

**DINGS**  
Precision Motion Specialist

# VOICE COIL MOTOR / ACTUATOR PRODUCT CATALOG

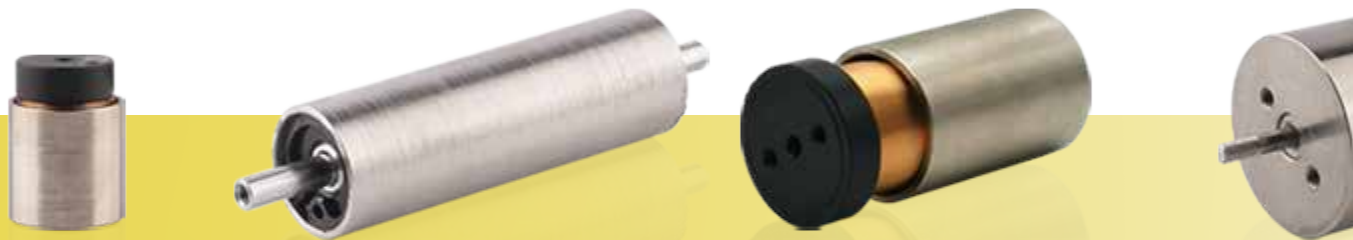


DINGS' offers wide range of sizes for VCM (Voice Coil Motor) series & VCA (Voice Coil Actuator) from smaller to bigger diameter of dimensional motors.

Based on fixed diameter sizes, DINGS' can customize different stroke compare to other competitors, DINGS' does not fix standard stroke but according to customer's different requirements, DINGS' is freely to customize stroke.

DINGS' provides very low backlash but fast response of voice coil motors with specialized drivers. Also if customer wants, DINGS' is also able to provide linear scale for accurate positioning and feedback.

For more details, please contact DINGS' or local representatives.



# VOICE COIL MOTOR · AC

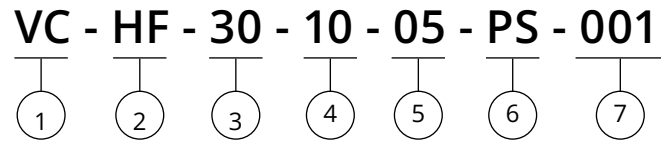
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60 mm	voice coil motor



# ACTUATOR

## Part Number Construction



- ① Motor Type  
VC = Voice Coil Motor
- ② Force Version  
None = Standard Series  
HF = High Force Series
- ③ Frame Size  
30 = 30mm
- ④ Stroke  
10 = 10mm Stroke  
(For custom stroke sizes, please contact DINGS')
- ⑤ Continuous Force  
05 = 5N Continuous Force  
(For continuous force, refer to the thrust curve. For custom force requirements, please contact DINGS')
- ⑥ Position Sensor  
None = No position sensor  
PS = With position sensor
- ⑦ Customer Sequence Number  
External dimensions, mounting dimensions, and appearance can be customized as required.

### Example

Part Number	VC-30-15-4.63
Description	30 mm Frame Size 15 mm Stroke 4.63 N Continuous Force

# 12.7mm Voice Coil Motor

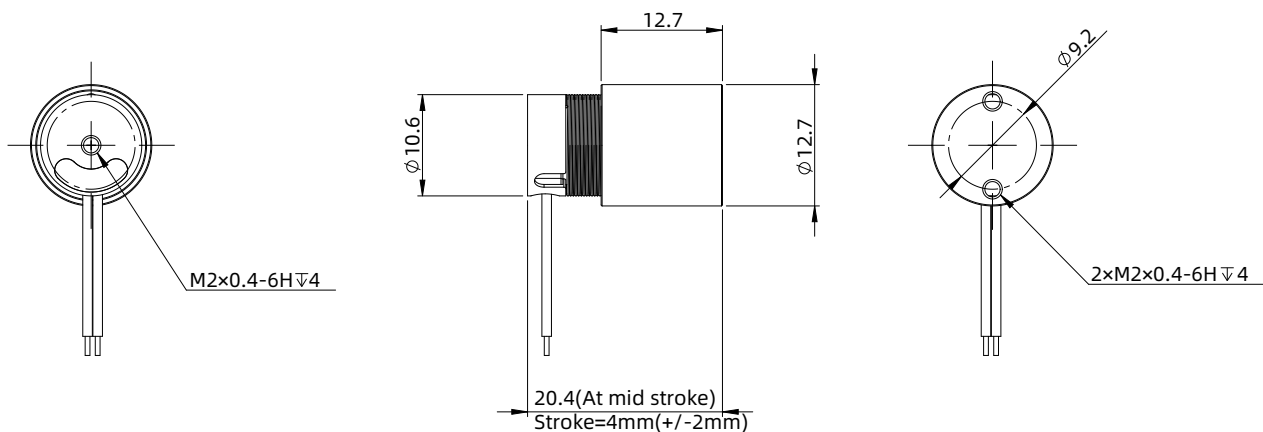


## Standard type

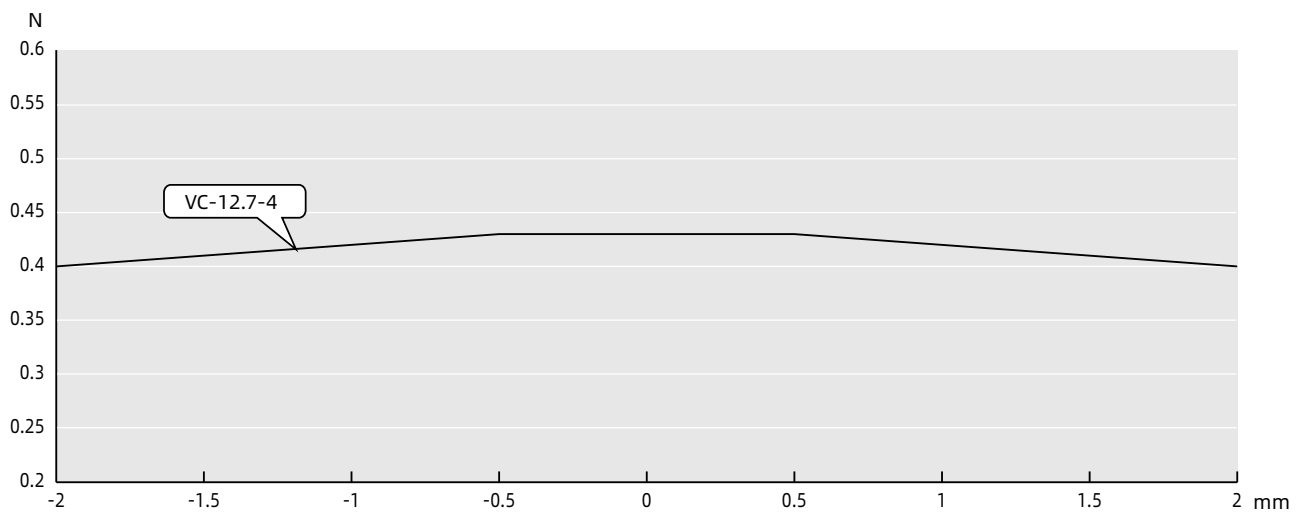
### Motor Characteristics

Motor	Stroke (mm)	Back EMF constant (V/m/s)	Continuous force (N)	Continuous current 100°C (A)	Peak thrust force (N)	Force sensitivity (N/A) middle position	Resistance (Ω)	Inductance (mH)	Coil gap (mm)	Coil Max. temperature (°C)	Coil assembly mass (g)	Body assembly mass (g)
12.7	4	0.4	0.4	1	3.2	0.4	1.3	0.1	0.38	100	3	7.8

### Dimensional Drawings



### Force Curve



\* This curve is the thrust curve under the rated current and the thrust is affected by the current change.

