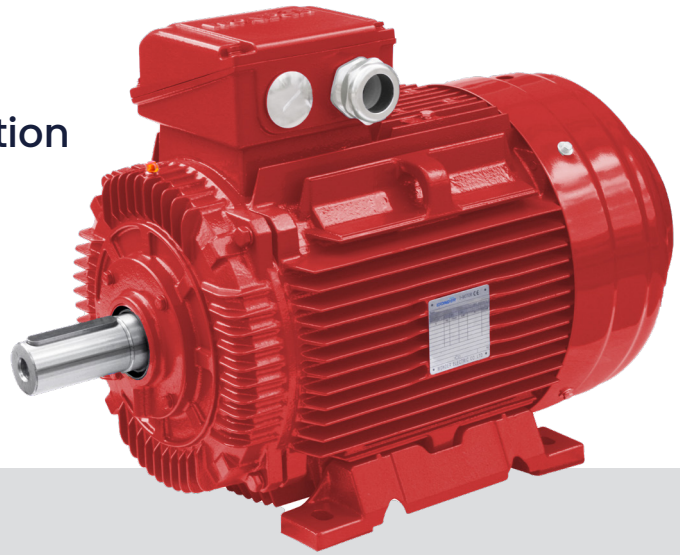


# SWE Series

## Three Phase Asynchronous Induction Fire Pump Motor (UL/SETSCO Listed)



Wonder SWE Series UL Fire Pump Three Phase Asynchronous Motor fully complied with:  
UL1004-1 Rotating Electrical Machines-General Requirement;  
UL 1004-5 Fire Pump Motors and IEC60034 Standard.

### Main Characteristics for Wonder standard Three Phase Asynchronous Fire Pump Motors:

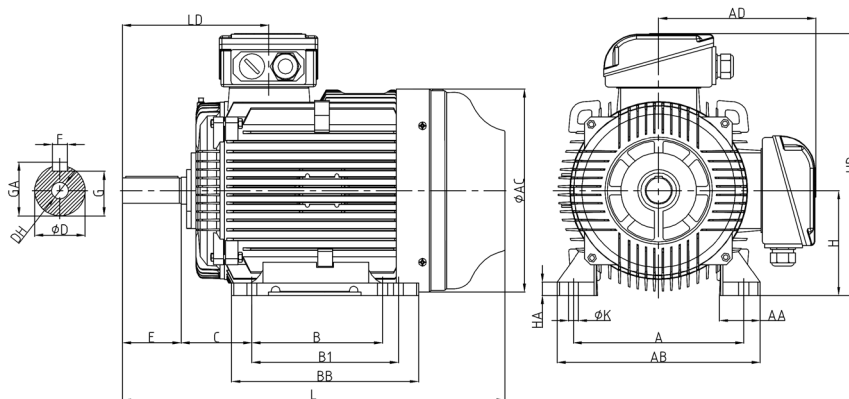
- Widely applied in general machinery and industries such as water pumps and fire fighting systems.
- IP55 protection, Class F insulation, B Temperature rise, S1 duty, Service factor 1.15.
- Rated voltage: 415V.
- Rated frequency: 50Hz.
- Ambient temperature: -20° C to 50°C.
- Altitude: ≤1000m.
- Cooling method: IC411.



