 1.4/1.2/1.4 | 1.8/1.8/1.8 |
| YD132S | 8/6/4 | 710/940/1440 | 1.1/1.5/1.8 | 4.10/4.22/4.03 | 68/74/78 | 0.6/0.73/0.87 | 5.5/6.5/7 | 1.4/1.3/1.3 | 1.8/1.8/1.8 |
| YD132M1 | 8/6/4 | 710/940/1440 | 1.5/2/2.2 | 5.18/5.14/4.87 | 71/77/79 | 0.62/0.73/0.87 | 5.5/6.5/7 | 1.3/1.5/1.4 | 1.8/1.8/1.8 |
| YD132M2 | 8/6/4 | 710/940/1440 | 1.8/2.6/3 | 6.13/6.84/6.55 | 72/78/80 | 0.62/0.74/0.87 | 5.5/6.5/7 | 1.5/1.5/1.5 | 1.8/1.8/1.8 |
| YD160M | 8/6/4 | 720/970/1460 | 3.3/4/5.5 | 10.2/9.87/11.6 | 79/81/83 | 0.62/0.76/0.87 | 5.5/6.5/7 | 1.7/1.4/1.5 | 1.8/1.8/1.8 |
| YD160L | 8/6/4 | 720/970/1460 | 4.5/6/7.5 | 13.8/14.5/15.6 | 80/83/84 | 0.62/0.76/0.87 | 5.5/6.5/7 | 1.6/1.6/1.5 | 1.8/1.8/1.8 |

| Model | | Speed (r/min) | Output (kW) | Current (A) | Eff (%) | Power Fator | Ist/In | Tstar/Tn | Tmax/Tn |
|---|---|---|---|---|---|---|---|---|---|
| YD801 | 4 | 1420 | 0.45 | 1.4 | 66 | 0.74 | 6.5 | 1.5 | 1.8 |
| | 2 | 2860 | 0.55 | 1.5 | 65 | 0.85 | 7 | 1.6 | 1.8 |
| YD802 | 4 | 1420 | 0.55 | 1.7 | 68 | 0.74 | 6.5 | 1.5 | 1.8 |
| | 2 | 2860 | 0.75 | 2 | 66 | 0.85 | 7 | 1.6 | 1.8 |
| YD90S | 4 | 1430 | 0.85 | 2.3 | 74 | 0.77 | 6.5 | 1.5 | 1.8 |
| | 2 | 2850 | 1.1 | 2.8 | 73 | 0.84 | 7 | 1.6 | 1.8 |
| YD90L | 4 | 1430 | 1.3 | 3.3 | 76 | 0.78 | 6.5 | 1.5 | 1.8 |
| | 2 | 2850 | 1.8 | 4.3 | 74 | 0.84 | 7 | 1.6 | 1.8 |
| YD100L1 | 4 | 1430 | 2 | 4.8 | 78 | 0.81 | 6.5 | 1.5 | 1.8 |
| | 2 | 2850 | 2.4 | 5.6 | 76 | 0.86 | 7 | 1.6 | 1.8 |
| YD100L2 | 4 | 1430 | 2.4 | 5.6 | 79 | 0.83 | 6.5 | 1.5 | 1.8 |
| | 2 | 2850 | 3 | 6.7 | 77 | 0.89 | 7 | 1.6 | 1.8 |
| YD112M | 4 | 1450 | 3.3 | 7.4 | 81 | 0.83 | 6.5 | 1.5 | 1.8 |
| | 2 | 2860 | 4 | 8.6 | 80 | 0.88 | 7 | 1.6 | 1.8 |
| YD132S | 4 | 1450 | 4.5 | 9.8 | 83 | 0.85 | 6.5 | 1.5 | 1.8 |
| | 2 | 2860 | 5.5 | 11.9 | 79 | 0.89 | 7 | 1.6 | 1.8 |
| YD132M | 4 | 1450 | 6.5 | 13.8 | 84 | 0.85 | 6.5 | 1.5 | 1.8 |
| | 2 | 2880 | 8 | 17.1 | 80 | 0.89 | 7 | 1.6 | 1.8 |
| YD160M | 4 | 1460 | 9 | 18.5 | 87 | 0.86 | 6.5 | 1.5 | 1.8 |
| | 2 | 2920 | 11 | 22.9 | 82 | 0.9 | 7 | 1.6 | 1.8 |
| YD160L | 4 | 1460 | 11 | 22.3 | 87 | 0.87 | 6.5 | 1.5 | 1.8 |
| | 2 | 2920 | 14 | 28.8 | 82 | 0.9 | 7 | 1.6 | 1.8 |
| YD180M | 4 | 1470 | 15 | 29.4 | 89 | 0.88 | 6.5 | 1.5 | 1.8 |
| | 2 | 2940 | 18.5 | 36.7 | 85 | 0.91 | 7 | 1.6 | 1.8 |
| YD180L | 4 | 1470 | 18.5 | 35.9 | 89 | 0.89 | 6.5 | 1.5 | 1.8 |
| | 2 | 2940 | 22 | 42.7 | 86 | 0.92 | 7 | 1.6 | 1.8 |
| YD200L | 4 | 1470 | 26 | 49.9 | 89 | 0.89 | 6.5 | 1.4 | 1.8 |
| | 2 | 2950 | 30 | 58.3 | 85 | 0.92 | 7 | 1.4 | 1.8 |
| YD225S | 4 | 1480 | 32 | 60.7 | 90 | 0.89 | 6.5 | 1.4 | 1.8 |
| | 2 | 2960 | 37 | 71.7 | 86 | 0.92 | 7 | 1.4 | 1.8 |
| YD225M | 4 | 1480 | 37 | 69.4 | 91 | 0.9 | 6.5 | 1.4 | 1.8 |
| | 2 | 2960 | 45 | 86.4 | 87 | 0.92 | 7 | 1.4 | 1.8 |
| YD250M | 4 | 1480 | 45 | 84.4 | 91 | 0.9 | 6.5 | 1.4 | 1.8 |
| | 2 | 2960 | 55 | 103.2 | 88 | 0.93 | 7 | 1.4 | 1.8 |
| YD280S | 4 | 1480 | 60 | 111.3 | 91 | 0.7 | 6.5 | 1.4 | 1.8 |
| | 2 | 2970 | 72 | 135.1 | 88 | 0.79 | 7 | 1.4 | 1.8 |
| YD280M | 4 | 1480 | 72 | 133.6 | 91 | 0.7 | 6.5 | 1.4 | 1.8 |
| | 2 | 2970 | 82 | 152.2 | 88 | 0.79 | 7 | 1.4 | 1.8 |
| YD90S | 6 | 920 | 0.65 | 2.2 | 64 | 0.7 | 6 | 1.4 | 1.8 |
| | 4 | 1420 | 0.85 | 2.3 | 70 | 0.8 | 6.5 | 1.3 | 1.8 |
| YD90L | 6 | 930 | 0.85 | 2.8 | 66 | 0.7 | 6 | 1.4 | 1.8 |
| | 4 | 1420 | 1.1 | 3 | 71 | 0.8 | 6.5 | 1.3 | 1.8 |
| YD100L1 | 6 | 940 | 1.3 | 3.8 | 74 | 0.75 | 6 | 1.4 | 1.8 |
| | 4 | 1440 | 1.8 | 4.4 | 77 | 0.82 | 6.5 | 1.3 | 1.8 |
| YD100L2 | 6 | 940 | 1.5 | 4.3 | 75 | 0.7 | 6 | 1 .4 | 1.8 |
| | 4 | 1440 | 2.2 | 5.4 | 77 | 0.82 | 6.5 | 1.4 | 1.8 |
| YD112M | 6 | 960 | 2.2 | 5.7 | 77 | 0.76 | 6 | 1.4 | 1.8 |
| | 4 | 1440 | 2.8 | 6.7 | 77 | 0.85 | 6.5 | 1.3 | 1.8 |
| YD132S | 6 | 960 | 3 | 7.7 | 79 | 0.78 | 6 | 1.4 | 1.8 |
| | 4 | 1440 | 4 | 9.5 | 80 | 0.85 | 6.5 | 1.3 | 1.8 |
| YD132M | 6 | 960 | 4 | 9.8 | 81 | 0.78 | 6 | 1.4 | 1.8 |
| | 4 | 1440 | 5.5 | 12.3 | 80 | 0.85 | 6.5 | 1.3 | 1.8 |
| YD160M | 6 | 970 | 6.5 | 15.1 | 84 | 0.78 | 6 | 1.3 | 1.8 |
| | 4 | 1460 | 8 | 17.4 | 83 | 0.85 | 6.5 | 1.4 | 1.8 |
| YD160L | 6 | 970 | 9 | 20.6 | 85 | 0.78 | 6 | 1.3 | 1.8 |
| | 4 | 1460 | 11 | 23.4 | 84 | 0.85 | 6.5 | 1.4 | 1.8 |
| YD180M | 6 | 980 | 11 | 25.9 | 85 | 0.78 | 6 | 1.3 | 1.8 |
| | 4 | 1470 | 14 | 29.8 | 85 | 0.85 | 6.5 | 1.3 | 1.8 |
| YD180L | 6 | 980 | 13 | 29.4 | 86 | 0.78 | 6 | 1.4 | 1.8 |
| | 4 | 1470 | 16 | 33.6 | 85 | 0.85 | 6.5 | 1.3 | 1.8 |
| YD200L | 6 | 980 | 18.5 | 41.4 | 87 | 0.78 | | 1.4 | 1.8 |
| | 4 | 1460 | 22 | 44.7 | 87 | 0.86 | 6.5 | 1.3 | 1.8 |
| YD225S | 6 | 980 | 22 | 44.2 | 88 | 0.86 | 6.5 | 1.3 | 1.8 |
| | 4 | 1470 | 28 | 56.2 | 87 | 0.87 | 7 | 1.4 | 1.8 |
| YD225M | 6 | 980 | 26 | 52.2 | 88 | 0.86 | 6.5 | 1.3 | 1.8 |
| | 4 | 1470 | 34 | 66 | 87 | 0.9 | 7 | 1.4 | 1.8 |
| YD250M | 6 | 980 | 32 | 62.1 | 90 | 0.87 | 6.5 | 1.3 | 1.8 |
| | 4 | 1470 | 42 | 74.7 | 88 | 0.91 | 7 | 1.3 | 1.8 |
| YD280S | 6 | 980 | 42 | 81.5 | 90 | 0.87 | 6.5 | 1.4 | 1.8 |
| | 4 | 1470 | 55 | 104.2 | 89 | 0.9 | 7 | 1.3 | 1.8 |
| YD280M | 6 | 990 | 55 | 106.7 | 90 | 0.87 | 6.5 | 1.4 | 1.8 |
| | 4 | 1480 | 72 | 138.1 | 89 | 0.89 | 7 | 1.3 | 1.8 |
| YD90L | 8 | 680 | 0.45 | 1.9 | 58 | 0.63 | 6.5 | 1.5 | 1.8 |
| | 4 | 1420 | 0.75 | 1.92 | 72 | 0.87 | 6.5 | 1.5 | 1.8 |
| YD100L | 8 | 700 | 0.85 | 3.1 | 68 | 0.63 | 6.5 | 1.5 | 1.8 |
| | 4 | 1420 | 1.5 | 3.5 | 75 | 0.88 | 6.5 | 1.5 | 1.8 |
| YD112M | 8 | 700 | 1.5 | 5 | 72 | 0.63 | 6.5 | 1.5 | 1.8 |
| | 4 | 1420 | 2.4 | 5.3 | 78 | 0.88 | 6.5 | 1.5 | 1.8 |
| YD132S | 8 | 700 | 2.2 | 7 | 75 | 0.64 | 6.5 | 1.5 | 1.8 |
| | 4 | 1420 | 3.3 | 7.1 | 80 | 0.88 | 6.5 | 1.5 | 1.8 |

