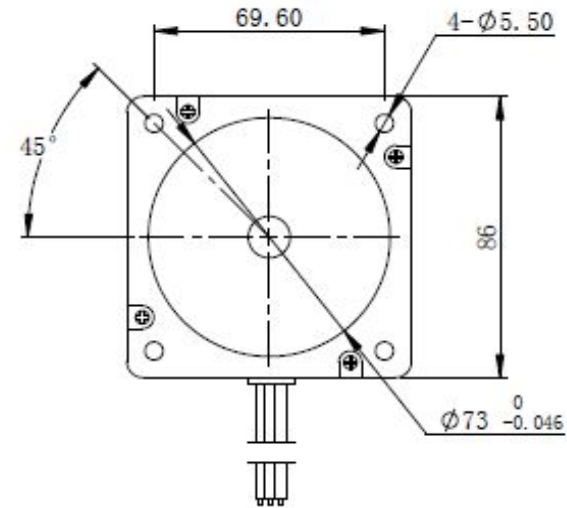
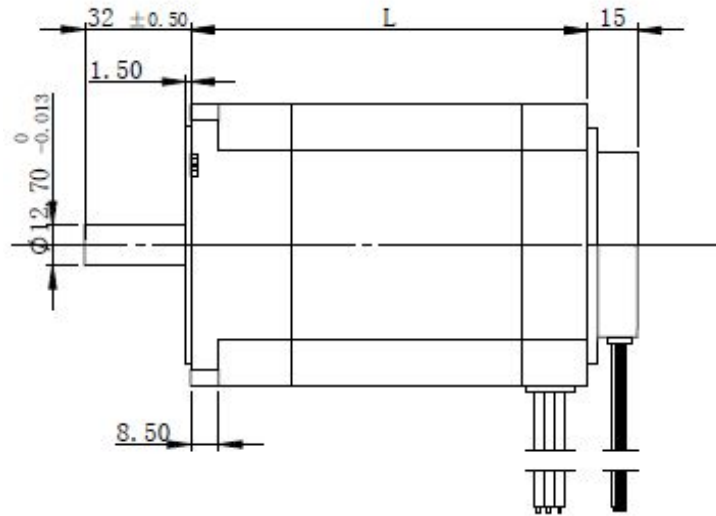


| Rev | Modify details | Modified by/date |
|-----|----------------|------------------|
| | | |




Specification:

| Model | | EL86SBL 58-01 | EL86SBL 58-02 | EL86SBL 71-01 | EL86SBL 71-02 | EL86SBL 98-01 | EL86SBL 98-02 | EL86SBL 125-01 | EL86SBL 125-02 |
|-------------------------|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|
| Number of poles | | 8 | | | | | | | |
| Number of phase | | 3 | | | | | | | |
| Rated voltage | VDC | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 |
| Rated speed | RPM | 1000 | 3000 | 1000 | 3000 | 1000 | 3000 | 1000 | 3000 |
| Continuous stall torque | N.m | 0.42 | 0.42 | 0.84 | 0.84 | 1.68 | 1.68 | 2.52 | 2.2 |
| Rated torque | N.m | 0.35 | 0.35 | 0.7 | 0.7 | 1.4 | 1.4 | 2.1 | 2.1 |
| Rotor power | W | 24 | 110 | 73 | 220 | 147 | 440 | 220 | 660 |
| Peak torque | N.m | 1.05 | 1.05 | 2.1 | 2.1 | 4.2 | 4.2 | 6.3 | 6.3 |
| Peak current | A | 2.86 | 8.6 | 5.7 | 17.1 | 11.4 | 34.3 | 17.2 | 51.5 |
| Torque constant | Nm/A | 0.324 | 0.12 | 0.324 | 0.12 | 0.324 | 0.12 | 0.324 | 0.12 |
| Back E.M.F | V/KRPM | 34.28 | 12.63 | 34.28 | 12.63 | 34.28 | 12.63 | 34.28 | 12.63 |
| Rotor inertia | g.cm ² | 0.4 | 0.4 | 0.8 | 0.8 | 1.6 | 1.6 | 2.4 | 2.4 |
| Body length | mm | 58 | 58 | 71 | 71 | 98 | 98 | 125 | 125 |
| Voltage range | VDC | 12-325 | | | | | | | |
| Speed Range | rpm | 1000-3000 | | | | | | | |
| Weight | Kg | 1.5 | 1.5 | 1.9 | 1.9 | 2.6 | 2.6 | 4 | 4 |

General specification:

