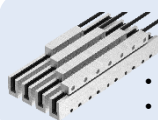
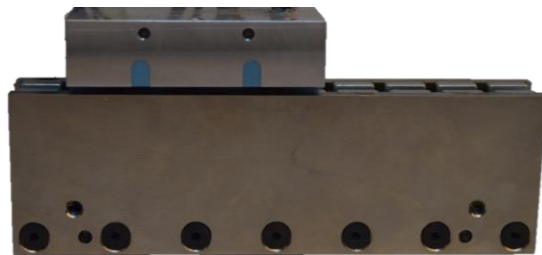




DSM Linear Motors

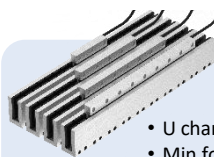
MDS Motor offers a new DSM series motors: Coreless permanent magnet synchronous linear motors. DSM series motors provide high acceleration and dynamics, accurate positioning and easy system integration to users because they eliminate gearboxes, ball screws, belts and rack and pinions.

DSM series linear motors present 16 different motor sizes to serve numerous applications such as MRI & Xray, packaging machinery, robotics and laser cutting machines.



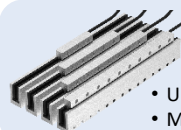
DSM-20

- U channel width: 20 mm
- Four forcer length options
- Min forcer length: 60 mm
- Peak force up to 277 N



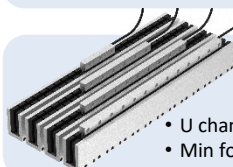
DSM-35

- U channel width: 35 mm
- Four forcer length options
- Min forcer length: 120 mm
- Peak force up to 1014 N



DSM-30

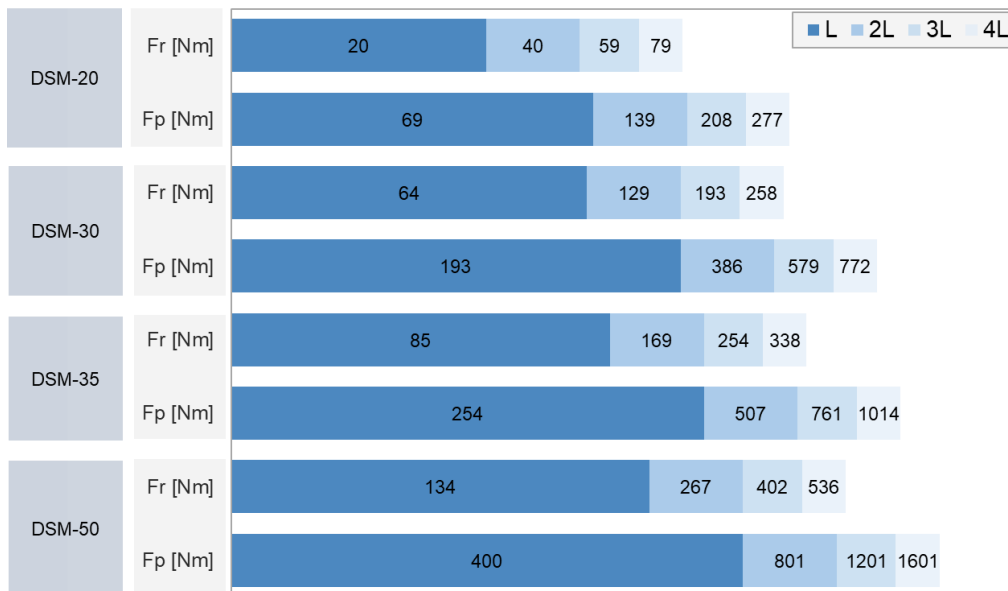
- U channel width: 30 mm
- Four forcer length options
- Min forcer length: 120 mm
- Peak force up to 772 N



