

## YH2 Series High Slip Three Phase Induction Motors



- Frame sizes: 80 to 355      Rated output: 0.55 to 315kW
- Voltage: 380V                      Frequency: 50Hz
- Duty Cycle: S3
- Degree of protection: IP54

**Applications:** Various kinds of machine tools with large flywheel torque, unbalanced impact load and repetitive anticlockwise running, such as metalworking machine, hammering machine, shearer machine, punch press, hammering press etc.

**Features:** High starting torque, high slip, low starting current and soft mechanical properties.

### Performance Data

380V 50Hz

| Model                       | Output<br>kW | Full Load |              |                         |           |            |                         | The output at different FC<br>kW |      |      |      |      | LRA<br>FLA<br>LRC<br>I <sub>N</sub> | LRT<br>FLT<br>T <sub>st</sub><br>T <sub>N</sub> |
|-----------------------------|--------------|-----------|--------------|-------------------------|-----------|------------|-------------------------|----------------------------------|------|------|------|------|-------------------------------------|---|
|                             |              | RPM       | Current<br>A | Load Duration<br>FC (%) | Slip<br>% | Eff.<br>η% | Power<br>Factor<br>cosΦ | 15%                              | 25%  | 40%  | 60%  | 100% |                                     |   |
|                             |              |           |              |                         |           |            |                         |                                  |      |      |      |      |                                     |   |
| Synchronous speed 3000r/min |              |           |              |                         |           |            |                         |                                  |      |      |      |      |                                     |   |
| YH2-80M1-2                  | 0.75         | 2670      | 1.9          | 60                      | 11        | 71.0       | 0.86                    | 1.0                              | 0.9  | 0.8  | 0.75 | 0.65 | 5.5                                 | 2.7   |
| YH2-80M2-2                  | 1.1          | 2670      | 2.6          | 60                      | 11        | 73.0       | 0.87                    | 1.5                              | 1.3  | 1.2  | 1.1  | 1    | 5.5                                 | 2.7   |
| YH2-90S-2                   | 1.5          | 2670      | 3.7          | 40                      | 11        | 73.0       | 0.85                    | 1.8                              | 1.6  | 1.5  | 1.3  | 1.1  | 5.5                                 | 2.7   |
| YH2-90L-2                   | 2.2          | 2670      | 5.1          | 40                      | 11        | 75.5       | 0.86                    | 2.7                              | 2.4  | 2.2  | 2    | 1.8  | 5.5                                 | 2.7   |
| YH2-100L-2                  | 3            | 2700      | 6.9          | 40                      | 10        | 76.0       | 0.87                    | 3.8                              | 3.3  | 3    | 2.7  | 2.4  | 5.5                                 | 2.7   |
| YH2-112M-2                  | 4            | 2730      | 8.8          | 40                      | 9         | 77.5       | 0.89                    | 5.0                              | 4.4  | 4    | 3.6  | 3.2  | 5.5                                 | 2.7   |
| YH2-132S1-2                 | 5.5          | 2730      | 11.9         | 40                      | 9         | 78.0       | 0.90                    | 7.0                              | 6    | 5.5  | 5    | 4.4  | 5.5                                 | 2.7   |
| YH2-132S2-2                 | 7.5          | 2730      | 16.0         | 25                      | 9         | 78.5       | 0.91                    | 8.5                              | 7.5  | 6.7  | 6    | 5.3  | 5.5                                 | 2.7   |
| YH2-160M1-2                 | 11           | 2760      | 22.9         | 25                      | 8         | 81.0       | 0.90                    | 12.5                             | 11   | 9.8  | 8.8  | 7.8  | 5.5                                 | 2.7   |
| YH2-160M2-2                 | 15           | 2760      | 30.5         | 25                      | 8         | 82.0       | 0.91                    | 17.0                             | 15   | 13.5 | 12   | 10.6 | 5.5                                 | 2.7   |
| YH2-160L-2                  | 18.5         | 2760      | 37.4         | 25                      | 8         | 82.5       | 0.91                    | 21.0                             | 18.5 | 16.5 | 14.5 | 13   | 5.5                                 | 2.7   |
| Synchronous speed 1500r/min |              |           |              |                         |           |            |                         |                                  |      |      |      |      |                                     |   |
| YH2-80M1-4                  | 0.55         | 1305      | 1.7          | 60                      | 13        | 66.5       | 0.76                    | 0.75                             | 0.65 | 0.6  | 0.55 | 0.48 | 5.5                                 | 2.7   |
| YH2-80M2-4                  | 0.75         | 1305      | 2.2          | 60                      | 13        | 68.0       | 0.77                    | 1.0                              | 0.9  | 0.8  | 0.75 | 0.66 | 5.5                                 | 2.7   |
| YH2-90S-4                   | 1.1          | 1305      | 3.0          | 60                      | 13        | 70.0       | 0.80                    | 1.5                              | 1.4  | 1.2  | 1.1  | 1    | 5.5                                 | 2.7   |
| YH2-90L-4                   | 1.5          | 1305      | 4.0          | 60                      | 13        | 72.0       | 0.80                    | 2.0                              | 1.8  | 1.6  | 1.5  | 1.3  | 5.5                                 | 2.7   |
| YH2-100L1-4                 | 2.2          | 1305      | 5.5          | 40                      | 13        | 73.0       | 0.83                    | 2.8                              | 2.5  | 2.2  | 2    | 1.8  | 5.5                                 | 2.7   |
| YH2-100L2-4                 | 3            | 1305      | 7.4          | 40                      | 13        | 74.0       | 0.83                    | 3.8                              | 3.3  | 3.0  | 2.7  | 2.4  | 5.5                                 | 2.7   |
| YH2-112M-4                  | 4            | 1335      | 9.5          | 40                      | 11        | 77.0       | 0.83                    | 5.0                              | 4.5  | 4.0  | 3.6  | 3.2  | 5.5                                 | 2.7   |
| YH2-132S-4                  | 5.5          | 1350      | 12.5         | 40                      | 10        | 77.5       | 0.86                    | 7.0                              | 6    | 5.5  | 5    | 4.3  | 5.5                                 | 2.7   |

