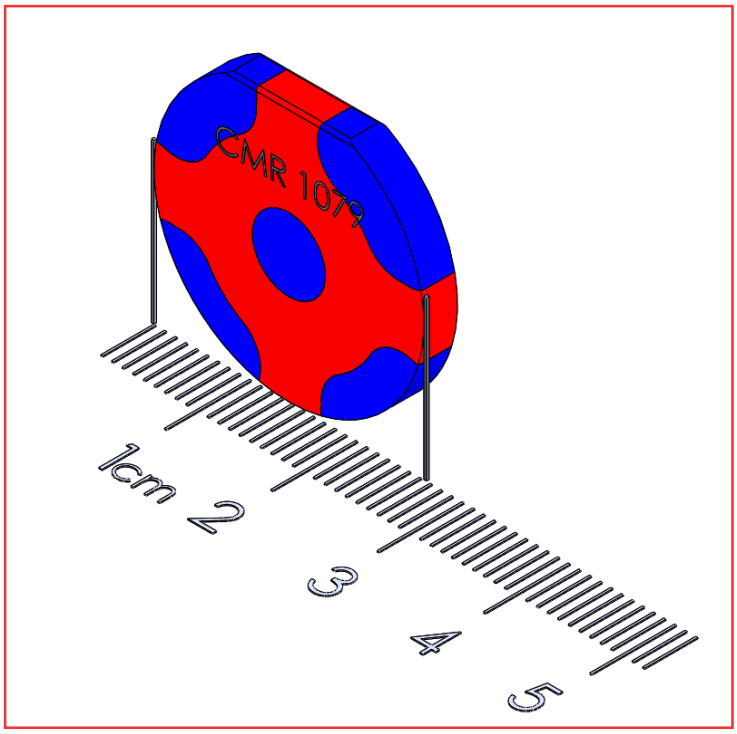
1001079
Portrait/Landscape Polymagnet

Portrait/Landscape Polymagnets are engineered to provide strong attachment and alignment forces in portrait/landscape positions and smoothly transition between the two arrangements with no repulsive force. This pair of magnets maintain their own axial alignment



Features and Benefits

- Magnet-To-Magnet, Indexing-Feature
- Rotational
- Shear Resistance: Rotational
- Pairs With: SELF

Technical Specifications:

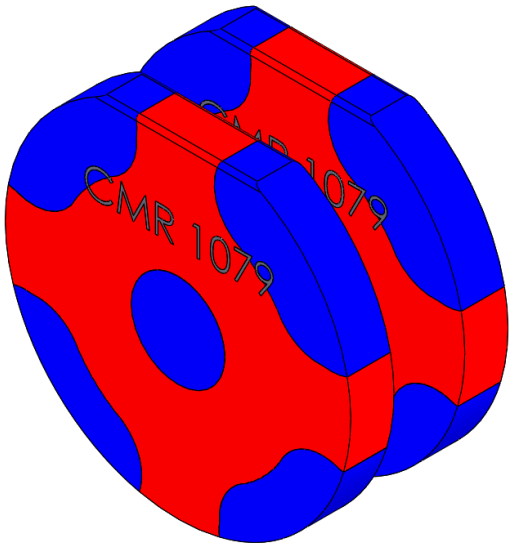
Dimensions:	1 OD 0.45 CD x 0.125 in (25.4 OD 11.43 CD x 3.175 mm)
Weight:	0.4 oz (11.8 g)
Material:	NdFeB
Magnet Grade:	N50
Coating:	Ni-Cu-Ni
Temperature Rating:	176 ° F (80 ° C)

