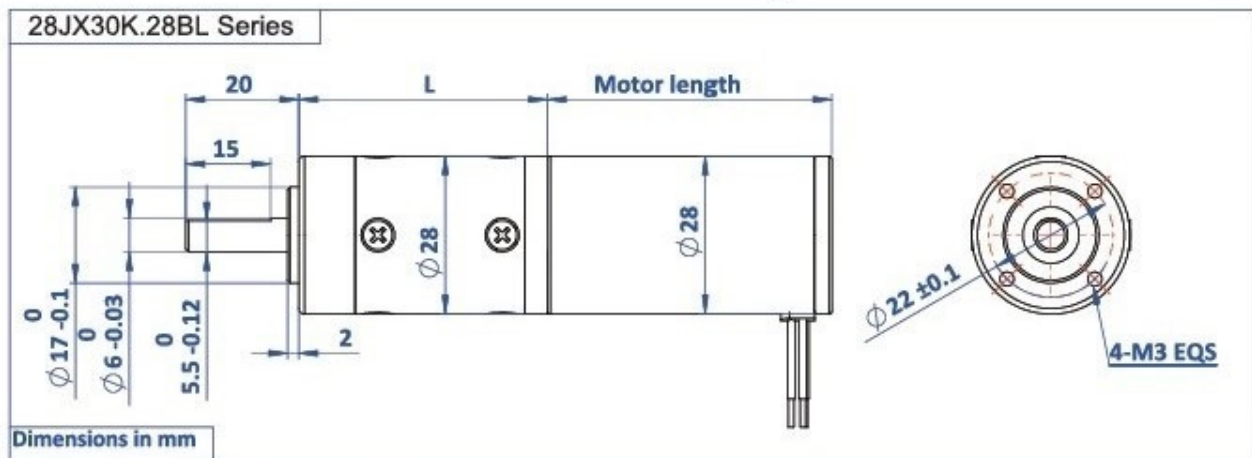


# Brushless Dc Planetary Gear Motor

## 28JX30K.28BL Series



### Drawing



### MotorTechnique Specification:

| Model   | Voltage (Vdc) | No load speed (rpm) | Rated power (W) | Rated torque (mN.m) | Rated Speed (rpm) | Rated Current (A) | Motor Length (mm) |
|---------|---------------|---------------------|-----------------|---------------------|-------------------|-------------------|-------------------|
| 28BL01A | 24            | 4200                | 1.55            | 5                   | 3000              | 0.20              | 26                |
| 28BL02A | 24            | 4200                | 3.15            | 10                  | 3000              | 0.35              | 38                |
| 28BL03A | 24            | 4200                | 12.0            | 38                  | 3000              | 0.98              | 77                |

### 28JX30K Planetary Gearbox Specification:

| Reduction ratio                           | 1/3.7 | 1/5.2 | 1/14 | 1/19 | 1/27 | 1/51 | 1/71 | 1/100 | 1/139 |
|-------------------------------------------|-------|-------|------|------|------|------|------|-------|-------|
| Number of gear trains                     | 1     | 1     | 2    | 2    | 2    | 3    | 3    | 3     | 3     |
| Gearbox Length (L) (mm)                   | 31    | 31    | 40.1 | 40.1 | 40.1 | 49   | 49   | 49    | 49    |
| Transmission efficiency                   | 90%   | 90%   | 81%  | 81%  | 81%  | 73%  | 73%  | 73%   | 73%   |
| Max. rated transmission torque (N.m)      | 0.3   | 0.3   | 1.2  | 1.2  | 1.2  | 2.5  | 2.5  | 2.5   | 2.5   |
| Max. permissible load in short time (N.m) | 1.0   | 1.0   | 3.5  | 3.5  | 3.5  | 7.5  | 7.5  | 7.5   | 7.5   |

| Reduction ratio                           | 1/189 | 1/264 | 1/369 | 1/516 |
|-------------------------------------------|-------|-------|-------|-------|
| Number of gear trains                     | 4     | 4     | 4     | 4     |
| Gearbox Length (L) (mm)                   | 57.9  | 57.9  | 57.9  | 57.9  |
| Transmission efficiency                   | 66%   | 66%   | 66%   | 66%   |
| Max. rated transmission torque (N.m)      | 3.0   | 3.0   | 3.0   | 3.0   |
| Max. permissible load in short time (N.m) | 9.0   | 9.0   | 9.0   | 9.0   |