Performance Data

380V 50Hz

| Model                        | Out put<br>kW | Full Load |              |                          |           |            |                         | The output at different FC<br>kW |      |      |      |      | LRA<br>FLA<br>LRC<br>I <sub>N</sub> | LRT<br>FLT<br>T <sub>st</sub><br>T <sub>N</sub> |
|------------------------------|---------------|-----------|--------------|--------------------------|-----------|------------|-------------------------|----------------------------------|------|------|------|------|-------------------------------------|---|
|                              |               | RPM       | Current<br>A | Load Duration<br>FC( % ) | Slip<br>% | Eff.<br>η% | Power<br>Factor<br>cosΦ | 15%                              | 25%  | 40%  | 60%  | 100% |                                     |   |
|                              |               |           |              |                          |           |            |                         | 15%                              | 25%  | 40%  | 60%  | 100% |                                     |   |
| Synchronous speed 1500r/min  |               |           |              |                          |           |            |                         |                                  |      |      |      |      |                                     |   |
| YH2-132M-4                   | 7.5           | 1350      | 16.8         | 40                       | 10        | 78.0       | 0.87                    | 9.5                              | 8.4  | 7.5  | 6.6  | 6    | 5.5                                 | 2.7   |
| YH2-160M-4                   | 11            | 1365      | 24.3         | 25                       | 9         | 80.0       | 0.86                    | 12.5                             | 11   | 9.8  | 8.8  | 7.6  | 5.5                                 | 2.6   |
| YH2-160L-4                   | 15            | 1380      | 32.3         | 25                       | 8         | 82.0       | 0.86                    | 16.0                             | 15   | 13   | 11.5 | 10   | 5.5                                 | 2.6   |
| YH2-180M-4                   | 18.5          | 1380      | 38.5         | 25                       | 8         | 82.0       | 0.89                    | 21.0                             | 18.5 | 16.5 | 14.8 | 13   | 5.5                                 | 2.6   |
| YH2-180L-4                   | 22            | 1380      | 45.3         | 25                       | 8         | 83.0       | 0.89                    | 25.0                             | 22   | 20   | 17.8 | 15.8 | 5.5                                 | 2.6   |
| YH2-200L-4                   | 30            | 1380      | 61.0         | 25                       | 8         | 84.0       | 0.89                    | 34.0                             | 30   | 27   | 24   | 21   | 5.5                                 | 2.6   |
| YH2-225S-4                   | 37            | 1395      | 74.4         | 25                       | 7         | 84.0       | 0.90                    | 42.0                             | 37   | 33   | 29   | 25   | 5.5                                 | 2.6   |
| YH2-225M-4                   | 45            | 1395      | 88.9         | 25                       | 7         | 84.5       | 0.91                    | 51.0                             | 45   | 40   | 35   | 30   | 5.5                                 | 2.6   |
| YH2-250M-4                   | 55            | 1395      | 108          | 25                       | 7         | 86.0       | 0.90                    | 62.0                             | 55   | 49   | 43   | 37   | 5.5                                 | 2.6   |
| YH2-280S-4                   | 75            | 1395      | 144          | 15                       | 7         | 86.0       | 0.92                    | 75.0                             | 66   | 59   | 52   | 45   | 5.5                                 | 2.6   |
| YH2-280M-4                   | 90            | 1395      | 172          | 15                       | 7         | 86.5       | 0.92                    | 90.0                             | 79   | 70   | 62   | 54   | 5.5                                 | 2.6   |
| YH2-315S-4                   | 110           | 1395      | 204          | 15                       | 7         | 89.0       | 0.92                    | 110                              | 97   | 86   | 76   | 66   | 6.5                                 | 2.5   |
| YH2-315M-4                   | 132           | 1405      | 244          | 15                       | 6.5       | 89.5       | 0.92                    | 132                              | 116  | 103  | 91   | 79   | 6.5                                 | 2.5   |
| YH2-315L1-4                  | 160           | 1405      | 294          | 15                       | 6.5       | 89.9       | 0.92                    | 160                              | 141  | 125  | 110  | 96   | 6.5                                 | 2.5   |
| YH2-315L-4                   | 185           | 1405      | 339          | 15                       | 6.5       | 90.1       | 0.92                    | 185                              | 163  | 144  | 128  | 111  | 6.5                                 | 2.5   |
