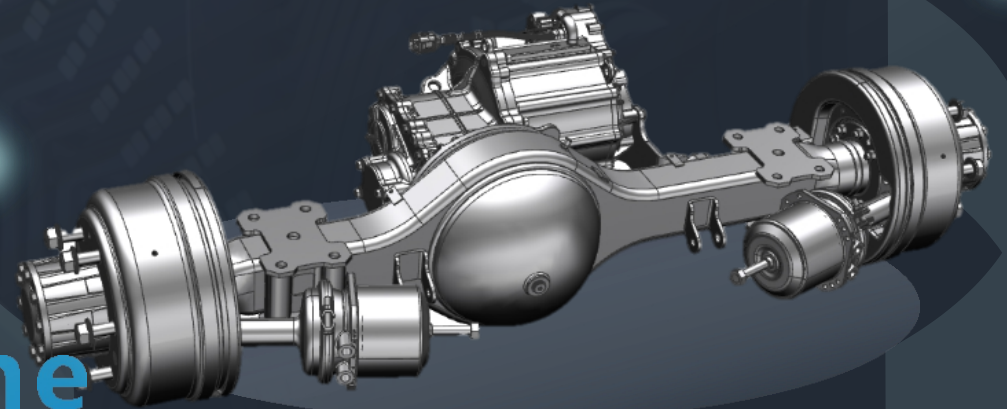
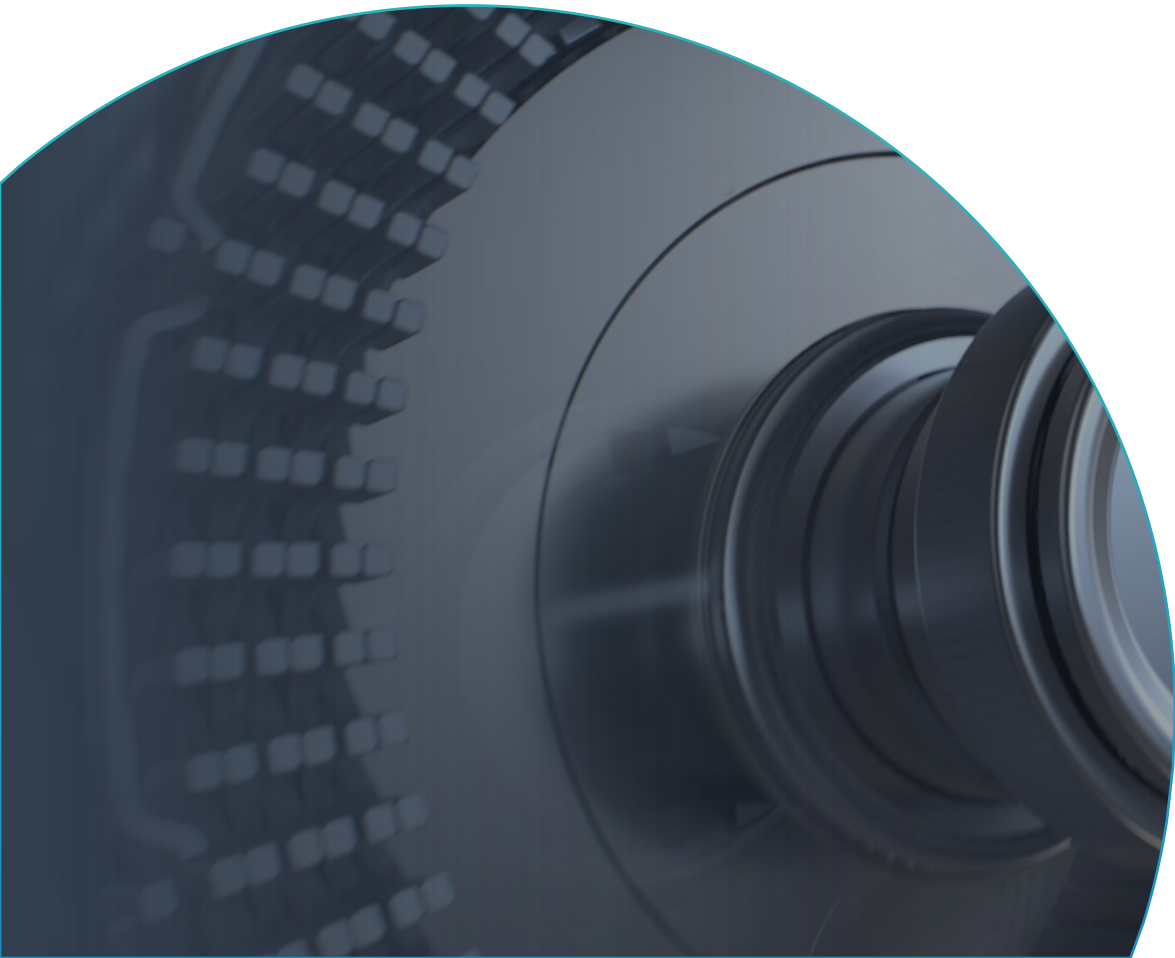