# Brushless Dc Planetary Gear Motor

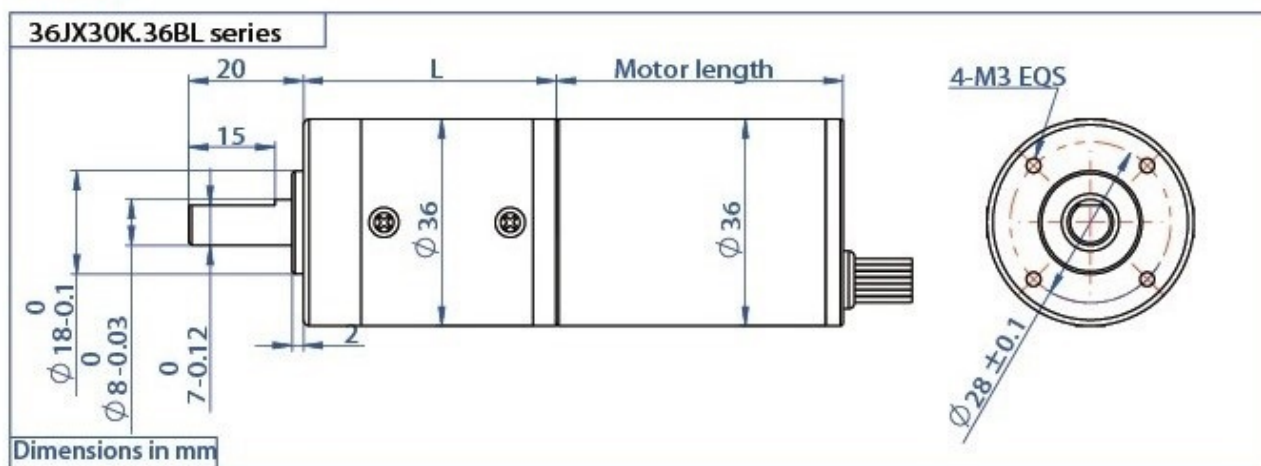
## 36JX30K.36BL Series

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Drawing



### Motor Technique Specification:

| Model   | Voltage (Vdc) | No load speed (rpm) | Rated power (W) | Rated torque (mN.m) | Rated Speed (rpm) | Rated Current (A) | Motor Length (mm) |
|---------|---------------|---------------------|-----------------|---------------------|-------------------|-------------------|-------------------|
| 36BL01A | 24            | 4200                | 9.5             | 30                  | 3000              | 0.70              | 40                |
| 36BL02A | 24            | 4200                | 14.5            | 45                  | 3000              | 0.95              | 50                |
| 36BL03A | 24            | 4200                | 25.5            | 80                  | 3000              | 1.80              | 60                |

### 36JX30K Planetary Gearbox Specification:

| Reduction ratio                           | 1/3.7 | 1/5.2 | 1/14 | 1/19 | 1/27 | 1/51 | 1/71 | 1/100 | 1/139 |
|-------------------------------------------|-------|-------|------|------|------|------|------|-------|-------|
| Number of gear trains                     | 1     | 1     | 2    | 2    | 2    | 3    | 3    | 3     | 3     |
| Gearbox Length (L) (mm)                   | 30.9  | 30.9  | 38.9 | 38.9 | 38.9 | 48.4 | 48.4 | 48.4  | 48.4  |
| Transmission efficiency                   | 90%   | 90%   | 81%  | 81%  | 81%  | 73%  | 73%  | 73%   | 73%   |
| Max. rated transmission torque (N.m)      | 0.3   | 0.3   | 1.2  | 1.2  | 1.2  | 2.5  | 2.5  | 2.5   | 2.5   |
| Max. permissible load in short time (N.m) | 1.0   | 1.0   | 3.5  | 3.5  | 3.5  | 7.5  | 7.5  | 7.5   | 7.5   |

| Reduction ratio                           | 1/189 | 1/264 | 1/369 | 1/516 |
|-------------------------------------------|-------|-------|-------|-------|
| Number of gear trains                     | 4     | 4     | 4     | 4     |
| Gearbox Length (L) (mm)                   | 55.8  | 55.8  | 55.8  | 55.8  |
| Transmission efficiency                   | 66%   | 66%   | 66%   | 66%   |
| Max. rated transmission torque (N.m)      | 3.0   | 3.0   | 3.0   | 3.0   |
| Max. permissible load in short time (N.m) | 9.0   | 9.0   | 9.0   | 9.0   |

# Brushless Dc Planetary Gear Motor

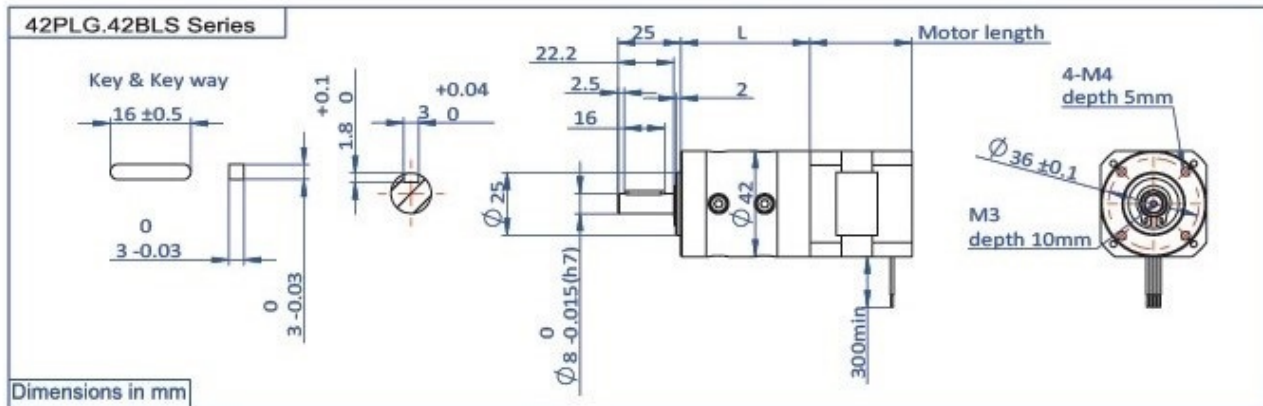
**FT AUTOMATION**

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## 42PLG.42BLS Series



### Drawing



### Motor Technique Specification:

| Model    | Voltage (Vdc) | No load speed (rpm) | Rated power (W) | Rated torque (N.m) | Rated Speed (rpm) | Rated Current (A) | Motor Length (mm) |
|----------|---------------|---------------------|-----------------|--------------------|-------------------|-------------------|-------------------|
| 42BLS01A | 24            | 4200                | 20              | 0.063              | 3000              | 1.4               | 41                |
| 42BLS02A | 24            | 4200                | 39              | 0.125              | 3000              | 2.7               | 61                |
| 42BLS03A | 24            | 4200                | 57              | 0.18               | 3000              | 4                 | 81                |
| 42BLS04A | 24            | 4200                | 79              | 0.25               | 3000              | 6                 | 100               |

