



Weight: 2.6g (approx.)

## Dia 10mm Flat DC Miniature Motor

Model No.: KLS23-DBM2-FF-M10VA

### 1 Typical Applications:

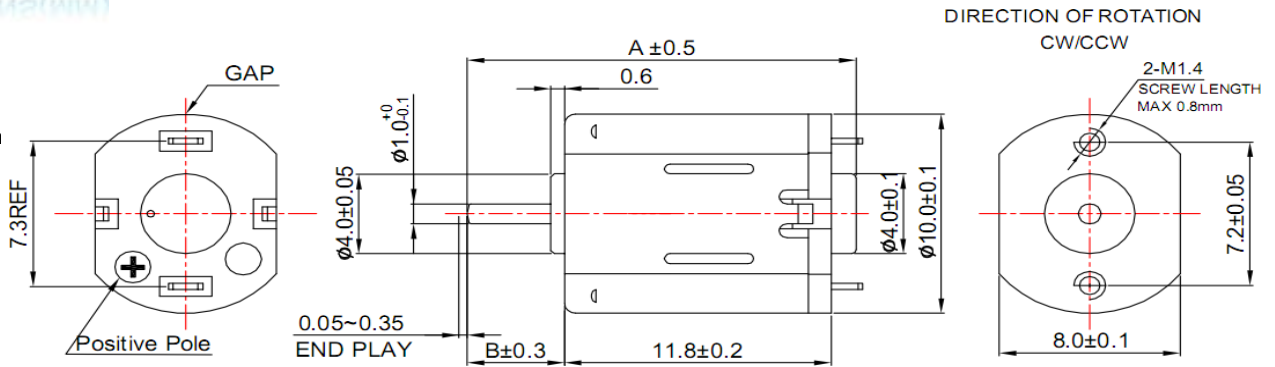
- Blood Pressure Pump
- Card Reader
- Camera
- Toy

### 2 KEY FEATURES

- Plastic End Cap
- Stainless Steel Shaft
- NdFeB Magnet
- Precious Metal Brush

### 3 DIMENSIONS(MM)

- Customization:**
- a.Length A, B
  - b.Technical Data
  - c.Varistor for option



### 4 TECHNICAL DATA

MODEL		VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY				STALL			
		OPERATING RANGE	NOMINAL V	SPEED r/min	CURRENT A	SPEED r/min	CURRENT A	TORQUE mNm	OUTPUT g.cm	TORQUE mNm	CURRENT g.cm	CURRENT A	
FF-M10VA	06230	2.0-5.0	4.5	23200	0.065	17500	0.14	0.098	1	0.2	0.39	4	0.3
	09120	1.0-3.0	1.5	14000	0.12	6000	0.3	0.157	1.6	0.08	0.25	2.6	0.45

#### Remarks

1. All values approximate.
2. Customized electric performance on request by using suitable windings.
3. Available with required cables, eccentric wheel and accessories after evaluation.



Weight: 3.2g (approx.)

## Dia 10mm Flat DC Miniature Motor

Model No.:KLS23-DBM2-FF-1012TA

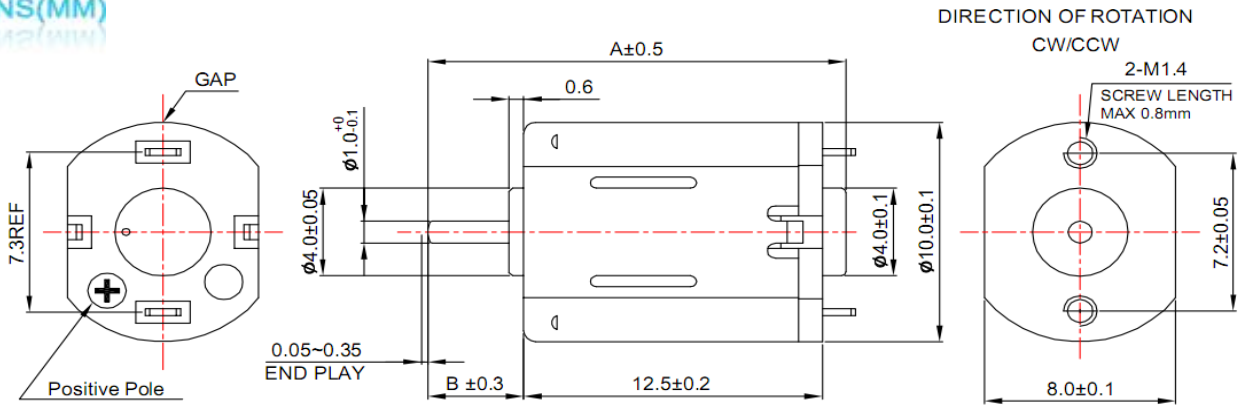
- 1 Typical Applications:** Blood Pressure Pump  
Camcorder  
Electric Shaver  
Toy

### 2 KEY FEATURES

- Plastic End Cap
- Stainless Steel Shaft
- NdFeB Magnet
- Precious Metal Brush

### 3 DIMENSIONS(MM)

- Customization:**
- a.Length A, B
  - b.Technical Data
  - c.Varistor for option



### 4 TECHNICAL DATA

MODEL		VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY				STALL			
		OPERATING RANGE	NOMINAL V	SPEED r/min	CURRENT A	SPEED r/min	CURRENT A	TORQUE mNm	OUTPUT W	TORQUE mNm	CURRENT A		
FF-1012TA	07215	2.0-4.0	3	12900	0.055	10300	0.11	0.1	1	0.11	0.4	4	0.38

**Remarks**

1. All values approximate.
2. Customized electric performance on request by using suitable windings.
3. Available with required cables, eccentric wheel and accessories after evaluation.



