## **TFS SERIES CAM CLUTCH**





## Dimensions and Capacities

Dimensions in mm Max. Overrunning Torque Drag Bore Size Weight (r/min) F В С D Е G Model Capacity Torque Keyway А Н (H7) (g) Inner Race Outer Race (N·m) (N·m) TFS12 35 30 0.3 4 1.4 18 4500 2300 0.04 12 4×1.8 13 18 0.6 68 TFS15 28 3500 1800 0.06 15 5×1.2 18 42 36 22 0.8 0.3 5 1.8 120 TFS17 3200 1600 0.11 17 5×1.2 47 38 1.2 0.8 5 2.3 50 19 22 150 TFS20 1300 0.18 45 0.8 2.3 84 2500 20 6×1.6 21 52 27 1.2 6 220 TFS25 128 2000 1000 0.19 25 8×2.0 24 62 52 35 1.2 0.8 8 2.8 360 TFS30 200 1600 800 0.21 8×2.0 72 62 40 30 27 1.8 1.0 10 2.5 530 TFS35 475 700 48 1400 0.42 35 10×2.4 31 80 70 1.8 1.0 12 3.5 790 TFS40 607 1300 650 0.46 40 12×2.2 33 90 78 54.5 1.8 1.0 12 4.1 1050 TFS45 756 1100 550 0.56 45 14×2.1 100 85.3 59 1.8 1.0 14 4.6 1370 36 TFS50 1124 1000 500 0.60 50 14×2.1 40 110 92 65 1.8 1.0 14 5.6 1900 TFS60 1975 840 420 0.87 18×2.3 46 130 110 84 2.6 1.5 18 5.5 3110 60 TFS70 380 0.91 125 2514 750 70 20×2.7 51 150 91 2.6 1.5 20 6.9 4390 TFS80 80 170 3924 670 340 1.22 22×3.1 140 100 1.5 6440 58 2.6 20 7.5

## Installation and Usage

1. The outer race of the TFS Series Cam Clutch is designed for press fit installation to the housing. Correct interference dimensions of the outer race must be maintained to obtain maximum clutch performance.

The internal diameter of the housing should meet the H7 tolerance. Keyways should be made in the end faces of the clutch for proper installation. Refer to item 8 in the installation and usage of BB Series Cam Clutch for information on the installation method. If the tolerance of the internal diameter of the housing is K6, keyways are not required on the end faces of the clutch.

- 2. Make sure the housing has enough strength to withstand the pressure required for the press fitting installation of the clutch.
- 3. Align the key to slide through the keyway smoothly before installation.
- 4. When installing the clutch, mount it with a type 63 bearing to avoid radial force, since this clutch does not have any bearing support.
- 5. The clutch should be mounted on the shaft by rotating it in the direction marked by the arrow shown on the clutch plate. The arrow shows inner rece engagement direction.
- 6. The recommended shaft tolerate is h7, and the key profile should be in accordance with the following standard. **TFS 12** ·····DIN 6885.1
  - TFS 15 ~ 80 .....DIN 6885. 3
- 7. Suitable surface pressure of the key should be selected according to your company design standards.

## Lubrication

- 1. Oil lubrication is recommended.
- 2. Do not use greases or lubricants with EP additives.