### 42PLG Planetary Gearbox Specification:

| Reduction ratio                           | 1/3.65 | 1/5.36 | 1/6.55 | 1/8.63 | 1/13.3 | 1/19.5 | 1/23.9 | 1/31.5 | 1/35.1 | 1/42.9 | 1/46.2 | 1/56.5 |
|-------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Number of gear trains                     | 1      | 1      | 1      | 1      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      |
| Gearbox Length (L) (mm)                   | 53.1   | 53.1   | 53.1   | 53.1   | 65.9   | 65.9   | 65.9   | 65.9   | 65.9   | 65.9   | 65.9   | 65.9   |
| Transmission efficiency                   | 90%    | 90%    | 90%    | 90%    | 81%    | 81%    | 81%    | 81%    | 81%    | 81%    | 81%    | 81%    |
| Max. rated transmission torque (N.m)      | 3      | 3      | 3      | 3      | 7.5    | 7.5    | 7.5    | 7.5    | 7.5    | 7.5    | 7.5    | 7.5    |
| Max. permissible load in short time (N.m) | 9      | 9      | 9      | 9      | 22.5   | 22.5   | 22.5   | 22.5   | 22.5   | 22.5   | 22.5   | 22.5   |

| Reduction ratio                           | 1/114.9 | 1/128.1 | 1/154 | 1/156.6 | 1/168.8 | 1/188.2 | 1/206.3 | 1/247.9 | 1/271.8 | 1/281 | 1/303 | 1/370.2 |
|-------------------------------------------|---------|---------|-------|---------|---------|---------|---------|---------|---------|-------|-------|---------|
| Number of gear trains                     | 3       | 3       | 3     | 3       | 3       | 3       | 3       | 3       | 3       | 3     | 3     | 3       |
| Gearbox Length (L) (mm)                   | 78.7    | 78.7    | 78.7  | 78.7    | 78.7    | 78.7    | 78.7    | 78.7    | 78.7    | 78.7  | 78.7  | 78.7    |
| Transmission efficiency                   | 73%     | 73%     | 73%   | 73%     | 73%     | 73%     | 73%     | 73%     | 73%     | 73%   | 73%   | 73%     |
| Max. rated transmission torque (N.m)      | 15      | 15      | 15    | 15      | 15      | 15      | 15      | 15      | 15      | 15    | 15    | 15      |
| Max. permissible load in short time (N.m) | 45      | 45      | 45    | 45      | 45      | 45      | 45      | 45      | 45      | 45    | 45    | 45      |

# Brushless Dc Planetary Gear Motor

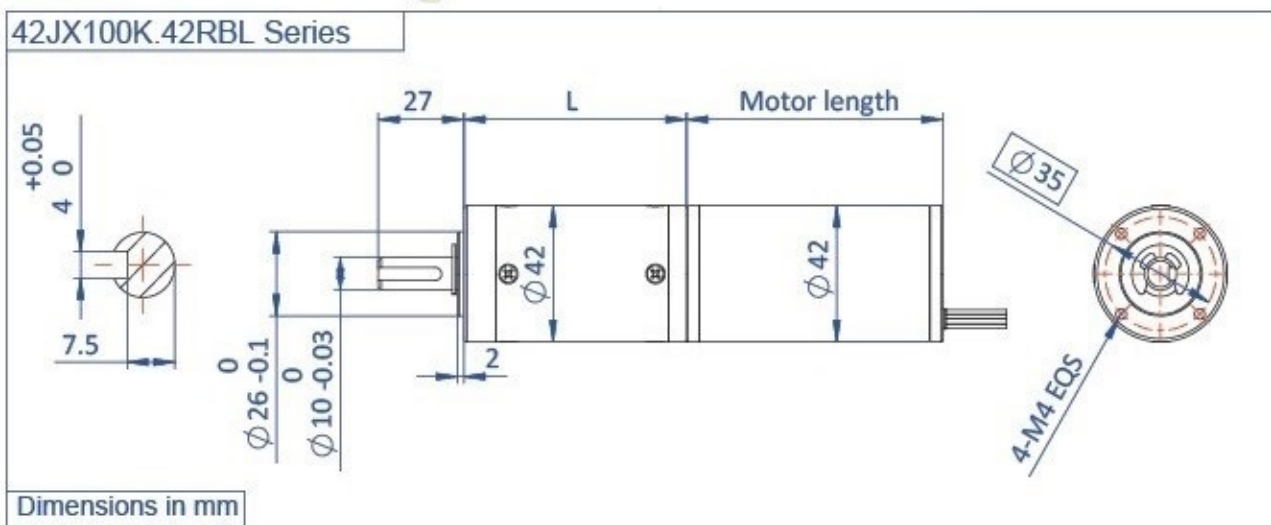
## 42JX100K.42RBL Series

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### Motor Technique Specification:

| Model    | Voltage (Vdc) | No load speed (rpm) | Rated power (W) | Rated torque (N.m) | Rated Speed (rpm) | Rated Current (A) | Motor Length (mm) |
|----------|---------------|---------------------|-----------------|--------------------|-------------------|-------------------|-------------------|
| 42RBL01A | 24            | 4200                | 7               | 0.02               | 3000              | 0.5               | 30                |
| 42RBL02A | 24            | 4200                | 25              | 0.08               | 3000              | 1.8               | 60                |
| 42RBL03A | 24            | 4200                | 50              | 0.17               | 3000              | 3.5               | 85                |
| 42RBL04A | 24            | 4200                | 70              | 0.22               | 3000              | 5.5               | 93                |

### 42JX100K Planetary Gearbox Specification:

| Reduction ratio                           | 1/3.7 | 1/5.2 | 1/14 | 1/19 | 1/27 | 1/51 | 1/71 | 1/100 | 1/139 | 1/189 | 1/264 |
|-------------------------------------------|-------|-------|------|------|------|------|------|-------|-------|-------|-------|
| Number of gear trains                     | 1     | 1     | 2    | 2    | 2    | 3    | 3    | 3     | 3     | 4     | 4     |
| Gearbox Length (L) (mm)                   | 41.3  | 41.3  | 51.6 | 51.6 | 51.6 | 64.4 | 64.4 | 64.4  | 64.4  | 74.7  | 74.7  |
| Transmission efficiency                   | 90%   | 90%   | 81%  | 81%  | 81%  | 73%  | 73%  | 73%   | 73%   | 66%   | 66%   |
| Max. rated transmission torque (N.m)      | 1     | 1     | 4    | 4    | 4    | 8    | 8    | 8     | 8     | 10    | 10    |
| Max. permissible load in short time (N.m) | 3     | 3     | 12   | 12   | 12   | 25   | 25   | 25    | 25    | 30    | 30    |

