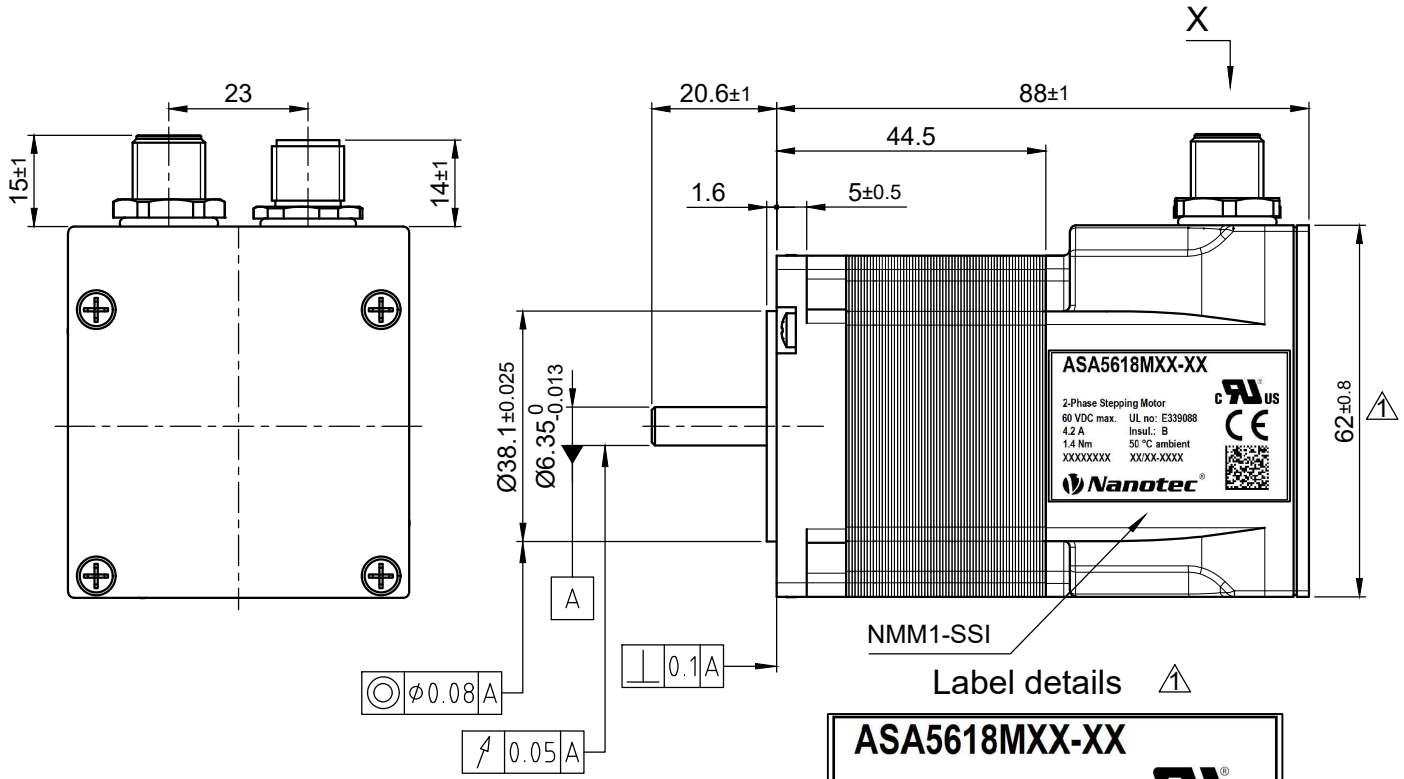
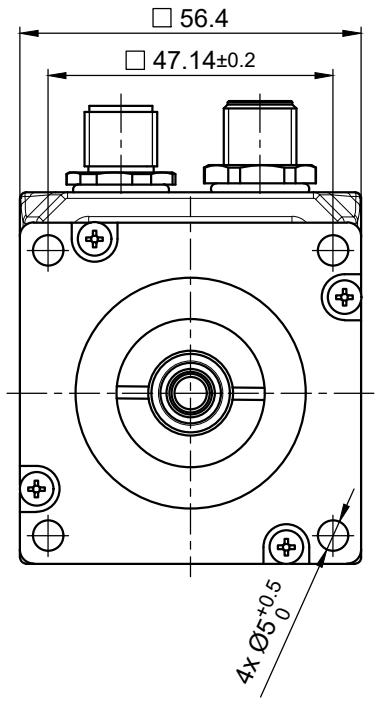
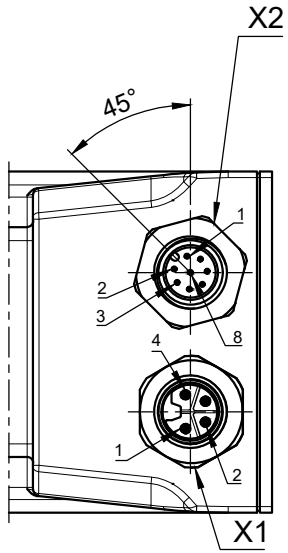



