

VOICE COIL



**Applimotion**  
*Motors & Actuators*

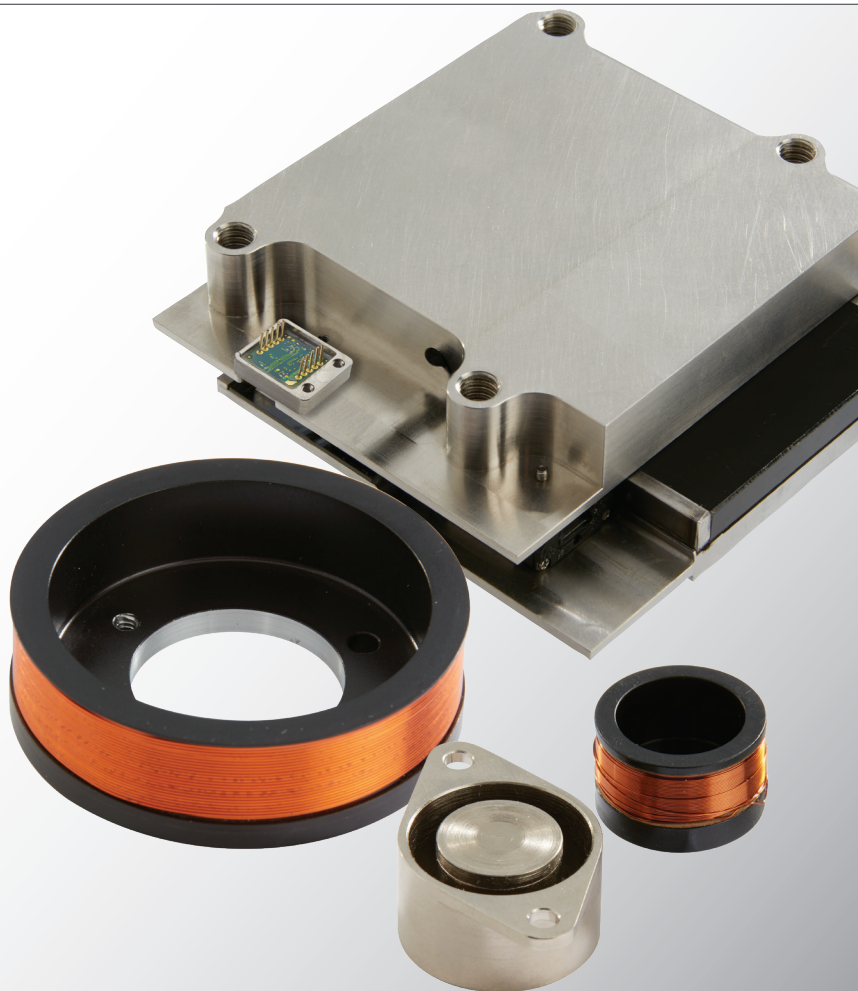
PRODUCT DATA SHEET

# Juke™ Series Motors

Compact Voice Coil  
Motors for Highly Dynamic  
Motion Profiles

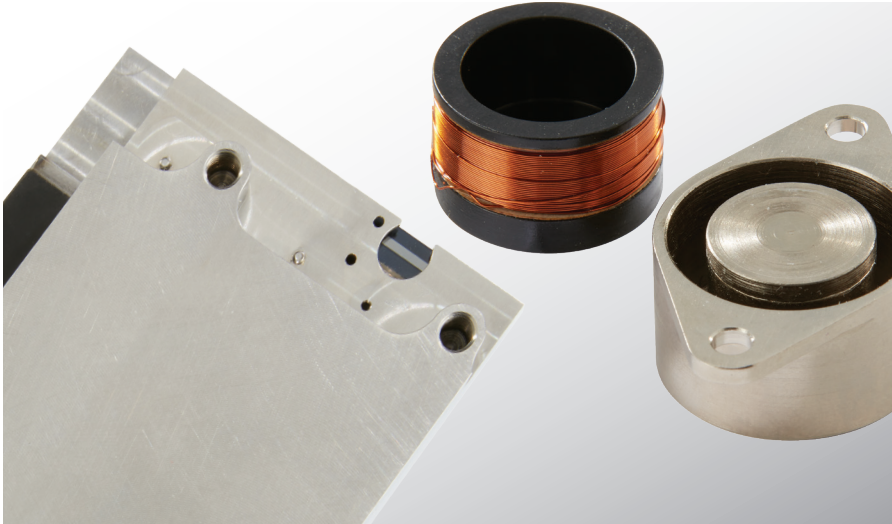
The Juke Series enables OEMs to move light payloads with high acceleration and dynamic motion profiles.