# Brushless Dc Planetary Gear Motor

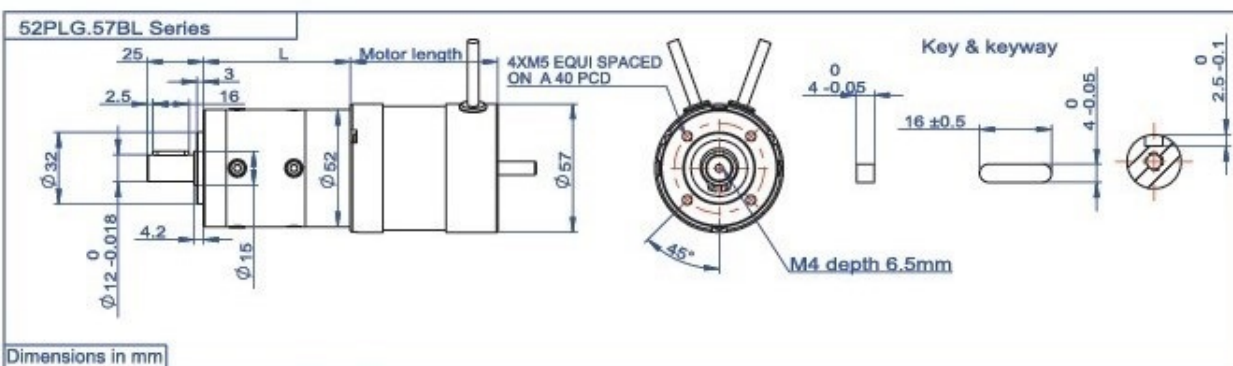
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## 52PLG.57BL Series



### Drawing



### MotorTechnique Specification:

| Model   | Voltage (Vdc) | No load speed (rpm) | Rated power (W) | Rated torque (N.m) | Rated Speed (rpm) | Length (mm) |
|---------|---------------|---------------------|-----------------|--------------------|-------------------|-------------|
| 57BL01A | 24/36         | 4200                | 35              | 0.11               | 3000              | 55          |
| 57BL01B | 24/36         | 2000                | 19              | 0.09               | 1300              | 55          |
| 57BL02A | 24/36         | 4200                | 69              | 0.22               | 3000              | 75          |
| 57BL02B | 24/36         | 2000                | 40              | 0.19               | 1200              | 75          |
| 57BL03A | 24/36         | 4200                | 100             | 0.32               | 3000              | 95          |
| 57BL03B | 24/36         | 3000                | 63              | 0.30               | 2000              | 95          |
| 57BL04A | 24/36         | 4200                | 132             | 0.42               | 3000              | 115         |
| 57BL04B | 24/36         | 2200                | 63              | 0.40               | 1500              | 115         |

### 52PLG Planetary Gearbox Specification:

| Reduction ratio                           | 1/3.65 | 1/5.36 | 1/6.55 | 1/8.63 | 1/13.3 | 1/19.5 | 1/23.9 | 1/31.5 | 1/35.1 | 1/42.9 | 1/46.2 | 1/56.5 |
|-------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Number of gear trains                     | 1      | 1      | 1      | 1      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      |
| Gearbox Length (L) (mm)                   | 66.4   | 66.4   | 66.4   | 66.4   | 82.8   | 82.8   | 82.8   | 82.8   | 82.8   | 82.8   | 82.8   | 82.8   |
| Transmission efficiency                   | 90%    | 90%    | 90%    | 90%    | 81%    | 81%    | 81%    | 81%    | 81%    | 81%    | 81%    | 81%    |
| Max. rated transmission torque (N.m)      | 4      | 4      | 4      | 4      | 12     | 12     | 12     | 12     | 12     | 12     | 12     | 12     |
| Max. permissible load in short time (N.m) | 12     | 12     | 12     | 12     | 36     | 36     | 36     | 36     | 36     | 36     | 36     | 36     |

| Reduction ratio                           | 1/114.9 | 1/128.1 | 1/154 | 1/156.6 | 1/168.8 | 1/188.2 | 1/206.3 | 1/247.9 | 1/271.8 | 1/281 | 1/303 | 1/370.2 |
|-------------------------------------------|---------|---------|-------|---------|---------|---------|---------|---------|---------|-------|-------|---------|
| Number of gear trains                     | 3       | 3       | 3     | 3       | 3       | 3       | 3       | 3       | 3       | 3     | 3     | 3       |
| Gearbox Length (L) (mm)                   | 99.2    | 99.2    | 99.2  | 99.2    | 99.2    | 99.2    | 99.2    | 99.2    | 99.2    | 99.2  | 99.2  | 99.2    |
| Transmission efficiency                   | 73%     | 73%     | 73%   | 73%     | 73%     | 73%     | 73%     | 73%     | 73%     | 73%   | 73%   | 73%     |
| Max. rated transmission torque (N.m)      | 25      | 25      | 25    | 25      | 25      | 25      | 25      | 25      | 25      | 25    | 25    | 25      |
| Max. permissible load in short time (N.m) | 75      | 75      | 75    | 75      | 75      | 75      | 75      | 75      | 75      | 75    | 75    | 75      |