View X




Label details 1

| X1 | MOTOR |
|---|---|
| M12 / 4-Pole / L-Coding / male | |
| Pin No. | Function |
| 1 | A\ |
| 2 | A |
| 3 | B |
| 4 | B\ |
| cable shield on housing | |

1

| X2 | ENCODER |
|---|---|
| M12 / 8-Pole / A-Coding / male | |
| Pin No. | Function |
| 1 | Clock+ |
| 2 | Clock- |
| 3 | Data OUT+ |
| 4 | Data OUT- |
| 5 | GND |
| 6 | n.c. |
| 7 | n.c. |
| 8 | +UB |
| cable shield on housing | |

| MOTOR SPECIFICATION | | | |
|---|---|---|---|
| Nominal Operating Voltage | V DC | 48 | |
| Max. Operating Voltage | V DC | 60 | |
| Current per Winding | A | 4.2 | |
| Resistance per Phase (25°C) ±15% | Ω | 0.45 | 3 |
| Inductance per Phase (1 kHz) ±20% | mH | 1.6 | 1 |
| Holding Torque | Nm | 1.4 | |
| Step Angle ±5% | ° | 1.8 | |
| Rotor Inertia | kg m² | 30 x10$^{-6}$ | |

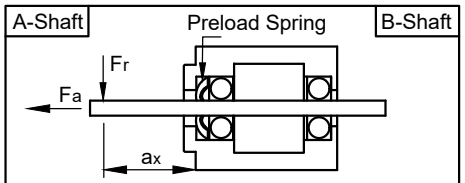
2

| GENERAL MOTOR SPECIFICATION | | |
|---|---|---|
| Ambient Temperature | °C | -10 ...50 |
| Max. Ambient Humidity (non condensing) | % | 85 |
| Protection Class (except shaft outlet) | | IP65 |
| Protection Class (shaft outlet) | | IP54 |
| Housing color | | black |

1

| ENCODER SPECIFICATION | | |
|---|---|---|
| Operating Voltage | V DC | 4.75...15 |
| Singleturn Enc. Resolution | bit | 17 |
| Multiturn Enc. Resolution | bit | 16 |
| Interface | SSI | |

1




| | | | |
|---|---|---|---|
| Max. Axial Force | Fa | N | 10 |
| Max. Radial Force | Fr (a1 = 10 mm) | N | 28 |
| Axial Play | Fa = 4.0 N | mm | 0.08 |
| Radial Play | Fr = 4.0 N | mm | 0.02 |

| ISO 8015 | ISO 1302 | ISO 2768 cK | ISO 13715 | Weight ±10% 0.9 kg |
|---|---|---|---|---|

| REV | Rev. Text | Name | Date |
|---|---|---|---|
| 03 | changed resistance | Kolev._I | 22.08.2024 |
| 02 | housing color | Kolev._I | 21.08.2024 |
| 01 | revise drawing | Kolev._I | 16.02.2024 |

| | Date | Name |
|---|---|---|
| Drawn | 14.11.2023 | Schneid_A |
| Reviewed | 15.11.2023 | Sejdini._B |
| Released | 15.11.2023 | Sejdini._B |

Nanotec PLUG & DRIVE

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State: Released | Rev: 03 | CONFIDENTIAL