

# Submersible Rewindable Motor

**6" WF**  
**Standard**

## Quality for your borewell :

These motors are heavy duty, rewindable water filled submersible motors which are designed and sized for installation in 6" diameter or larger water wells. They are of robust construction and are furnished with heavy duty radial & thrust bearings to take the extra radial & thrust load when used with high head pump.

## Product Features :

- 6" Water filled heavy duty submersible motor.
- Easily rewindable (wet wound) induction motor with PE insulated windings.
- Corrosion resistant stainless steel stator jacket and shaft.
- Water lubricated heavy duty radial and axial thrust bearings.
- Counter thrust bearing.
- Motors are pre-filled with clean water + Glycol mixture.
- High efficiency electrical design (lower operating cost).
- Tropicalized design (lower winding temperature).
- 6" NEMA coupling flange.
- Pressure compensation diaphragm.

## Specifications :

- Ratings: Three phase - 4 to 45 kW
- Supply voltages (Tolerance +10% / -15%):  
50 Hz, 3 phase, 380 V, 400 V, 415 V  
60 Hz, 3 phase, 230 V, 380 V, 460 V
- Degree of protection: IP 68
- Continuous duty
- Ambient temperature: 45°C
- Rotation: Three phase - CCW and CW
- Maximum nos. of starts/hour:  
4 to 22 kW - 20  
26 to 45 kW - 15
- Water pH: 6,5 - 8
- Minimum cooling flow along the motor:  
4 to 15 kW - 15 cm/sec  
18.5 to 45 kW - 30 cm/sec
- Motor protection: Select thermal overload protection with trip time < 10 sec. at 5 x I<sub>n</sub>
- Maximum submerged depth: 250 metres
- Mounting: vertical / horizontal (up to 30 kW).

## On Request :

- Mechanical shaft seal Sic/Sic.
- Built-in PT 100 temperature sensor.
- Special voltages.
- Double cable for Star - Delta operation.

## Cable Data :

| HP          | Type of start | Cable x Leads x Size (mm <sup>2</sup> ) | Length [m] | H x B [mm] |                                                                                      |
|-------------|---------------|-----------------------------------------|------------|------------|--------------------------------------------------------------------------------------|
| 5.5 to 60.0 | DOL           | 1 x 4 x 6                               | 3.5        | 7.9 x 24.3 |  |



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Motors that are top class in Performance & Reliability

## 6" WF Standard

### Cable

Cable safe for drinking water.

### Earth cable

Outside earth cable provided.

### Sensor

Temperature protection by means of PT 100 sensor (Optional).

### Shaft Extension

Stainless steel splined shaft extension to NEMA

### Shaft seal

Lip seal is standard. Available with mech. shaft seal in sic / sic for sandy bore well

### Windings

Rewindable motor construction allows for low – cost motor repair that can be done locally.

### Easy Maintenance

Designed for easy disassembly & repair

### Efficiency

High efficiency provides energy saving.

### Contamination

Water filled motor design prevents water contamination.