# Brushless Dc Planetary Gear Motor

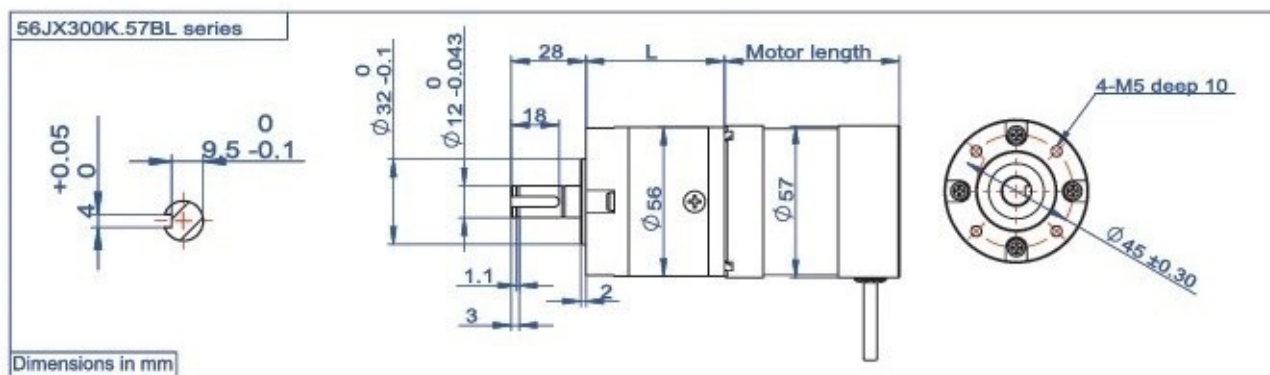
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## 56JX300K.57BL Series



### Drawing



### Motor Technique Specification:

| Model   | Voltage (Vdc) | No load speed (rpm) | Rated power (W) | Rated torque (N.m) | Rated Speed (rpm) | Length (mm) |
|---------|---------------|---------------------|-----------------|--------------------|-------------------|-------------|
| 57BL01A | 24/36         | 4200                | 35              | 0.11               | 3000              | 55          |
| 57BL01B | 24/36         | 2000                | 19              | 0.09               | 1300              | 55          |
| 57BL02A | 24/36         | 4200                | 69              | 0.22               | 3000              | 75          |
| 57BL02B | 24/36         | 2000                | 40              | 0.19               | 1200              | 75          |
| 57BL03A | 24/36         | 4200                | 100             | 0.32               | 3000              | 95          |
| 57BL03B | 24/36         | 3000                | 63              | 0.30               | 2000              | 95          |
| 57BL04A | 24/36         | 4200                | 132             | 0.42               | 3000              | 115         |
| 57BL04B | 24/36         | 2200                | 63              | 0.40               | 1500              | 115         |

### 56JX300K Planetary Gearbox Specification:

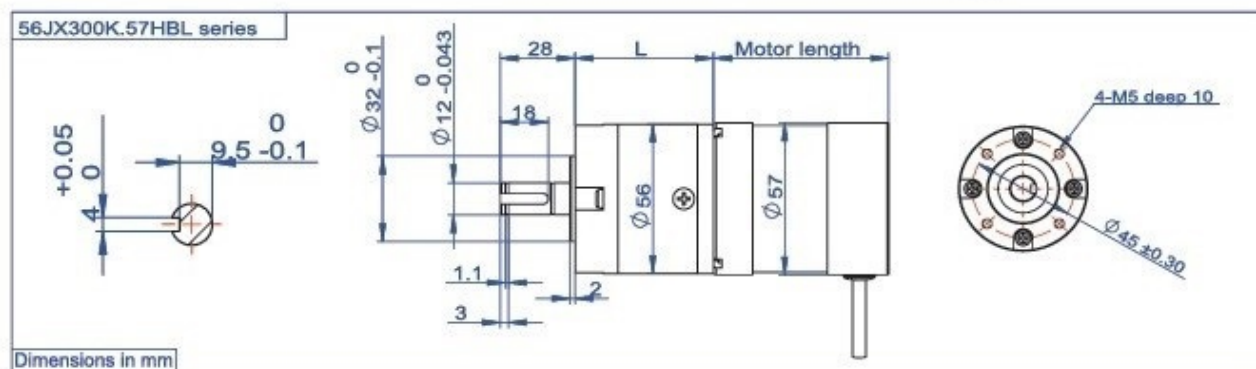
| Reduction ratio                           | 1/3.6 | 1/4.25 | 1/13 | 1/15 | 1/18 | 1/47 | 1/55 | 1/65 | 1/77 | 1/168 | 1/198 | 1/234 |
|-------------------------------------------|-------|--------|------|------|------|------|------|------|------|-------|-------|-------|
| Number of gear trains                     | 1     | 1      | 2    | 2    | 2    | 3    | 3    | 3    | 3    | 4     | 4     | 4     |
| Gearbox Length (L) (mm)                   | 40.5  | 40.5   | 51.8 | 51.8 | 51.8 | 63.1 | 63.1 | 63.1 | 63.1 | 82.6  | 82.6  | 82.6  |
| Transmission efficiency                   | 90%   | 90%    | 81%  | 81%  | 81%  | 73%  | 73%  | 73%  | 73%  | 66%   | 66%   | 66%   |
| Max. rated transmission torque (N.m)      | 2     | 2      | 8    | 8    | 8    | 16   | 16   | 16   | 16   | 30    | 30    | 30    |
| Max. permissible load in short time (N.m) | 6     | 6      | 25   | 25   | 25   | 50   | 50   | 50   | 50   | 90    | 90    | 90    |