# 13.2mm Voice Coil Actuator

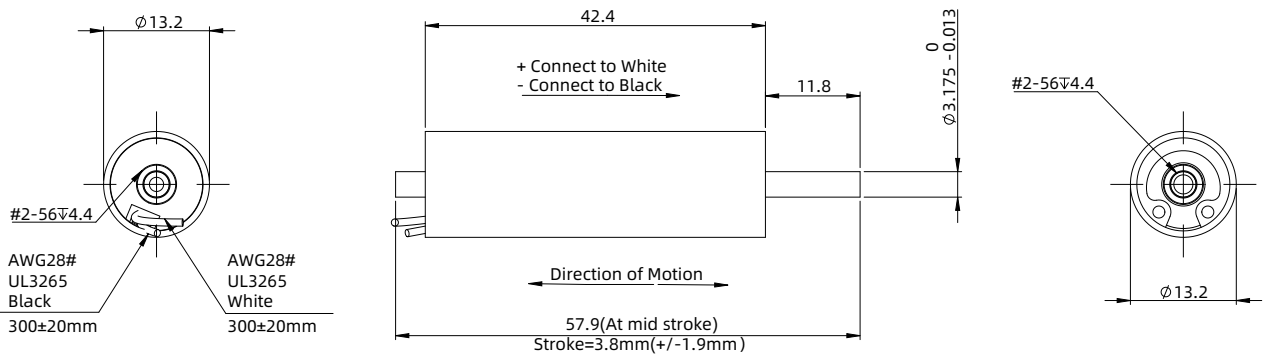


## High-Force type

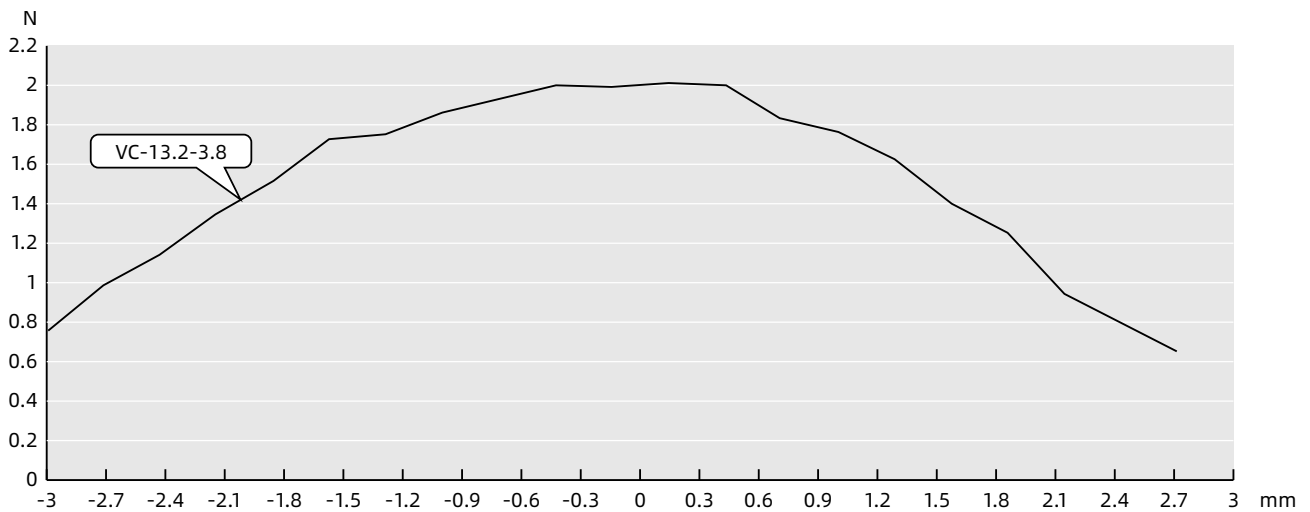
### Motor Characteristics

Motor	Stroke (mm)	Back EMF constant (V/m/s)	Continuous force (N)	Continuous current 100°C (A)	Peak thrust force (N)	Force sensitivity (N/A) middle position	Resistance (Ω)	Inductance (mH)	Coil gap (mm)	Coil Max. temperature (°C)	Coil assembly mass (g)	Body assembly mass (g)
13.2	3.8	3.2	2.2	0.7	6.7	3.2	3.5	0.25	0.4	100	12	49

### Dimensional Drawings



### Force Curve



\* This curve is the thrust curve under the rated current and the thrust is affected by the current change.