### Thrust

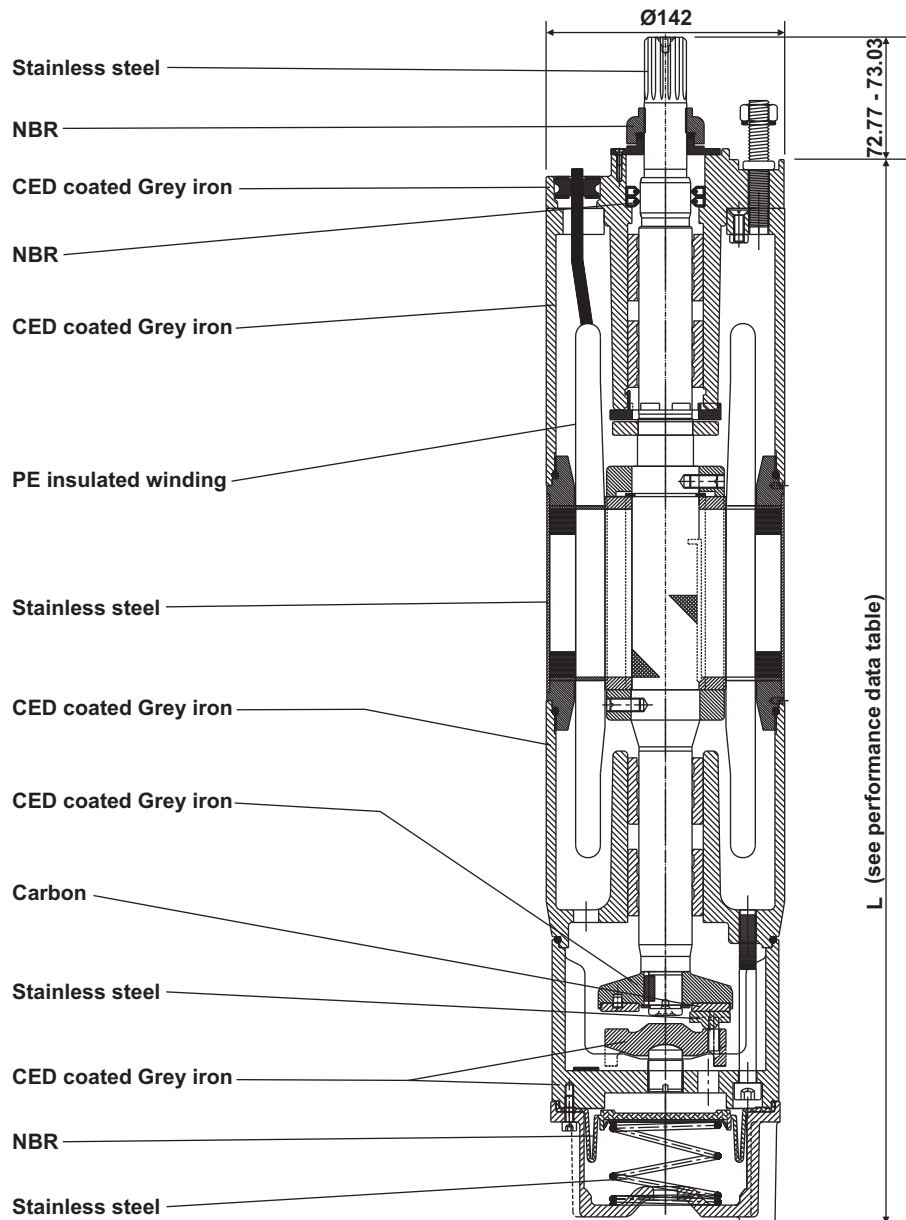
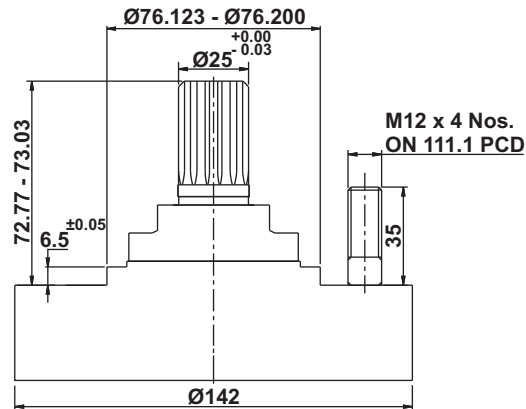
The thrust bearing is larger than the competition and is rated to take much more thrust load than what would be subjected by the pump.

### Corrosion

Water resistance CED coating used for corrosion resistance.

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## Shaft :

Spline shaft: 15 teeth, 16/32 pitch, module 1.5875, 30° pressure angle, coupling tolerance 5 as per ANSI B.92.1, confirming with NEMA 6".