# YB

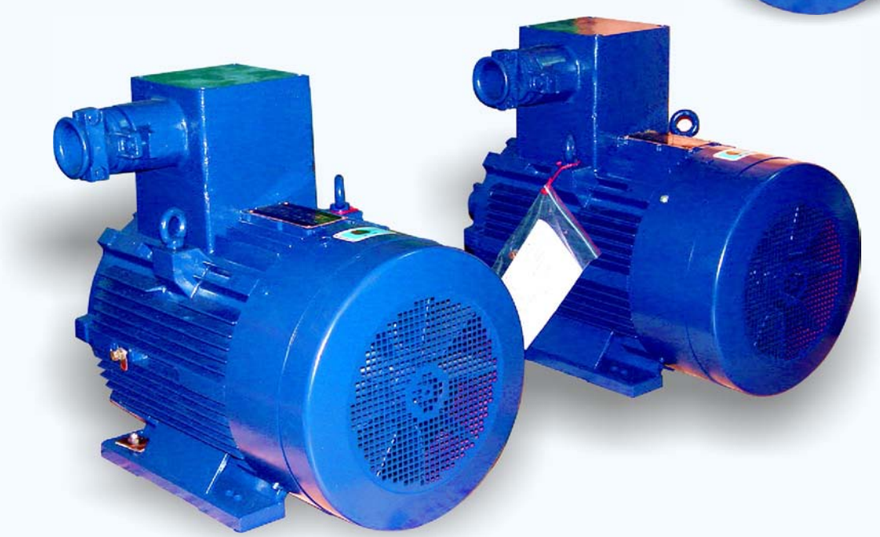
## SERIES FLAMEPROOF ELECTRIC MOTORS



YB series flameproof three-phase induction electric motors have such characteristics as high efficiency, low noise, slight vibration, high locked-rotor torque and reliable operation. The rated voltage of YB series electric motor is 220V, 380V, 660V, 220/380V or 380/660V. The rated frequency of this series electric motor is 50Hz or 60Hz. The power grade and mounting dimensions of this series electric motors are the same as those of Y series electric motors, up to the IEC standard. The degree of protection by enclosure of YB series electric motors is IP44 and cooling form IC0141. Class F insulation is adopted. This series electric motor can operate constantly at environmental temperature of not higher than 40 C. The electric property index of YB series electric motors are the same as that of Y series electric motors.

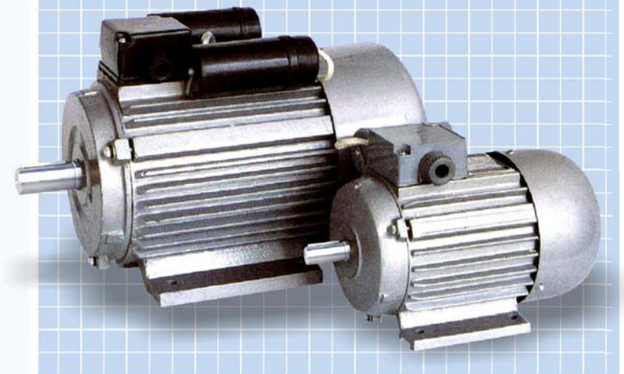
### FEATURE

- Frame size of YB series electric motor: H80-280mm.
- Power range of YB series electric motor: 0.55-90KW.
- Synchronous speed of YB series electric motor: 3000, 1500, 750r/min.
- Explosion protection marking of YB series electric motor: d I, d II AT4, d II Bt4.



# YC

## HEAVY DUTY SERIES SINGLE-PHASE CAPACITOR START ASYNCHRONOUS MOTOR



These Single-Phase Heavy-Duty Capacitor Start Motors are made to IEC Standards. These are superior motors delivering excellent torque enabling the toughest jobs to behandled withdependable ease. They perform well in high vo ltage fluctuating regions and are commonly used in thepumping, compressor, agriculture, farming, building service and manufacturing industry.

### MOTOR FEATURES

- IP44 Enclosure
- Class B Insulation, Class F available on request
- Low operating temperature
- Continuous S1 operation
- Industrial type service factors
- Cool running motors

### CUSTOMER BENEFITS

- Water dust and vermin resistant
- Quiet operation
- Corrosion resistant
- Reliable in country, city or factory environments
- Suitable for hot environments
- Low start current and EMC interference

### TECHNICAL DATA

| Model | Rated Output | | Full Load | | | |
|---|---|---|---|---|---|---|
| | KW | HP | RPM | Current 220V (A) | Eff. (%) | Power factor (cosE) |
| YC7112 | 0.18 | 1/4 | 2800 | 1.9 | 60 | 0.72 |
| YC7122 | 0.25 | 1/3 | 2800 | 2.4 | 64 | 0.74 |
| YC8012 | 0.37 | 1/2 | 2800 | 3.4 | 65 | 0.77 |
| YC8022 | 0.55 | 3/4 | 2800 | 4.7 | 68 | 0.79 |
| YC90S-2 | 0.75 | 1 | 2800 | 6.1 | 70 | 0.80 |
| YC90L1-2 | 1.1 | 1.5 | 2800 | 8.7 | 72 | 0.80 |
| YC90L2-2 | 1.5 | 2 | 2800 | 11.4 | 74 | 0.81 |
| YC100L2-2 | 2.2 | 3 | 2800 | 16.5 | 75 | 0.81 |
| YC112M-2 | 3 | 4 | 2800 | 21.9 | 76 | 0.82 |
| YC132S-2 | 3.7 | 5 | 2800 | 26.6 | 77 | 0.82 |
| YC7124 | 0.18 | 1/4 | 1400 | 2.5 | 53 | 0.62 |
| YC8014 | 0.25 | 1/3 | 1400 | 3.1 | 58 | 0.63 |
| YC8024 | 0.37 | 1/2 | 1400 | 4.2 | 62 | 0.64 |
| YC90S-4 | 0.55 | 3/4 | 1400 | 5.5 | 66 | 0.69 |
| YC90L1-4 | 0.75 | 1 | 1400 | 6.9 | 68 | 0.73 |
| YC90L2-4 | 1.1 | 1.5 | 1400 | 9.5 | 71 | 0.74 |
| YC100L2-4 | 1.5 | 2 | 1400 | 12.5 | 73 | 0.75 |
| YC112M-4 | 2.2 | 3 | 1400 | 17.8 | 74 | 0.76 |
| YC132S-4 | 3 | 4 | 1400 | 23.6 | 75 | 0.77 |
| YC132M-4 | 3.7 | 5 | 1400 | 28 | 76 | 0.79 |

# YL

# SERIES SINGLE-PHASE DUAL-CAPACITOR ASYNCHRONOUS MOTOR

These single-phase dual capacitor motors are made to IEC standards. These are superior motors delivering excellent torque enabling the toughest jobs to be handled with dependable ease. They perform well in high voltage fluctuating regions and are commonly used in the pumping, compressor, agriculture, farming, building service and manufacturing industry.

