FDN-63A-L603
DISK DAMPER

Bansbach *easylift*®

SPECIFICATIONS

Model	Rated Torque	Damping Direction	Max Rotation Speed
FDN-63A-L603	6±0.6Nm (60±6kgfcm)	Counter-clockwise	50 RPM

Max Cycle Rate	Operating Temperature	Weight	Body Material	Rotor (Shaft) Material	Oil Type
12 cycles/min.	-10 ~ 50°C	115g	Iron	Nylon/glass fiber composite	Silicone Oil

Note) Rated torque is measured at a rotation speed of 20rpm at 23°C±3°C

DAMPING CHARACTERISTICS

Speed characteristics of
FDN-63A-603 series
(Measurement temperature: 23°C)

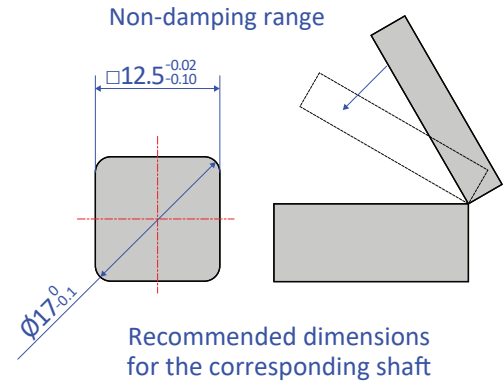Torque (Nm) vs (Rotation speed: rpm)
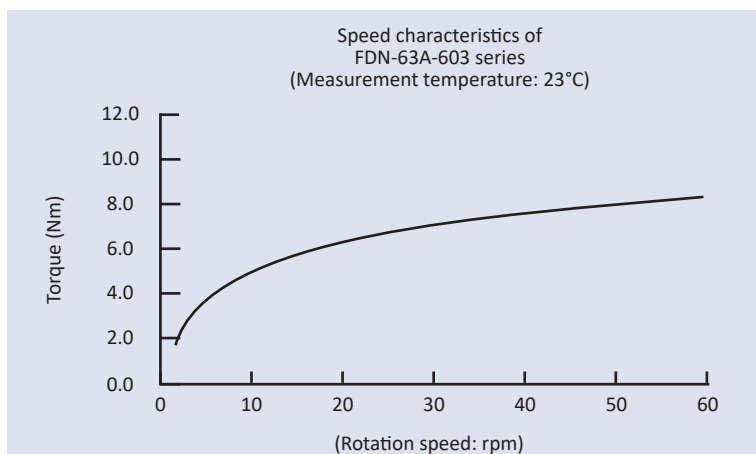
- **Speed characteristics:** A disk damper's torque varies according to the rotation speed. In general, as shown in the graph to the left, the torque increases as the rotation speed increases, and the torque decreases as the rotation speed decreases. Torque at 20 rpm is shown in this document.
In a closing lid, the rotation speed is slow when the lid begins to close, resulting in the generation of torque that is smaller than the rated torque.

Temperature characteristics of
FDN-63A-603 series
(Rotation speed: 20 rpm)

Torque (Nm) vs (Ambient temperature: °C)
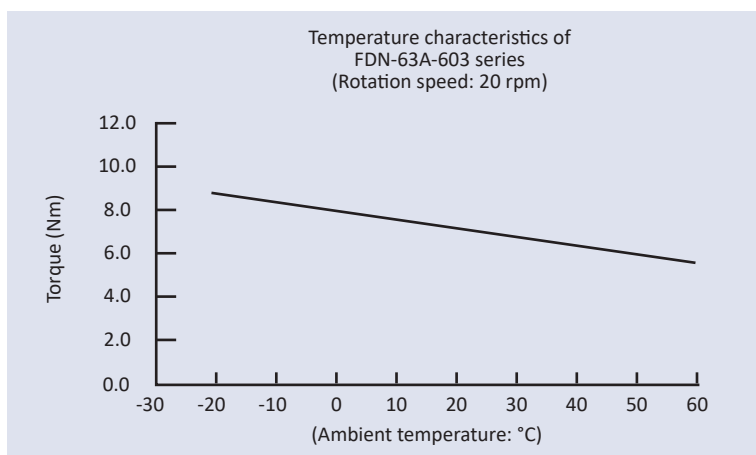
- **Temperature characteristics:** Damper torque (rated torque in this document) varies according to the ambient temperature. As the temperature increases, the torque decreases, and as the temperature decreases, the torque increases. This is because the viscosity of the silicone oil inside the damper varies according to the temperature. The graph to the left illustrates the temperature characteristics.

Shafts external dimensions	Ø10mm - Ø9.97mm
Surface hardness	HRC55 or higher
Quenching depth	0.5mm or higher
Surface roughness	1.0Z or lower
Chamfer end (Damper insertion side)	CO.2~CO.3 (or RO.2~RO.3)

Non-damping range

$\square 12.5^{-0.02}_{-0.10}$

$\varnothing 17^{0}_{-0.1}$

Recommended dimensions for the corresponding shaft

- FDN-63A dampers may generate torque clockwise or counter-clockwise.
- Please make sure that a shaft attached to a damper has a bearing, as the damper itself is not fitted with one.
- Please refer to the chart when creating a shaft for the FDN-63A disk damper.
  Not using the recommended shaft dimensions may cause the shaft to slip out.
- To insert a shaft into FDN-63A, insert the shaft while spinning it in the idling direction of the one-way clutch.
  (Do not force the shaft in from the regular direction. This may damage the one-way clutch.)