# 25.4mm Voice Coil Motor

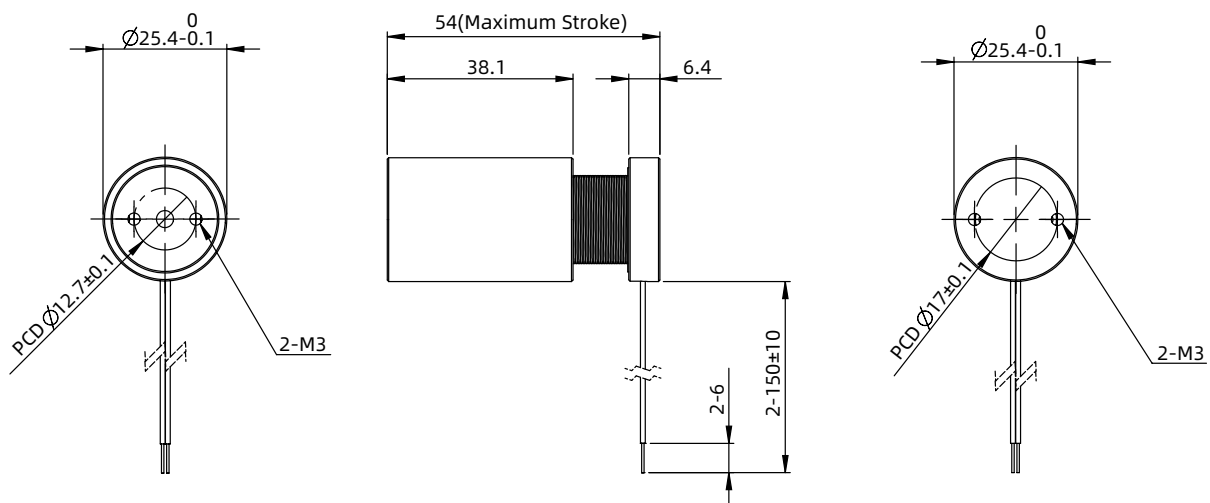


## Standard type

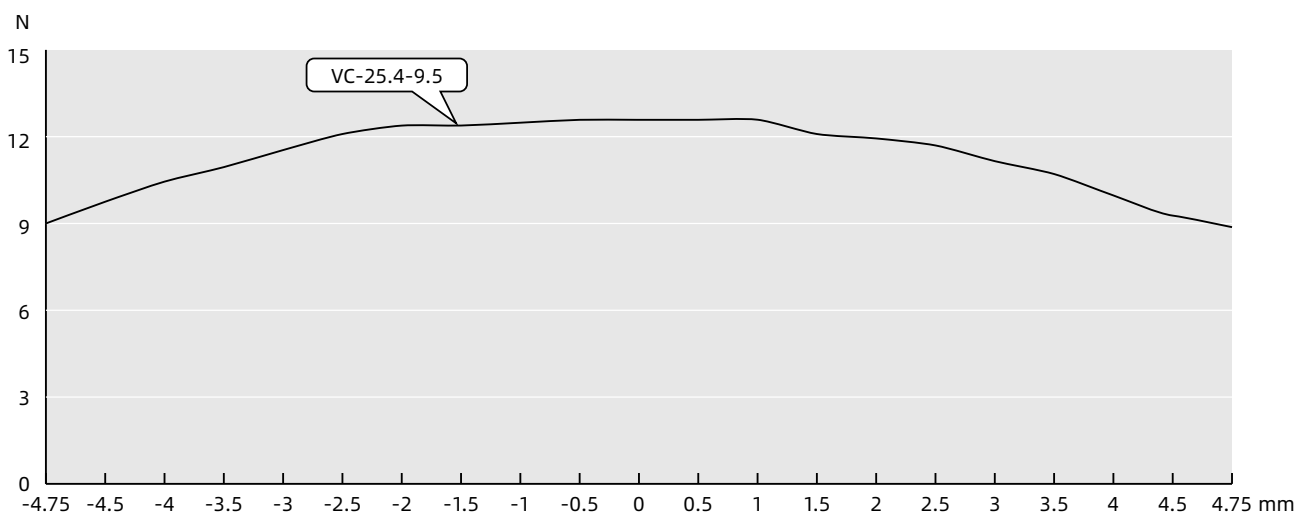
### Motor Characteristics

Motor	Stroke (mm)	Back EMF constant (V/m/s)	Continuous force (N)	Continuous current 100°C (A)	Peak thrust force (N)	Force sensitivity (N/A) middle position	Resistance (Ω)	Inductance (mH)	Coil gap (mm)	Coil Max. temperature (°C)	Coil assembly mass (g)	Body assembly mass (g)
25.4	9.5	9	11	1.25	31	9	6.9	2	0.38	100	33	102

### Dimensional Drawings



### Force Curve



\* This curve is the thrust curve under the rated current and the thrust is affected by the current change.

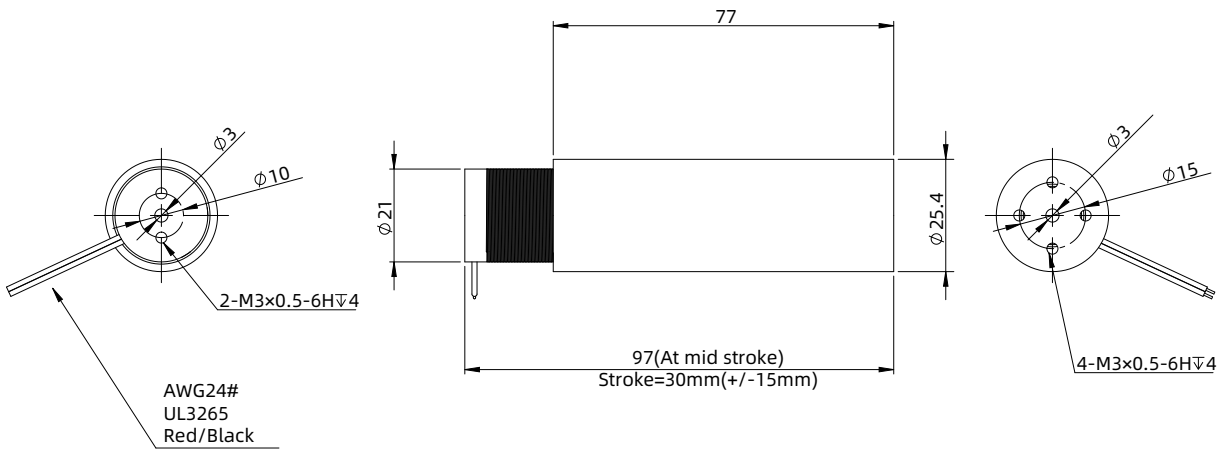
# 25.4mm Voice Coil Motor

## High-Force type

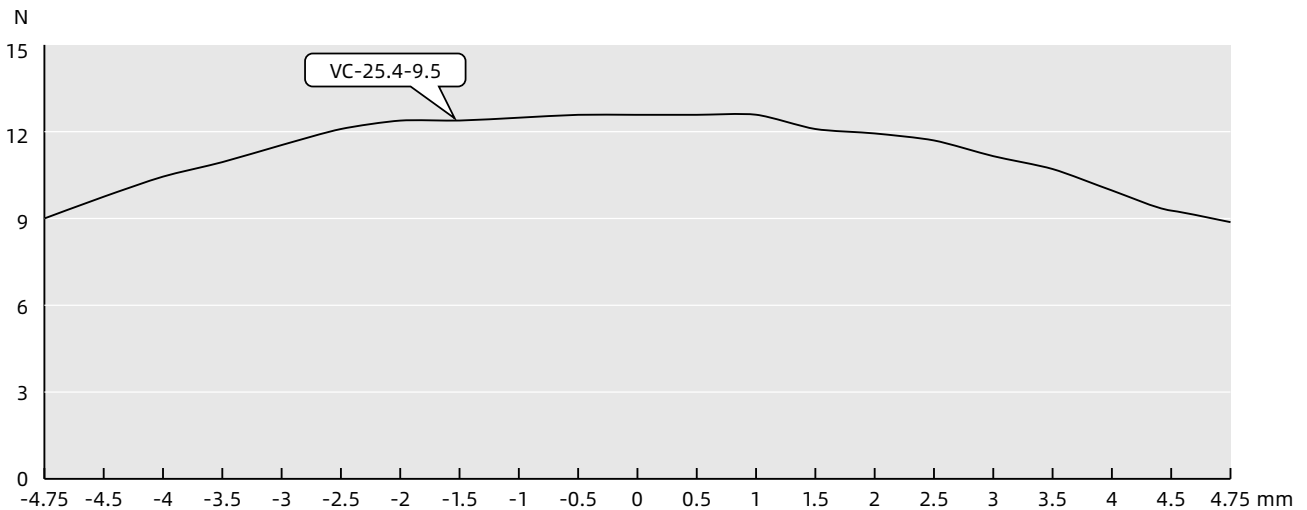
### Motor Characteristics

Motor	Stroke (mm)	Back EMF constant (V/m/s)	Continuous force (N)	Continuous current 100°C (A)	Peak thrust force (N)	Force sensitivity (N/A) middle position	Resistance (Ω)	Inductance (mH)	Coil gap (mm)	Coil Max. temperature (°C)	Coil assembly mass (g)	Body assembly mass (g)
25.4	30	6	6	1	55	6	17.4	5.04	0.5	100	59	225

### Dimensional Drawings



### Force Curve



\* This curve is the thrust curve under the rated current and the thrust is affected by the current change.