### Technical Specifications

| Frame Size | Rated Output |     | Full Load Current (A) | Rated Speed | Efficiency $\eta\%$ |      |                | Power Factor $\cos\phi$ |      |           | Locked Rotor Current | Locked Rotor Torque | Break-down Torque | Sound LP | Moment of Inertia | Weight |
|------------|--------------|-----|-----------------------|-------------|---------------------|------|----------------|-------------------------|------|-----------|----------------------|---------------------|-------------------|----------|-------------------|--------|
|            | kW           | HP  |                       |             | 415V                | r/m  | % Of Full Load |                         |      | $I_L/I_n$ |                      |                     |                   |          |                   |        |
|            |              |     |                       |             | 100                 | 75   | 50             | 100                     | 75   | 50        |                      |                     |                   |          |                   |        |
| 160M2      | 15           | 20  | 25.6                  | 2935        | 92.4                | 92.3 | 90.7           | 0.91                    | 0.83 | 0.75      | 7.6                  | 2.7                 | 3.0               | 69       | 0.068             | 130    |
| 160L       | 18.5         | 25  | 31.3                  | 2945        | 92.8                | 92.8 | 91.5           | 0.90                    | 0.85 | 0.71      | 7.6                  | 2.7                 | 3.0               | 69       | 0.076             | 150    |
| 180M       | 22           | 30  | 36.7                  | 2955        | 93.1                | 93.0 | 91.9           | 0.90                    | 0.84 | 0.76      | 7.6                  | 2.6                 | 3.2               | 69       | 0.173             | 185    |
| 200LI      | 30           | 40  | 50.3                  | 2960        | 93.5                | 93.2 | 92.2           | 0.91                    | 0.86 | 0.80      | 7.6                  | 2.3                 | 3.4               | 75       | 0.193             | 245    |
| 200L2      | 37           | 50  | 61.7                  | 2960        | 94.2                | 94.0 | 92.3           | 0.90                    | 0.84 | 0.80      | 8.5                  | 3.0                 | 3.8               | 75       | 0.203             | 275    |
| 225M       | 45           | 60  | 73.9                  | 2965        | 94.5                | 94.3 | 93.1           | 0.91                    | 0.88 | 0.81      | 8.5                  | 2.8                 | 3.9               | 75       | 0.411             | 345    |
| 250M       | 55           | 75  | 93.3                  | 2980        | 95.0                | 94.6 | 93.4           | 0.89                    | 0.86 | 0.76      | 8.0                  | 2.6                 | 3.9               | 81       | 0.435             | 450    |
| 280S       | 75           | 100 | 122                   | 2975        | 95.0                | 94.8 | 94.0           | 0.90                    | 0.88 | 0.83      | 7.1                  | 2.2                 | 2.8               | 80       | 0.743             | 540    |
| 280M       | 90           | 125 | 145                   | 2975        | 95.0                | 94.9 | 94.1           | 0.90                    | 0.89 | 0.84      | 7.1                  | 2.1                 | 2.9               | 80       | 0.823             | 575    |
| 315S       | 110          | 150 | 183                   | 2980        | 95.2                | 94.7 | 93.3           | 0.90                    | 0.88 | 0.82      | 7.5                  | 2.2                 | 2.6               | 80       | 1.861             | 1010   |
| 315M       | 132          | 175 | 210                   | 2980        | 95.4                | 95.0 | 93.7           | 0.90                    | 0.88 | 0.83      | 7.3                  | 2.2                 | 3.3               | 80       | 2.11              | 1070   |
| 315L1      | 160          | 215 | 259                   | 2980        | 95.6                | 95.2 | 94.1           | 0.90                    | 0.88 | 0.83      | 8.0                  | 2.5                 | 3.2               | 82       | 2.42              | 1210   |
| 315L2      | 200          | 270 | 323                   | 2980        | 95.8                | 95.4 | 94.3           | 0.90                    | 0.88 | 0.83      | 8.0                  | 2.5                 | 3.3               | 83       | 2.67              | 1285   |
| 355M       | 250          | 335 | 395                   | 2980        | 95.8                | 95.4 | 94.3           | 0.91                    | 0.89 | 0.85      | 6.5                  | 1.9                 | 2.6               | 83       | 4.03              | 1798   |
| 355M       | 280          | 375 | 452                   | 2985        | 95.8                | 95.4 | 94.3           | 0.91                    | 0.89 | 0.85      | 6.5                  | 1.9                 | 2.6               | 83       | 4.36              | 1885   |
| 355L       | 315          | 420 | 509                   | 2985        | 95.8                | 95.4 | 94.3           | 0.91                    | 0.89 | 0.85      | 7.2                  | 1.7                 | 2.3               | 83       | 4.73              | 1960   |
| 355M       | 220          | 300 | 363                   | 1485        | 96.0                | 95.7 | 94.6           | 0.89                    | 0.87 | 0.83      | 7.1                  | 2.0                 | 2.3               | 79       | 6.45              | 1800   |
| 355M       | 250          | 335 | 407                   | 1490        | 96.0                | 95.7 | 94.7           | 0.89                    | 0.88 | 0.83      | 7.1                  | 2.0                 | 2.2               | 79       | 7.36              | 1820   |
| 355L2      | 315          | 420 | 513                   | 1490        | 96.0                | 95.7 | 94.9           | 0.90                    | 0.89 | 0.84      | 7.1                  | 2.0                 | 2.2               | 80       | 9.10              | 2000   |
| 355L1      | 280          | 375 | 456                   | 1490        | 96.0                | 95.7 | 94.9           | 0.90                    | 0.89 | 0.84      | 7.1                  | 2.0                 | 2.2               | 80       | 8.01              | 1870   |