Polymagnet® CORRELATED MAGNETICS

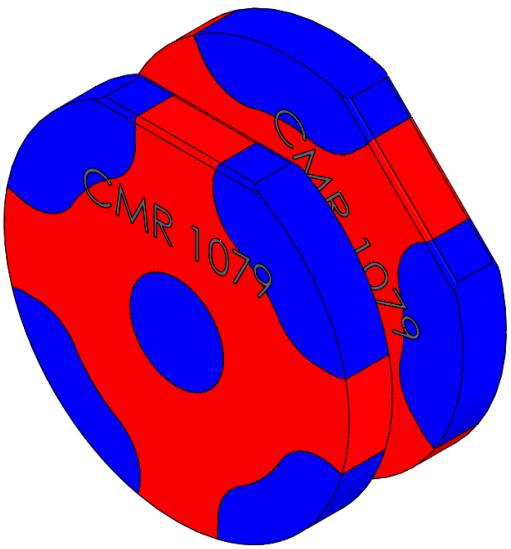
These Polymagnets exhibit a high holding force when they are rotationally aligned at 0°, 90 °, 180°, and 270 ° and rotate smoothly between these positions. When the Polymagnets are offset by some angle, torque exists toward the aligned position.

*In the images below, north poles are indicated by the red regions, south poles are indicated by the blue regions, and steel, if any, is indicated by the grey region.

ALIGNED (ATTRACTION)

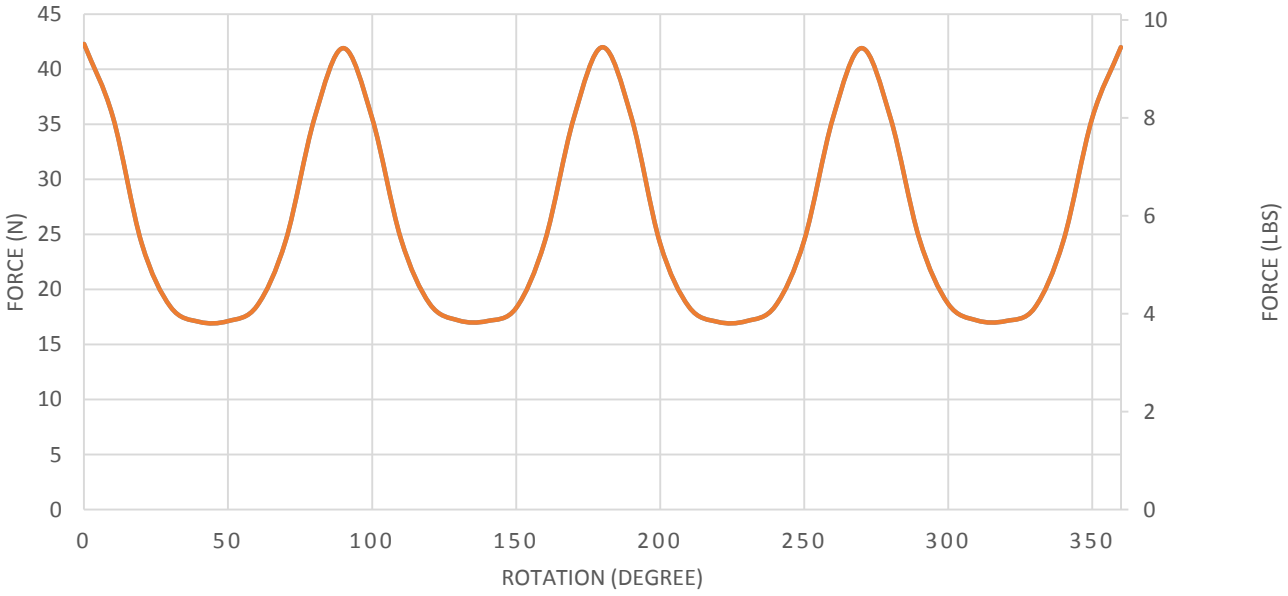


45° ROTATION (transition position)