FinDreams Powertrain E-Axle Assembly Scheme



Contents



- 1 BUS Axle Series
- 2 Truck Axle Series
- 3 Forklift Axle Series











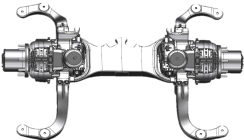

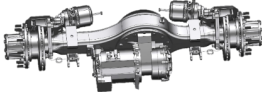

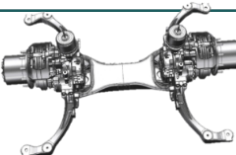

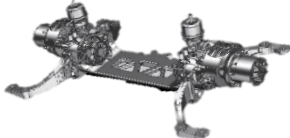

FinDreams
Powertrain



01

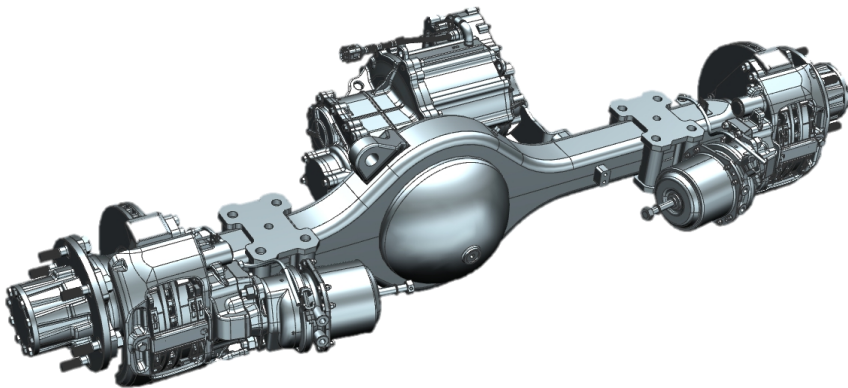
Bus Axle Series



e-Axle NO.	e-Axle Picture	Bus Type		
		6-7m	8m	Over 10m
SEQ04				
TQ06				
SEQ09				
EQ09B				
SEQ13A				
EQ13E				
EQ14				

BUS Axle - SEQ04

>>> Product features



- **Lighter weight and smaller size:**
The weight of the whole axle (including the motor) is **380kg**, which is **23%** lighter and smaller than the traditional structure
- **Stronger bearing capacity:**
The axle housing is made of steel plate integrally stamped and welded, with strong bearing capacity and good reliability
- **Higher efficiency:**
The highest efficiency is **over 93%**, the overall efficiency is increased by about **3%**, and the energy consumption is also reduced
- **Fewer types of parts:**
The types of parts are reduced by more than **30%**

SEQ04-Product Parameter

Axle assembly

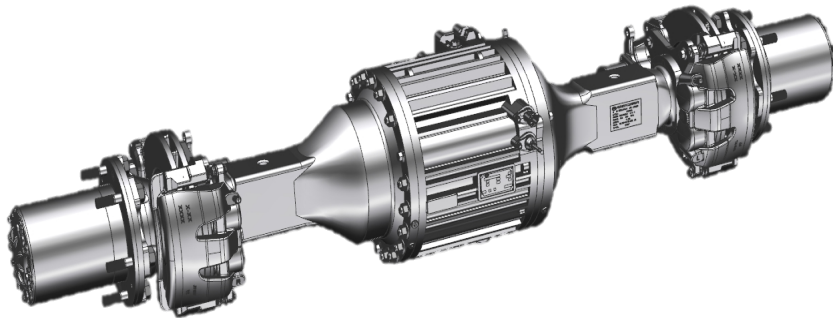
Maximum axle load (kg)	4500	Maximum torque of wheel end (Nm)	5450
Drive axle ratio	16.029	Wheel bolt distribution circle (mm)	Ø222.25
Rim seam allowance(mm)	Ø161.8	Specifications/Quantity of wheel bolts	M18×1.5/6
Rim installation end face distance (mm)	1769 (double-tire) 2200 (single-tire)	Brake specification	17.5"
Center distance of plate spring	960 (double-tire) 1190 (single-tire)	Brake type	Disc air brake
Dimension (mm)	L2002×W752×H441 L2286×W752×H441	Weight (kg)	369

Motor

Peak torque of motor (Nm)	340	Peak power of motor (kw)	150
Rated load torque of motor (Nm)	150	Rated power of motor (kw)	70
Maximum speed of revolution (r/min)	12000	Duty type	S9
Insulation level	H	IP RATE	IP67

BUS Axle- TQ06

>>> Product features



- **Lighter weight:**
The weight of the whole axle (including the motor) is **380kg**, which is **25%** lighter than the direct drive scheme, and about **50%** smaller than the direct drive scheme.
- **Higher efficiency:**
The highest efficiency is **over 94%**, the overall efficiency is increased by about **4%**, and the energy consumption is also reduced
- **Lower noise:**
At a constant speed 50km/h, noise $\leq 68\text{dB}$, which is about 9% lower than the Direct-drive scheme
- **Fewer types of parts:**
The types of parts are reduced by more than **50%**