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6" Submersible Rewindable Motor Performance Data 50 Hz

## Performance data

| Motor type | Pn    |       | Ka<br>[N] | Un<br>[V] | In   | Ist/In | n<br>[min <sup>-1</sup> ] | $\eta$<br>[%] |      |      | COS $\phi$ |      |      | Tn<br>[Nm] | L<br>[mm] | Gross weight<br>[kg] | Gross volume<br>[m <sup>3</sup> ] |
|------------|-------|-------|-----------|-----------|------|--------|---------------------------|---------------|------|------|------------|------|------|------------|-----------|----------------------|-----------------------------------|
|            | kW    | HP    |           |           |      |        |                           | 50%           | 75%  | 100% | 50%        | 75%  | 100% |            |           |                      |                                   |
| L6505-KP   | 4.00  | 5.50  | 27500     | 380       | 9.80 | 4.10   | 2900                      | 70.3          | 74.5 | 76.0 | 0.64       | 0.74 | 0.82 | 13.18      | 678       | 50.0                 | 0.0250                            |
|            |       |       |           | 400       | 9.30 | 4.00   | 2920                      | 71.3          | 75.2 | 76.5 | 0.62       | 0.73 | 0.81 | 13.08      |           |                      |                                   |
|            |       |       |           | 415       | 9.40 | 4.10   | 2920                      | 71.6          | 74.9 | 76.2 | 0.59       | 0.70 | 0.78 | 13.08      |           |                      |                                   |
| L6507-KP   | 5.50  | 7.50  | 27500     | 380       | 13.0 | 4.10   | 2865                      | 72.3          | 76.2 | 77.8 | 0.65       | 0.77 | 0.84 | 18.34      | 708       | 54.2                 | 0.0250                            |
|            |       |       |           | 400       | 12.6 | 4.00   | 2880                      | 73.3          | 76.7 | 78.0 | 0.63       | 0.75 | 0.83 | 18.25      |           |                      |                                   |
|            |       |       |           | 415       | 12.7 | 4.10   | 2895                      | 73.8          | 77.2 | 78.5 | 0.61       | 0.73 | 0.81 | 18.15      |           |                      |                                   |
| L6510-KP   | 7.50  | 10.00 | 27500     | 380       | 17.3 | 5.20   | 2870                      | 73.8          | 76.9 | 78.5 | 0.66       | 0.77 | 0.84 | 24.97      | 758       | 59.5                 | 0.0250                            |
|            |       |       |           | 400       | 16.8 | 5.00   | 2880                      | 74.8          | 77.7 | 79.0 | 0.64       | 0.75 | 0.83 | 24.88      |           |                      |                                   |
|            |       |       |           | 415       | 16.5 | 4.90   | 2890                      | 75.3          | 78.2 | 79.5 | 0.61       | 0.73 | 0.82 | 24.80      |           |                      |                                   |
| L6512-KP   | 9.30  | 12.50 | 27500     | 380       | 21.0 | 5.20   | 2855                      | 75.0          | 78.7 | 80.5 | 0.66       | 0.76 | 0.84 | 31.12      | 798       | 62.5                 | 0.0310                            |
|            |       |       |           | 400       | 20.5 | 5.10   | 2870                      | 76.8          | 79.7 | 81.0 | 0.64       | 0.75 | 0.82 | 30.96      |           |                      |                                   |
|            |       |       |           | 415       | 20.2 | 5.00   | 2885                      | 77.0          | 79.9 | 81.2 | 0.62       | 0.73 | 0.80 | 30.80      |           |                      |                                   |
| L6515-KP   | 11.00 | 15.00 | 27500     | 380       | 24.5 | 5.20   | 2860                      | 76.3          | 79.2 | 81.2 | 0.67       | 0.77 | 0.85 | 36.75      | 833       | 68.8                 | 0.0310                            |
|            |       |       |           | 400       | 23.8 | 5.10   | 2880                      | 77.3          | 80.7 | 82.0 | 0.64       | 0.76 | 0.83 | 36.49      |           |                      |                                   |
|            |       |       |           | 415       | 23.6 | 5.30   | 2890                      | 77.8          | 80.9 | 82.2 | 0.62       | 0.74 | 0.81 | 36.37      |           |                      |                                   |
| L6517-KP   | 13.00 | 17.50 | 27500     | 380       | 28.9 | 5.00   | 2870                      | 76.8          | 79.7 | 81.5 | 0.66       | 0.77 | 0.84 | 43.28      | 863       | 71.2                 | 0.0310                            |
|            |       |       |           | 400       | 28.2 | 5.10   | 2890                      | 77.8          | 80.7 | 82.0 | 0.63       | 0.76 | 0.82 | 42.98      |           |                      |                                   |
|            |       |       |           | 415       | 28.1 | 5.20   | 2890                      | 78.3          | 81.2 | 82.5 | 0.61       | 0.73 | 0.79 | 42.98      |           |                      |                                   |