# 30mm Voice Coil Motor



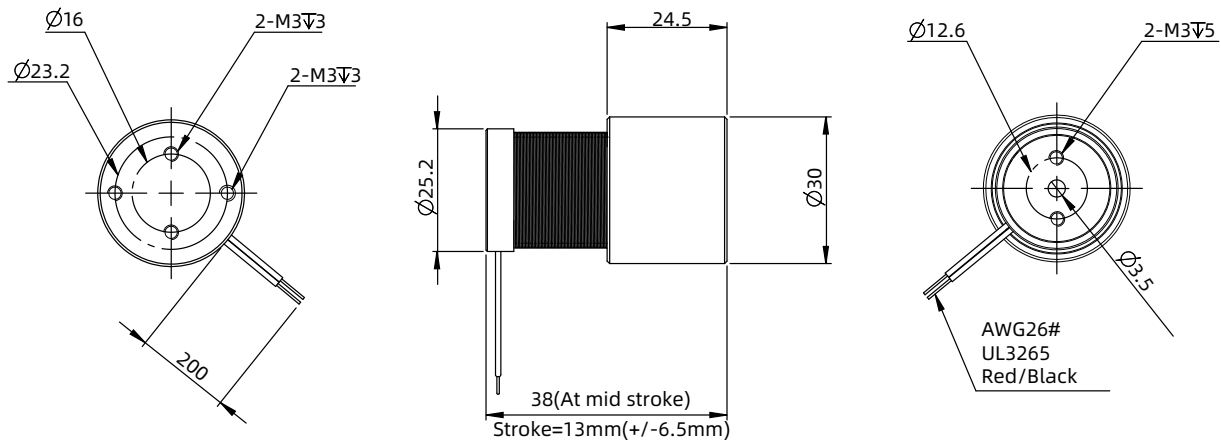
## Standard type

### Motor Characteristics

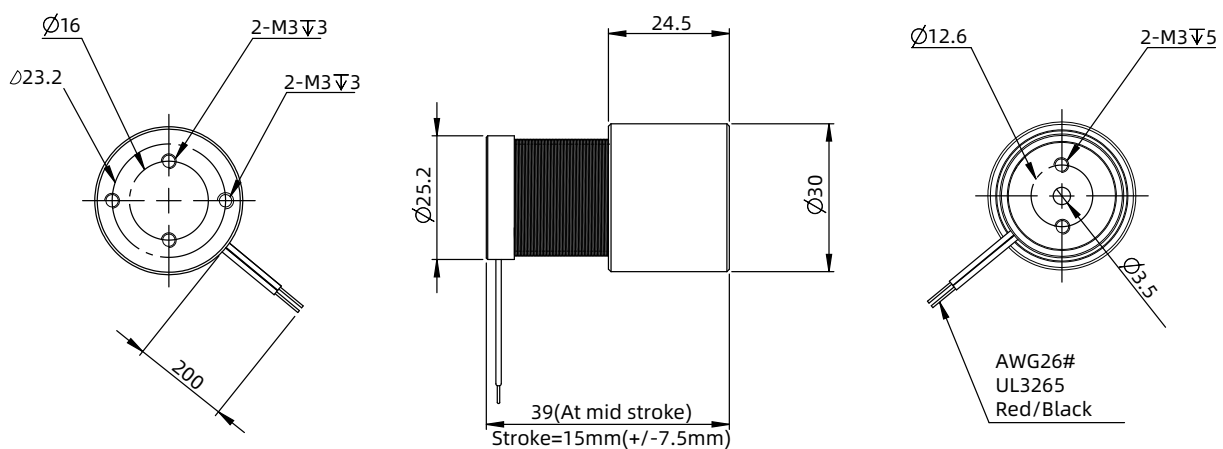
Motor	Stroke (mm)	Back EMF constant (V/m/s)	Continuous force (N)	Continuous current 100°C (A)	Peak thrust force (N)	Force sensitivity (N/A) middle position	Resistance (Ω)	Inductance (mH)	Coil gap (mm)	Coil Max. temperature (°C)	Coil assembly mass (g)	Body assembly mass (g)
30	13	7.35	4.63	0.63	29.4	7.35	11.34	2.63	0.6	100	25	96
30	15	7.35	4.63	0.63	29.4	7.35	11.35	2.63	0.6	100	25	96