TQ06-Product Parameter

Axle assembly

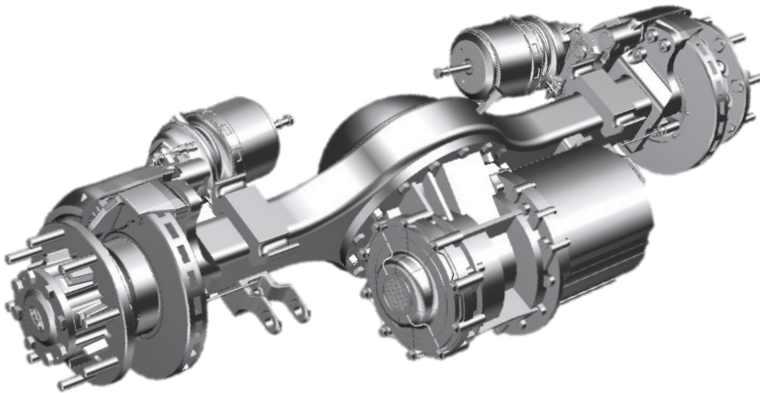
Maximum axle load (kg)	5500	Maximum torque of wheel end (Nm)	7772
Drive axle ratio	11.103	Wheel bolt distribution circle (mm)	Ø222.25
Rim seam allowance (mm)	Ø173.8	Specifications/Quantity of wheel bolts	M18×1.5-6h/6
Rim installation end face distance (mm)	1530	Brake specification	17.5" (Disc air brake) Double-cylinder57 (Disc hydraulic brake)
Center distance of plate spring	860	Brake specification	ø313×38 Disc hydraulic brake+EPB ø335×34Disc air brake
Dimension (mm)	L1976×W498×H380	Weight (kg)	380

Motor

Peak torque of motor (Nm)	700	Peak power of motor (kw)	110
Rated load torque of motor (Nm)	280	Rated power of motor (kw)	75
Maximum speed of revolution (r/min)	8500	Duty type	S9
Insulation level	H	IP RATE	IP67

BUS Axle-SEQ09

>>> Product features



- **Lighter weight and smaller size:**
The weight of the whole axle (including the motor) is **600kg**, which is **25%** lighter than the direct drive scheme, and about **35%** smaller than the direct drive scheme
- **Higher efficiency:**
The highest efficiency is over **94%**, the overall efficiency is increased by about **4%**
- **Lower noise:**
At a constant speed 50km/h, noise $\leq 68\text{dB}$, which is about **6%** lower than the Direct-drive scheme
- **Fewer types of parts:**
The types of parts are reduced by more than **35%**

SEQ09-Product Parameter

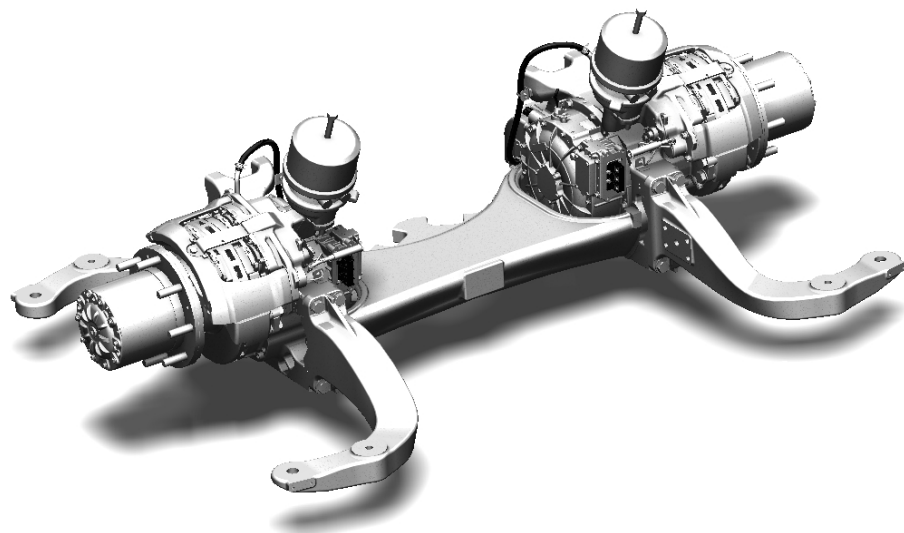
Axle assembly

Maximum axle load (kg)	9000	Maximum torque of wheel end (Nm)	12074
Drive axle ratio	20.124	Wheel bolt distribution circle (mm)	Ø275
Rim seam allowance(mm)	Ø220.8	Specifications/Quantity of wheel bolts	M20×1.5/8
Rim installation end face distance (mm)	1770 (disc brake)	Brake specification	19.5"
Center distance of plate spring	1000 (Adjustable)	Brake specification	Disc air brake
Dimension (mm)	L2147×W486×H945	Weight (kg)	576(Disc air brake plate spring)/ 640(Disc air brake air spring)

Motor

Peak torque of motor (Nm)	600	Peak power of motor (kw)	165
Rated load torque of motor (Nm)	300	Rated power of motor (kw)	90
Maximum speed of revolution (r/min)	10000	Duty type	S9
Insulation level	H	IP RATE	IP68

