

Freewheel Clutch for e-Bike Drive Unit

Camcage Type

BENEFITS

E

Diverse lineup Enables lighter and more compact designs High-precision transmission of assist force Reduces noise/improves ride quality



Freewheel Clutch for e-Bike



Diverse lineup

We offer the best specifications for "cam clutches" that connect and disconnect the motor's assist force, depending on the customer's application.

Cam & Roller Type (Radial load resistance)



With bearing function (Radial load resistance)

→Contributing to unit downsizing(Q factor reduction)/weight reduction Cams share the load evenly

→High-precision smooth transmission of assist force

- Concentric holding structure
 - Contributing to improved noise/ride quality by reducing overrunning frictional torque

Built-in bearing Type

- All-in-one (inner/outer races, cams and bearings) →Contributing to unit downsizing/weight reduction
- Cams share the load evenly
- →High-precision transmission of assist force
- Concentric holding structure →Contributing to improved noise/ride quality by reducing overrunning frictional torque

Allowable

Toraue

А

В

Transmission Capability/Dimensions

Model Number



Inner Inner race I.D. Outer race O.D Width Nm raceway diameter raceway diamete CC104R4-15-8.5 15 23.294 9 7 _ -CC104R4-15-10.5 9 15 23.294 11 CC104R4-15-14.5 14 -15 23.294 -15 CC110R5-25-8.5 29 -25 33.294 -9 CC110R5-25-10.5 39 -25 33.294 -11 CC110R5-25-14.5 59 _ 25 33.294 15 -105 35 9 CC116R4-35-8.5 -43.294 Cam & Roller Type (Radial load resistance) CC116R4-35-10.5 147 -35 43.294 11 -CC116R4-35-14.5 232 43.294 -35 15 45 53.294 9 CC120R4-45-8.5 207 --CC120R4-45-10.5 276 45 53.294 11 --CC120R4-45-14.5 427 45 53.294 15 -Allowable Torque А В D F С Model Number Innei Oute Width Inner race I.D. Outer race O.D. aceway diameter raceway diamete Nm BB101815 15 12 44 23 BB102625 133 25 12 33 43 12 BB103635 285 35 Camcage Type 482 45 53 12 BB104445 Allowable D Е А В С Torque Model Number Inner Outer Inner race I.D. Outer race O.D. Width Nm ceway diar eway diar BB15 29 15 35 11 BB17 43 17 40 12 **BB20** 61 20 47 14 **BB25** 78 25 52 15 140 BB30 30 62 16 Built-in bearing Type **BB35** 173 35 72 17 **BB40** 260 40 80 22 #1. Above values are for reference only. (Optimum design is made according to customer requirements/applications.)





- High torque transmission performance (Based on our comparison test)
- →Contributing to unit downsizing/weight reduction
- Cams share the load evenly
 - →High-precision transmission of assist force

Camcage Type

Cam & Roller Type (Axial and radial load resistance)

Cams share the load evenly

With bearing function (Axial and radial load resistance) Enables helical gears, contributing to further

→High-precision smooth transmission of assist force

downsizing(Q factor reduction)/weight reduction of the unit



C

Outer

→Contributing to improved noise/ride quality by reducing overrunning frictional torque

F

D

#2. Cam & Roller Type (Axial and radial load resistance) are under element development, dimensions will be updated separately.

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Web





Movie