

Shandong Xinda Motor Co., Ltd.

——New energy vehicle drive system service provider

<http://www.xdmotor.tech>

Shandong Xinda Motor Co., Ltd.

XD Manufacturing Center

Advanced equipment and sufficient production capacity are born for the "heart" of new energy vehicles



Product Introduction

Product Range

AC asynchronous motor

PMSM

DC traction motor

Application:

Electric vehicle: Electric buses, electric passenger cars, electric and buses, electric logistics vehicles, electric trucks.

Venue-specific vehicle: Golf carts, sightseeing cars, mobile patrol cars, mobile police rooms, electric forklifts, transport trucks, etc.



AC Asynchronous Motor

Features

AC asynchronous motor is the most widely used motor drive system. The stator and rotor are laminated with silicon steel sheets, and there are no slip rings, commutators and other components in contact with each other between the stators.

Advantages:

Simple structure, reliable operation, durability, wide power coverage, the rotation speed can be as high as 10000r/min; it can use air cooling or liquid cooling, and has a high degree of cooling freedom

It has good adaptability to the environment and can realize regenerative feedback braking, which caters to the actual needs of customers. It can improve material selection, manufacturing process, control and protection, etc., and effectively control high-order harmonics and shaft current of the frequency converter. Control, compared with DC motors of the same power, the system has high efficiency, wide speed range, small size, light weight, high cost performance, and easy maintenance. Since AC asynchronous motors started early, their research and development and production are relatively mature, they are suitable for high-power vehicles. The first choice for motor drive systems.

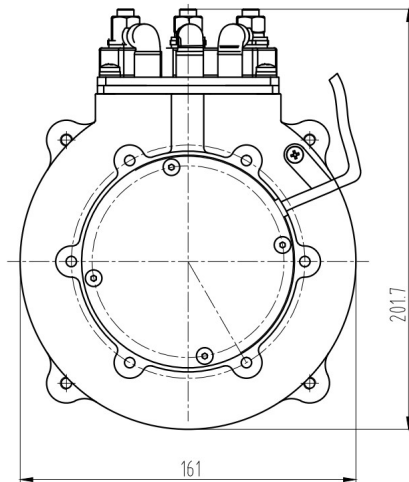
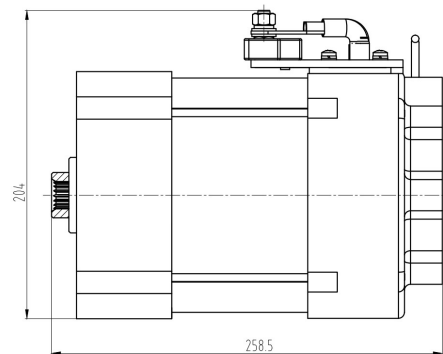


AC Asynchronous Models (including but not limited)

交流异步电机型号规格一览表 AC asynchronous motor models chart																
型号	YBQ100-2-60A01	YBQ100-3-60B01B	YBQ112-5-60H03	YBQ112-7.5-60B02C	YBQ112-10-96H02	YBQ132-13.5-108H08	YBQ112-15-96H01	YBQ132-15-108N01	YBQ132-25-312V01	YBQ160-30-312V03	YBQ160-40-380V02	YBQ160-50-380H01	YBQ160-60-380V06	YBQ160-80-540V06	YBQ160-100-540V06	YBQ160-120-540V06
额定功率 (KW)	2	3	5	7.5	10	13.5	15	15	25	30	40	50	60	80	100	120
峰值功率 (KW)	3.8	6	10	15	20	27	30	30	45	60	80	95	100	150	180	200
额定电压 (V)	41	60	60	60	96	108	96	108	312	312	380	380	380	540	540	540
额定电流 (A)	42	62.5	104	156	130	147	195	173	210	240	262	284	316	185	232	278
额定扭矩 (N.m)	6.37	9.55	16.2	24.3	32	35.8	48.7	52	57.4	65.5	77.3	84.2	97.4	255	318	382
峰值扭矩 (N.m)	40	40	100	100	120	140	130	160	160	180	160	200	220	500	640	700
额定转速 (r/min.)	3000	3000	2940	2940	2940	3600	2940	2800	4160	3800	4160	4500	5200	3000	3000	3000
峰值转速 (r/min.)	5000	6000	6000	6000	5500	6600	6000	6800	6800	6800	7200	7200	7400	7500	6000	6000
冷却方式	自然冷却 air cooling								液冷 liquid cooling							
绝缘等级	H															
防护等级	IP55							IP67								

