

ARC



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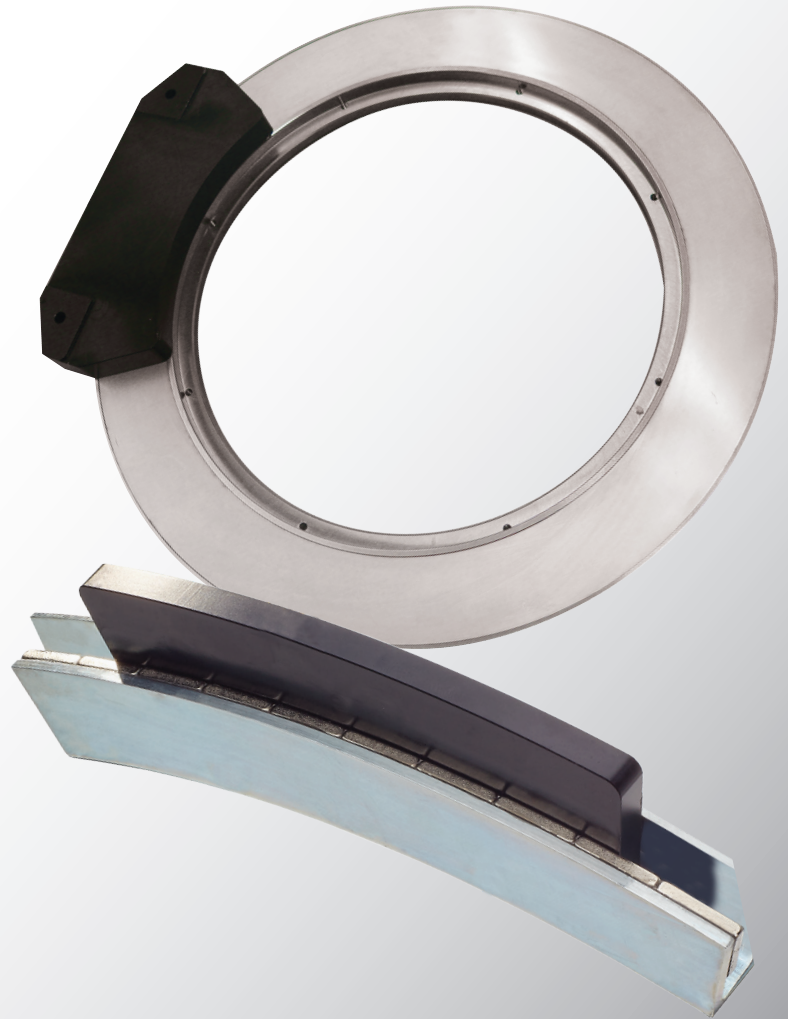
PRODUCT DATA SHEET

# Infinity™ Series Motors

Low-Profile DDR Motors  
for Arc Segment and Large  
Diameter Motion

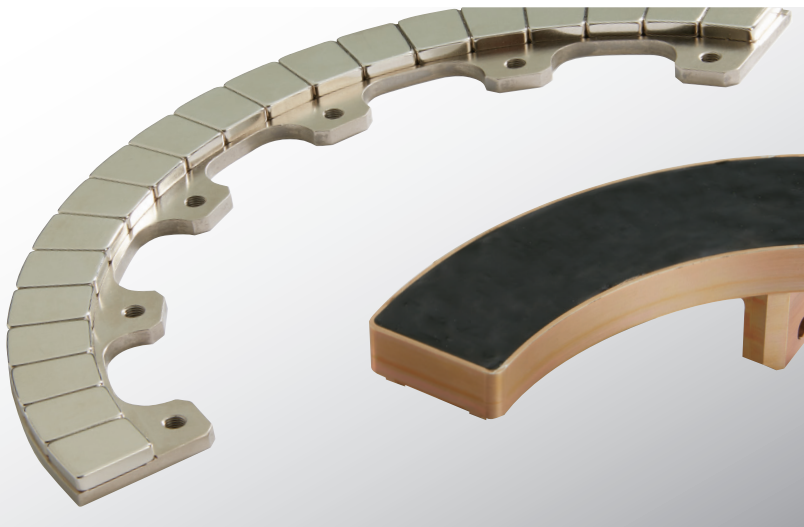
The Infinity Series enables OEMs to move light payloads in smooth and accurate arc-shaped and full 360-degree rotary motion profiles. Modular construction allows for virtually unlimited diameter and extremely large through holes.