## B3 Mounting and Overall Dimensions



| Frame Size | Pole | Mounting and Overall Dimensions (mm) |     |     |     |    |     |    |      |     |    |        |      |     |     |     |    |     |     |     |      |
|------------|------|--------------------------------------|-----|-----|-----|----|-----|----|------|-----|----|--------|------|-----|-----|-----|----|-----|-----|-----|------|
|            |      | A                                    | B   | BI  | C   | D  | E   | F  | G    | H   | K  | DH     | GA   | AA  | AB  | AC  | HA | HD  | BB  | LD  | L    |
| 160M2      | 2    | 254                                  | 210 | /   | 108 | 42 | 110 | 12 | 37   | 160 | 15 | M16x36 | 45   | 64  | 315 | 315 | 20 | 409 | 260 | 146 | 614  |
| 160L       | 2    | 254                                  | 254 | /   | 108 | 42 | 110 | 12 | 37   | 160 | 15 | M16x36 | 45   | 64  | 315 | 315 | 20 | 409 | 384 | 146 | 658  |
| 180M       | 2    | 279                                  | 241 | /   | 121 | 48 | 110 | 14 | 43   | 180 | 15 | M16x36 | 51.5 | 68  | 350 | 360 | 22 | 445 | 311 | 161 | 690  |
| 200L1      | 2    | 318                                  | 305 | /   | 133 | 55 | 110 | 16 | 49   | 200 | 19 | M20x42 | 59   | 70  | 388 | 400 | 25 | 492 | 370 | 186 | 780  |
| 200L2      | 2    | 318                                  | 305 | /   | 133 | 55 | 110 | 16 | 49   | 200 | 19 | M20x42 | 59   | 70  | 388 | 400 | 25 | 492 | 370 | 186 | 780  |
| 225M       | 2    | 356                                  | 311 | /   | 149 | 55 | 110 | 16 | 49   | 225 | 19 | M20x42 | 59   | 75  | 455 | 450 | 28 | 540 | 386 | 189 | 820  |
| 250M       | 2    | 406                                  | 311 | /   | 168 | 60 | 140 | 18 | 53   | 250 | 24 | M20x42 | 64   | 80  | 503 | 485 | 30 | 616 | 445 | 207 | 915  |
| 280S       | 2    | 457                                  | 368 | /   | 190 | 65 | 140 | 18 | 58   | 280 | 24 | M20x42 | 69   | 85  | 545 | 50  | 35 | 672 | 490 | 215 | 968  |
| 280M       | 2    | 457                                  | 419 | /   | 190 | 65 | 140 | 18 | 58   | 280 | 24 | M20x42 | 69   | 85  | 545 | 50  | 35 | 672 | 540 | 215 | 1020 |
| 315S       | 2    | 508                                  | 406 | /   | 216 | 65 | 140 | 18 | 58   | 315 | 28 | M20x46 | 69   | 120 | 630 | 625 | 45 | 815 | 575 | 257 | 1204 |
| 315M       | 2    | 508                                  | 457 | 508 | 216 | 65 | 140 | 18 | 58   | 315 | 28 | M20x46 | 69   | 120 | 630 | 625 | 45 | 815 | 680 | 257 | 1307 |
| 315L1      | 2    | 508                                  | 457 | 508 | 216 | 65 | 140 | 18 | 58   | 315 | 28 | M20x46 | 69   | 120 | 630 | 625 | 45 | 815 | 680 | 257 | 1307 |
| 315L2      | 2    | 508                                  | 457 | 508 | 216 | 65 | 140 | 18 | 58   | 315 | 28 | M20x46 | 69   | 120 | 630 | 625 | 45 | 815 | 680 | 257 | 1307 |
| 355M       | 2    | 610                                  | 560 | 630 | 254 | 75 | 140 | 20 | 67.5 | 355 | 28 | M20x46 | 79.5 | 120 | 726 | 698 | 52 | 948 | 750 | 425 | 1501 |
| 355L1      | 2    | 610                                  | 560 | 630 | 254 | 75 | 140 | 20 | 67.5 | 355 | 28 | M20x46 | 79.5 | 120 | 726 | 698 | 52 | 948 | 750 | 425 | 1501 |
| 355L2      | 2    | 610                                  | 560 | 630 | 254 | 75 | 140 | 20 | 67.5 | 355 | 28 | M20x46 | 79.5 | 120 | 726 | 698 | 52 | 948 | 750 | 425 | 1501 |
| 355M1      | 4    | 610                                  | 560 | 630 | 254 | 95 | 170 | 25 | 86   | 355 | 28 | M20x46 | 100  | 120 | 726 | 698 | 52 | 948 | 750 | 425 | 1531 |
| 355M       | 4    | 610                                  | 560 | 630 | 254 | 95 | 170 | 25 | 86   | 355 | 28 | M20x46 | 100  | 120 | 726 | 698 | 52 | 948 | 750 | 425 | 1531 |
| 355L       | 4    | 610                                  | 560 | 630 | 254 | 95 | 170 | 25 | 86   | 355 | 28 | M20x46 | 100  | 120 | 726 | 698 | 52 | 948 | 750 | 425 | 1531 |
| 355L1      | 4    | 610                                  | 560 | 630 | 254 | 95 | 170 | 25 | 86   | 355 | 28 | M24x56 | 100  | 120 | 726 | 698 | 52 | 948 | 750 | 425 | 1531 |