### MOTOR FEATURES

- IP44 enclosure
- Class B insulation, Class F available on request
- Low operating temperature
- High quality magnet wire Vacuum varnish impregnation for superior
- tropic proof insulation
- Continuous S1 operation
- Industrial type service factors
- Heavy duty ball bearings
- Balanced rotors

### CUSTOMER BENEFITS

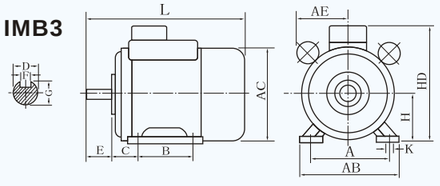
- Water dust and vermin resistant
- Quiet operation
- Corrosion resistant
- Reliable in country, city or factory environments
- Low vibration
- Low power consumption
- Superior life
- High strength cast iron frame

## TECHNICAL DATA

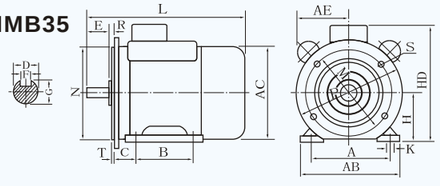
| Model | Power | | Volt (V) | Current (A) | Speed (r.p.m.) | Eff. (%) | Power factor | Starting Torque / Rated Torque | Starting Current （A） | Max Torque / Rated torque | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | HP | kW | | | | | | | | | |
| YL711-2 | 1/2 | 0.37 | 220 | 2.73 | 2800 | 67 | 0.92 | 1.8 | 16 | 1.8 | 8 |
| YL712-2 | 3/4 | 0.55 | 220 | 3.88 | 2800 | 70 | 0.92 | 1.8 | 21 | 1.8 | 9 |
| YL801-2 | 1 | 0.75 | 220 | 5.15 | 2800 | 72 | 0.92 | 1.8 | 29 | 1.8 | 11 |
| YL802-2 | 1.5 | 1.1 | 220 | 7.02 | 2800 | 75 | 0.95 | 1.8 | 40 | 1.8 | 12 |
| YL90S-2 | 2 | 1.5 | 220 | 9.44 | 2820 | 76 | 0.95 | 1.7 | 55 | 1.8 | 13 |
| YL90L-2 | 3 | 2.2 | 220 | 13.7 | 2820 | 77 | 0.95 | 1.7 | 80 | 1.8 | 17 |
| YL711-4 | 1/3 | 0.25 | 220 | 1.99 | 1400 | 62 | 0.92 | 1.8 | 12 | 1.8 | 8 |
| YL712-4 | 1/2 | 0.37 | 220 | 2.81 | 1400 | 65 | 0.92 | 1.8 | 16 | 1.8 | 9 |
| YL801-4 | 3/4 | 0.55 | 220 | 4.0 | 1400 | 68 | 0.92 | 1.8 | 21 | 1.8 | 11 |
| YL802-4 | 1 | 0.75 | 220 | 5.22 | 1400 | 71 | 0.92 | 1.8 | 29 | 1.8 | 12 |
| YL90S-4 | 1.5 | 1.1 | 220 | 7.21 | 1420 | 73 | 0.95 | 1.7 | 40 | 1.8 | 13 |
| YL90L-4 | 2 | 1.5 | 220 | 9.57 | 1420 | 75 | 0.95 | 1.7 | 55 | 1.8 | 17 |
| YL100L1-4 | 3 | 2.2 | 220 | 13.9 | 1420 | 76 | 0.95 | 1.7 | 80 | 1.8 | 26 |
| YL100L2-4 | 4 | 3 | 220 | 18.6 | 1420 | 77 | 0.95 | 1.7 | 110 | 1.8 | 28 |
| YL112M-4 | 3 | 2.2 | 220 | 13.9 | 1440 | 76 | 0.95 | 1.7 | 80 | 1.8 | 31 |
| YL112M1-4 | 4 | 3 | 220 | 18.6 | 1440 | 77 | 0.95 | 1.7 | 110 | 1.8 | 34 |
| YL112M2-4 | 5 | 3.7 | 220 | 23 | 1440 | 78 | 0.95 | 1.7 | 138 | 1.8 | 38 |
| YL132SA-4 | 4 | 3 | 220 | 18.6 | 1440 | 77 | 0.95 | 1.7 | 110 | 1.8 | 55 |
| YL132SB-4 | 5 | 3.7 | 220 | 23 | 1440 | 78 | 0.95 | 1.7 | 138 | 1.8 | 60 |

## INSTALLATION DIMENSIONS

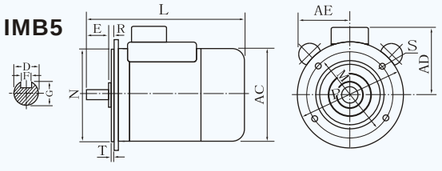
IMB3



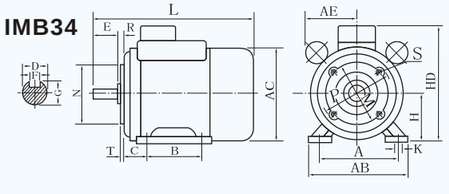

IMB35



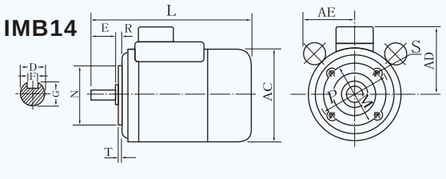

IMB5




IMB34




IMB14




| Frame Size | Mounting Dimensions (mm) | | | | | | | | | | | | | | | | | | | | Frame Dimensions (mm) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | IMB3 | | | | | | | | | IMB14 | | | IMB34 | | | IMB5 | | | IMB35 | | | | | | | | |
| | A | B | C | D | E | F | G | H | K | M | N | P | R | S | T | M | N | P | R | S | T | AB | AC | AD | AE | HD | L |
| 71 | 112 | 90 | 45 | 14 | 30 | 5 | 11 | 71 | 7 | 85 | 70 | 105 | 0 | M6 | 2.5 | - | - | - | - | - | - | 145 | 145 | 140 | 105 | 180 | 255 |
| 80 | 125 | 100 | 50 | 19 | 40 | 6 | 15.5 | 80 | 10 | 100 | 80 | 120 | 0 | M6 | 2.5 | - | - | - | - | - | - | 160 | 165 | 150 | 120 | 200 | 295 |
| 90S | 140 | 100 | 56 | 24 | 50 | 8 | 20 | 90 | 10 | 115 | 95 | 140 | 0 | M8 | 3 | - | - | - | - | - | - | 180 | 185 | 160 | 130 | 240 | 370 |
| 90L | 140 | 125 | 56 | 24 | 50 | 8 | 20 | 90 | 10 | 115 | 95 | 140 | 0 | M8 | 3 | - | - | - | - | - | - | 180 | 185 | 160 | 130 | 240 | 400 |
| 100L | 160 | 140 | 63 | 28 | 60 | 8 | 24 | 100 | 12 | - | - | - | - | - | - | 215 | 180 | 250 | 0 | 15 | 4 | 205 | 220 | 180 | 130 | 260 | 430 |
| 112M | 190 | 140 | 70 | 28 | 60 | 8 | 24 | 112 | 12 | - | - | - | - | - | - | 215 | 180 | 250 | 0 | 15 | 4 | 245 | 250 | 190 | 140 | 300 | 455 |
| 132S | 216 | 140 | 89 | 38 | 80 | 10 | 33 | 132 | 12 | - | - | - | - | - | - | 265 | 230 | 300 | 0 | 15 | 4 | 280 | 290 | 210 | 155 | 350 | 525 |

# JY

## SERIES SINGLE-PHASE CAPACITOR START ASYNCHRONOUS MOTOR

These single-phase capacitor start motors are made to IEC standards. These are superior motors delivering excellent torque while keeping the starting current low enabling them to be used where the power supply is limited. They are commonly used in the pumping, compressor, agriculture, farming, building service and the manufacturing industry.

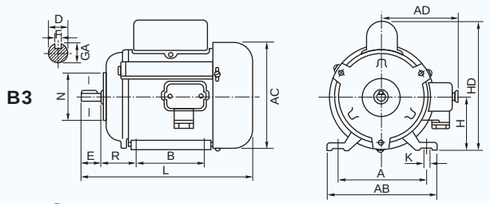
### MOTOR FEATURES

- IP44 enclosure
- Class B insulation, Class F available on request
- Low operating temperature
- High quality magnet wire
- Vacuum varnish impregnation for superior tropic proof insulation
- Continuous S1 operation
- Industrial type service factors
- Heavy duty ball bearings
- Balanced rotors
- Low start current
- Can be made with cast iron or aluminium motor body

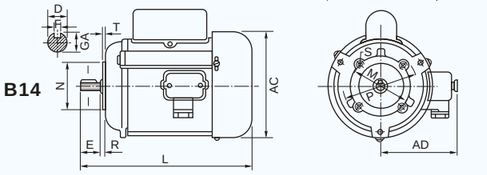
### CUSTOMER BENEFITS

- Water dust and vermin resistant
- Quiet operation
- Corrosion resistant
- Reliable in country, city or factory environments
- Low vibration
- Low power consumption
- Superior life
- High strength frame
- Starts in low voltage areas

B3




B14




## INSTALLATION DIMENSIONS

## TECHNICAL DATA

| Frame Size | Model | Output | | Speed (r.p.m.) | Power Factor | Eff (%) | Max torque / Rated torque | Starting torque / Rated torque | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|
| | | W | HP | | | | | | |
| 09 | JY09A-2 | 250 | 1/3 | 2800 | 0.72 | 63 | 1.8-2 | 2-3.5 | 21.7 |
| | JY09B-2 | 180 | 1/4 | 2800 | 0.72 | 60 | 1.8-2 | 2-3.5 | 21.7 |
| | JY09A-4 | 180 | 1/4 | 1400 | 0.62 | 56 | 1.8-2 | 2-3.5 | 20 |
| 1 | JY1A-2 | 550 | 3/4 | 2800 | 0.72 | 66 | 1.8-2 | 2-3.5 | 14 |
| | JY1B-2 | 370 | 1/2 | 2800 | 0.72 | 66 | 1.8-2 | 2-3.5 | 14 |
| | JY1A-4 | 370 | 1/2 | 1400 | 0.62 | 64 | 1.8-2 | 2-3.5 | 13 |
| | JY1B-4 | 250 | 1/3 | 1400 | 0.62 | 60 | 1.8-2 | 2-3.5 | 23 |
| 2 | JY2A-2 | 1100 | 1.5 | 2850 | 0.77 | 71 | 1.8-2 | 2-3.5 | 11.5 |
| | JY2B-2 | 750 | 1 | 2850 | 0.75 | 70 | 1.8-2 | 2-3.5 | 10.2 |
| | JY2A-4 | 750 | 1 | 1400 | 0.68 | 69 | 1.8-2 | 2-3.5 | 10.2 |
| | JY2B-4 | 550 | 3/4 | 1400 | 0.68 | 67 | 1.8-2 | 2-3.5 | 16 |

Note: The motor is designed according to power supplies 220V/110V,50Hz, Special design may be accommodated with the customers, particular requirements as 230V,50Hz or 220V/110V,60Hz,etc.