Weight: 4g (approx.)

## Dia 10mm Flat DC Miniature Motor

Model No.: KLS23-DBM2-FF-M20VA

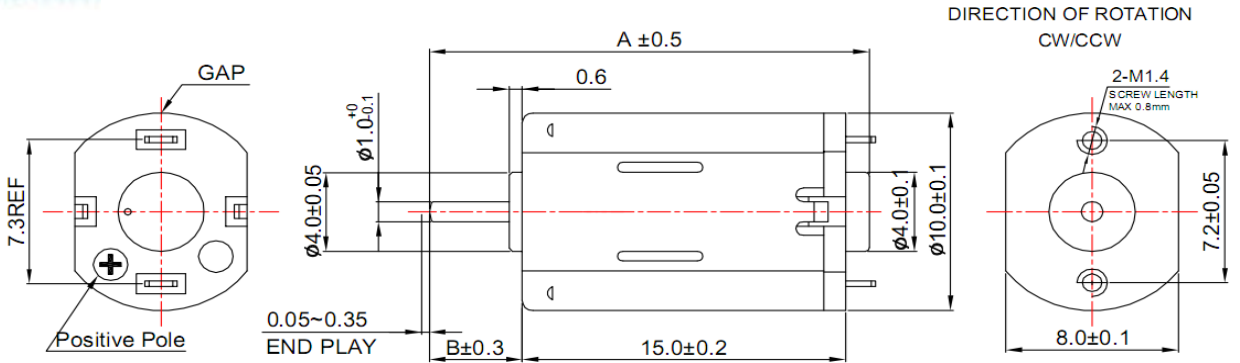
- 1 Typical Applications:**
- Blood Pressure Pump
  - Card Reader
  - Camera
  - Toy

**2 KEY FEATURES**

- Plastic End Cap
- NdFeB Magnet
- Stainless Steel Shaft
- Precious Metal Brush

**3 DIMENSIONS(MM)**

- Customization:**
- a.Length A, B
  - b.Technical Data
  - c.Varistor for option



**4 TECHNICAL DATA**

MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY				STALL				
	OPERATING RANGE	NOMINAL V	SPEED r/min	CURRENT A	SPEED r/min	CURRENT A	TORQUE mNm	TORQUE g.cm	OUTPUT W	TORQUE mNm	TORQUE g.cm	CURRENT A	
	FF-M20VA	08130	2.0-3.0	3	15200	0.045	11800	0.16	0.16	1.6	0.19	0.69	7
	07170	1.5-3.0	2	8000	0.025	6000	0.075	0.09	0.9	0.06	0.35	3.6	0.23
	10100	1.5-4.0	2.8	18000	0.05	14800	0.19	0.2	2	0.3	1.1	11	0.88

**Remarks**

- All values approximate.
- Customized electric performance on request by using suitable windings.
- Available with required cables, eccentric wheel and accessories after evaluation.



Weight: 4.3g (approx.)

## Dia 10mm Flat DC Miniature Motor

Model No.:KLS23-DBM2-FF-1016VA

- 1 Typical Applications:**
- Blood Pressure Pump
  - Camcorder
  - Electric Shaver
  - Toy

**2 KEY FEATURES**

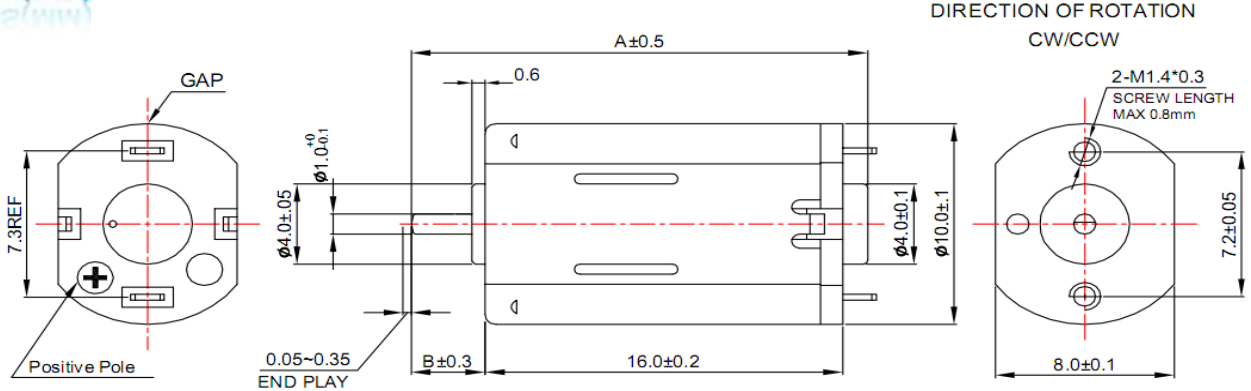
- Plastic End Cap
- Stainless Steel Shaft

- NdFeB Magnet
- Precious Metal Brush

**3 DIMENSIONS(MM)**

**Customization:**

- a.Length A, B
- b.Technical Data
- c.Varistor for option



**4 TECHNICAL DATA**

MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY					STALL			
	OPERATING RANGE	NOMINAL V	SPEED r/min	CURRENT A	SPEED r/min	CURRENT A	TORQUE mNm	TORQUE g.cm	OUTPUT W	TORQUE mNm	TORQUE g.cm	CURRENT A	
	FF-1016VA	07190	2.0-4.0	3	8700	0.04	7200	0.085	0.1	1	0.07	0.45	4.5

**Remarks**

1. All values approximate.
2. Customized electric performance on request by using suitable windings.
3. Available with required cables, eccentric wheel and accessories after evaluation.