| L6520-KP   | 15.00 | 20.00 | 27500     | 380       | 32.4 | 5.20   | 2870                      | 77.8          | 80.9 | 82.8 | 0.68       | 0.79 | 0.85 | 49.93      | 933       | 79.1                 | 0.0310                            |
|            |       |       |           | 400       | 31.4 | 5.10   | 2890                      | 78.8          | 81.7 | 83.0 | 0.66       | 0.77 | 0.84 | 49.60      |           |                      |                                   |
|            |       |       |           | 415       | 31.2 | 5.30   | 2890                      | 79.3          | 82.2 | 83.5 | 0.62       | 0.74 | 0.81 | 49.60      |           |                      |                                   |
| L6525-KP   | 18.50 | 25.00 | 27500     | 380       | 39.9 | 5.10   | 2860                      | 78.2          | 81.3 | 82.8 | 0.69       | 0.79 | 0.85 | 61.80      | 993       | 85.2                 | 0.0310                            |
|            |       |       |           | 400       | 39.0 | 5.20   | 2880                      | 78.7          | 81.8 | 83.0 | 0.65       | 0.77 | 0.83 | 61.37      |           |                      |                                   |
|            |       |       |           | 415       | 39.3 | 5.25   | 2890                      | 79.2          | 82.3 | 83.6 | 0.63       | 0.74 | 0.81 | 61.16      |           |                      |                                   |
| L6530-KP   | 22.00 | 30.00 | 27500     | 380       | 46.5 | 5.10   | 2870                      | 78.3          | 81.6 | 83.6 | 0.70       | 0.80 | 0.86 | 73.24      | 1053      | 104.0                | 0.1240                            |
|            |       |       |           | 400       | 44.6 | 5.20   | 2890                      | 79.2          | 82.8 | 84.0 | 0.66       | 0.77 | 0.85 | 72.73      |           |                      |                                   |
|            |       |       |           | 415       | 45.2 | 5.15   | 2900                      | 79.7          | 83.0 | 84.3 | 0.62       | 0.75 | 0.83 | 72.48      |           |                      |                                   |
| L6535-KP   | 26.00 | 35.00 | 27500     | 380       | 56.2 | 5.18   | 2870                      | 78.7          | 81.8 | 83.6 | 0.70       | 0.79 | 0.86 | 86.56      | 1133      | 113.5                | 0.1330                            |
|            |       |       |           | 400       | 55.4 | 5.20   | 2890                      | 79.3          | 82.8 | 84.0 | 0.65       | 0.77 | 0.84 | 85.96      |           |                      |                                   |
|            |       |       |           | 415       | 56.0 | 5.15   | 2900                      | 79.9          | 83.1 | 84.3 | 0.62       | 0.75 | 0.82 | 85.66      |           |                      |                                   |
| L6540-KP   | 30.00 | 40.00 | 27500     | 380       | 63.2 | 5.22   | 2890                      | 78.9          | 82.8 | 84.5 | 0.71       | 0.80 | 0.87 | 99.18      | 1183      | 118.4                | 0.1330                            |
|            |       |       |           | 400       | 62.4 | 5.30   | 2900                      | 80.1          | 83.8 | 85.0 | 0.65       | 0.79 | 0.86 | 98.84      |           |                      |                                   |
|            |       |       |           | 415       | 63.8 | 5.32   | 2900                      | 81.2          | 84.3 | 85.6 | 0.63       | 0.75 | 0.83 | 98.84      |           |                      |                                   |
| L6550-KP   | 37.00 | 50.00 | 27500     | 380       | 78.5 | 5.35   | 2890                      | 79.7          | 82.8 | 84.2 | 0.71       | 0.80 | 0.87 | 123.18     | 1313      | 135.0                | 0.1400                            |
|            |       |       |           | 400       | 77.4 | 5.30   | 2900                      | 80.2          | 83.8 | 85.0 | 0.66       | 0.79 | 0.86 | 121.90     |           |                      |                                   |
|            |       |       |           | 415       | 79.0 | 5.32   | 2900                      | 81.2          | 84.0 | 85.2 | 0.63       | 0.75 | 0.84 | 121.90     |           |                      |                                   |
| L6560-KP   | 45.00 | 60.00 | 27500     | 380       | 93.0 | 5.36   | 2890                      | 79.7          | 82.8 | 84.5 | 0.71       | 0.80 | 0.87 | 148.77     | 1413      | 149.0                | 0.1490                            |
|            |       |       |           | 400       | 88.3 | 5.31   | 2900                      | 80.2          | 83.8 | 85.5 | 0.66       | 0.79 | 0.86 | 148.26     |           |                      |                                   |
|            |       |       |           | 415       | 87.1 | 5.33   | 2900                      | 81.2          | 84.0 | 85.6 | 0.63       | 0.75 | 0.84 | 148.26     |           |                      |                                   |