## INSTALLATION DIMENSIONS

| Frame Size | Mounting Dimensions (mm) | | | | | | | | | | | | | | | Frame Dimensions (mm) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | GA | H | K | M | N | P | R | S | T | AB | AC | AD | HD | L |
| 09 | 125 | 100 | 50 | 14 | 30 | 4 | 15.5 | 80 | 10 | 85 | 70 | 105 | 0 | M6 | 3 | 156 | 156 | 108 | 190 | 258 |
| 1 | 140 | 100 | 56 | 16 | 40 | 5 | 18 | 90 | 10 | 100 | 80 | 120 | 0 | M8 | 3 | 176 | 176 | 121 | 220 | 286 |
| 2 | 160 | 112 | 63 | 19 | 40 | 6 | 21.5 | 100 | 12 | 115 | 95 | 140 | 0 | M8 | 3 | 190 | 190 | 128 | 246 | 330 |

# YU

## YU SERIES SINGLE-PHASE RESISTANCE START DOUBLE-SPEED, STEEL HOUSING MOTOR

This motor is with double speed (4/6Pole), without capacitor and with special type of centrifugal switch. Starting performance is acted between capacitor start and capacitor running type motor. It is designed for driving fan, cooling system, water pumps etc, which need speed to be adjusted. It has good features of low noise, low vibration

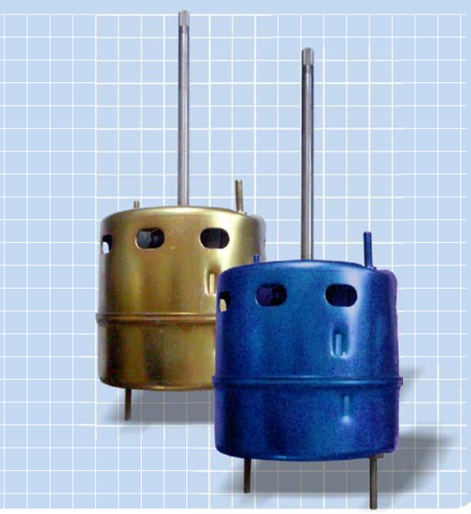
| Model | YU90-4/6-1/4 | YU90-4/6-1/3 | YU90-4/6-1/2 |
|---|---|---|---|
| Power (W) | 180/60 | 250/80 | 370/120 |
| Current (A) | 2.6 / 1.9 | 3.0 / 2.1 | 3.7 / 2.8 |
| Speed (RPM) | 1425/925 | 1425/925 | 1425/925 |
| T start / T n | 0.9 / 2.0 | 0.9 / 2.0 | 0.9 / 2.0 |
| T max. / T n | 1.5 / 1.8 | 1.5 / 1.8 | 1.5 / 1.8 |
| I st (A) | 13.0 | 13.0 | 16.5 |
| Insulation | B | B | B |
| Rot. Direction | CW | CW | CW |

# CR

## CR SERIES STEEL CASING MOTOR FOR COOLANT PUMP

### Main features

- Compact design
- Low noise
- Low vibration
- Self-lubrication bushing bearing system
- Different voltage & Frequency available



| Model | CR-7 | CR-9 | CR-11 | CR-18 | CR-25 |
|---|---|---|---|---|---|
| Voltage (V) | 127 / 220 | 127 / 220 | 127 / 220 | 127 / 220 | 127 / 220 |
| Frequency (Hz) | 60 / 50 | 60 / 50 | 60 / 50 | 60 / 50 | 60 / 50 |
| Speed (RPM) | 2400/3000 | 2400/3000 | 2400/3000 | 2400/3000 | 2400/3000 |
| Rot. Direction | CW/CCW | CW/CCW | CW/CCW | CW/CCW | CW/CCW |
| Insulation | B | B | B | B | B |
| Duty | S1 | S1 | S1 | S1 | S1 |
| Lift Head (m) | 2 | 2 | 2 | 2 | 2 |

# YTF

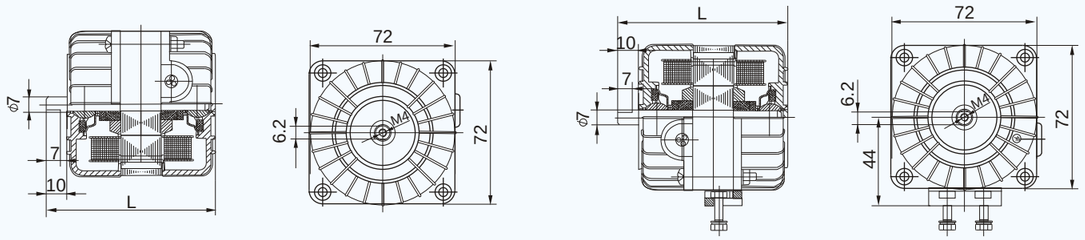
## SERIES INDUCTION MOTOR FOR FAN

YTF Series motor is a new kind patent electrical motor,As its salient poles are hided in its stator,this motor presents very soft operation characteristic and easy for speed control,This series motor is very economy.safety and credibility running,no pollution for environment in electro-magnetic interference and noise,It is a ideal driving motor for electrical appliance for domestic use.

### FEATURE

- Higher power factor up to 0.92-0.98%.
- More efficient 5-10% higher than common capacitor starting motor.
- With simple and reasonable construction and smaller its occupant,it is with very high reliably and easy to use,economic and pragmatic.
- Using powder-brass oil-retaining bearing and excellence against wearing, it has a very long-life (more than 15000 hours),operating at lower noise of about 30db,without Electro-magnetic interference.
- Insulation:class B,small starting current which only 1.1 times of its rated current,and lower rocked current of 1.1-1.2 time its rated current,So this motor can stay safe on operating.
- Easy for speed control by changing different capacitor,save energy greatly for fan and small pump using.

### INSTALLATION DIMENSIONS




| TYPE | Input | Rated Voltage(V) | Rated Current(A) | Power Factor | Frequency(Hz) | Speed(r/min) | Starting Current | Stall Current | Noise(dB) |
|---|---|---|---|---|---|---|---|---|---|
| YTF-16 | 16 | 220V | 0.08A | 0.91 | 50Hz | 700-2800 | 1.15-1.2 | 1.1-1.2 | ⩽30 |
| YTF-25 | 25 | 220V | 0.12A | 0.93 | 50Hz | 700-2800 | 1.15-1.2 | 1.1-1.2 | ⩽30 |
| YTF-30 | 30 | 220V | 0.15A | 0.91 | 50Hz | 700-2800 | 1.15-1.2 | 1.1-1.2 | ⩽30 |
| YTF-40 | 40 | 220V | 0.20A | 0.92 | 50Hz | 700-2800 | 1.15-1.2 | 1.1-1.2 | ⩽30 |
| YTF-50 | 50 | 220V | 0.24A | 0.94 | 50Hz | 700-2800 | 1.15-1.2 | 1.1-1.2 | ⩽30 |
| YTF-60 | 60 | 220V | 0.30A | 0.93 | 50Hz | 700-2800 | 1.15-1.2 | 1.1-1.2 | ⩽30 |
| YTF-70 | 70 | 220V | 0.34A | 0.92 | 50Hz | 700-2800 | 1.15-1.2 | 1.1-1.2 | ⩽30 |
| YTF-90 | 90 | 220V | 0.44A | 0.93 | 50Hz | 700-2800 | 1.15-1.2 | 1.1-1.2 | ⩽30 |
| YTF-120 | 120 | 220V | 0.59A | 0.93 | 50Hz | 700-2800 | 1.15-1.2 | 1.1-1.2 | ⩽30 |
| YTF-150 | 150 | 220V | 0.47A | 0.92 | 50Hz | 700-2800 | 1.15-1.2 | 1.1-1.2 | ⩽30 |
| YTF-180 | 180 | 220V | 0.89A | 0.92 | 50Hz | 700-2800 | 1.15-1.2 | 1.1-1.2 | ⩽30 |
| YTF-200 | 200 | 220V | 0.98A | 0.93 | 50Hz | 700-2800 | 1.15-1.2 | 1.1-1.2 | ⩽30 |
| YTF-220 | 220 | 220V | 1.06A | 0.94 | 50Hz | 700-2800 | 1.15-1.2 | 1.1-1.2 | ⩽30 |
| YTF-250 | 250 | 220V | 1.20A | 0.94 | 50Hz | 700-2800 | 1.15-1.2 | 1.1-1.2 | ⩽30 |
| YTF-280 | 280 | 220V | 1.37A | 0.93 | 50Hz | 700-2800 | 1.15-1.2 | 1.1-1.2 | ⩽30 |
| YTF-350 | 350 | 220V | 1.73A | 0.92 | 50Hz | 700-2800 | 1.15-1.2 | 1.1-1.2 | ⩽30 |

Stream®
Sign of Quality

## SINGLE-PHASE / THREE PHASE AC ALTERNATOR

ST

STC

FD

TZH

# ALTERNATOR

# ST

## SERIES SINGLE-PHASE A.C. SYNCHRONOUS GENERATOR

ST series generators are mainly designed to serve as power generating unit for lighting purpose in ships,towns or villages and house-hold electric appliances. The construction of the generators is drip-proof type,IP21,salient-pole rotating field self excitation and constant voltage type.The generator interior is made of high quality magnetic and electrical materials.insulation for stator and rolor is class B or F.