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# Infinity™ Series Motors

Low-Profile DDR Motors for Arc Segment and Large Diameter Motion



## Thin and Modular.

The Infinity Series arc-shaped motors offer the right combination of torque, speed and smooth motion in flexible form factors and are ideal for low-profile, lightweight gimbals, broadband communication antennas, medical scanning, diagnostic imaging, inspection and metrology equipment.

Ultra-thin arc-shaped motor segments can be used individually or interconnected to create exact partial arc segment motion or full 360-degree rotary motion. Modular construction allows for virtually unlimited diameter and large through holes. This level of flexibility is not possible with conventional motor designs.

Direct drive technology eliminates the size, cost and positional errors associated with redundant bearings and gearing.

All models are compatible with a wide range of controllers and drives. Windings and form factors can be customized to meet application requirements.

### Benefits

- Ultra-low profile, lightweight construction
- Modular design easily configured into partial arc segment or full 360-degree rotary motion
- Virtually unlimited diameter possible for rotation of payloads or convenient routing of cables, optics, sensing technologies and other system elements
- Smooth, accurate motion
- Easy integration into system design
- Compatible with wide range of drives and controllers
- Custom windings and form factors available to meet application requirements

Specifications	Units	ARC-112	ARC-200	ARC-225	ARC-325	ARC-545	ARC-765
Continuous Torque:	Nm	0.65	2.18	13.78	11.08	21.21	63.4
Peak Torque:	Nm	1.95	6.54	41.34	33.24	63.63	190.2
Outer Radius:	mm	112.0	200.0	225.0	325.0	545.0	765.0
Height (Axial Length):	mm	20	23	33	40	40	40
Peak Current:	Amp	3.4	6.6	3.7	1.7	1.8	4.5

Specific models listed and corresponding data are provided as a reference. Infinity Series motors offer unrestricted diameters/radii dimensions for OEM applications. Peak torque output is based on a 3:1 peak to continuous current ratio in the amplifier, and is based on limited duty cycle. Specifications subject to change.

RoHS  
CE



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# Infinity™ Series Motors

Low-Profile DDR Motors for Arc Segment and Large Diameter Motion

## Infinity Arc Motors

MODEL		ARC-112	ARC-200	ARC-225	ARC325	ARC-545		ARC-765
PART NUMBER		1257-1-000-01	1160-1-000-01	1554-1-000-01	1144-1-000-10	1162-1-000-01	1162-1-000-02	1225
Continuous Torque	Nm [oz-in]	0.65 [91.9]	2.18 [309.8]	13.78 [1951]	11.08 [1569]	21.21 [3003.2]		63.4 [8978.8]
Peak Torque	Nm [oz-in]	1.95 [275.7]	6.54 [929.3]	41.34 [5853]	33.24 [4706.9]	63.63 [9009.6]		190.2 [26936.4]
Radius	mm [in]	112 [4.41]	200 [7.87]	225 [8.86]	325 [12.8]	545 [21.45]		765 [30.12]
Height (Axial Length)	mm [in]	20 [0.79]	23 [0.91]	33 [1.3]	40 [1.57]	40 [1.57]		40 [1.57]
Track Size	degrees	360	90	90	90	130	72	35
R	ohm	5.30	1.40	10.90	50.00	57.00		18.00
L	mh	1.10	0.55	9.14	38.40	32.00		13.00
Ke	v/krpm	20	35	389	670	1250		1485
Kt	[oz-in/amp] Nm/amp	0.19 [27.3]	0.33 [47.3]	3.71 [525.9]	6.39 [905.8]	11.93 [1690]		14.17 [2007.7]
Kt sine	[oz-in/amp] Nm/amp	0.17 [23.7]	0.29 [41]	3.22 [455.4]	5.54 [784.5]	10.33 [1463.5]		12.28 [1738.6]
Km	[oz-in/w <sup>1/2</sup> ] N/w <sup>1/2</sup>	0.08 [11.9]	0.28 [40]	1.12 [159.3]	0.9 [128.1]	1.58 [223.8]		3.34 [473.2]
Thermal Res	°C/Watt	1.5	1.5	0.6	0.6	0.5		0.3
Current	amp	3.36	6.55	3.71	1.73	1.78		4.47
Halls Option		No	Yes, internal	No	Yes, external	Yes, external		Yes, external