# MDC-22

This motor was especially designed for providing motion to aerospace/military products such as servo-actuators, where high reliability and long lifetime are required, as well as durability under harsh environmental condidtions. Peak torque obtained on the axis at nominal voltage of 27 V DC is 20 mNm. Conforms to MIL STD. Temperature range: -40 ÷ +80 [°C]. Vibration toleration: according to MIL 810. This motor is available in different housings and with a shaft pinion adapted to customer's needs. See two options below.


## Specifications

| Parameter | Unit | Value | Tolerance |
|---|---|---|---|
| Nominal voltage | VDC | 27 | - |
| No load speed | rpm | 10,400 | ±10% |
| No load current | A | 0.08 | max |
| Max. rated torque | mNm | 20 | - |
| Stall current | A | 0.85 | ±12% |
| Terminal resistance | Ohm | 33 | ±10% |
| Brush voltage drop (at 0.5 A current, after exposure to storage conditions per MIL-M-8609) | V DC | 2 | max |
| No load starting current | A | 0.1 | Max |
| Winding temperature rating | °C | 180 | max |
| Bearing lubrication | - | Braycote 601 | - |
| Lead wires length (#24 AWG Teflon coated cable per MIL-22759) | mm | 200 | ±6 |

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| **Shaft-pinion data options :** | | Option 1 | Option 2 |
|---|---|---|---|
| Number of teeth | - | 13 | 9 |
| Diametrical pitch | - | 120 | |
| Pressure angle | Deg | 20 | |
| Standard pitch dia (ref) | mm | 1.905 | |
| Addendum (ref) | mm | 0.211 | |
| Whole depth | mm | 0.516 | |
| Circular tooth thickness on pitch dia (ref) | mm | 0.333 | |
| Testing radius uncorrected master gear | mm | 1.05 – 1.059 | 1.40 |
| Total composite error | mm | 0.025 | 0.036 |
| Tooth to tooth composite error | mm | 0.018 | 0.025 |
| Measurement dia over two pins | mm | 2.6 – 0.07 | 3.23 – 0.025 |
| Pin diameter | mm | 0.406 | 0.366 |
| Surface roughness of active profile | - | 32 | |
| AGMA Quality No. | - | 0108 | |

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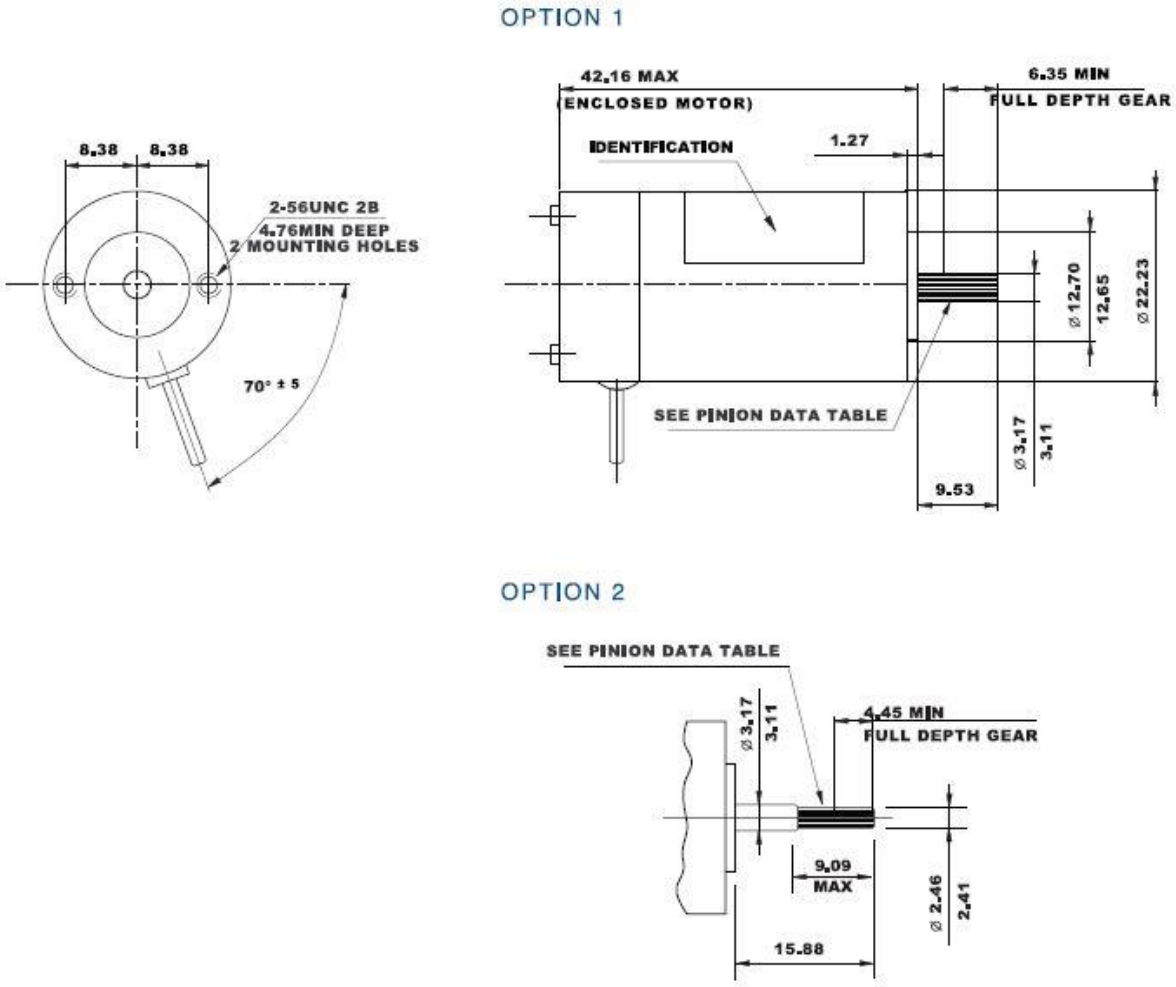
# MDC-11L

## Drawing




***All dimensions are in mm***

## For Additional Information

**To learn more about the MDC-22 or other MTC products, contact MTC on +972 4 998 7772 or email marketing@mtcind.com**

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