Low speed vehicle-drive solution

Motor code: YBQ100-3-60B01B



↓
AC asynchronous motor 3KW applicable models



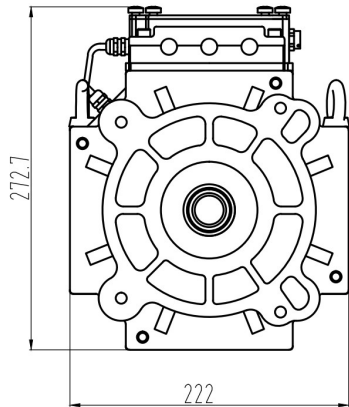
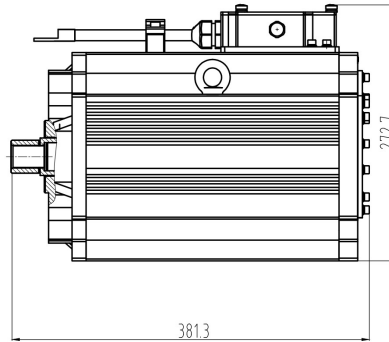
Data Sheets



Rated Voltage	72VAC	Battery Voltage	60VDC
Rated Power	3KW	Rated Frequency	102HZ
Rated Speed	3000r/min	Peak Power	6KW
Rated Current	65A	Peak Speed	6000r/min
Running Time	S2-60min	Cooling Method	Air cooling
Protective Level	IP54	Insulation Grade	H

Logistics vehicle-drive solution

Mode code: YS210X025



↓
AC asynchronous motor 25KW applicable models



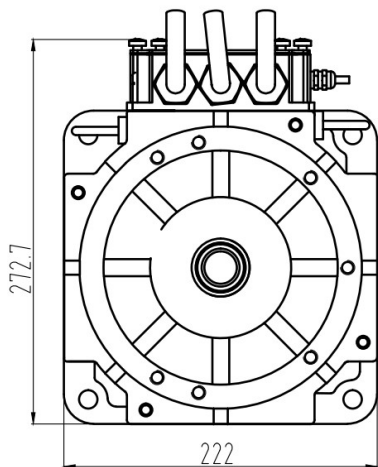
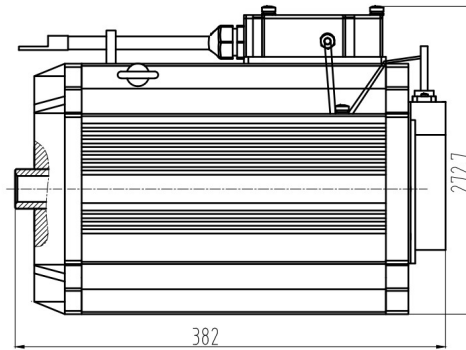
Data Sheets



Rated Voltage	312V (DC)	Continuous Torque	57.4N. M
Continuous Power	25KW	Peak Torque	170N. M
Peak Power	45KW	Peak Speed	6800r/min
Protective Level	IP67	Insulation Grade	H
Running Time	S9	Phase	Three-phase