BUS Axle-EQ09B



>>> Product features

- **Smaller size:**
Compared with Direct- drive scheme, it is **38%** smaller in dimension
- **Higher efficiency:**
The highest efficiency is **over 94%**, the overall efficiency is increased by about **3%**, and the energy consumption is also reduced
- **Lower noise:**
At a constant speed 50km/h, noise **≤70dB**, which is about **7%** lower than the Direct-drive scheme
- **Higher power density:**
100kW*2, about **10%** higher than the Direct- drive scheme
- **Fewer types of parts:**
The types of parts are reduced by more than **40%**

EQ09B-Product Parameter

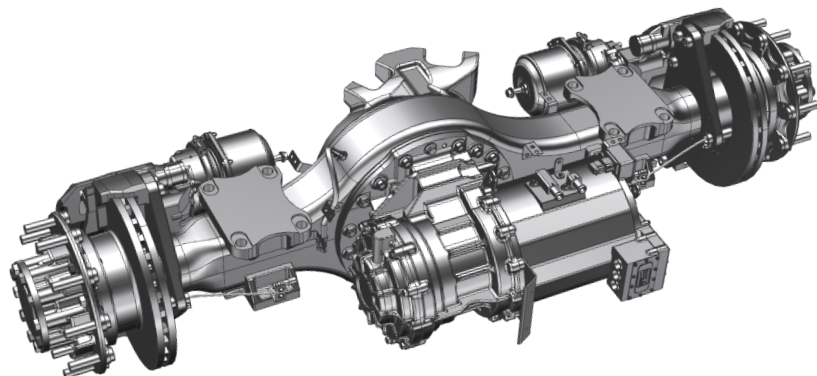
Axle assembly

Maximum axle load (kg)	9500	Maximum torque of wheel end (Nm)	6153*2
Drive axle ratio	14.310	Wheel bolt distribution circle (mm)	Ø275
Rim seam allowance(mm)	Ø220.8	Specifications/Quantity of wheel bolts	M20×1.5/8
Rim installation end face distance (mm)	1780	Brake specification	19.5"
Air spring installation dimension Shock absorber installation dimension	1330*1418A*C) 1240*1818 (B*D)	Brake specification	Disc air brake ø377×45
Dimension (mm)	(L2204×W1436×H763)	Weight (kg)	880

Motor

Peak torque of motor (Nm)	430	Peak power of motor (kw)	100
Rated load torque of motor (Nm)	175	Rated power of motor (kw)	55
Maximum speed of revolution (r/min)	7500	Duty type	S9
Insulation level	H	IP RATE	IP68

BUS Axle-SEQ13A



>>> Product features

- **Smaller size:**
Compared with Direct- drive scheme, it is **40%** smaller in dimension
- **Higher efficiency:**
The highest efficiency is **over 94%**, the overall efficiency is increased by about **3%**, and the energy consumption is also reduced
- **Lower noise:**
At a constant speed 50km/h, noise **≤70dB**, which is about **7%** lower than the Direct-drive scheme
- **Peak power:** 260kW
- **Fewer types of parts:**
The types of parts are reduced by more than **43%**

SEQ13A-Product Parameter

Axle assembly

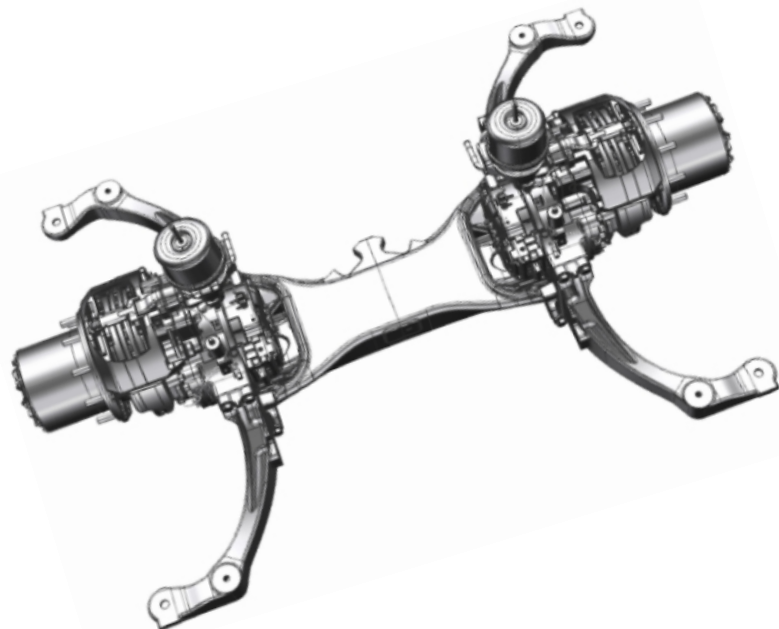
Maximum axle load (kg)	13000	Maximum torque of wheel end (Nm)	17400
Drive axle ratio	23.199	Wheel bolt distribution circle (mm)	Ø335
Rim seam allowance(mm)	Ø208.8	Specifications/Quantity of wheel bolts	M22×1.5/10
Rim installation end face distance (mm)	1840	Brake specification	22.5"
Air spring installation dimension	1490*1540 (A*C)	Brake specification	Disc air brake ø430×45
Shock absorber installation dimension	1488*1970 (B*D)		
Dimension (mm)	(L2065×W818×H570)	Maximum torque of wheel end (Nm)	840

