

$F_y=639\text{ N}$

The BD Halbach magnet halves

Forces if both pieces is one piece

$F_x=687\text{ N}$

Forces on a single piece are half

$F_y=639\text{ N}$

$F_x=687\text{ N}$

$F_y=-639\text{ N}$

The two pieces either on top or bottom repel with $F_z=173\text{ N}$

$F_x=355\text{ N}$

$F_y=-535\text{ N}$

$F_y=535\text{ N}$

$F_x=355\text{ N}$