### Dimensional Drawings

#### VC-30-13



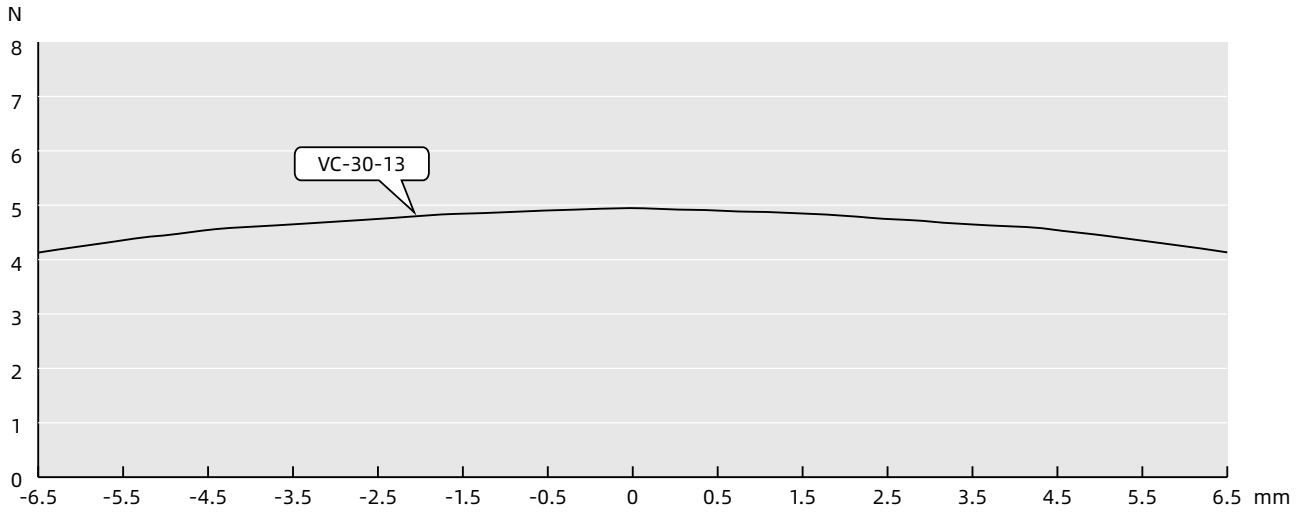
#### VC-30-15



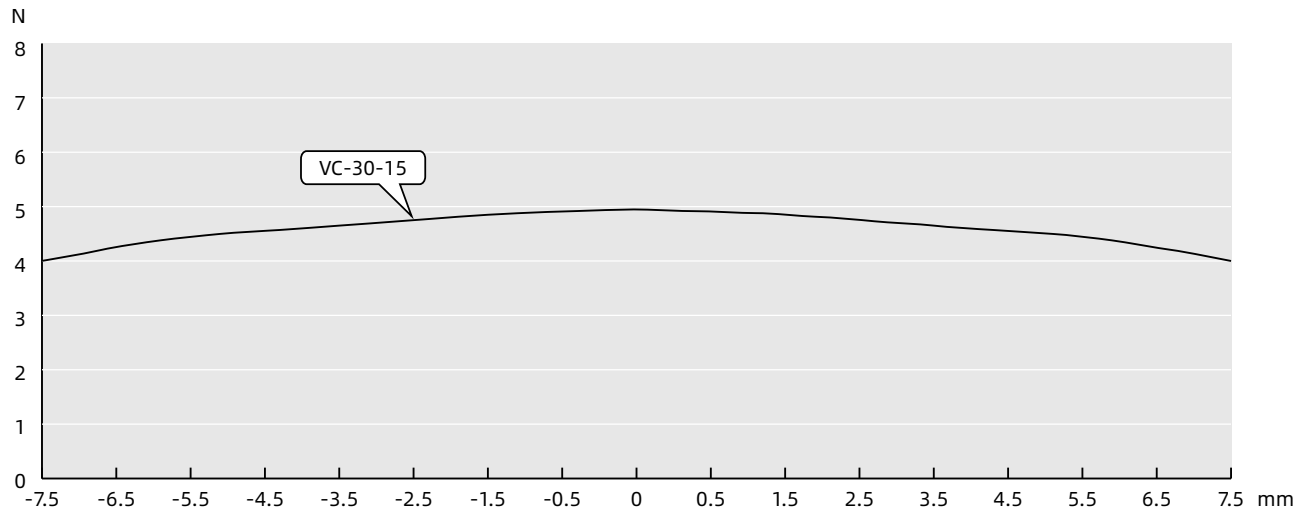
# 30mm Voice Coil Motor

■ Force Curve

● VC-30-13



● VC-30-15



\* This curve is the thrust curve under the rated current and the thrust is affected by the current change.

# 30mm Voice Coil Motor

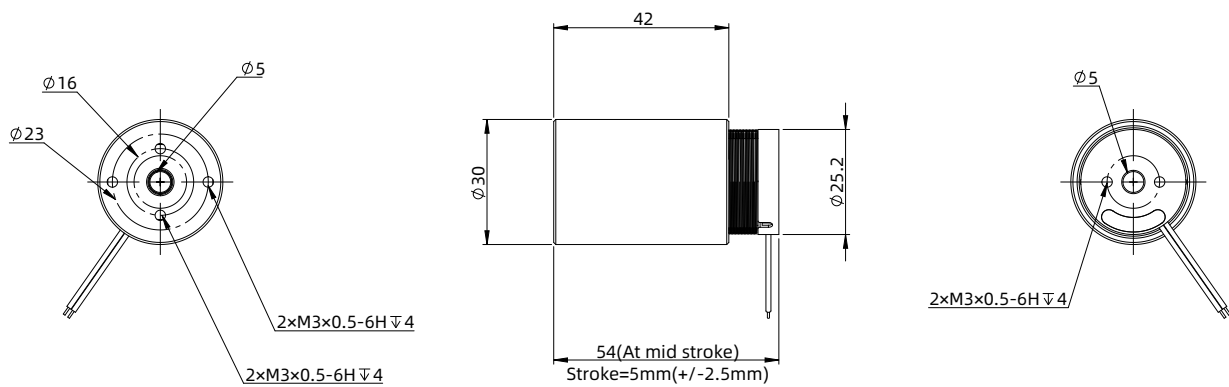
## High-Force type

### Motor Characteristics

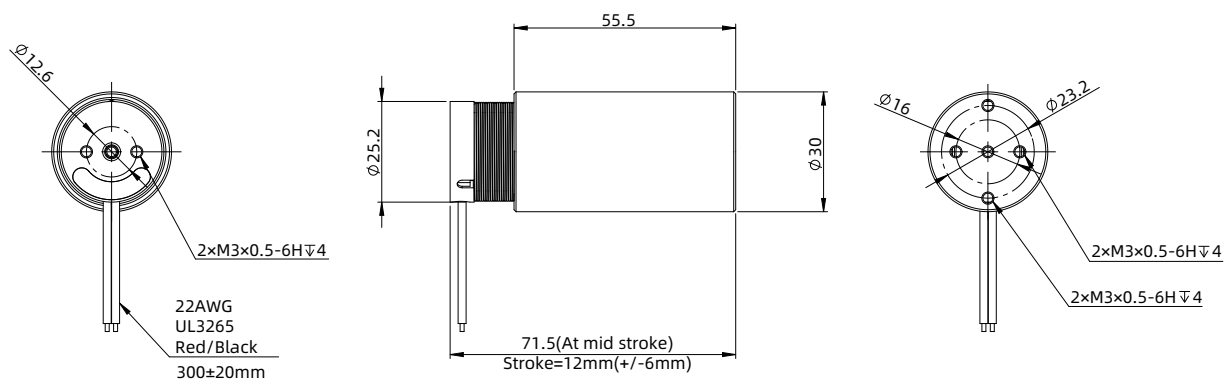
Motor	Stroke (mm)	Back EMF constant (V/m/s)	Continuous force (N)	Continuous current 100°C (A)	Peak thrust force (N)	Force sensitivity (N/A) middle position	Resistance (Ω)	Inductance (mH)	Coil gap (mm)	Coil Max. temperature (°C)	Coil assembly mass (g)	Body assembly mass (g)
30	5	11.87	9.5	0.8	65	11.87	10.15	2.24	0.5	100	41	158
30	12	9.12	13	1.5	80	9.12	5.21	1.9	0.5	100	64	190