Motor

Peak torque of motor (Nm)	750	Peak power of motor (kw)	260 (Voltage platform 640, peak current 520A)
Rated load torque of motor (Nm)	360	Rated power of motor (kw)	165 (sustained current280A)
Maximum speed of revolution (r/min)	10000	Duty type	S9
Insulation level	H	IP RATE	IP68

BUS Axle-EQ13E

>>> Product features



Smaller size:

- Compared with Direct- drive scheme, it is 38% smaller in dimension

Higher efficiency:

- The highest efficiency is **over 94%**, the overall efficiency is increased by about **3%**, and the energy consumption is also reduced

Lower noise:

- At a constant speed 50km/h, noise $\leq 70\text{dB}$, which is about **7%** lower than the Direct-drive scheme

Higher power density:

- It is $150\text{kW}^2/100\text{kW}^2$, about **5%** higher than the Direct- drive scheme

Fewer types of parts:

- The types of parts are reduced by more than **40%**

EQ13E-Product Parameter

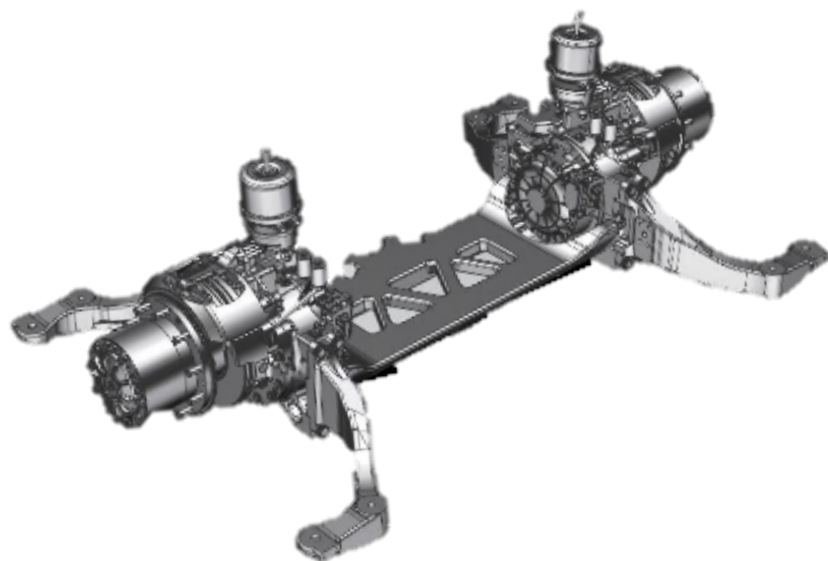
Axle assembly

Maximum axle load (kg)	13000	Maximum torque of wheel end (Nm)	7660*2/9798*2
Drive axle ratio	17.814	Wheel bolt distribution circle (mm)	Ø335
Rim seam allowance(mm)	Ø208.8	Specifications/Quantity of wheel bolts	M22×1.5/10
Rim installation end face distance (mm)	1860	Brake specification	22.5"
Air spring installation dimension	1490*1546 (A*C)	Brake specification	Disc air brake ø430×45
Shock absorber installation dimension	1465*1964 (B*D)		
Dimension (mm)	(L2362×W1596×H878)	Maximum torque of wheel end (Nm)	1100

Motor

Peak torque of motor (Nm)	550/430	Peak power of motor (kw)	150/100
Rated load torque of motor (Nm)	320/280/175	Rated power of motor (kw)	100/75/55
Maximum speed of revolution (r/min)	10000/7500	Duty type	S9
Insulation level	H	IP RATE	IP68

Airport Vehicle Axle-EQ14



>>> Product features

- **Smaller size:**
Compared with Direct- drive scheme, it is 30% smaller in dimension
- **Higher efficiency:**
The highest efficiency is **over 94%**, the overall efficiency is increased by about **3%**, and the energy consumption is also reduced
- **Lower noise:**
At a constant speed 50km/h, noise **≤70dB**, which is about **7%** lower than the Direct-drive scheme
- **Higher power density:**
100kW*2, about **5%** higher than the Direct- drive scheme
- **Fewer types of parts:**
The types of parts are reduced by more than **30%**

EQ14-Product Parameter

Axle assembly

Maximum axle load (kg)	14000	Maximum torque of wheel end (Nm)	7611x2
Drive axle ratio	17.698	Wheel bolt distribution circle (mm)	Ø335
Rim seam allowance(mm)	Ø280.5	Specifications/Quantity of wheel bolts	M22×1.5/10
Rim installation end face distance (mm)	2230	Brake specification	22.5"
Air spring installation dimension	1490*1896 (A*C)	Brake specification	Disc air brake ø430×45
Shock absorber installation dimension	1465*2314 (B*D)		
Dimension (mm)	(L2691×W1596×H878)	Maximum torque of wheel end (Nm)	1300