## Large Torque Version Brushless Dc Planetary Gear Motor

### 56JX300K.57HBL Series



#### Drawing



#### Motor Technique Specification:

| Model    | Voltage (Vdc) | No load speed (rpm) | Rated power (W) | Rated torque (N.m) | Rated Speed (rpm) | Length (mm) |
|----------|---------------|---------------------|-----------------|--------------------|-------------------|-------------|
| 57HBL01A | 24/36         | 5200                | 59              | 0.14               | 4000              | 55          |
| 57HBL02A | 24/36         | 5200                | 118             | 0.28               | 4000              | 75          |
| 57HBL03A | 24/36         | 5200                | 180             | 0.43               | 4000              | 95          |
| 57HBL04A | 24/36         | 5200                | 206             | 0.49               | 4000              | 115         |

#### 56JX300K Planetary Gearbox Specification:

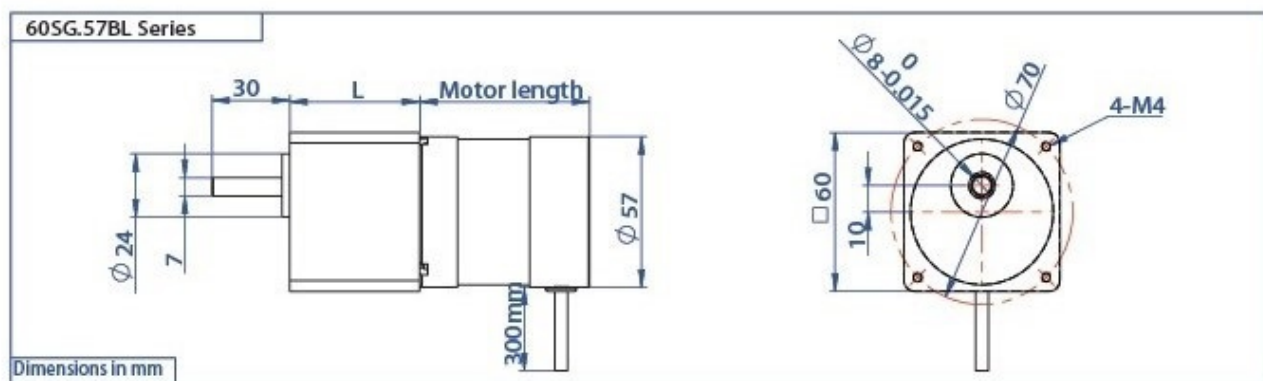
| Reduction ratio                           | 1/3.6 | 1/4.25 | 1/13 | 1/15 | 1/18 | 1/47 | 1/55 | 1/65 | 1/77 | 1/168 | 1/198 | 1/234 |
|-------------------------------------------|-------|--------|------|------|------|------|------|------|------|-------|-------|-------|
| Number of gear trains                     | 1     | 1      | 2    | 2    | 2    | 3    | 3    | 3    | 3    | 4     | 4     | 4     |
| Gearbox Length (L) (mm)                   | 40.5  | 40.5   | 51.8 | 51.8 | 51.8 | 63.1 | 63.1 | 63.1 | 63.1 | 82.6  | 82.6  | 82.6  |
| Transmission efficiency                   | 90%   | 90%    | 81%  | 81%  | 81%  | 73%  | 73%  | 73%  | 73%  | 66%   | 66%   | 66%   |
| Max. rated transmission torque (N.m)      | 2     | 2      | 8    | 8    | 8    | 16   | 16   | 16   | 16   | 30    | 30    | 30    |
| Max. permissible load in short time (N.m) | 6     | 6      | 25   | 25   | 25   | 50   | 50   | 50   | 50   | 90    | 90    | 90    |

# Brushless Dc Spur Gear Motor

## 60SG.57BL Series



### Drawing



### MotorTechnique Specification:

| Model   | Voltage (Vdc) | No load speed (rpm) | Rated power (W) | Rated torque (N.m) | Rated Speed (rpm) | Length (mm) |
|---------|---------------|---------------------|-----------------|--------------------|-------------------|-------------|
| 57BL01A | 24/36         | 4200                | 35              | 0.11               | 3000              | 55          |
| 57BL02A | 24/36         | 4200                | 69              | 0.22               | 3000              | 75          |
| 57BL03A | 24/36         | 4200                | 100             | 0.32               | 3000              | 95          |
| 57BL04A | 24/36         | 4200                | 132             | 0.42               | 3000              | 115         |

### 60SG Gearbox Specification:

| Ratio                       | 3      | 7.5 | 12.5    | 15 | 25    | 30 | 50       | 75 | 90 | 100 | 120 | 150 | 180 | 200 |
|-----------------------------|--------|-----|---------|----|-------|----|----------|----|----|-----|-----|-----|-----|-----|
| Number of gear trains       | 2      | 2   | 2       | 3  | 3     | 3  | 4        | 4  | 4  | 4   | 4   | 4   | 4   | 4   |
| Length(L) mm                | 32     | 32  | 32      | 32 | 42    | 42 | 42       | 42 | 42 | 42  | 42  | 42  | 42  | 42  |
| Peak torque kg.cm           | 50     |     |         |    |       |    |          |    |    |     |     |     |     |     |
| Average Backlash At No load | 4 deg. |     | 3.5deg. |    | 3deg. |    | 2.5 deg. |    |    |     |     |     |     |     |

## Brushless Dc Planetary Gear Motor

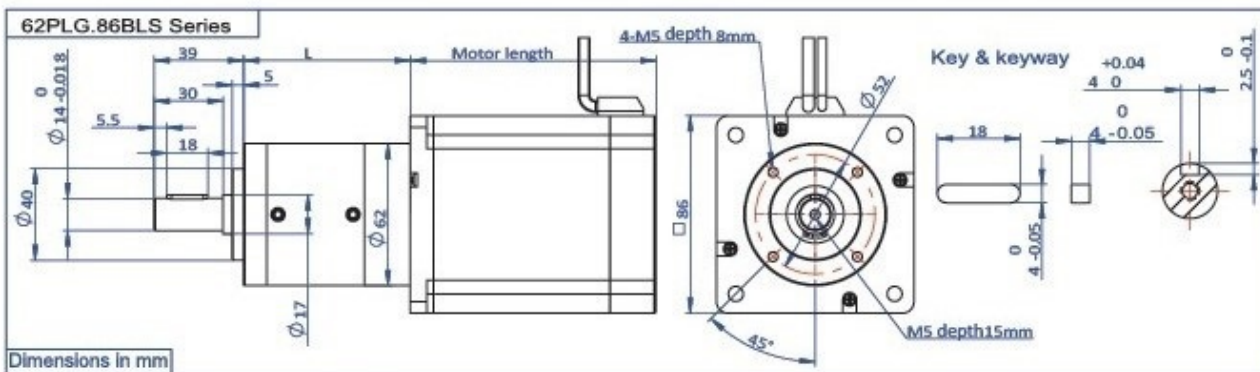
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### 62PLG.86BLS Series