| YH2-315L2-4                  | 200           | 1405      | 361          | 15                       | 6.5       | 90.4       | 0.93                    | 200                              | 176  | 156  | 138  | 120  | 6.5                                 | 2.5   |
| YH2-355M1-4                  | 220           | 1410      | 397          | 15                       | 6         | 90.6       | 0.93                    | 220                              | 194  | 172  | 152  | 132  | 6.5                                 | 2.4   |
| YH2-355M-4                   | 250           | 1410      | 449          | 15                       | 6         | 90.9       | 0.93                    | 250                              | 220  | 195  | 173  | 150  | 6.5                                 | 2.4   |
| YH2-355L1-4                  | 280           | 1410      | 502          | 15                       | 6         | 91.1       | 0.93                    | 280                              | 246  | 218  | 193  | 168  | 6.5                                 | 2.4   |
| YH2-355L-4                   | 315           | 1410      | 564          | 15                       | 6         | 91.3       | 0.93                    | 315                              | 277  | 246  | 217  | 189  | 6.5                                 | 2.4   |
| Synchronous speed 1000 r/min |               |           |              |                          |           |            |                         |                                  |      |      |      |      |                                     |   |
| YH2-90S-6                    | 0.75          | 870       | 2.5          | 60                       | 13        | 65.5       | 0.69                    | 1.0                              | 0.9  | 0.8  | 0.75 | 0.6  | 5                                   | 2.7   |
| YH2-90L-6                    | 1.1           | 870       | 3.5          | 60                       | 13        | 66.0       | 0.72                    | 1.5                              | 1.3  | 1.2  | 1.1  | 0.9  | 5                                   | 2.7   |
| YH2-100L-6                   | 1.5           | 880       | 4.3          | 40                       | 12        | 69.5       | 0.76                    | 1.9                              | 1.7  | 1.5  | 1.3  | 1.1  | 5                                   | 2.7   |
| YH2-112M-6                   | 2.2           | 880       | 6.0          | 40                       | 12        | 73.0       | 0.76                    | 2.7                              | 2.4  | 2.2  | 1.9  | 1.7  | 5                                   | 2.7   |
| YH2-132S-6                   | 3             | 900       | 7.7          | 40                       | 10        | 75.5       | 0.78                    | 3.7                              | 3.2  | 3    | 2.6  | 2.3  | 5                                   | 2.7   |
| YH2-132M1-6                  | 4             | 900       | 10.0         | 40                       | 10        | 77.0       | 0.79                    | 5.0                              | 4.3  | 4    | 3.5  | 3    | 5                                   | 2.7   |
| YH2-132M1-6                  | 5.5           | 900       | 13.6         | 40                       | 10        | 77.5       | 0.79                    | 6.5                              | 6    | 5.5  | 4.5  | 4    | 5                                   | 2.7   |
| YH2-160M-6                   | 7.5           | 900       | 17.8         | 25                       | 11        | 79.0       | 0.81                    | 8.5                              | 7.5  | 7    | 6    | 5    | 5                                   | 2.5   |
| YH2-160L-6                   | 11            | 900       | 25.8         | 25                       | 11        | 80.0       | 0.81                    | 12.5                             | 11   | 10   | 8.5  | 7.5  | 5                                   | 2.5   |
| YH2-180L-6                   | 15            | 910       | 33.5         | 25                       | 9         | 82.0       | 0.83                    | 17.0                             | 15   | 13.5 | 11.5 | 10   | 5                                   | 2.5   |
| YH2-200L1-6                  | 18.5          | 920       | 39.9         | 25                       | 8         | 82.0       | 0.86                    | 21.0                             | 18.5 | 17   | 14.5 | 12.5 | 5                                   | 2.5   |
| YH2-200L2-6                  | 22            | 920       | 46.6         | 25                       | 8         | 82.5       | 0.87                    | 25.0                             | 22   | 20   | 17   | 15   | 5                                   | 2.5   |
| YH2-225M-6                   | 30            | 920       | 63.1         | 25                       | 8         | 83.0       | 0.87                    | 34.0                             | 30   | 27   | 23   | 20   | 5.5                                 | 2.5   |
| YH2-250M-6                   | 37            | 930       | 75.2         | 25                       | 7         | 84.0       | 0.89                    | 42.0                             | 37   | 34   | 29   | 25   | 5.5                                 | 2.5   |
| YH2-280S-6                   | 45            | 930       | 90.9         | 25                       | 7         | 84.5       | 0.89                    | 51.0                             | 45   | 41   | 35   | 31   | 5.5                                 | 2.5   |

