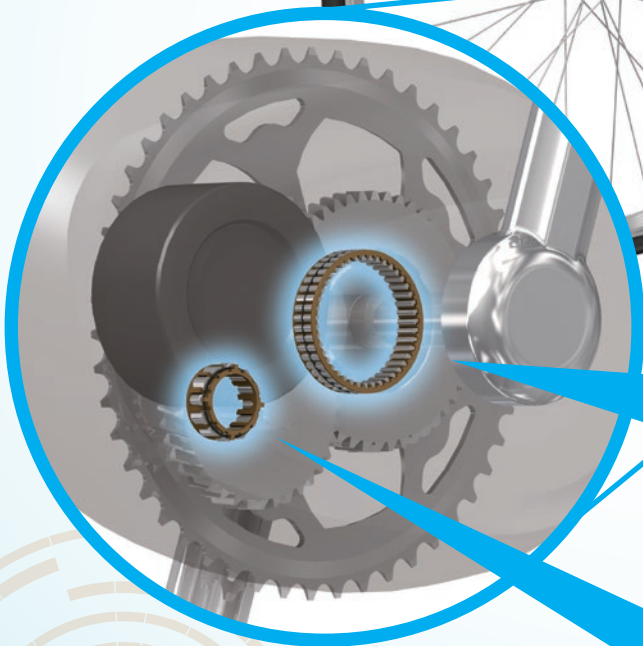
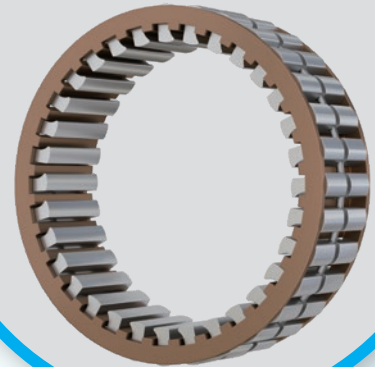


Freewheel Clutch for e-Bike Drive Unit



Camcage Type



Cam & Roller Type



BENEFITS

Diverse lineup



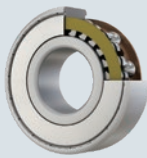

Enables lighter and more compact designs

High-precision transmission of assist force

Reduces noise/improves ride quality



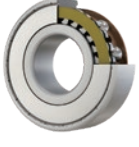
Diverse lineup

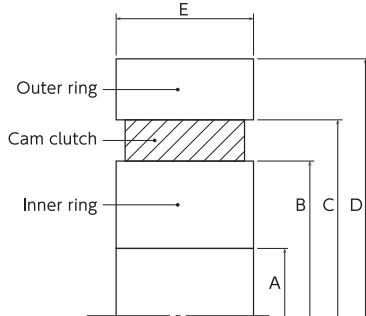
We offer the best specifications for "cam clutches" that connect and disconnect the motor's assist force, depending on the customer's application.

Cam & Roller Type (Radial load resistance)	Camcage Type
 <ul style="list-style-type: none"> ● 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 	 <ul style="list-style-type: none"> ● 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
Built-in bearing Type	Cam & Roller Type (Axial and radial load resistance)
 <ul style="list-style-type: none"> ● All-in-one (inner/outer rings, 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 	 <ul style="list-style-type: none"> ● With bearing function (Axial and radial load resistance) → Enables helical gears, contributing to further downsizing(Q factor reduction)/weight reduction of the unit ● 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 <p>Element under development</p>

Transmission Capability/Dimensions

Unit: mm

Image	Model Number	Allowable Torque Nm	A	B	C	D	E
			Inner ring I.D.	Inner ring raceway diameter	Outer ring raceway diameter	Outer ring O.D.	Width
 Cam & Roller Type (Radial load resistance)	CC104R4-15-8.5	7	-	15	23.294	-	9
	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
	CC116R4-35-8.5	105	-	35	43.294	-	9
	CC116R4-35-10.5	147	-	35	43.294	-	11
	CC116R4-35-14.5	232	-	35	43.294	-	15
	CC120R4-45-8.5	207	-	45	53.294	-	9
	CC120R4-45-10.5	276	-	45	53.294	-	11
CC120R4-45-14.5	427	-	45	53.294	-	15	
 Camcage Type	Model Number	Allowable Torque Nm	A	B	C	D	E
	BB101815	44	-	15	23	-	12
	BB102625	133	-	25	33	-	12
	BB103635	285	-	35	43	-	12
	BB104445	482	-	45	53	-	12
 Built-in bearing Type	Model Number	Allowable Torque Nm	A	B	C	D	E
	BB15	29	15	-	-	35	11
	BB17	43	17	-	-	40	12
	BB20	61	20	-	-	47	14
	BB25	78	25	-	-	52	15
	BB30	140	30	-	-	62	16
	BB35	173	35	-	-	72	17
	BB40	260	40	-	-	80	22



The diagram shows a cross-section of the cam clutch assembly. Dimension E is the total width. Dimension A is the inner ring I.D. Dimension B is the inner ring raceway diameter. Dimension C is the outer ring raceway diameter. Dimension D is the outer ring O.D. The cam clutch is shown between the inner and outer rings.

※1. Above values are for reference only. (Optimum design is made according to customer requirements/applications.)

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