## Bearings

| Frame Size | Pole | Driving End | Non-driving End |
|------------|------|-------------|-----------------|
| 160M2      | 2    | 6209 2Z/C3  | 6209 2Z/C3      |
| 160L       | 2    | 6209 2Z/C3  | 6209 2Z/C3      |
| 180M       | 2    | 6211/C3     | 6211/C3         |
| 200L1      | 2    | 6212/C3     | 6212/C3         |
| 200L2      | 2    | 6212/C3     | 6212/C3         |
| 225M       | 2    | 6312/C3     | 6312/C3         |
| 250M       | 2    | 6313/C3     | 6313/C3         |
| 280S       | 2    | 6314/C3     | 6314/C3         |
| 280M       | 2    | 6314/C3     | 6314/C3         |
| 315S       | 2    | 6317/C3     | 6317/C3         |
| 315M       | 2    | 6317/C3     | 6319/C3         |
| 315L1      | 2    | 6317/C3     | 6317/C3         |
| 315L2      | 2    | 6317/C3     | 6317/C3         |
| 355M       | 4    | 6319/C3     | 6319/C3         |
| 355M1      | 4    | Nu322       | 6322/C3         |
| 355M       | 4    | Nu322       | 6322/C4         |
| 355L       | 4    | Nu322       | 6322/C5         |
| 355L1      | 4    | Nu322       | 6322/C6         |

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