Performance Data

380V 50Hz

| Model                       | Out put<br>kW | Full Load |              |                        |           |            |                         | The output at different FC<br>kW |      |      |      |      | LRA<br>FLA<br>LRC<br>I <sub>N</sub> | LRT<br>FLT<br>T <sub>st</sub><br>T <sub>N</sub> |
|-----------------------------|---------------|-----------|--------------|------------------------|-----------|------------|-------------------------|----------------------------------|------|------|------|------|-------------------------------------|---|
|                             |               | RPM       | Current<br>A | Load Duration<br>FC(%) | Slip<br>% | Eff.<br>η% | Power<br>Factor<br>cosΦ | 15%                              | 25%  | 40%  | 60%  | 100% |                                     |   |
|                             |               |           |              |                        |           |            |                         |                                  |      |      |      |      |                                     |   |
| Synchronous speed 1000r/min |               |           |              |                        |           |            |                         |                                  |      |      |      |      |                                     |   |
| YH2-280M-6                  | 55            | 930       | 111          | 25                     | 7         | 85.0       | 0.89                    | 62.0                             | 55   | 50   | 42   | 37   | 5.5                                 | 2.5   |
| YH2-315S-6                  | 75            | 930       | 142          | 15                     | 7         | 89.0       | 0.90                    | 75                               | 66   | 60   | 52   | 45   | 6.0                                 | 2.4   |
| YH2-315M-6                  | 90            | 930       | 170          | 15                     | 7         | 89.4       | 0.90                    | 90                               | 79   | 72   | 62   | 54   | 6.0                                 | 2.4   |
| YH2-315L1-6                 | 110           | 935       | 207          | 15                     | 6.5       | 89.8       | 0.90                    | 110                              | 97   | 88   | 76   | 66   | 6.0                                 | 2.4   |
| YH2-315L2-6                 | 132           | 935       | 244          | 15                     | 6.5       | 90.3       | 0.91                    | 132                              | 116  | 106  | 91   | 79   | 6.0                                 | 2.4   |
| YH2-355M1-6                 | 160           | 935       | 295          | 15                     | 6.5       | 90.5       | 0.91                    | 160                              | 141  | 128  | 110  | 96   | 6.0                                 | 2.3   |
| YH2-355M-6                  | 185           | 935       | 340          | 15                     | 6.5       | 90.8       | 0.91                    | 185                              | 163  | 148  | 128  | 111  | 6.0                                 | 2.3   |
| YH2-355M2-6                 | 200           | 940       | 363          | 15                     | 6         | 91.0       | 0.92                    | 200                              | 176  | 160  | 138  | 120  | 6.0                                 | 2.3   |
| YH2-355L1-6                 | 220           | 940       | 398          | 15                     | 6         | 91.2       | 0.92                    | 220                              | 194  | 176  | 152  | 132  | 6.0                                 | 2.3   |
| YH2-355L-6                  | 250           | 940       | 452          | 15                     | 6         | 91.3       | 0.92                    | 250                              | 220  | 200  | 173  | 150  | 6.0                                 | 2.3   |