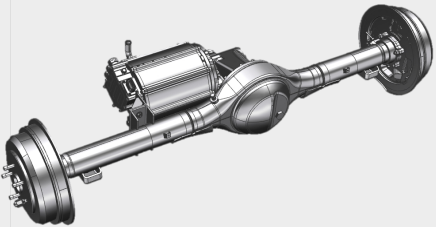

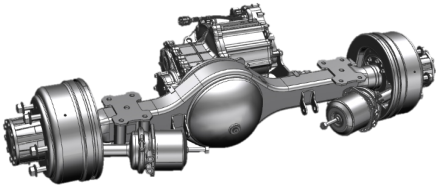

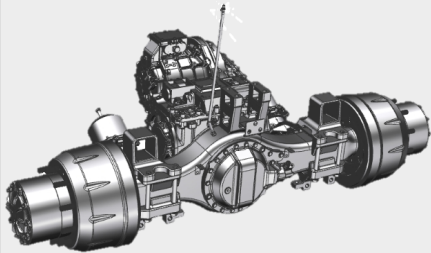

Motor

Peak torque of motor (Nm)	430	Peak power of motor (kw)	100
Rated load torque of motor (Nm)	280	Rated power of motor (kw)	75
Maximum speed of revolution (r/min)	7500	Duty type	S9
Insulation level	H	IP RATE	IP68



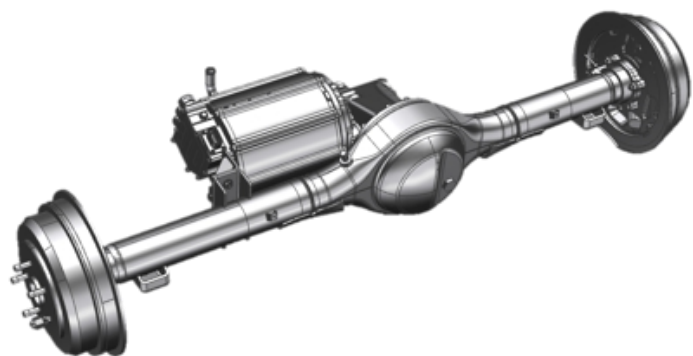
02

Truck Axle Series

e-Axle NO.	e-Axle Picture	Light VAN/Mini VAN	Light truck	Heavy truck
		1.5T-3.5T	4.5T-7T	Over 18T
SEQ02A				
SEQ04				
SEQ16				

MINI VAN Axle-SEQ02A

>>> Product features



- **Lighter weight and smaller size:**
The weight of the whole axle (including the motor) is 130kg, which is 20% lighter than the traditional structure and about 20% smaller than the traditional structure.
- **Stronger bearing capacity:**
The axle housing is made of steel plate integrally stamped and welded, with strong bearing capacity and good reliability
- **Higher efficiency:**
The highest efficiency is **over 94%**, the overall efficiency is increased by about **3%**, and the energy consumption is also reduced
- **Fewer types of parts:**
The types of parts are reduced by more than **30%**

SEQ02A-Product Parameter

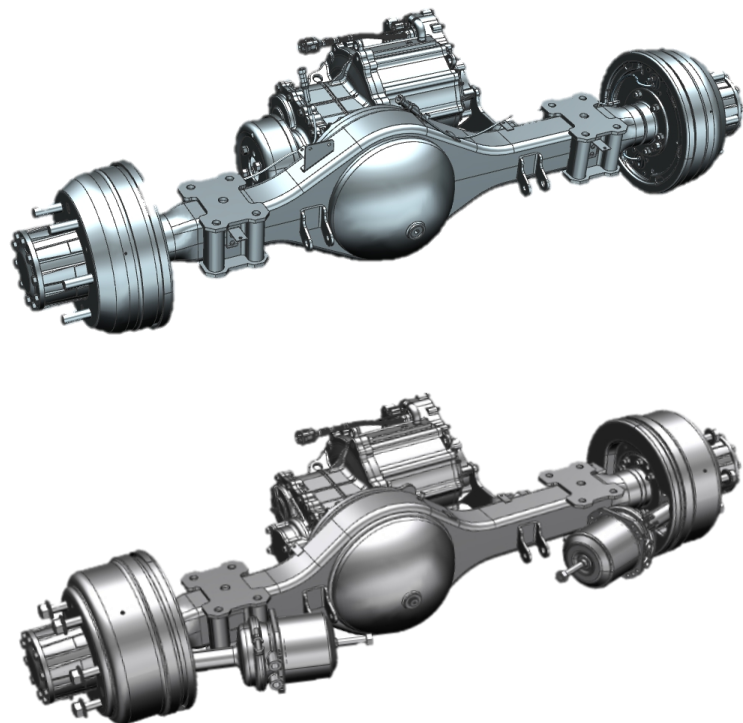
Axle assembly

Maximum axle load (kg)	1800	Maximum torque of wheel end (Nm)	2298
Drive axle ratio	10.445	Wheel bolt distribution circle (mm)	Ø114.3
Rim seam allowance(mm)	Ø60	Specifications/Quantity of wheel bolts	M12×1.5-6h/5
Rim installation end face distance (mm)	1496	Brake specification	Ø254x50
Center distance of plate spring	1073 (Adjustable)	Brake specification	Hydraulic drum + mechanical parking
Dimension (mm)	L1582×W460×H308	Maximum torque of wheel end (Nm)	130

Motor

Peak torque of motor (Nm)	220	Peak power of motor (kw)	75
Rated load torque of motor (Nm)	90	Rated power of motor (kw)	30
Maximum speed of revolution (r/min)	10000	Duty type	S9
Insulation level	H	IP RATE	IP68