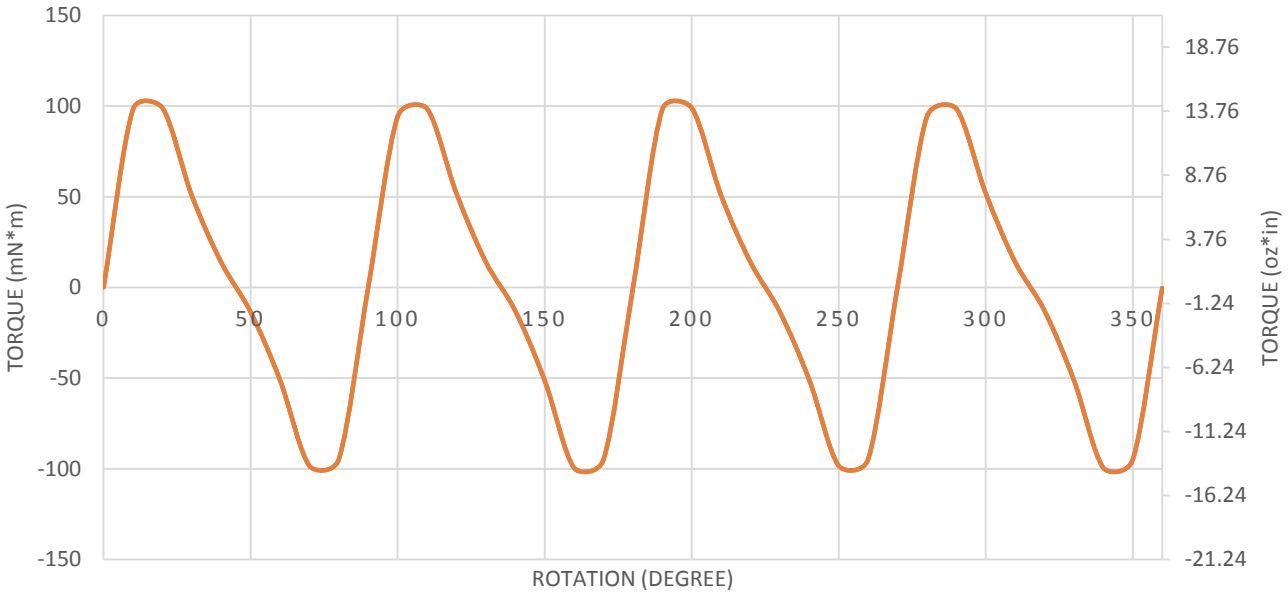


Polymagnet®
CORRELATED MAGNETICS

HOLDING FORCE VS ROTATION AT 1.5MM MAGNET TO MAGNET GAP

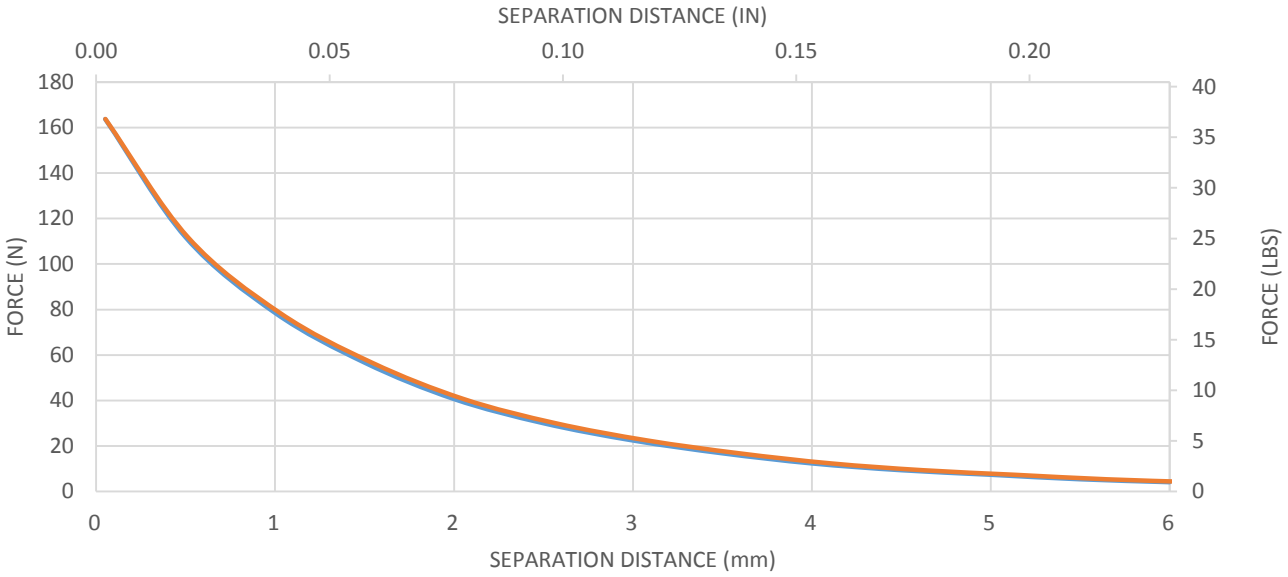


TORQUE VS ROTATION AT 1.5MM MAGNET TO MAGNET GAP



Polymagnet®
CORRELATED MAGNETICS

HOLDING FORCE VS SEPARATION DISTANCE MAGNET TO MAGNET



Holding Force (Aligned)	Contact	0.02in (0.5mm)	0.04in (1.0mm)	0.06in (1.5mm)	0.08in (2.0mm)	0.10in (2.5mm)	0.12in (3.0mm)
Magnet To Magnet	36.8LBF (163.7N)	25.1LBF (111.7N)	17.7LBF (78.5N)	12.7LBF (56.7N)	9.1LBF (40.7N)	6.8LBF (30.0N)	5.0LBF (22.4N)

Notes on Performance Data

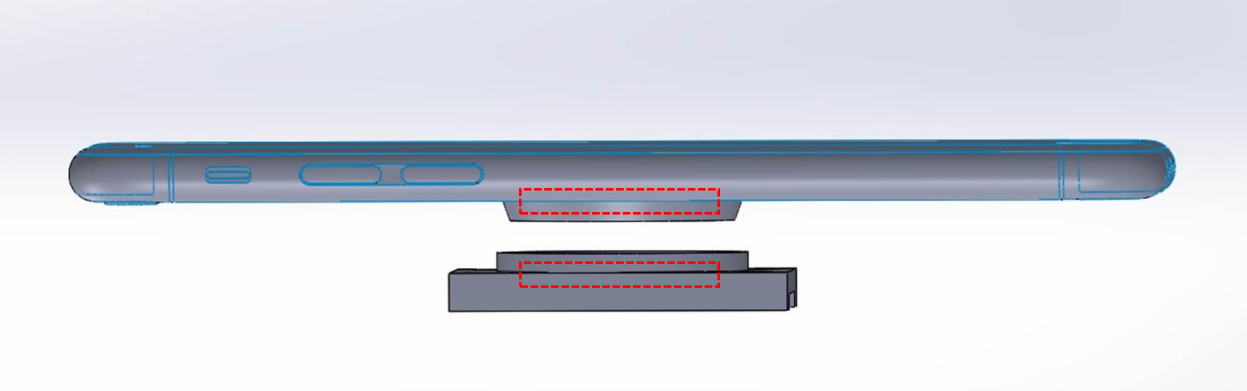
The performance information provided in this data sheet is derived from test or simulation results of directly comparable magnets of the same size and grade under consistent conditions. The magnets are tested under controlled environmental conditions. Unconstrained application testing may give lower forces due to the magnet tilting or shifting away from target during engagement and disengagement. Magnetic performance may vary by up to 7%, the values presented here are based on nominal magnetic properties

Patent Information

Pat. www.cmrpatents.com

Polymagnet® CORRELATED MAGNETICS

These Polymagnets are D-shaped which provides an indexing feature. This aids in the assembly process as well as provides a flat surface to resist the torque created as the magnets are rotated. In order for this system to work correctly, there must be a mechanical feature which constrains the system as seen in the picture below.



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