Pn: Rated output  
 Ka: Thrust load  
 Un: Rated voltage  
 In: Rated current  
 Ist/In: Locked rotor current/Rated amperage  
 n: Rated speed  
 $\eta$ : Efficiency  
 cos  $\phi$ : Power factor  
 Tn: Rated torque  
 L: Motor length

# Submersible Rewindable Motor

**6" WF**  
**Standard**

6" Submersible Rewindable Motor Performance Data 60 Hz

## Performance data

| Motor type | Pn    |       | Ka<br>[N] | Un<br>[V] | In<br>[A] | Ist/In | n<br>[min <sup>-1</sup> ] | $\eta$<br>[%] |      |      | COS $\phi$ |      |      | Tn<br>[Nm] | L<br>[mm] | Gross weight<br>[kg] | Gross volume<br>[m <sup>3</sup> ] |
|------------|-------|-------|-----------|-----------|-----------|--------|---------------------------|---------------|------|------|------------|------|------|------------|-----------|----------------------|-----------------------------------|
|            | kW    | HP    |           |           |           |        |                           | 50%           | 75%  | 100% | 50%        | 75%  | 100% |            |           |                      |                                   |
| L6605-KP   | 4.00  | 5.50  | 27500     | 230       | 18.5      | 5.30   | 3480                      | 69.8          | 75.8 | 77.0 | 0.63       | 0.74 | 0.81 | 10.98      | 663       | 48.3                 | 0.0250                            |
|            |       |       |           | 380       | 11.6      | 4.56   | 3480                      | 70.8          | 76.3 | 77.0 | 0.64       | 0.74 | 0.78 | 10.98      |           |                      |                                   |
|            |       |       |           | 460       | 9.3       | 4.63   | 3500                      | 70.3          | 76.8 | 78.0 | 0.66       | 0.75 | 0.80 | 10.92      |           |                      |                                   |
| L6607-KP   | 5.50  | 7.50  | 27500     | 230       | 25.8      | 5.30   | 3480                      | 74.8          | 77.8 | 79.0 | 0.62       | 0.74 | 0.82 | 15.10      | 678       | 50.0                 | 0.0250                            |
|            |       |       |           | 380       | 15.4      | 4.90   | 3480                      | 75.8          | 78.3 | 79.0 | 0.64       | 0.75 | 0.79 | 15.10      |           |                      |                                   |
|            |       |       |           | 460       | 12.6      | 4.72   | 3500                      | 74.8          | 77.8 | 79.0 | 0.65       | 0.75 | 0.82 | 15.00      |           |                      |                                   |
| L6610-KP   | 7.50  | 10.00 | 27500     | 230       | 32.6      | 5.40   | 3480                      | 75.8          | 78.8 | 80.0 | 0.64       | 0.76 | 0.83 | 20.59      | 708       | 54.2                 | 0.0250                            |
|            |       |       |           | 380       | 20.5      | 5.30   | 3480                      | 76.3          | 79.3 | 80.0 | 0.66       | 0.77 | 0.80 | 20.59      |           |                      |                                   |
|            |       |       |           | 460       | 16.5      | 5.06   | 3500                      | 75.8          | 78.8 | 80.0 | 0.66       | 0.76 | 0.82 | 20.47      |           |                      |                                   |
| L6612-KP   | 9.30  | 12.50 | 27500     | 230       | 41.8      | 5.55   | 3480                      | 75.8          | 79.8 | 80.0 | 0.64       | 0.76 | 0.84 | 25.53      | 758       | 59.5                 | 0.0250                            |