Logistics vehicle-drive solution

Motor code: YBQ132-15-108V



↓
AC asynchronous motor 15KW applicable models

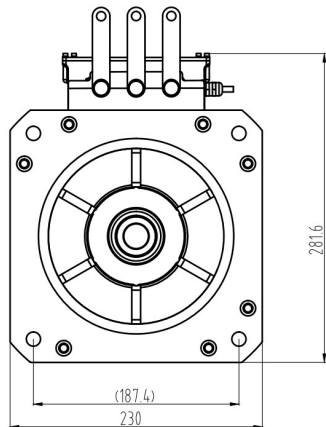
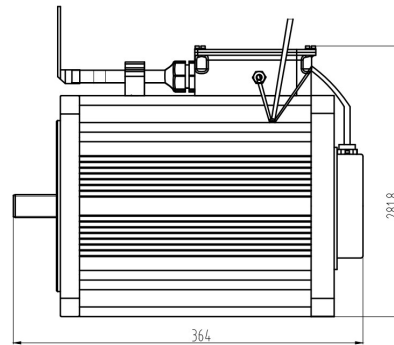


Data Sheets ↓

Rated Voltage	15KW	Battery Voltage	108VDC
Rated Torque	47N/m	Rated Frequency	102HZ
Rated Speed	3000r/min	Peak Power	28KW
Rated Current	174A	Peak Speed	6000r/min
Running Time	S2-60min	Cooling Method	air cooling
Protective Level	IP66	Insulation Grade	H

Electric cars - drive solutions

Motor code: ZT13527108



↓
AC asynchronous motor 13.5KW applicable models




Data Sheets

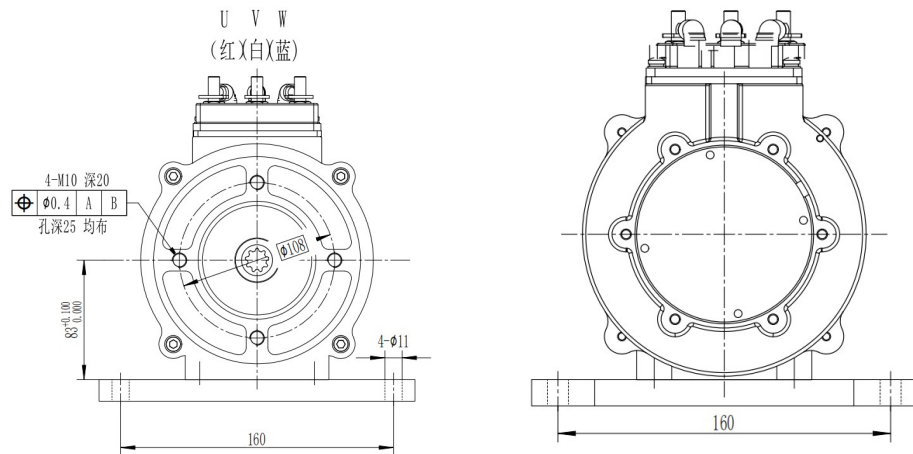
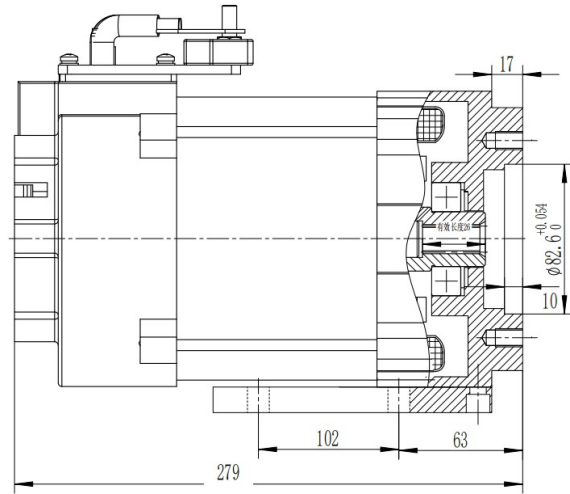


Rated Voltage	108V	Connection	Y
Rated Power	13.5KW	Peak Power	27KW
Rated Speed	3600r/min	Peak Speed	6600r/min
Protective Level	IP55	Insulation Grade	F
Running Time	S9	Weight	55kg