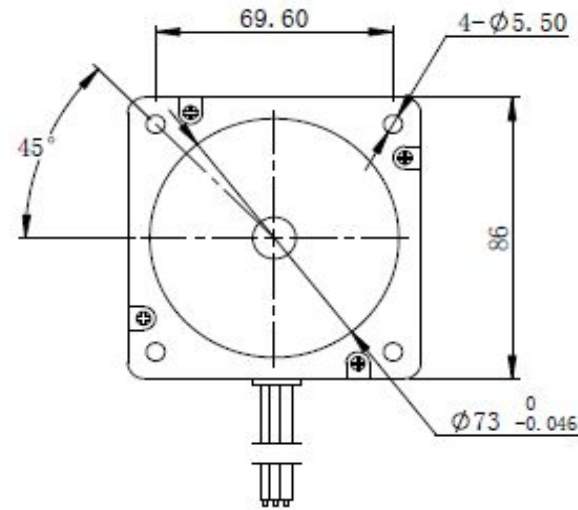
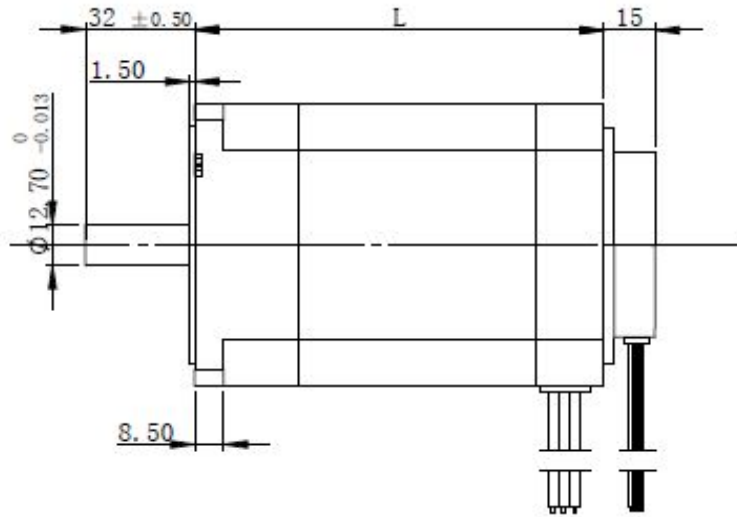
| Item | Specifications |
|-----------------------|-----------------------------|
| Winding type | Star |
| Hall effect angle | 120 degree electrical angle |
| Shaft run out | 0.05mm |
| Radial play | 0.02mm@460g |
| End play | 0.02mm@400g |
| Max. radial force | 15N @ 10mm from the flange |
| Max. axial force | 10N |
| Insulation class | Class B |
| Dielectric strength | 500VDC for one minute |
| Insulation resistance | 100MΩMin., 500VDC |

| | | | |
|--|------------|----------|-------|
| Project No.: | Part No.: | Material | REV |
| | EL86SBL DC | | A |
| Description: | | Weight | Scale |
| DC Brushless Motor | | Design: | |
|  www.elmeq.com | | Approve: | |



This drawing and its contents are the property of ELMEQ and must not be copied, reproduced, transmitted or disclosed to any third party without written consent of ELMEQ

| Rev | Modify details | Modified by/date |
|-----|----------------|------------------|
| | | |




Specification:

| Model | | EL86SBL 71-H01 | EL86SBL 71-H02 | EL86SBL 98-H01 | EL86SBL 98-H02 | EL86SBL 125-H01 | EL86SBL 125-H02 |
|-------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|--------------------|
| Number of poles | | 4 | | | | | |
| Number of phase | | 3 | | | | | |
| Rated voltage | VDC | 24 | 48 | 48 | 310 | 48 | 310 |
| Rated speed | RPM | 2000 | 4000 | 2000 | 6000 | 2000 | 6000 |
| Continuous stall torque | N.m | 0.84 | 0.84 | 1.68 | 1.68 | 2.52 | 2.2 |
| Rated torque | N.m | 0.7 | 0.7 | 1.4 | 1.4 | 2.1 | 2 |
| Rotor power | W | 147 | 293 | 293 | 879 | 440 | 1256 |
| Peak torque | N.m | 2.1 | 2.1 | 4.2 | 4.2 | 6.3 | 6 |
| Peak current | A | 25 | 24 | 24.7 | 10.8 | 36 | 15.4 |
| Torque constant | Nm/A | 0.084 | 0.087 | 0.17 | 0.39 | 0.175 | 0.39 |
| Back E.M.F | V/KRPM | 8.9 | 9.25 | 18 | 41.3 | 18.5 | 41.3 |
| Rotor inertia | g.cm ² | 0.7 | 0.7 | 1.4 | 1.4 | 2.1 | 2.1 |
| Body length | mm | 71 | 71 | 98 | 98 | 125 | 125 |
| Voltage range | VDC | 12-325 | | | | | |
| Speed Range | rpm | 2000-6000 | | | | | |
| Weight | Kg | 1.9 | 1.9 | 2.6 | 2.6 | 4 | 4 |

General specification:

| Item | Specifications |
|-----------------------|-----------------------------|
| Winding type | Star |
| Hall effect angle | 120 degree electrical angle |
| Shaft run out | 0.05mm |
| Radial play | 0.02mm@460g |
| End play | 0.08mm@450g |
| Max. radial force | 220N @ 20mm from the |
| Max. axial force | 60N |
| Insulation class | Class B |
| Dielectric strength | 500VDC for one minute |
| Insulation resistance | 100MΩMin., 500VDC |

| | | | |
|--|-------------|----------|-------|
| Project No.: | Part No.: | Material | REV |
| | EL86SBL HDC | | A |
| Description: | | Weight | Scale |
| DC Brushless Motor | | Design: | |
|  www.elmeq.com | | Approve: | |



This drawing and its contents are the property of ELMEQ and must not be copied, reproduced, transmitted or disclosed to any third party without written consent of ELMEQ