|            |       |       |           | 380       | 25.4      | 4.90   | 3480                      | 76.8          | 79.8 | 80.0 | 0.66       | 0.77 | 0.80 | 25.53      |           |                      |                                   |
|            |       |       |           | 460       | 20.1      | 4.89   | 3500                      | 77.3          | 80.3 | 81.0 | 0.66       | 0.76 | 0.82 | 25.39      |           |                      |                                   |
| L6615-KP   | 11.00 | 15.00 | 27500     | 230       | 46.7      | 5.60   | 3480                      | 77.8          | 80.3 | 81.0 | 0.64       | 0.77 | 0.84 | 30.20      | 798       | 62.5                 | 0.0310                            |
|            |       |       |           | 380       | 29.3      | 5.25   | 3480                      | 78.3          | 80.8 | 81.0 | 0.66       | 0.77 | 0.81 | 30.20      |           |                      |                                   |
|            |       |       |           | 460       | 23.3      | 5.26   | 3500                      | 77.8          | 81.3 | 82.0 | 0.67       | 0.77 | 0.83 | 30.00      |           |                      |                                   |
| L6617-KP   | 13.00 | 17.50 | 27500     | 230       | 55.6      | 5.65   | 3480                      | 77.3          | 80.8 | 82.0 | 0.65       | 0.76 | 0.84 | 35.69      | 833       | 68.8                 | 0.0310                            |
|            |       |       |           | 380       | 34.2      | 5.36   | 3480                      | 78.8          | 81.3 | 82.0 | 0.66       | 0.77 | 0.81 | 35.69      |           |                      |                                   |
|            |       |       |           | 460       | 27.6      | 5.36   | 3500                      | 77.8          | 80.8 | 82.0 | 0.67       | 0.77 | 0.83 | 35.49      |           |                      |                                   |
| L6620-KP   | 15.00 | 20.00 | 27500     | 230       | 61.4      | 5.65   | 3480                      | 78.3          | 82.0 | 83.0 | 0.64       | 0.76 | 0.85 | 41.18      | 863       | 71.2                 | 0.0310                            |
|            |       |       |           | 380       | 39.0      | 5.37   | 3480                      | 78.8          | 82.0 | 82.0 | 0.67       | 0.78 | 0.82 | 41.18      |           |                      |                                   |
|            |       |       |           | 460       | 31.1      | 5.38   | 3500                      | 78.3          | 81.8 | 83.0 | 0.67       | 0.77 | 0.84 | 40.95      |           |                      |                                   |
| L6625-KP   | 18.50 | 25.00 | 27500     | 230       | 79.4      | 5.66   | 3480                      | 78.1          | 82.9 | 84.0 | 0.64       | 0.77 | 0.85 | 50.79      | 933       | 79.1                 | 0.0310                            |
|            |       |       |           | 380       | 47.8      | 5.70   | 3480                      | 78.7          | 83.1 | 83.0 | 0.67       | 0.78 | 0.82 | 50.79      |           |                      |                                   |
|            |       |       |           | 460       | 37.8      | 5.69   | 3500                      | 78.3          | 82.9 | 84.0 | 0.68       | 0.78 | 0.84 | 50.50      |           |                      |                                   |
| L6630-KP   | 22.00 | 30.00 | 27500     | 230       | 92.7      | 5.60   | 3480                      | 79.1          | 83.9 | 85.0 | 0.65       | 0.76 | 0.85 | 60.40      | 993       | 85.2                 | 0.0310                            |