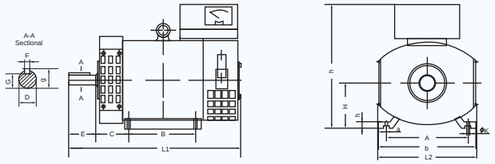
The generators are elegant in appearance,tight in construction and easy maintenance.IEC standard are adopted on dimension,Which are suitable for using in Australia,Europe,America and other countries with the end covers to be model B.The generators are made as per standard JB/T3320.2-2000.And in conformity to IEC34-1.

### ENVIRONMENT CONDITIONS

Under the following environment,the generator could run continuously:

- Altitude:not exceed 1000m.
- Cooling air temperature:258~313K(-15℃~40℃).
- Relative air humidity:not exceed 90%.

### INSTALLATION DIMENSIONS

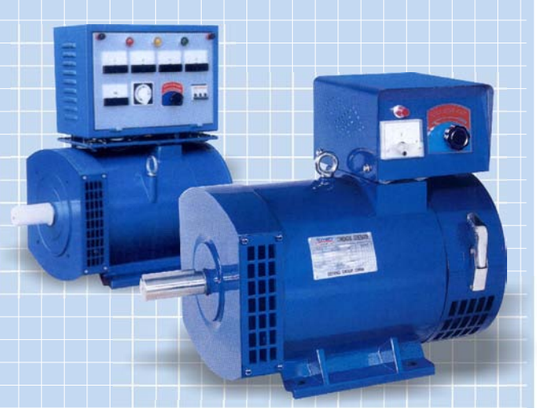



| Type | Output(kw) | Current(a) | | Voltage(v) | | Power Factor(cos) | Pole Numbei | Speed (r.p.m) | Freq. (hz) |
|---|---|---|---|---|---|---|---|---|---|
| | | Series Connection | Parallel Connection | Series Connection | Parallel Connection | | | | |
| ST-1 | 1 | 4.35 | 8.7 | 230 | 115 | 1.0 | 4 | 1500/1800 | 50/60 |
| ST-2 | 2 | 8.7 | 17.4 | 230 | 115 | 1.0 | 4 | 1500/1800 | 50/60 |
| ST-3 | 3 | 13 | 26 | 230 | 115 | 1.0 | 4 | 1500/1800 | 50/60 |
| ST-5 | 5 | 21.8 | 43.5 | 230 | 115 | 1.0 | 4 | 1500/1800 | 50/60 |
| ST-7.5 | 7.5 | 32.6 | 65.2 | 230 | 115 | 1.0 | 4 | 1500/1800 | 50/60 |
| ST-10 | 10 | 43.5 | 87 | 230 | 115 | 1.0 | 4 | 1500/1800 | 50/60 |
| ST-12 | 12 | 52.2 | 104 | 230 | 115 | 1.0 | 4 | 1500/1800 | 50/60 |
| ST-15 | 15 | 65.3 | 130 | 230 | 115 | 1.0 | 4 | 1500/1800 | 50/60 |
| ST-20 | 20 | 87 | 174 | 230 | 115 | 1.0 | 4 | 1500/1800 | 50/60 |
| ST-24 | 24 | 104 | 208 | 230 | 115 | 1.0 | 4 | 1500/1800 | 50/60 |

| Type | Output (kw) | Installing Dimensions(mm) | | | | | | | | | | Overall Dimensions(mm) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | H | A | B | C | D | E | F | G | g | K | a | b | H1 | h | L1 | L2 |
| ST-1 | 1 | 132 | 216 | 178 | 89 | 32 | 80 | 10 | 27 | 34.8 | 12 | 34 | 250 | 18 | 384 | 480 | 270 |
| ST-2 | 2 | 132 | 216 | 178 | 89 | 32 | 80 | 10 | 27 | 34.8 | 12 | 34 | 250 | 18 | 385 | 480 | 270 |
| ST-3 | 3 | 132 | 216 | 178 | 89 | 32 | 80 | 10 | 27 | 34.8 | 12 | 34 | 250 | 18 | 384 | 480 | 270 |
| ST-5 | 5 | 160 | 254 | 254 | 108 | 38 | 80 | 10 | 33 | 40.8 | 15 | 50 | 310 | 25 | 440 | 580 | 325 |
| ST-7.5 | 7.5 | 160 | 254 | 254 | 108 | 38 | 80 | 10 | 33 | 40.8 | 15 | 50 | 310 | 25 | 440 | 580 | 325 |
| ST-10 | 10 | 180 | 279 | 203 | 121 | 42 | 110 | 12 | 37 | 44.8 | 15 | 60 | 339 | 25 | 480 | 610 | 365 |
| ST-12 | 12 | 180 | 279 | 203 | 121 | 42 | 110 | 12 | 37 | 44.8 | 15 | 60 | 339 | 25 | 480 | 610 | 365 |
| ST-15 | 15 | 200 | 318 | 228 | 133 | 48 | 110 | 14 | 42.5 | 51.2 | 19 | 60 | 378 | 30 | 540 | 660 | 400 |
| ST-20 | 20 | 200 | 318 | 228 | 133 | 48 | 110 | 14 | 42.5 | 51.2 | 19 | 60 | 378 | 30 | 540 | 660 | 400 |
| ST-24 | 24 | 200 | 318 | 228 | 133 | 48 | 110 | 14 | 42.5 | 51.2 | 19 | 60 | 378 | 30 | 540 | 660 | 400 |

# STC

## SERIES THREE-PHASE A.C. SYNCHRONOUS GENERATOR



STC series generators are used in town,countryside,worksites,villages and pastures as emergence power source.The generators are drip-proof with rotary field type,IP23,Insulation Class: B or F,adopting harmonic excitation system,safe and reliable using,easy operation and maintenance.

The generators are three-phase,four-wire type,adopting star connection with neutral point.The rated line voltage is 400v,phase voltage 230v.frequency 50Hz. power factor 0.8(lag).We can provide 60HZ and the other voltage's generator according to the customer's request.

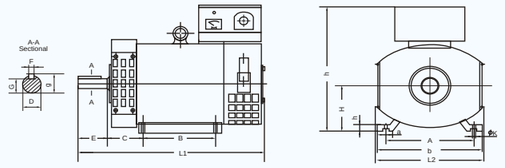
They can be coupled with a prime mover directly or through v-belt making right or reverse continuous rotation at the rated speed.When the rotation speed of prime mover changes 3%or so and load varies in the range of 0~100% Cos? 0.8~1.0,the generators offer constant coltage,when sudden change (increase or decrease)of load,the generator will soon retum to their normal working state,at the same time,without any starting device the generator can directly start an unloaded squirrel cage induction motor. The generators are made as per standard JB/T8981-1999.And in conformity to IEC34-1.

### ENVIRONMENT CONDITIONS

Under the following environment,the generator could run continuously:

- Altitude:not exceed 1000m.
- Cooling air temperature:258~313K(-15℃~40℃).
- Relative air humidity:not exceed 90%.

### INSTALLATION DIMENSIONS




| Type | Output | | Voltage(V) | Current(A) | Power factor(cos) | Speed(r/min) | Freq.(Hz) | Pole Numbei |
|---|---|---|---|---|---|---|---|---|
| | KVA | KW | | | | | | |
| STC-3 | 3.8 | 3 | 400/230 | 5.4 | 0.8 | 1500 | 50 | 4 |
| STC-5 | 6.3 | 5 | 400/230 | 9 | 0.8 | 1500 | 50 | 4 |
| STC-7.5 | 9.4 | 7.5 | 400/230 | 13.5 | 0.8 | 1500 | 50 | 4 |
| STC-8 | 10 | 8 | 400/230 | 14.4 | 0.8 | 1500 | 50 | 4 |
| STC-10 | 12.5 | 10 | 400/230 | 18.1 | 0.8 | 1500 | 50 | 4 |
| STC-12 | 15 | 12 | 400/230 | 21.7 | 0.8 | 1500 | 50 | 4 |
| STC-15 | 18.8 | 15 | 400/230 | 27.1 | 0.8 | 1500 | 50 | 4 |
| STC-20 | 25 | 20 | 400/230 | 36.1 | 0.8 | 1500 | 50 | 4 |
| STC-24 | 30 | 24 | 400/230 | 43.3 | 0.8 | 1500 | 50 | 4 |
| STC-30 | 37.5 | 30 | 400/230 | 54.1 | 0.8 | 1500 | 50 | 4 |
| STC-40 | 50 | 40 | 400/230 | 72.2 | 0.8 | 1500 | 50 | 4 |
| STC-50 | 62.5 | 50 | 400/230 | 90.2 | 0.8 | 1500 | 50 | 4 |

| Type | Output | | Installing dimensions(mm) | | | | | | | | | | Overall dimensions(mm) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | kVA | kW | H | A | B | C | D | E | F | G | g | K | a | b | H1 | h | L1 | L2 |
| STC-3 | 3.8 | 3 | 132 | 216 | 178 | 89 | 32 | 80 | 10 | 27 | 34.8 | 12 | 34 | 250 | 18 | 400 | 480 | 270 |
| STC-5 | 6.3 | 5 | 160 | 254 | 254 | 108 | 38 | 80 | 10 | 33 | 40.8 | 15 | 50 | 310 | 25 | 455 | 580 | 325 |
| STC-7.5 | 9.4 | 7.5 | 160 | 254 | 254 | 108 | 38 | 80 | 10 | 33 | 40.8 | 15 | 50 | 310 | 25 | 455 | 580 | 325 |
| STC-8 | 10 | 8 | 160 | 254 | 254 | 108 | 38 | 80 | 10 | 33 | 40.8 | 15 | 50 | 310 | 25 | 455 | 580 | 325 |
| STC-10 | 12.5 | 10 | 180 | 279 | 203 | 121 | 42 | 110 | 12 | 37 | 44.8 | 15 | 60 | 339 | 25 | 495 | 610 | 365 |
| STC-12 | 15 | 12 | 180 | 279 | 203 | 121 | 42 | 110 | 12 | 37 | 44.8 | 15 | 60 | 339 | 25 | 495 | 610 | 365 |
| STC-15 | 18.8 | 15 | 200 | 318 | 228 | 133 | 48 | 110 | 14 | 42.5 | 51.5 | 19 | 60 | 378 | 30 | 540 | 660 | 400 |
| STC-20 | 25 | 20 | 200 | 318 | 228 | 133 | 48 | 110 | 14 | 42.5 | 51.5 | 19 | 60 | 378 | 30 | 540 | 660 | 400 |
| STC-24 | 30 | 24 | 200 | 318 | 228 | 133 | 48 | 110 | 14 | 42.5 | 51.5 | 19 | 60 | 378 | 30 | 540 | 660 | 400 |
| STC-30 | 37.5 | 30 | 225 | 356 | 286 | 149 | 60 | 140 | 18 | 53 | 64 | 19 | 65 | 421 | 32 | 610 | 770 | 452 |
| STC-40 | 50 | 40 | 225 | 356 | 286 | 149 | 60 | 140 | 18 | 53 | 64 | 19 | 65 | 421 | 32 | 610 | 770 | 452 |
| STC-50 | 62.5 | 50 | 225 | 356 | 311 | 149 | 60 | 140 | 18 | 53 | 64 | 19 | 65 | 421 | 32 | 610 | 810 | 452 |