Drawing



#### Motor Technique Specification:

| Model    | Voltage (Vdc) | No load speed (rpm) | Rated power (W) | Rated torque (N.m) | Rated Speed (rpm) | Length (mm) |
|----------|---------------|---------------------|-----------------|--------------------|-------------------|-------------|
| 86BLS01A | 48            | 3500                | 314             | 1                  | 3000              | 80          |
| 86BLS02A | 48            | 3500                | 565             | 1.8                | 3000              | 105         |
| 86BLS03A | 48            | 3500                | 785             | 2.5                | 3000              | 130         |

#### 62PLG Planetary Gearbox Specification:

| Reduction ratio                           | 1/3.65 | 1/5.36 | 1/6.55 | 1/8.63 | 1/13.3 | 1/19.5 | 1/23.9 | 1/31.5 | 1/35.1 | 1/42.9 | 1/46.2 |
|-------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Number of gear trains                     | 1      | 1      | 1      | 1      | 2      | 2      | 2      | 2      | 2      | 2      | 2      |
| Gearbox Length (L) (mm)                   | 72.7   | 72.7   | 72.7   | 72.7   | 90.6   | 90.6   | 90.6   | 90.6   | 90.6   | 90.6   | 90.6   |
| Transmission efficiency                   | 90%    | 90%    | 90%    | 90%    | 81%    | 81%    | 81%    | 81%    | 81%    | 81%    | 81%    |
| Max. rated transmission torque (N.m)      | 8      | 8      | 8      | 8      | 25     | 25     | 25     | 25     | 25     | 25     | 25     |
| Max. permissible load in short time (N.m) | 16     | 16     | 16     | 16     | 75     | 75     | 75     | 75     | 75     | 75     | 75     |

| Reduction ratio                           | 1/114.9 | 1/128.1 | 1/154 | 1/156.6 | 1/168.8 | 1/188.2 | 1/206.3 | 1/247.9 | 1/271.8 | 1/281 | 1/303 |
|-------------------------------------------|---------|---------|-------|---------|---------|---------|---------|---------|---------|-------|-------|
| Number of gear trains                     | 3       | 3       | 3     | 3       | 3       | 3       | 3       | 3       | 3       | 3     | 3     |
| Gearbox Length (L) (mm)                   | 108.5   | 108.5   | 108.5 | 108.5   | 108.5   | 108.5   | 108.5   | 108.5   | 108.5   | 108.5 | 108.5 |
| Transmission efficiency                   | 73%     | 73%     | 73%   | 73%     | 73%     | 73%     | 73%     | 73%     | 73%     | 73%   | 73%   |
| Max. rated transmission torque (N.m)      | 45      | 45      | 45    | 45      | 45      | 45      | 45      | 45      | 45      | 45    | 45    |
| Max. permissible load in short time (N.m) | 135     | 135     | 135   | 135     | 135     | 135     | 135     | 135     | 135     | 135   | 135   |

## Series Brushless Dc Spur Gear Motor

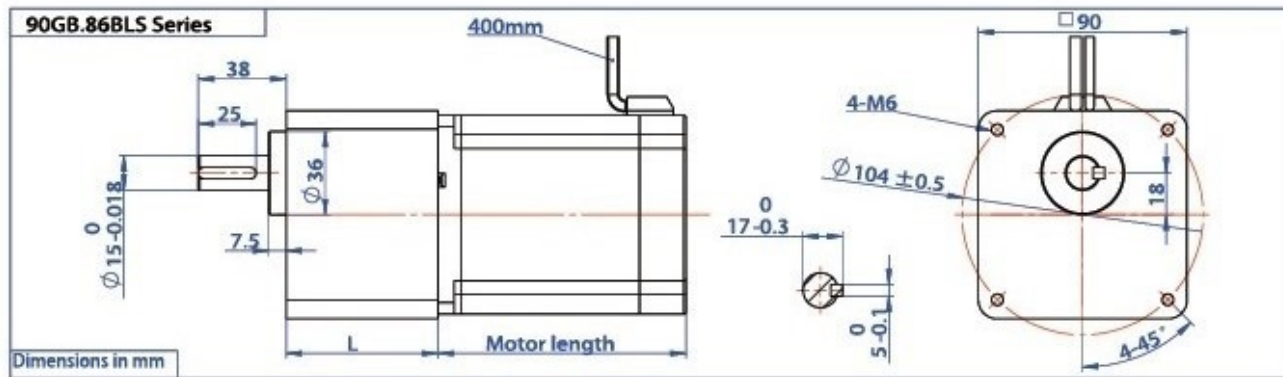
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### 90GB.86BLS