DSM-50

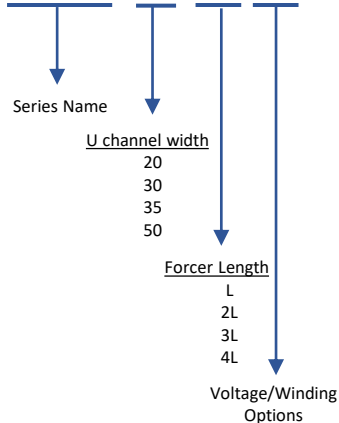
- U channel width: 50 mm
- Four forcer length options
- Min forcer length: 120 mm
- Peak force up to 1601 N

DSM Series Linear Motor Force Range

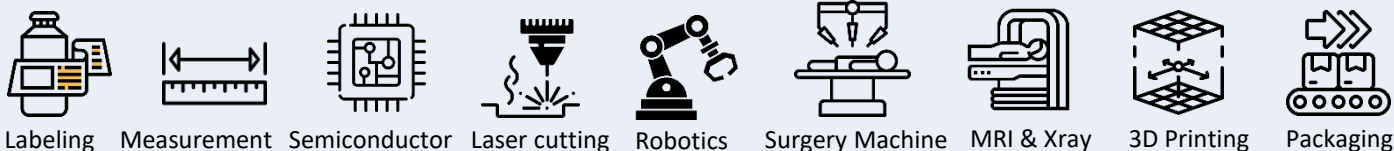


Nomenclature

DSM - WXX - L - YYY

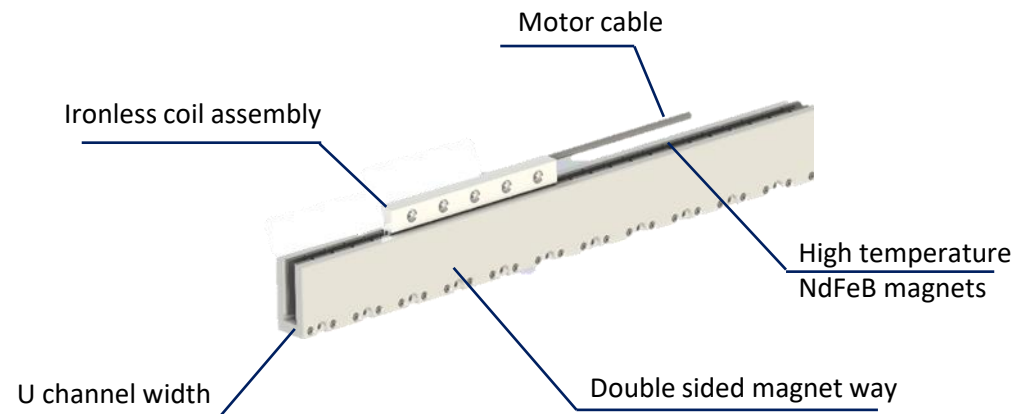


Applications





Structure



Main Features & Benefits

- 16 Standard motor sizes
- Continuous force up to 536 N
- Peak force up to 1601 N
- Speed up to 12 m/s
- U channel width up to 50 mm
- Different voltage/winding options available
- Compact design
- High force density
- Cogging free motor
- High repeatability
- No backlash for higher accuracy
- Extremely low detent force
- No attraction force
- High acceleration and dynamics
- Ease of installation
- Simple design

DSM-W35

Symbol	Units	DSM-W35-120D
PERFORMANCE		
Peak Force	N	253.5
Continuous Force	N	84.5
Motor Constant	N/A/V	3.27
ELECTRICAL		
Peak Current	A	6.6
Continuous Current	A	2.2
Force Constant	N/A	18.4
Back EMF Constant*	V/Hz	31.6
Resistance @ 20C (L-L)	mΩ	8.7
Inductance (L-L)	mH	9.2
Terminal Voltage	V	310
Electrical Time Const.	ms	1.1
THERMAL		
Thermal Resistance	K/W	∞
Thermal Time Const.	s	∞
Max. Winding Temp.	C	∞
MECHANICAL		
Force Length	m	∞
Force Weight	kg	∞
Magnet Pitch	mm	∞
Attractive Force	N	∞

Force – Speed Curves

Outline Drawing

Detailed technical datasheets are available upon request.