# TZH

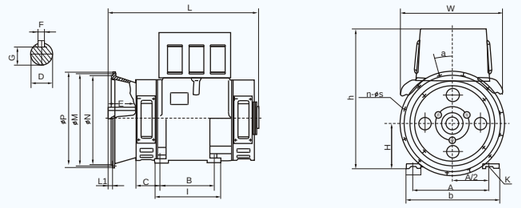
## SERIES THREE-PHASE COMPOUND EXCITATION A.C. SYNCHRONOUS GENERATOR

TZH series generators are made as per standard JB/T8981-1999.And in conformity to IEC34-1.Protection class:IP21,Insulation class B or F,The rotor structure is Concealed type,Performance is more reliable.
TZH series generators have five advantages comparing with STC series generators.Compound excitation,simple cirouit,high reliability,easy maintenance. Excellent dynamic characteristics,when load or unload suddenly,the circuit's light will not twinkle.Strong starting system,even the motors only with ite 70% capacity volume can be directly started and the switch will not trip.
Approaching sine voltage wave and regulated power supply,output voltage can be safely used on computers.The deviation of the 3-phase line voltage will be less than 3% when the generators undertake unbalanced loading.

### ENVIRONMENT CONDITIONS

Under the following environment,the generator could running continuously:

- Altitude:not exceed 1000m.
- Cooling air temperature:258~313K(-15℃~40℃).
- Relative air humidity:not exceed 90%.

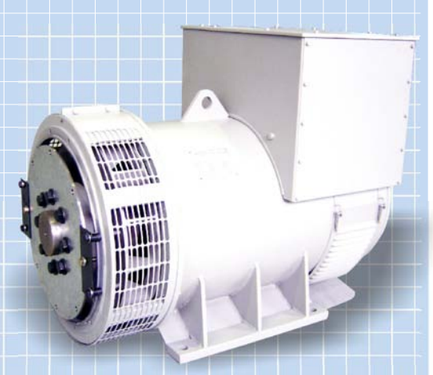



## INSTALLATION DIMENSIONS

| Type | Frame numbei | Rated power | | Rated current(A) | Rated voltage(V) | Rated speed(r/min) | Freq.(Hz) | COS | Bearibg Type | | Pole Eff(%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | KW | KVA | | | | | | DE | NDE | |
| TZH-30 | 225S | 30 | 37.5 | 54.1 | 400/230 | 1500 | 50 | 0.8 | 2312 | 311 | 88.0 |
| TZH-40 | 225M | 40 | 50 | 72.2 | 400/230 | 1500 | 50 | 0.8 | 2312 | 311 | 89.0 |
| TZH-50 | 225L | 50 | 62.5 | 90.2 | 400/230 | 1500 | 50 | 0.8 | 2312 | 311 | 89.5 |
| TZH-64 | 250M | 64 | 80 | 115 | 400/230 | 1500 | 50 | 0.8 | 2315 | 313 | 90.5 |
| TZH-75 | 250L | 75 | 93.75 | 135 | 400/230 | 1500 | 50 | 0.8 | 2315 | 313 | 90.8 |
| TZH-90 | 280S | 90 | 112.5 | 162 | 400/230 | 1500 | 50 | 0.8 | 2317 | 316 | 91.0 |
| TZH-120 | 280L | 120 | 150 | 217 | 400/230 | 1500 | 50 | 0.8 | 2317 | 316 | 91.5 |
| TZH-150 | 355S | 150 | 187.5 | 271 | 400/230 | 1500 | 50 | 0.8 | 2319 | 318 | 92.0 |
| TZH-200 | 355M | 200 | 250 | 361 | 400/230 | 1500 | 50 | 0.8 | 2319 | 318 | 92.3 |
| TZH-250 | 355L | 250 | 312.5 | 451 | 400/230 | 1500 | 50 | 0.8 | 2319 | 318 | 92.5 |

| Type | Mounting Dimensins(mm) | | | | | | | | | | | | | | Overall Dimensions | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | H | A | A/2 | B | C | D | E | F | G | K | N | M | a | n-s | P | L | I | L1 | W | b | h |
| TZH-30 | 225 | 356 | 178 | 286 | 163 | 60 | 140 | 18 | 53 | 19 | 532 | 552 | 15 | 12-12 | 572 | 770 | 346 | 18 | 530 | 421 | 700 |
| TZH-40 | 225 | 356 | 178 | 311 | 163 | 60 | 140 | 18 | 53 | 19 | 532 | 552 | 15 | 12-12 | 572 | 810 | 346 | 18 | 530 | 421 | 700 |
| TZH-50 | 225 | 356 | 178 | 356 | 163 | 60 | 140 | 18 | 53 | 19 | 532 | 552 | 15 | 12-12 | 572 | 870 | 371 | 18 | 530 | 421 | 700 |
| TZH-64 | 250 | 406 | 203 | 349 | 168 | 70 | 140 | 20 | 62.5 | 24 | 532 | 552 | 15 | 12-12 | 572 | 905 | 453 | 18 | 560 | 560 | 800 |
| TZH-75 | 250 | 406 | 203 | 406 | 168 | 70 | 140 | 20 | 62.5 | 24 | 532 | 552 | 15 | 12-12 | 572 | 945 | 490 | 18 | 560 | 560 | 800 |
| TZH-90 | 280 | 475 | 228.5 | 368 | 190 | 80 | 170 | 22 | 71 | 24 | 532 | 552 | 15 | 12-12 | 572 | 1040 | 438 | 18 | 640 | 580 | 885 |
| TZH-120 | 280 | 475 | 228.5 | 457 | 190 | 80 | 170 | 22 | 71 | 24 | 532 | 552 | 15 | 12-12 | 572 | 1120 | 517 | 18 | 640 | 580 | 885 |
| TZH-150 | 355 | 610 | 305 | 500 | 254 | 90 | 170 | 25 | 81 | 28 | 605 | 625 | 15 | 12-14 | 645 | 1270 | 585 | 22 | 860 | 720 | 1020 |
| TZH-200 | 355 | 610 | 305 | 500 | 254 | 90 | 170 | 25 | 81 | 28 | 605 | 625 | 15 | 12-14 | 645 | 1270 | 585 | 22 | 860 | 720 | 1020 |
| TZH-250 | 355 | 610 | 305 | 560 | 254 | 90 | 170 | 25 | 81 | 28 | 605 | 625 | 15 | 12-14 | 645 | 1385 | 645 | 22 | 860 | 720 | 1020 |

# FD



## FD SERIES SELF-EXCITED, SELF-REGULATING, BRUSHLESS GENERATOR

This new series of alternators is the result of our long experience in this sector and of diligent studies and researches aiming to keep pace with the technological development of an era where technology is the winning card.
The entire series is manufactured according to and complies with the most common specifications such as CEI 2-3, IEC 34-1, EN 60034-1, VDE 0530, BS 4999-5000, CAN/CSA-C22.2N 14-95; Special versions are available on request to meet specific specifications and regulations.

### APPLICATIONS

The new FD series has been designed to meet both the traditional requirements of the industryand the more technological requirements of applications such as telecommunications, co-generation,army, aeronautics and marine sectors

### RANGE

The FD generators are available with 50/60Hz frequency, with 4poles ranging from 8.1 to 1200KVAwith single or double supports.
In order to couple them with the prime mover it is possible to choose among a wide range of flanges and couplings.