### Dimensional Drawings

#### ● VCHF-30-5



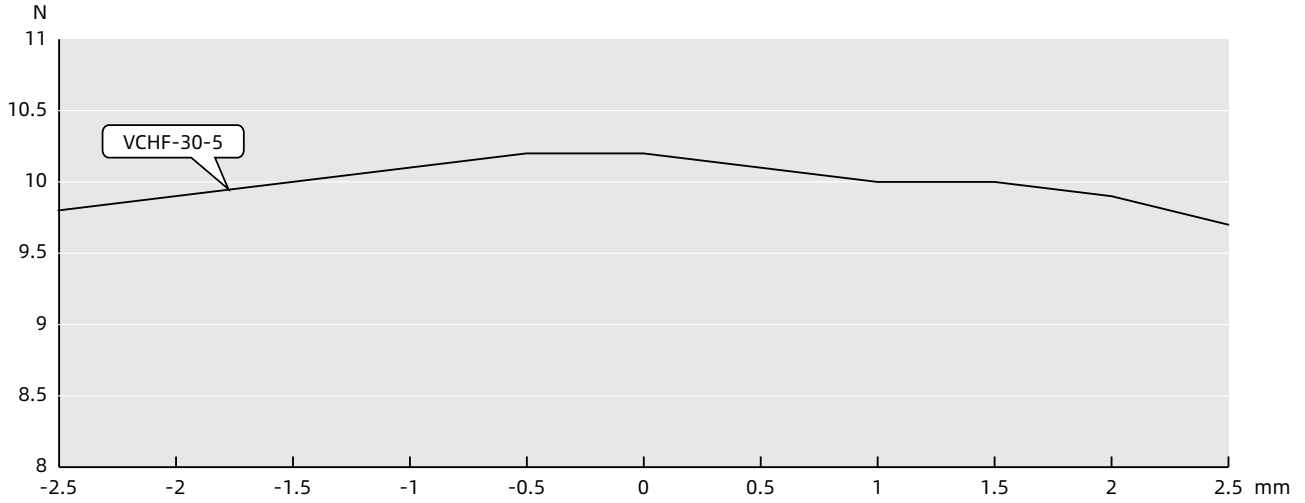
#### ● VCHF-30-12



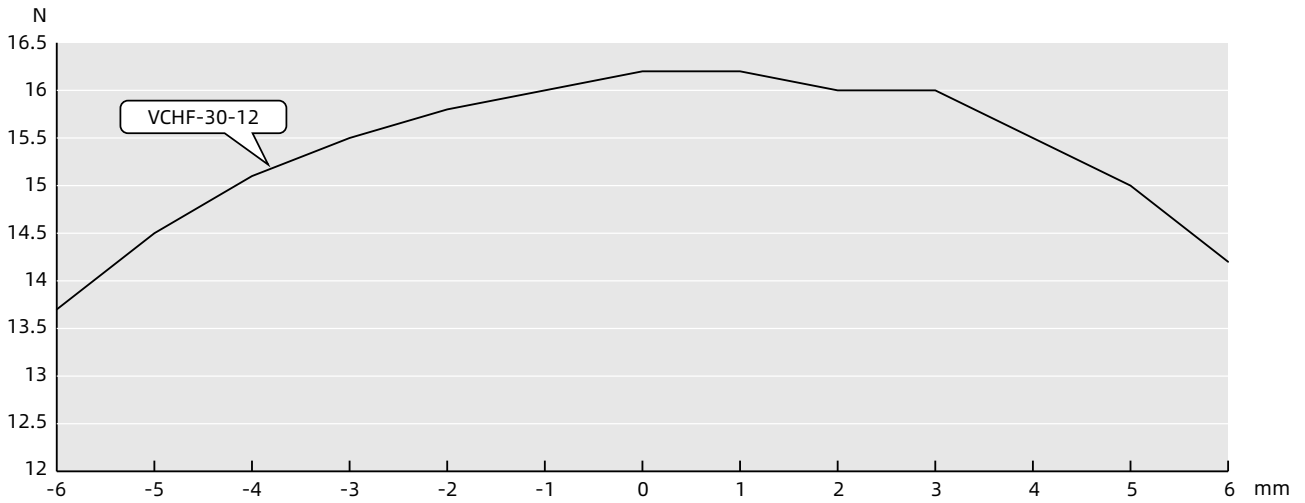
# 30mm Voice Coil Motor

■ Force Curve

● VCHF-30-5



● VCHF-30-12



\* This curve is the thrust curve under the rated current and the thrust is affected by the current change.

# 38mm Voice Coil Motor

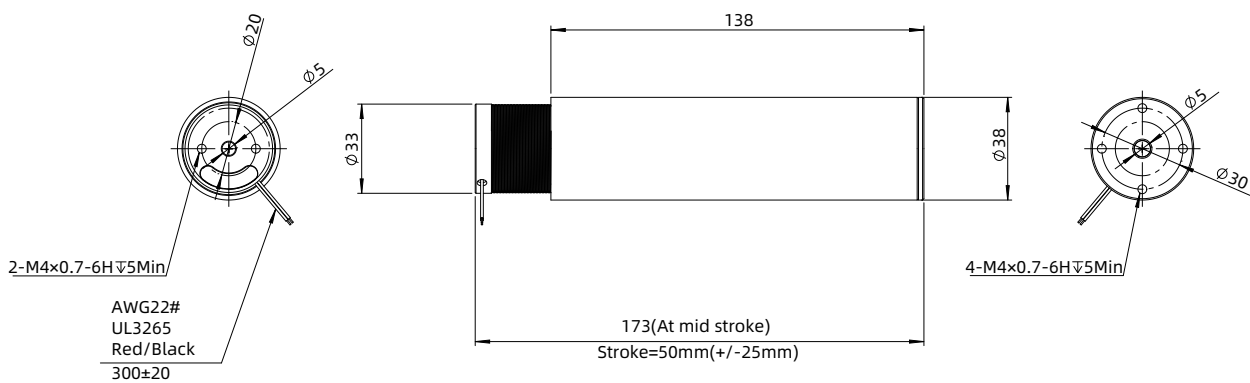


## High-Force type

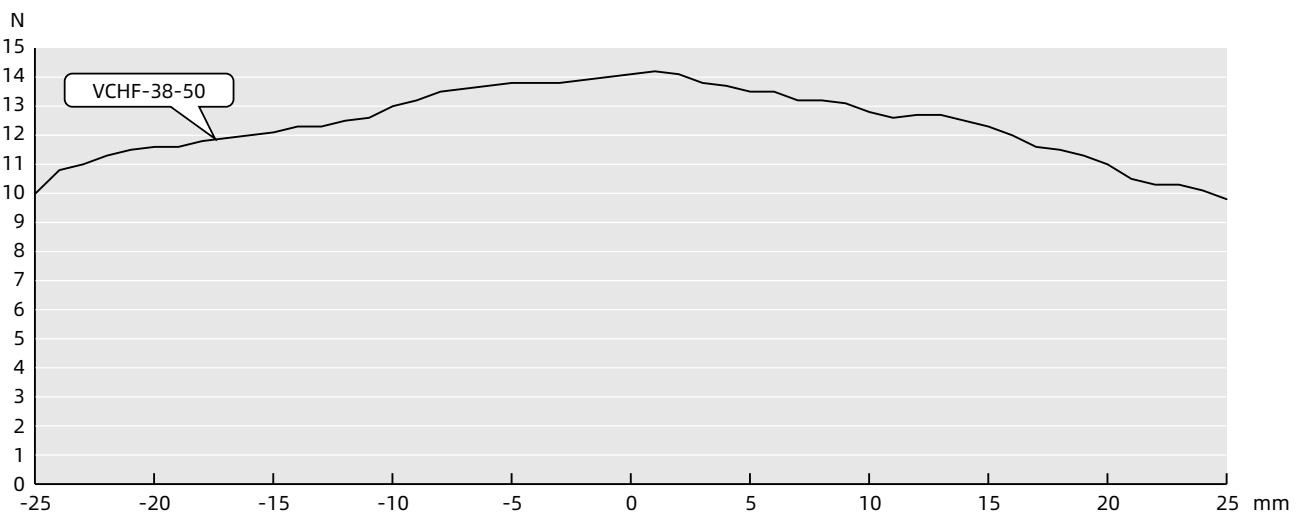
### Motor Characteristics

Motor	Stroke (mm)	Back EMF constant (V/m/s)	Continuous force (N)	Continuous current 100°C (A)	Peak thrust force (N)	Force sensitivity (N/A) middle position	Resistance (Ω)	Inductance (mH)	Coil gap (mm)	Coil Max. temperature (°C)	Coil assembly mass (g)	Body assembly mass (g)
38	50	10.1	10	1	78	10.1	10.93	5.21	0.5	100	252	707.3

### Dimensional Drawings



### Force Curve



\* This curve is the thrust curve under the rated current and the thrust is affected by the current change.