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# Juke™ Series Motors

Compact Voice Coil Motors for Highly Dynamic Motion Profiles



## Swift and Simple.

The Juke Series motors are ideal for optics, laser scanning, pick and place, medical probes, hexapods and other applications that require highly dynamic moves of light payloads over short distances.

Low electrical and mechanical time constants, low moving mass and no cogging allow for extremely high accelerations and precise control of position, velocity or force. No commutation is required, simplifying wiring and increasing system reliability.

Moving magnet and moving coil configurations make it easy for the Juke Series to be tightly integrated into compact, lightweight precision assemblies. Flat and circular body form factors are offered for linear applications. Rotary and partial segment designs are also available.

All models are compatible with a wide range of controllers and drives.

### Benefits

- Compact size, high force-to-weight ratio
- High acceleration
- Simple wiring and control
- Smooth, accurate motion
- Easy integration into system design
- Compatible with wide range of drives and controllers

Specifications	Units	Flat Body Voice Coils	Circular Body Voice Coils
Peak Force:	N	7.5 to 284	46
Stroke:	mm	3 to 20	2
Width/Outer Diameter:	mm	35 to 152	50 (OD)
Length:	mm	54 to 236	30

Product groups listed and corresponding data are provided as a reference. Actual motor attributes are model and configuration specific. See datasheet for details. Specifications subject to change.

RoHS  
CE



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# Juke™ Series Motors

Compact Voice Coil Motors for Highly Dynamic Motion Profiles

## Juke Round Body Voice Coil Motors

MODEL	1455
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### PERFORMANCE SPECIFICATIONS

Continuous Force	N	15.3
Peak Force	N	46

### ELECTRICAL SPECIFICATIONS

Continuous Current	$A_{RMS}$	1.89
Kf	$N/A_{RMS}$	8.10
Km	$N/\sqrt{W}$	4.88
Ke	$V_{RMS} s/m$	8.10
Resistance	Ohm	2.75
Inductance	mH	0.2
Electrical Time Constant	s	0.00007

### MECHANICAL SPECIFICATIONS

Stroke	mm	2
Outer Diameter (OD)	mm	50
Length	mm	30
Weight of Coil	g	48
Weight of Magnet Body	g	265
Lead Length	mm	900

Maximum winding temperature is 155° C. Specifications subject to change.

# Juke™ Series Motors

Compact Voice Coil Motors for Highly Dynamic Motion Profiles

## Juke Flat Body Voice Coil Motors

MODEL		1235	1343	1200
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### PERFORMANCE SPECIFICATIONS

Continuous Force	N	5.0	24	142
Peak Force	N	7.5	31.2	284

### ELECTRICAL SPECIFICATIONS

Continuous Current	$A_{RMS}$	3.44	2.91	4.37
Kf	$N/A_{RMS}$	2.35	10.4	36.5
Km	$N/\sqrt{W}$	1.58	4.60	19.75
Ke	$V_{RMS} s/m$	2.35	10.4	36.5
Resistance	Ohm	2.2	5.1	3.4
Inductance	mH	0.3	4.8	4.7
Electrical Time Constant	s	0.00014	0.00094	0.00138

### MECHANICAL SPECIFICATIONS

Stroke	mm	10.1	20	3
Width	mm	35	86	152
Length	mm	54	111	236
Weight of Coil	g	32	567	1198
Weight of Magnet Body	g	170	595	5670
Lead Length	mm	381	635	300

Maximum winding temperature is 155° C. Specifications subject to change.