### STANDARD FEATURE

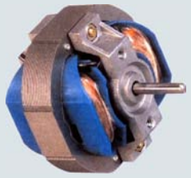
Advanced Designed / Reliable Quality / High Configration Parts Adopted

- Cooperation with American Basler, the leader in electrical excitation system field.
- Install with original American Basler AVC63 series AVR
- Adopted high-efficient single-direction rotated fan
- Single or double bearings are available, options for all kinds of adaptors and disc plates
- Standard "H" Class Insualtion
- convenient installation and maintenance for lead-end rotated bodies and adaptor connected bolts
- With full sealed free-maintenance bearing
- Auxiliary winding in excitation system as option
- Conform with BS5000, IEC34, VDE050, CSAC22.2-100 Standard

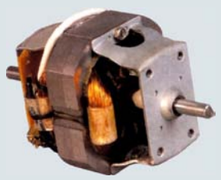
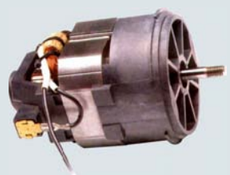
| Model | Rrime power | |
|---|---|---|
| | KVA | KW |
| FD1A | 8.1 | 6.5KW |
| FD1B | 11.0 | 8.8KW |
| FD1C | 13.5 | 10.8KW |
| FD1D | 16.0 | 12.8KW |
| FD1E | 22.5 | 18KW |
| FD1F | 27.5 | 22KW |
| FD1G | 31.3 | 25KW |
| FD2A | 37.5 | 30KW |
| FD2B | 50.0 | 40KW |
| FD2C | 62.5 | 50KW |
| FD2D | 87.5 | 70KW |
| FD3A | 100.0 | 80KW |
| FD3B | 112.5 | 90KW |
| FD3C | 125.0 | 100KW |
| FD3D | 150.0 | 120KW |
| FD3E | 187.5 | 150KW |
| FD3F | 200.0 | 160KW |
| FD4S | 250.0 | 200KW |

| Model | Rrime power | |
|---|---|---|
| | KVA | KW |
| FDMS | 293.8 | 235KW |
| FD4M | 312.5 | 250KW |
| FD4LS | 343.8 | 275KW |
| FD4L | 375.0 | 300KW |
| FD5S | 450.0 | 360KW |
| FD5M | 500.0 | 400KW |
| FD5L | 625.0 | 500KW |
| FD6A | 800.0 | 640KW |
| FD6B | 912.5 | 730KW |
| FD6C | 1025.0 | 820KW |
| FD6D | 1137.5 | 910KW |

# MICRO MOTOR

| YJ58 Series AC Shaded Pole Motor | YJ58 Series AC Shaded Pole Motor | YJ61 Series AC Shaded Pole Motor | YJ62 Series AC Shaded Pole Motor |
|---|---|---|---|
|  |  |  |  |
| Exhaust-fan,Fan-heater. | Exhaust-fan,Fan-heater. | Microwave Oven,Fan-heater. | Microwave Oven,Fan-heater. |

| YJ58 Series AC Shaded Pole Motor | YJ82 Series AC Shaded Pole Motor | YJ48 Series AC Shaded Pole Motor | YJ48 Series AC Shaded Pole Motor |
|---|---|---|---|
|  |  |  |  |
| Sterilizing Cupboard. | Refrigerator,Exhaust-fan. | Water pump motor specially fo r air-conditioner. | Humidifier,Dishwasher,Air-condifioner,Fan-heater. |

| HC88 Series AC Universal Motor | HC88 Series AC Universal Motor | HC55 Series AC Universal Motor | HC70 Series AC Universal Motor |
|---|---|---|---|
|  |  |  |  |
| Lawn mower,edge trimmer,blower. | Lawn mower,edge trimmer,blower. | Edge trimmer,grass trimmer. | Polisher,Mixer,Juicer and vacuum cleaner. |

| HC55 Series AC Universal Motor | HC55 Series AC Universal Motor | HC66 Series AC Vacuum Cleaner Motor | HC82 Series AC Vacuum Cleaner Motor |
|---|---|---|---|
|  |  |  |  |
| Hair dryer,Polisher,Mixer,Juicer, Vacuum cjeaner,Food processor. | Hair dryer,Polisher,Mixer,Juicer, Vacuum cjeaner,Food processor. | Vacuum cleaner | Vacuum cleaner |

## MOTOR SELECTION

*To determine the type of motor suitable for any particular single-phase application, it is necessary to know the advantages and disadvantages of each type.*
*Some typical applications and reasons for using a particular type are given below.*

| Duty | Motor | | Reason |
|---|---|---|---|
| Compressor | Cap Start | — | High Starting torque |
| High Inertia Blower | Cap. St. & Run | — | Low run-up period |
| Centrifugal Pumps | Split Phase | — | Low starting torque |
| | Cap. St. & Run | — | acceptable & in low HP, shaded pole may be satisfactory. Split-phase is normal. Cap st. Run may be used where stg. Is critical. Use Cap. St. & run if there are objections to C.F. gear. |
| | Cap. Start | — | Necessary above 370 watt Advantage of lower starting currents than split-phase. |
| Fan | Shaded Pole | — | The remarks above against Centrifugal Pumps apply equally to fans. |
| Centrifugal | Split-Phase | | |
| or Axial | Cap. St. & Run | | |
| | Cap Start | | |
| Fans | Shaded Pole | — | See paragraph on Speed Variation. |
| Variable Speed | Cap. St. & Run | | |
| Geared Units | Split-Phase | — | Generally acceptable. |
| | Cap Start | — | Necessary above 370 watts. |
| Washing Machines | Split-Phase | — | Normally acceptable but high torque or special characteristics sometimes necessary. |
| | Cap. Start | — | Usual on automatics. |
| Oil Burners | Split-Phase | — | Normally acceptable up to 370 watts. Capacitor Start above 370 watts. |
| Office Machinery | Split Phase | | |

## ENCLOSURES I.P. NUMBERS

| Desig-nation | 1st Numeral | 2st Numeral | General Description |
|---|---|---|---|
| | Protection against contact and against ingress of foreign bodies | Protection against water | |
| I.P.21 | Protection against contact by finger with electrically live or moving parts inside the enclosure. Protection against ingress or solid foreign bodies with a diameter greater than 12 mm | Dripping water falling vertically | Drip proof |
| I.P.22 | | Dripping water falling at an angle up to 15° from the vertical | Drip proof |
| I.P.23 | | Water falling as spray at an angle up to 60° from the vertical | Drip proof |
| I.P.44 | Protection against contact with live or moving parts by tools, wires or other objects of thickness greater than 1 mm. Protection against the ingress of solid foreign bodies with a diameter greater than 1 mm | Water splashed against the machine from any direction shall have no harmful effect | T.E.F.V. or T.E.N.V. |
| I.P.55 | Complete protection against contact with live or moving parts. Protection against harmful deposits of dust. The ingress of dust is not totally prevented, but does not accumulate in an amount sufficient to impair operation of the machine | Water projected by a nozzle against the machine from any direction shall have no harmful effect | T.E.F.V. or T.E.N.V. Weatherproof or Dustproof or Hoseproof |
| I.P.56 | | Machine protected against conditions on a ship's deck | T.E.N.V. Deck Watertight |

## TROUBLE SHOOTING

| Symptom | Possible Causes | Cure |
|---|---|---|
| **SYMPTOMS YOU CAN SEE** | | |
| 1 Motor won't start | Usually power trouble-single-phasing at starter perhaps a fuse blown. | Check source of power supply DON ' T merely try to make it go, while motor sits there and "fries". |
| | Load too heavy. Disconnect motor to see if it starts without load. | Reduce load-or replace with motor of greater horse power. |
| **SYMPTOMS YOU CAN HEAR** | | |
| 2 Excessive hum | Uneven air-gap. Measure with feelers. | Replace bearings-before introduction of scraping noise indicates rotor is rubbing against stator. |
| | Winding fault, short circuit. | Check, and repair if necessary by electrical rewinder. |
| | Unbalanced rotor. | Re-balance rotor-dynamically if possible. |
| 3 Regular clicking | Foreign matter in air gap. | Take out rotor, remove matter. |
| 4 Rapid knocking (Oil bearings) | Misalignment - probably causing shoulder of shaft to pound periodically against bearing end. Worn bearing. | Re-align and re-level set until knocking disappears. Fit new bearing. |
| 5 Knocking Rumbling (Ball bearings) | Bearing worn due to lack of lubrication or excessive mechanical overload. | Replace bearings and put in new grease of recommended grade. |
| | Severe thrust. | (as above). |
| | Double location if two ball bearings are fitted. | Check cap spigots and reduce at one end if necessary, so that only one bearing is located to take end thrust. |
| | Bearings slack in housings. | Fit new end-shield. |
| | Bearing moving on shaft. | Change bearing for one with tighter bore. |
| | Foreign matter in grease or bearing housing. | Wash in diesel oil or equal and put in new grease. |
| (Roller bearings) | Bearing worn due to lack of lubrication. Outer race of bearing scored. | Replace bearing. If old bearing, replace, if bearing is new or recently fitted, check fitting of the race into the end-shield and of the end-shield into the stator. |
| **SYMPTOMS YOU CAN FEEL** | | |
| 6 Vibration | Misalignment. | Re-align set. |
| | Vibration in driven machine. Run motor disconnected for check. | Eliminate source in machine, if possible A change to a flexible belt drive may help. |
| 7 Vibration-following motor repair | Rotor out of balance, due to holes drilled or weights shifted due to new rotor coil or coils. | Re-balance rotor-dynamically if possible. |
| 8 Motor over-heating. (Check with thermometer -do not depend on hand). | Overload. Measure load; compare with nameplate rating. | Check for excessive friction in motor, drive or machine. Reduce load, or replace with motor of greater capacity. |
| | Dirt in motor. Check flow of ventilating air. | Blow out motor. Use harmless cleaning solvent on wound section if necessary. |
| | Rotor rubbing on stator. | Replace bearings. |
| | Shorted star or windings. | Test with ammeter and correct. |
| | Earth (ground). | Locate with test lamp or insulation tester and repair. |
| 9 Bearing overheating (Ball and roller bearings). | Misalignment of bearing | Check all machined faces for correct seating of bearings. |
| | Bearing on verge of collapse. | Inspect and replace if necessary. |
| | Over-greasing of bearings. | Sufficient grease should be placed in the bearing to allow easy running, but not packed so tightly that bearing has to plough through. Avoid packing grease too tightly into motor bearings where speed is 3,000 r.p.m. Or higher. |
| (Oil bearings) | Misalignment. | Re-align. In all cases of bearings overheating-keep shaft turning until bearing is cooled. . . To prevent "freezing". |
| | Too much tension in chain or belt drive. | Reduce tension |
| | Excessive end thrust. | Reduce thrust from drive or machine. (Shaft should be permitted reasonable "axial" float). Or if motor is off level, shim-up lower end to take thrust off its bearing. |

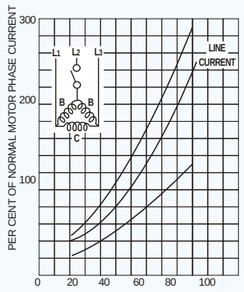
## TYPES OF MOTOR BURNOUTS

(1) **One coil only of one phase burnt out.** This could possibly be a fault in manufacture; the failure occurs within weeks of installation.
(2) **One phase completely burnt out.** This is the usual failure on a Star-Delta or Delta connected motor and is invariably due to an external fault, for instance, a 'blown' fuse. This is described in detail in the diagram below.
(3) **Two phases completely burnt out.** This can be traced to the same fault as 2, if the motor is Star connected.
(4) **Motor completely burnt out.** This is almost invariably due to severe and sustained overload. If the motor is burnt out when stalled, this can be raced by the burning marks which appear on the slots of the rotor.