# 40mm Voice Coil Actuator

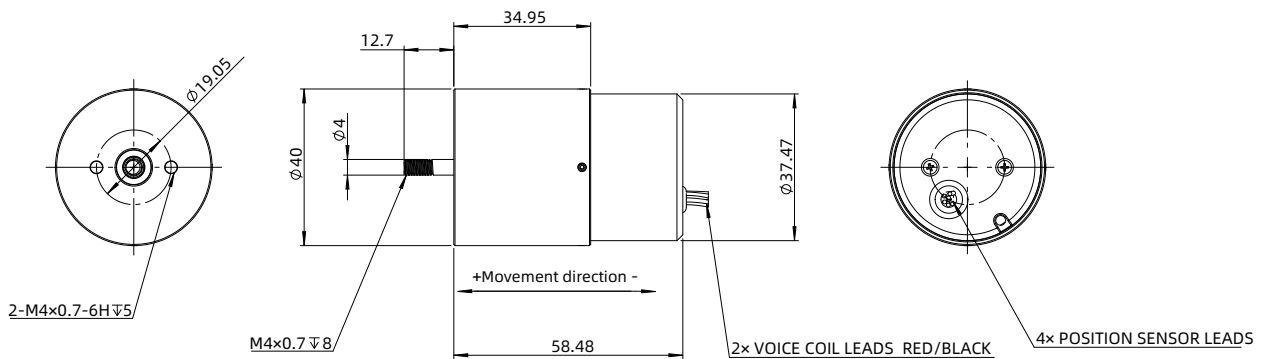


## Standard type

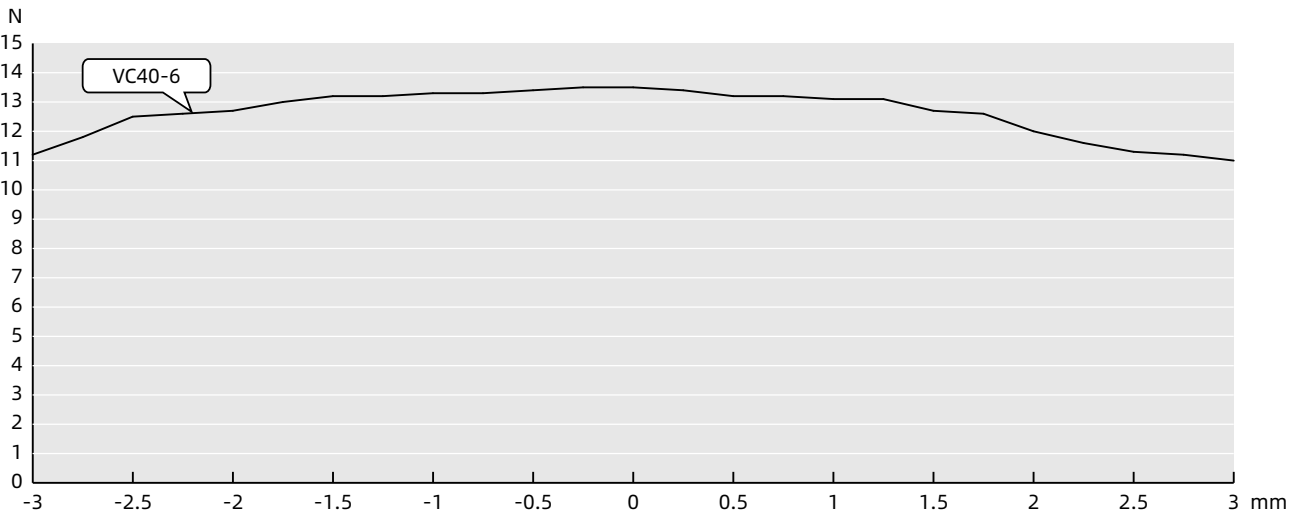
### Motor Characteristics

Motor	Stroke (mm)	Back EMF constant (V/m/s)	Continuous force (N)	Continuous current 100°C (A)	Peak thrust force (N)	Force sensitivity (N/A) middle position	Resistance (Ω)	Inductance (mH)	Coil gap (mm)	Coil Max. temperature (°C)	Coil assembly mass (g)	Body assembly mass (g)
40	6	11	11	1	40	11	5	1.32	0.5	100	48	244

### Dimensional Drawings



### Force Curve



\* This curve is the thrust curve under the rated current and the thrust is affected by the current change.