| Synchronous speed 750 r/min |               |           |              |                        |           |            |                         |                                  |      |      |      |      |                                     |   |
| YH2-132S-8                  | 2.2           | 660       | 6.3          | 60                     | 12        | 73.0       | 0.73                    | 3.2                              | 2.8  | 2.7  | 2.2  | 1.9  | 4.5                                 | 2.6   |
| YH2-132M-8                  | 3             | 660       | 8.2          | 60                     | 12        | 74.0       | 0.75                    | 4.0                              | 3.8  | 3.7  | 3    | 2.6  | 4.5                                 | 2.6   |
| YH2-160M1-8                 | 4             | 670       | 10.5         | 60                     | 11        | 77.0       | 0.75                    | 6.0                              | 5.1  | 5    | 4    | 3.4  | 4.5                                 | 2.4   |
| YH2-160M2-8                 | 5.5           | 670       | 13.9         | 60                     | 11        | 78.0       | 0.77                    | 8.1                              | 7.1  | 6.5  | 5.5  | 4.7  | 4.5                                 | 2.4   |
| YH2-160L-8                  | 7.5           | 670       | 18.5         | 60                     | 11        | 79.0       | 0.78                    | 10.1                             | 8.7  | 8.5  | 7.5  | 6.5  | 4.5                                 | 2.4   |
| YH2-180L-8                  | 11            | 675       | 27.3         | 25                     | 10        | 76.5       | 0.80                    | 12.5                             | 11   | 10.5 | 8.5  | 7.2  | 4.5                                 | 2.4   |
| YH2-200L-8                  | 15            | 685       | 36.8         | 25                     | 9         | 77.5       | 0.80                    | 17.0                             | 15   | 14   | 11.5 | 10   | 4.5                                 | 2.4   |
| YH2-225S-8                  | 18.5          | 685       | 45.1         | 25                     | 9         | 80.0       | 0.78                    | 21.0                             | 18.5 | 18   | 14.5 | 12.5 | 4.5                                 | 2.4   |
| YH2-225M-8                  | 22            | 685       | 51.6         | 25                     | 9         | 81.0       | 0.80                    | 25.0                             | 22   | 21   | 17   | 14.5 | 4.5                                 | 2.4   |
| YH2-250M-8                  | 30            | 690       | 67.4         | 25                     | 8         | 81.5       | 0.83                    | 34.0                             | 30   | 29   | 23   | 20   | 4.5                                 | 2.4   |
| YH2-280S-8                  | 37            | 690       | 84.6         | 25                     | 8         | 82.0       | 0.81                    | 42.0                             | 37   | 35   | 28   | 24   | 4.5                                 | 2.4   |
| YH2-280M-8                  | 45            | 690       | 100          | 25                     | 8         | 82.5       | 0.83                    | 52.0                             | 45   | 43   | 34   | 29   | 4.5                                 | 2.4   |

Conventional mounting type and suitable frame size are given in following table (with “√”)

| Frame   | Basic Type |    |     | Derived Type |    |    |    |    |    |    |     |     |
|---------|------------|----|-----|--------------|----|----|----|----|----|----|-----|-----|
|         | B3         | B5 | B35 | V1           | V3 | V5 | V6 | B6 | B7 | B8 | V15 | V36 |
| 80~160  | √          | √  | √   | √            | √  | √  | √  | √  | √  | √  | √   | √   |
| 180~225 | √          | √  | √   | √            | -  | -  | -  | -  | -  | -  | -   | -   |
| 250~355 | √          | -  | √   | √            | -  | -  | -  | -  | -  | -  | -   | -   |

Note: 1. The mounting and overall dimensions of YH2 are almost the same as those of YX3 series induction motors.

2. Data above may be changed without prior notice.