Light Truck Axle- SEQ04



>>> Product features

- **Lighter weight and smaller size:**
The weight of the whole axle (including the motor) is 260-320kg, which is 20% lighter than the traditional structure and about 20% smaller than the traditional structure.
- **Stronger bearing capacity:**
The axle housing is made of steel plate integrally stamped and welded, with strong bearing capacity and good reliability
- **Higher efficiency:**
The highest efficiency is **over 93%**, the overall efficiency is increased by about **3%**, and the energy consumption is also reduced
- **Fewer types of parts:**
The types of parts are reduced by more than **30%**

SEQ04-Product Parameter

Axle assembly

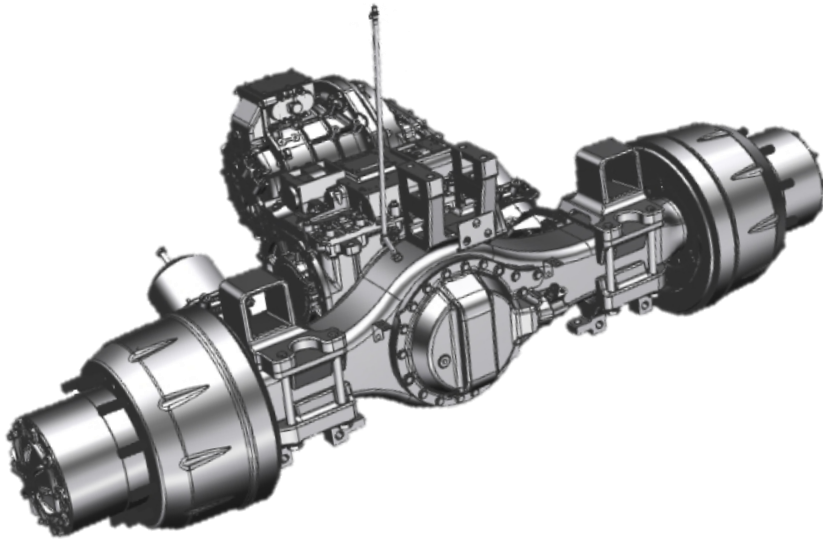
Maximum axle load (kg)	3500/4500/6000	Maximum torque of wheel end (Nm)	5450/7002
Drive axle ratio	16.029/20.594	Wheel bolt distribution circle (mm)	Ø222.25 (Double-tire) Ø180 (Single-tire)
Rim seam allowance(mm)	Ø160.8/Ø163.8 (Double-tire) Ø139.8 (Single-tire)	Specifications/Quantity of wheel bolts	M20×1.5-6h/6 (Double-tire) M16×1.5-6g/6 (Single-tire)
Rim installation end face distance (mm)	1549 (Double-tire) 1580 (Single-tire)	Brake specification	Ø310/Ø320
Center distance of plate spring	910 (Adjustable)	Brake specification	Hydraulic drum + central parking/pneumatic drum
Dimension (mm)	L1761×W621×H418	Maximum torque of wheel end (Nm)	260~320

Motor

Peak torque of motor (Nm)	340	Peak power of motor (kw)	150
Rated load torque of motor (Nm)	150	Rated power of motor (kw)	70
Maximum speed of revolution (r/min)	12000/16000	Duty type	S9
Insulation level	H	IP RATE	IP68

Heavy Truck Axle-SEQ16

>>> Product features



- **Stronger bearing capacity:**
The axle housing is made of steel plate integrally stamped and welded, with strong bearing capacity and good reliability
- **Higher efficiency:**
The highest efficiency is **over 92%**, the overall efficiency is increased by about **3%**, and the energy consumption is also reduced
- High degree of integration, occupying less space, convenient for vehicle layout
- Using maintenance-free bearings to reduce operating costs

SEQ16- Product Parameter

Axle assembly

Maximum axle load (kg)	16000	Maximum torque of wheel end (Nm)	50189
Drive axle ratio	111.532/53.967/29.045/14.054	Wheel bolt distribution circle (mm)	Ø335
Rim seam allowance(mm)	Ø280.5	Specifications/Quantity of wheel bolts	M22×1.5-6h/10
Rim installation end face distance (mm)	1832	Brake specification	Ø410×220
Center distance of plate spring	1035	Brake specification	Air pressure drum
Dimension (mm)	L2280×W906×H668	Maximum torque of wheel end (Nm)	1122

Motor

Peak torque of motor (Nm)	450	Peak power of motor (kw)	180
Rated load torque of motor (Nm)	285	Rated power of motor (kw)	120
Maximum speed of revolution (r/min)	9000	Duty type	S9
Insulation level	H	IP RATE	IP67



03

Forklift Axle Series

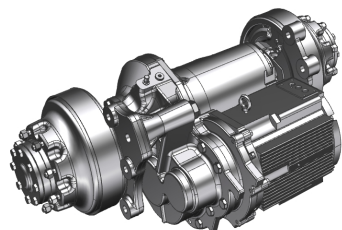
e-Axle NO.