# 45mm Voice Coil Motor

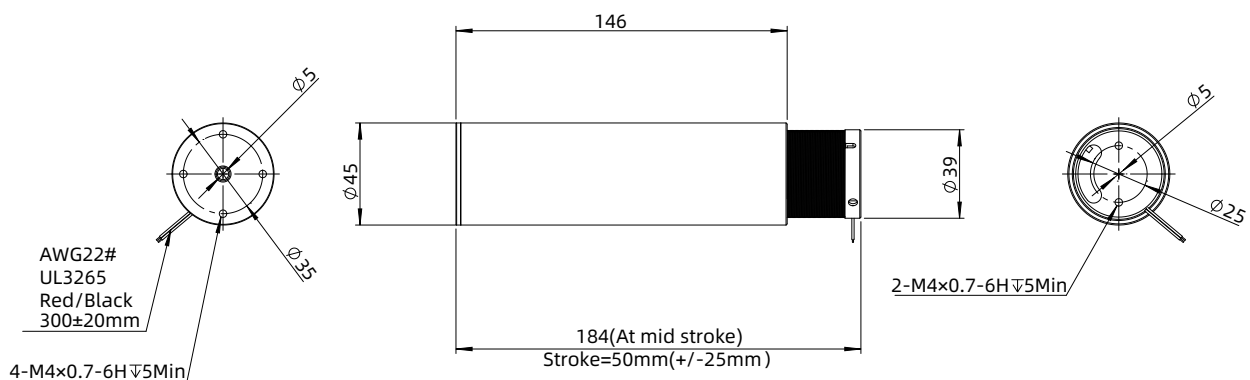


## High-Force type

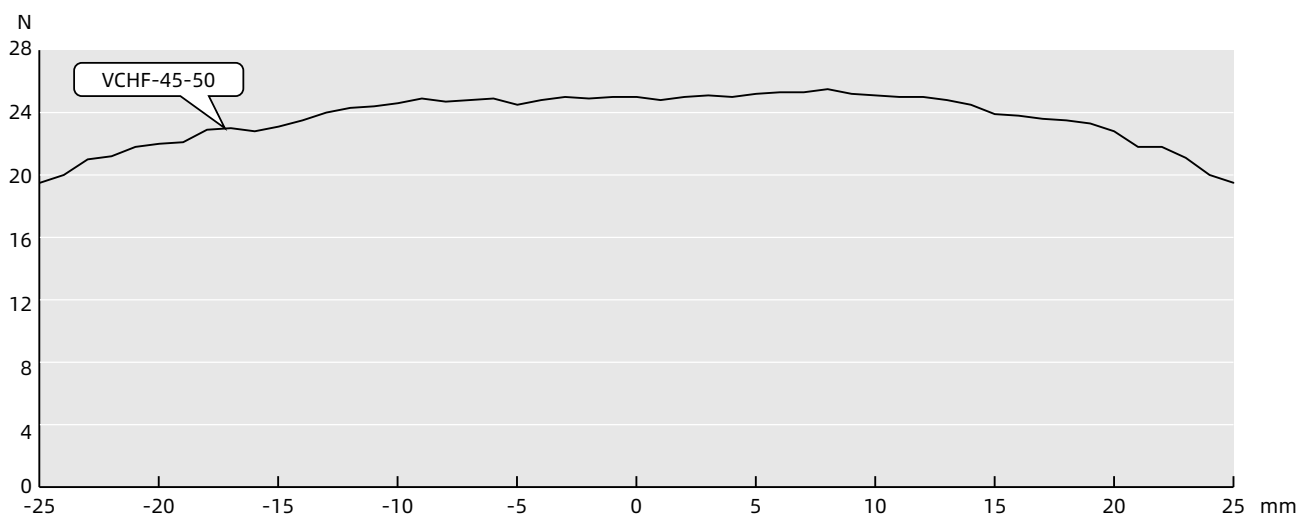
### Motor Characteristics

Motor	Stroke (mm)	Back EMF constant (V/m/s)	Continuous force (N)	Continuous current 100°C (A)	Peak thrust force (N)	Force sensitivity (N/A) middle position	Resistance (Ω)	Inductance (mH)	Coil gap (mm)	Coil Max. temperature (°C)	Coil assembly mass (g)	Body assembly mass (g)
45	50	19.1	19	1	120	19.1	14.03	6.45	0.5	100	324	1154

### Dimensional Drawings



### Force Curve



\* This curve is the thrust curve under the rated current and the thrust is affected by the current change.

# 60mm Voice Coil Motor

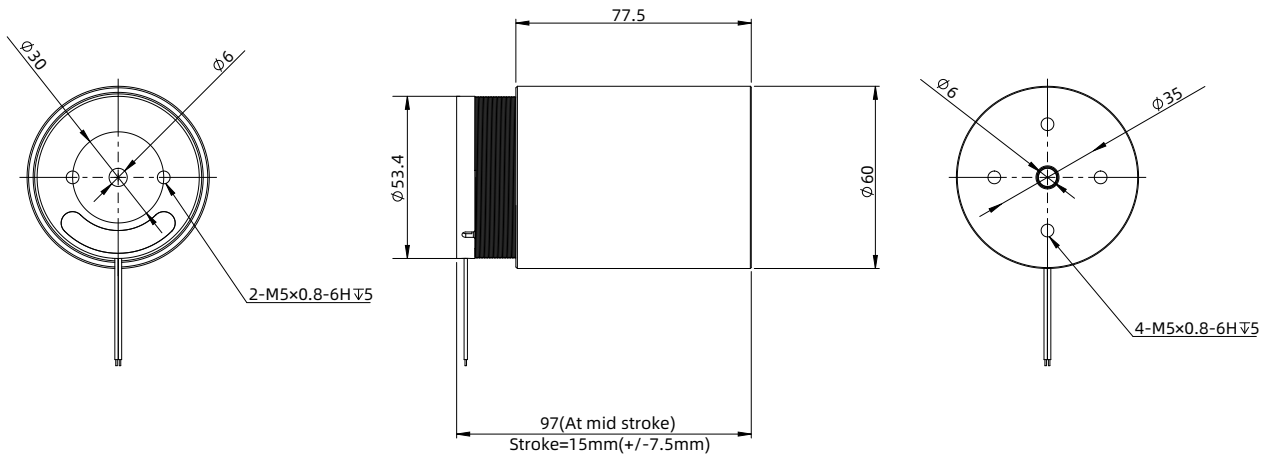


## High-Force type

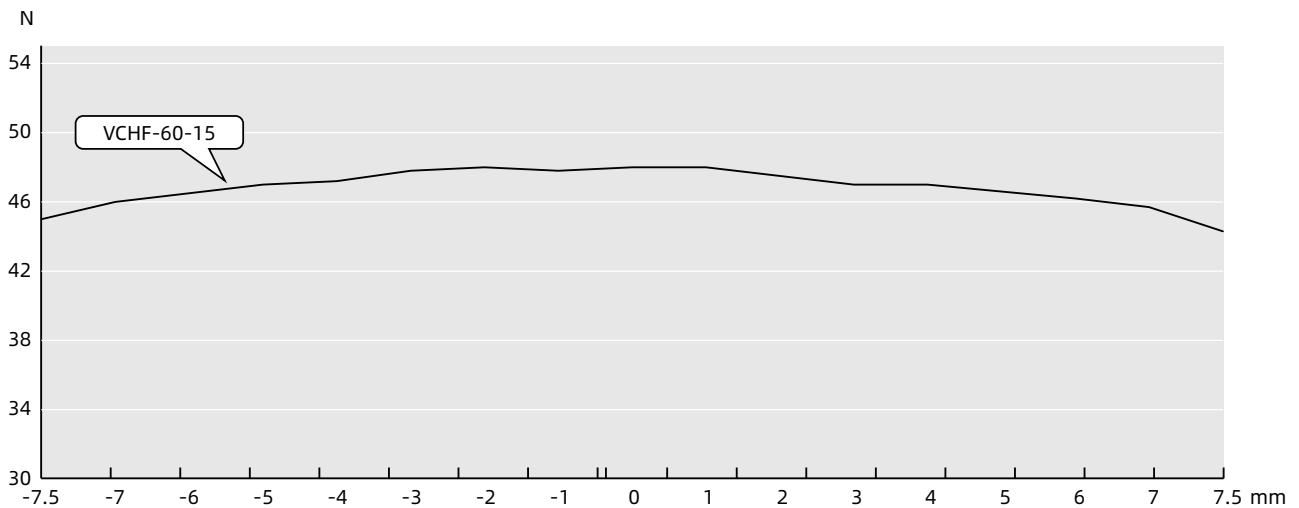
### Motor Characteristics

Motor	Stroke (mm)	Back EMF constant (V/m/s)	Continuous force (N)	Continuous current 100°C (A)	Peak thrust force (N)	Force sensitivity (N/A) middle position	Resistance (Ω)	Inductance (mH)	Coil gap (mm)	Coil Max. temperature (°C)	Coil assembly mass (g)	Body assembly mass (g)
60	15	36.66	44	1.2	182	36.66	10.57	3.67	0.7	100	251	1183

### Dimensional Drawings



### Force Curve



\* This curve is the thrust curve under the rated current and the thrust is affected by the current change.



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