### FLICKERING LIGHTS

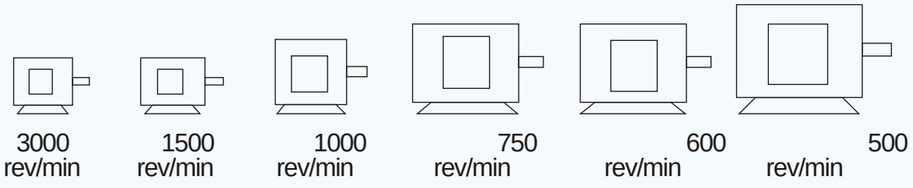
Should a fairly large three-phase motor be connected in the Works, and the lights commence to flicker, suspect the rotor of the motor. The effect of one phase out of circuit on a three-phase motor on load is to generate a frequency different from that of the supply, and this can be easily noted by its effect on the lighting system. A fault on a rotor can usually be traced to one of the following-loose rotor lead, faulty rotor contact, dirty slip ring, or poor connection on short circuiting gear.

## MOTOR BURNOUTS




The accompanying diagram shows the circuit conditions in a normal three-phase Star-Delta wound motor, with one phase open, such as could be caused by a 'blown' fuse-this incidentally being the usual cause of a burnout. It will be observed that even at half-loading under these conditions, the circuit 'C' is carrying full load current.
Full load with an open phase means that circuit 'C' has to carry nearly three times normal current, and under these conditions would be burnt out in a short time. The two phases 'B' would then be in series and actually carry little more than full load current.

## EFFECT OF SPEED ON MOTOR CHARACTARISTICS




Relative sizes of a 4kW motor wound for various synchronous speeds.

| Motor Speeds | 3000 | 1500 | 1000 | 750 | 600 | 500 |
|---|---|---|---|---|---|---|
| Frame Size | D112M | D112M | D132M | D160M | D160M | D180M |
| No. of Poles | 2p | 4p | 6p | 8p | 10p | 12p |
| Efficiency | 82% | 83% | 83% | 82% | 81% | 80% |
| Power Factor | 86 | 81 | 80 | 74 | 67 | 68 |
| Weight | 1·0 | 1·0 | 1·2 | 1·9 | 2·1 | 3·2 |

### EFFECTS OF VOLTAGE VARIATION

Electrical design aims at obtaining the optimum performance figures at rated voltage. Changes in voltage affect the following motor characteristics, speed, torque, current, efficiency, power factor and temperature rise. The statutory supply voltage regulations allow the voltage to vary ±6% from the declared voltage. The effects of these changes in voltage on the motor characteristics when operating at the extremes of the voltage are shown in the following table. These figures are quoted for guidance only since they can be affected by the polarity and kW rating of the motor.

| Characteristic | Voltage +6% | Voltage −6% |
|---|---|---|
| Full Load Speed | 0.5% increase | 0.75% decrease |
| Locked Rotor Torque | 12% 〃 | 11% 〃 |
| Locked Rotor Current | 6% 〃 | 5.5% 〃 |
| Full Load Current | 4% decrease | 5% increase |
| Efficiency ½ F.L. | 1.5% 〃 | 2% 〃 |
| ¾ F.L. | 1% 〃 | Negligible Change |
| 1/1F.L. | Negligible Change | 1% decrease |
| Power Factor ½ F.L. | 4% decrease | 4% increase |
| ¾ F.L. | 3% decrease | 2% increase |
| 1/1F.L. | 2% 〃 | 1% 〃 |
| Winding Temp. Rise | 4% 〃 | 6% 〃 |

### AVOIDING BREAKDOWNS

Electric motors are reliable machines, but the following hints may prove of service. Avoid where possible-

(1) Damp and falling moisture.
(2) Dirt, especially fluff, which may cause blocked ventilation.
(3) Inaccessible positions in case anything does go wrong.
(4) Excessive heat. The permissible temperature rise of a motor with Class B insulation is 80℃ (measured by resistance). Surrounding air (ambient) temperature must not exceed 40℃. A motor may overheat if it is over-loaded or if it is located in an area where the ambient temperature exceeds 40℃. Other causes of overheating include blocked ventilation and duties which impose frequent or prolonged starting periods.

## EFFICIENCY, POWER FACTOR AND FULL LOAD CURRENTS OF A.C. MOTORS

The figures given below are approximate only and based on Four Pole Motors running at 1500 rev/min. As the speed lowers the Power Factor and Efficiency for a given horse power tends to fall also.

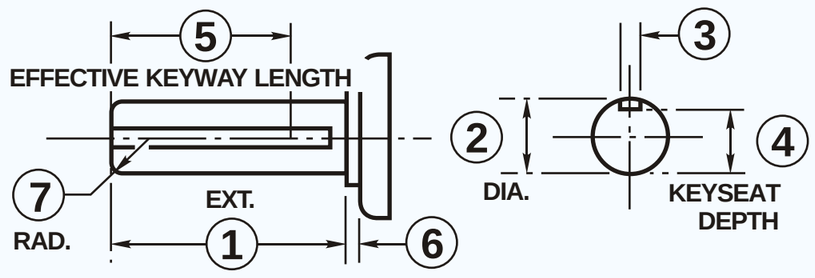
The figures given should be easily obtainable on any good commercial machine.

The Efficiency of a well designed Induction Motor is approximately constant between 75 per cent and 100 per cent of Full Load.

The current required for any Alternating Current Motor can be obtained from the following equations.

| kW | FULL LOAD AMPS | | EFFICIENCY F.L. | | POWER FACTOR F.L. | |
|---|---|---|---|---|---|---|
| | 3 Ph 415 V | 1 Ph 240 V | 3 Phase | 1 Phase | 3 Phase | 1 Phase |
| 0.75 | 1.93 | 7.7 | 77 | 67 | .70 | .61 |
| 1.1 | 2.7 | 10.5 | 77 | 70 | .74 | .63 |
| 1.5 | 3.5 | 13.0 | 80 | 65 | .74 | .74 |
| 2.2 | 4.9 | 14.4 | 80 | 75 | .79 | .85 |
| 3.0 | 6.6 | 18.4 | 80 | 78 | .79 | .87 |
| 4.0 | 8.3 | 32.0 | 83 | 83 | .81 | .85 |
| 5.5 | 11.0 | - | 85 | - | .82 | - |
| 7.5 | 15.0 | - | 86 | - | .83 | - |
| 11.0 | 21.0 | - | 88 | - | .83 | - |
| 15.0 | 28.0 | - | 89 | - | .83 | - |
| 22.0 | 40.0 | - | 89 | - | .87 | - |
| 30.0 | 54.0 | - | 91 | - | .84 | - |
| 37.0 | 66.0 | - | 91 | - | .85 | - |
| 45.0 | 79.0 | - | 92 | - | .87 | - |
| 55.0 | 96.0 | - | 92 | - | .87 | - |
| 75.0 | 132.0 | - | 92 | - | .87 | - |
| 110.0 | 180.0 | - | 92.5 | - | .92 | - |
| 150.0 | 244.0 | - | 93 | - | .92 | - |

## B.S. METRIC MOTORS— SHAFT DIMENSIONS




### MILLIMETRES

| Frame | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | 7 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2Pole | 4,6,8 P | 2Pole | 4,6,8 P | 2Pole | 4,6,8 P | 2Pole | 4,6,8 P | 2Pole | 4,6,8 P | 2Pole | 4,6,8 P |
| D.71 | 30 | | 14 | | 5X5 | | 11 | | 14 | | 1.5 | 1.5875 |
| D.80 | 40 | | 19 | | 6X6 | | 15.5 | | 25 | | 1.5 | 1.5875 |
| D.90 | 50 | | 24 | | 8X7 | | 20.0 | | 32 | | 1.5 | 1.5875 |
| D.100 | 60 | | 28 | | 8X7 | | 23.9 | | 40 | | 1.6 | 1.5875 |
| D.112 | 60 | | 28 | | 8X7 | | 23.9 | | 40 | | 1.6 | 1.5875 |
| D.132 | 80 | | 38 | | 10X8 | | 33.0 | | 56 | | 1.6 | 1.5875 |
| D.160 | 110 | | 42 | | 12X8 | | 37.0 | | 80 | | 3.2 | 1.5875 |
| D.180 | 110 | | 48 | | 14X9 | | 42.5 | | 80 | | 4.8 | 1.5875 |
| D.200 | 110 | | 55 | | 16X10 | | 48.8 | | 80 | | 4.8 | 1.5875 |
| D.225 | 110 | | 55 | | 16X10 | | 48.8 | | 80 | | 12.0 | 1.5875 |
| D.250 | 140 | 140 | 60 | 60 | 18X11 | 18X11 | 53 | 53 | 110 | 110 | 11.0 | 1.5875 |
| D.280 | 140 | 140 | 65 | 70 | 18X11 | 20X12 | 58 | 62.5 | 110 | 110 | 3.0 | 1.5875 |
| D.315S-M | 140 | 170 | 65 | 80 | 18X11 | 20X12 | 58 | 71 | 110 | 140 | 3.0 | 1.5875 |
| D.315L | | 170 | | 85 | | 22X14 | | 76 | | 140 | 3.0 | 1.5875 |
| | | 170 | | 90 | | 25X14 | | 81 | | 140 | | |

## NOTICE:

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