#### Drawing



#### MotorTechnique Specification:

| Model    | Voltage (Vdc) | No load speed (rpm) | Rated power (W) | Rated torque (N.m) | Rated Speed (rpm) | Length (mm) |
|----------|---------------|---------------------|-----------------|--------------------|-------------------|-------------|
| 86BLS-1  | 48            | 3500                | 100             | 0.32               | 3000              | 62          |
| 86BLS-2  | 48            | 3500                | 150             | 0.48               | 3000              | 67          |
| 86BLS-3  | 48            | 3500                | 200             | 0.64               | 3000              | 72          |
| 86BLS-4  | 48            | 3500                | 300             | 0.96               | 3000              | 82          |
| 86BLS01A | 48            | 3500                | 314             | 1                  | 3000              | 80          |
| 86BLS02A | 48            | 3500                | 565             | 1.8                | 3000              | 105         |
| 86BLS03A | 48            | 3500                | 785             | 2.5                | 3000              | 130         |

#### 90GB Gearbox Specification:

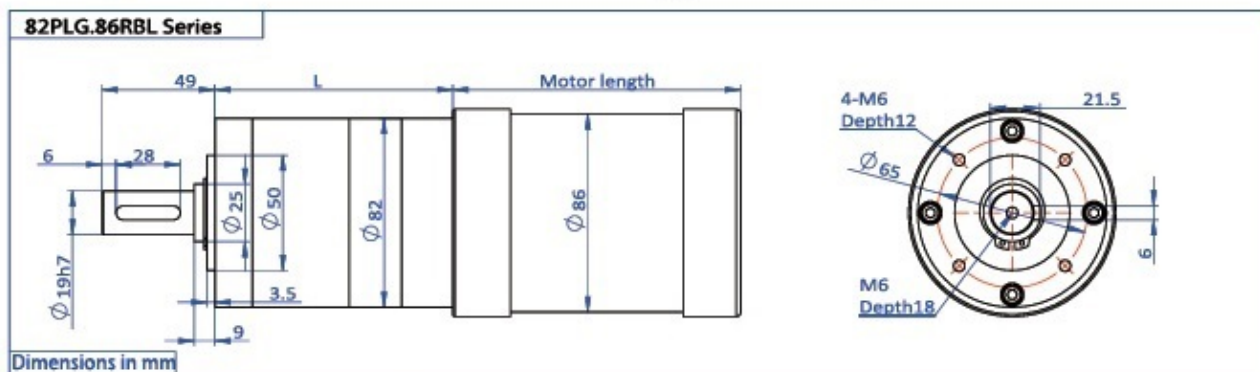
| Ratio                       | 3      | 5  | 7.5 | 12.5 | 15 | 25      | 30 | 50 | 75       | 100 | 120 | 150 |
|-----------------------------|--------|----|-----|------|----|---------|----|----|----------|-----|-----|-----|
| Number of gear trains       | 2      | 2  | 2   | 2    | 2  | 3       | 3  | 4  | 4        | 4   | 4   | 4   |
| Length(L) mm                | 45     | 45 | 45  | 45   | 45 | 60      | 60 | 60 | 60       | 60  | 60  | 60  |
| Peak torque kg.cm           | 250    |    |     |      |    |         |    |    |          |     |     |     |
| Average Backlash At No load | 4 deg. |    |     |      |    | 3.5deg. |    |    | 2.5 deg. |     |     |     |

# Brushless Dc Planetary Gear Motor

## 82PLG.86RBLSeries



### Drawing



### Motor Technique Specification:

| Model    | Voltage (Vdc) | No load speed (rpm) | Rated power (W) | Rated torque (N.m) | Rated Speed (rpm) | Length (mm) |
|----------|---------------|---------------------|-----------------|--------------------|-------------------|-------------|
| 86RBL01A | 48            | 3500                | 314             | 1                  | 3000              | 80          |
| 86RBL02A | 48            | 3500                | 565             | 1.8                | 3000              | 105         |
| 86RBL03A | 48            | 3500                | 785             | 2.5                | 3000              | 130         |

### 82PLG Planetary Gearbox Specification:

\*Helical gears at first stage

| Reduction ratio                           | 1/3.65 | 1/5.36 | 1/6.55 | 1/8.63 | 1/13.5 | 1/18.9 | 1/24.6 | 1/28 | 1/33.9 | 1/44.7 | 1/67 | 1/81.1 |
|-------------------------------------------|--------|--------|--------|--------|--------|--------|--------|------|--------|--------|------|--------|
| Number of gear trains                     | 1      | 1      | 1      | 1      | 2      | 2      | 2      | 2    | 2      | 2      | 2    | 3      |
| Gearbox Length (L) (mm)                   | 58.3   | 58.3   | 58.3   | 58.3   | 80.5   | 80.5   | 80.5   | 80.5 | 80.5   | 80.5   | 80.5 | 103.2  |
| Transmission efficiency                   | 90%    | 90%    | 90%    | 90%    | 81%    | 81%    | 81%    | 81%  | 81%    | 81%    | 81%  | 73%    |
| Max. rated transmission torque (N.m)      | 20     | 20     | 20     | 20     | 60     | 60     | 60     | 60   | 60     | 60     | 60   | 120    |
| Max. permissible load in short time (N.m) | 40     | 40     | 40     | 40     | 120    | 120    | 120    | 120  | 12     | 12     | 120  | 240    |

| Reduction ratio                           | 1/119 | 1/127.7 | 1/145.4 | 1/165.6 | 1/191.6 | 1/231.6 | 1/301.7 | 1/393 |
|-------------------------------------------|-------|---------|---------|---------|---------|---------|---------|-------|
| Number of gear trains                     | 3     | 3       | 3       | 3       | 3       | 3       | 3       | 3     |
| Gearbox Length (L) (mm)                   | 103.2 | 103.2   | 103.2   | 103.2   | 103.2   | 103.2   | 103.2   | 103.2 |
| Transmission efficiency                   | 73%   | 73%     | 73%     | 73%     | 73%     | 73%     | 73%     | 73%   |
| Max. rated transmission torque (N.m)      | 120   | 120     | 120     | 120     | 120     | 120     | 120     | 120   |
| Max. permissible load in short time (N.m) | 240   | 240     | 240     | 240     | 240     | 240     | 240     | 240   |