e-Axle Picture

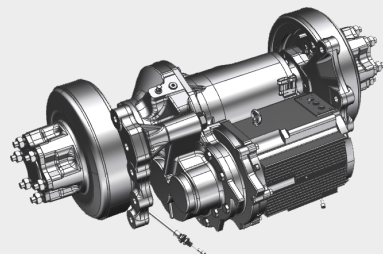
Forklift 1.6 T

Forklift 2.5 T

C05

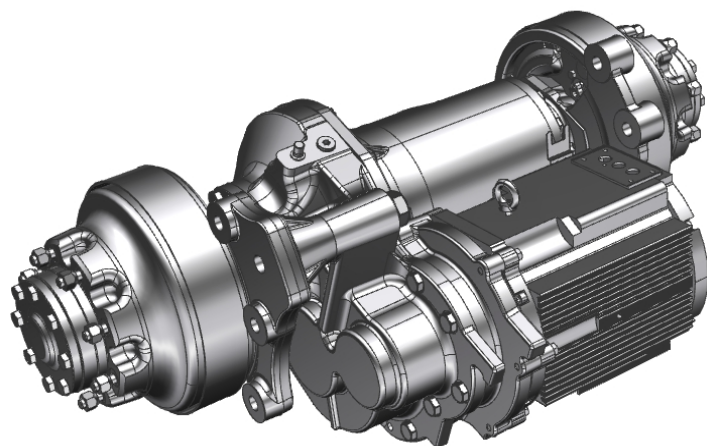


C06



1.6T Drive Axle of Balanced Forklift

>>> Product features



- Zero emission, using electric motor drive to power the whole vehicle
- Low noise, drive axle noise **68dB(A)**
- High transmission efficiency, the drive axle adopts two-stage transmission, and the average transmission efficiency is **95%**.
- Smaller size, highly integrated motor, reducer, differential, axle, two-stage transmission, compact structure easy to arrange the chassis space

1.6T Drive Axle- Product Parameter

Axle assembly

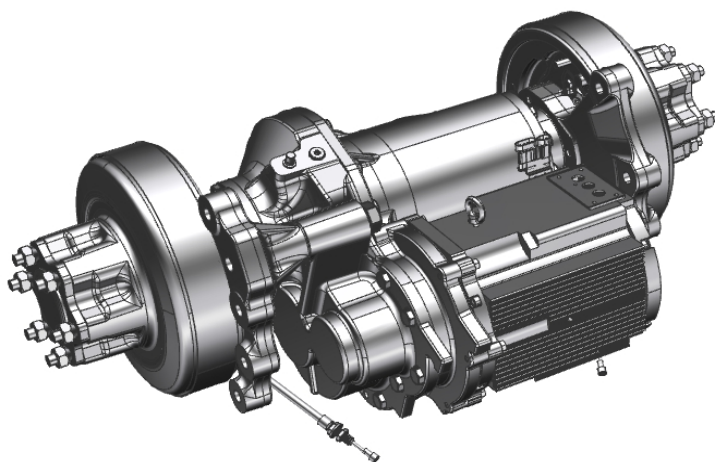
Maximum axle load (kg)	4600	Maximum torque of wheel end (Nm)	3408
Drive axle ratio	25.247	Wheel bolt distribution circle (mm)	Φ174
Rim seam allowance(mm)	Φ144	Specifications/Quantity of wheel bolts	8×M12×1.25
Rim installation end face distance (mm)	877	Brake specification	Φ254×50
Bracket installation end face distance(mm)	605	Brake specification	Hydraulic drum
Dimension (mm)	L985×W535×H385	Maximum torque of wheel end (Nm)	275

Motor

Peak torque of motor (Nm)	135	Peak power of motor (kw)	18.8
Rated load torque of motor (Nm)	25	Rated power of motor (kw)	8.5
Maximum speed of revolution (r/min)	4500	Duty type	S2-60min
Insulation level	H	IP RATE	IP54

2.5T Drive Axle of Balanced Forklift

>>> Product features



- Zero emission, using electric motor drive to power the whole vehicle
- Low noise, drive axle noise **68dB(A)**
- High transmission efficiency, the drive axle adopts two-stage transmission, and the average transmission efficiency is **95%**
- Smaller size, highly integrated motor, reducer, differential, axle, two-stage transmission, compact structure easy to arrange the chassis space

2.5T Drive Axle-Product Parameter

Axle assembly

Maximum axle load (kg)	6000	Maximum torque of wheel end (Nm)	3408
Drive axle ratio	25.247	Wheel bolt distribution circle (mm)	Φ142
Rim seam allowance(mm)	Ø102	Specifications/Quantity of wheel bolts	6×M16×1.5
Rim installation end face distance (mm)	962.4	Brake specification	Φ310×60
Bracket installation end face distance(mm)	621	Brake specification	Hydraulic drum
Dimension (mm)	L1022×W535×H394	Maximum torque of wheel end (Nm)	285

Motor

Peak torque of motor (Nm)	135	Peak power of motor (kw)	18
Rated load torque of motor (Nm)	25	Rated power of motor (kw)	8.5
Maximum speed of revolution (r/min)	4500	Duty type	S2-60min
Insulation level	H	IP RATE	IP54

Thank you!