|            |       |       |           | 380       | 55.8      | 6.23   | 3480                      | 79.5          | 84.1 | 83.0 | 0.67       | 0.78 | 0.83 | 60.40      |           |                      |                                   |
|            |       |       |           | 460       | 45.0      | 5.80   | 3500                      | 78.9          | 82.9 | 84.0 | 0.68       | 0.78 | 0.84 | 60.00      |           |                      |                                   |
| L6635-KP   | 26.00 | 35.00 | 27500     | 230       | 104.7     | 5.70   | 3480                      | 80.1          | 83.9 | 85.0 | 0.66       | 0.79 | 0.86 | 71.39      | 1053      | 104.0                | 0.0310                            |
|            |       |       |           | 380       | 65.9      | 6.22   | 3480                      | 80.4          | 84.1 | 83.0 | 0.69       | 0.79 | 0.83 | 71.39      |           |                      |                                   |
|            |       |       |           | 460       | 52.6      | 6.22   | 3500                      | 79.9          | 83.9 | 85.0 | 0.70       | 0.80 | 0.84 | 70.98      |           |                      |                                   |
| L6640-KP   | 30.00 | 40.00 | 27500     | 230       | 125.4     | 5.75   | 3480                      | 79.9          | 83.7 | 85.0 | 0.67       | 0.79 | 0.86 | 82.37      | 1133      | 113.5                | 0.1330                            |
|            |       |       |           | 380       | 74.3      | 6.18   | 3480                      | 80.5          | 83.9 | 84.0 | 0.69       | 0.80 | 0.84 | 82.37      |           |                      |                                   |
|            |       |       |           | 460       | 60.0      | 6.19   | 3500                      | 80.1          | 83.9 | 85.0 | 0.70       | 0.80 | 0.85 | 81.90      |           |                      |                                   |
| L6650-KP   | 37.00 | 50.00 | 27500     | 230       | 150.4     | 5.75   | 3480                      | 80.1          | 83.9 | 85.0 | 0.66       | 0.79 | 0.86 | 101.60     | 1183      | 118.4                | 0.1330                            |
|            |       |       |           | 380       | 91.6      | 5.61   | 3480                      | 80.3          | 84.1 | 84.0 | 0.68       | 0.80 | 0.84 | 101.60     |           |                      |                                   |
|            |       |       |           | 460       | 74.0      | 5.62   | 3500                      | 79.9          | 83.7 | 85.0 | 0.69       | 0.79 | 0.85 | 101.00     |           |                      |                                   |
| L6660-KP   | 45.00 | 60.00 | 27500     | 230       | 177.7     | 5.77   | 3480                      | 80.1          | 83.9 | 85.0 | 0.65       | 0.78 | 0.86 | 123.55     | 1313      | 135.0                | 0.1400                            |
|            |       |       |           | 380       | 107.6     | 5.63   | 3480                      | 80.3          | 84.1 | 86.0 | 0.67       | 0.79 | 0.86 | 123.55     |           |                      |                                   |
|            |       |       |           | 460       | 89.9      | 5.64   | 3500                      | 79.9          | 83.7 | 85.0 | 0.68       | 0.78 | 0.85 | 122.84     |           |                      |                                   |

Pn: Rated output  
 Ka: Thrust load  
 Un: Rated voltage  
 In: Rated current  
 Ist/In: Locked rotor current/Rated amperage  
 n: Rated speed  
 $\eta$ : Efficiency  
 cos  $\phi$ : Power factor  
 Tn: Rated torque  
 L: Motor length

## NOTE