

6. Friction

Linear Recirculating Ball Bearings have a very low static coefficient of friction, virtually identical to the dynamic coefficient of friction. This results in low and uniform motion in any condition of load and speed without sick-slip.

$$F = \mu \cdot W + f \dots\dots\dots(4)$$

F = Friction force [N]
 U = Friction coefficient [-]
 f = Seal drag [N]
 w = Load [N]

The magnitude of the friction force is affected by several factors. The type of bearing, the operating conditions, the type and quantity of the lubricant, the presence or lack of seals all impact the overall frictional behavior. Standard seals can add between 2 and 5 N to the overall friction force. The magnitude of the coefficient of friction depends upon the operating conditions such as load, moments and/or preload. Table 6.1 shows the dynamic coefficient of friction for each type of bearing under normal operating condition (P/C <= 0.2) and proper assembly.

Table 6.1 Friction coefficient

Type of bearing	Friction coefficient
KH	0.004 to 0.006
LME / LMB	0.002 to 0.003

7. Operating temperature

The operating temperature ranges of the various bearings are shown in table 7.1. Should the operating temperature exceed the limits shown in the table, please contact fait International Engineering. Stainless steel units, without seals, can operate between -20/+120 degree. C

Table 7.1 Operating temperature

Bearing type	Operating temperature
KH	-20 to +120° C
LME / LMB	-20 to +110° C