Forklift - drive solutions

Motor code: YSP155-4/60-HF-N9

AC asynchronous motor 4KW  pump applicable models



Data Sheets



Rated Voltage	40VAC	Battery Voltage	60V (DC)
Rated Power	4KW	Rated Frequency	102HZ
Rated Speed	2300r/min	Peak Speed	3000r/min
Rated Current	77A	Cooling Method	Air cooling
Running Time	S2-15min	Insulation Grade	H
Protective Level	IP54		

PMSM MOTORS

Features

Features: The permanent magnet synchronous motor uses rare earth neodymium iron boron permanent magnet material. The motor has good starting and overspeed characteristics and can achieve stepless speed regulation.

Advantages:

Compared with asynchronous motors, the external characteristic efficiency curve of permanent magnet synchronous motors has a much higher efficiency value at light load. This is the biggest advantage of permanent magnet synchronous motors compared to asynchronous motors in terms of energy saving. Because usually when a motor drives a load, it rarely runs at full power. This is because: on the one hand, when users select a motor, they generally determine the motor power based on the extreme working conditions of the load, and the extreme working conditions are The chance is very small. At the same time, in order to prevent the motor from burning out under abnormal working conditions, the user will further leave a margin for the motor's power. On the other hand, when designing the motor, the designer will ensure the reliability of the motor. , usually a certain power margin is left based on the power required by the user, which results in more than 90% of the actual operating motors operating below 70% of the rated power, which results in the motor usually working in the light load area. For induction motors, their efficiency is very low at light load, while permanent magnet synchronous motors can still maintain high efficiency in the light load area, and their efficiency is more than 20% higher than that of asynchronous motors.

The rotor structures of permanent magnet synchronous motors are diverse and flexible, and different rotor structures often bring their own performance characteristics. Therefore, rare earth permanent magnet synchronous motors can choose different rotor structures according to the needs of use. Permanent magnet synchronous motor has a series of advantages such as small size, light weight, high efficiency and energy saving within a certain power range.

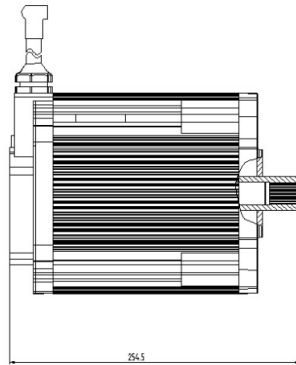
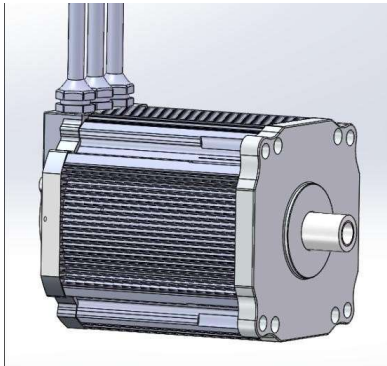
PMSM Models Chart (including but not limited)

永磁同步电机型号规格一览表 PMSM Models Chart																
型号	TZQ180-15-108SX	TZQ180-15-144SX	TZQ210-20-144SX	TZQ210-20-312SX	TZQ210-30-320SX	TZQ210-35-320SX	TZQ230-40-320SX	TZQ230-40-384SX	TZQ23040-540SX	TZ260-50-540SX	TZQ230-53-540SX	TZQ260-55-540SX	TZQ290-60-540SX	TZ368-80-540SX	TZQ368-100-540SX	TZQ400-120-540SX
额定功率 (KW)	15	15	20	20	30	35	40	40	40	50	53	55	60	80	100	120
峰值功率 (KW)	30	30	40	40	60	70	80	80	80	102	108	115	120	160	200	240
电池电压 (V)	108	144	144	312	320	320	320	384	540	540	540	540	540	540	540	540
额定转速 (r/min.)	4160	4160	3800	3800	3000	3000	3600	3600	3600	2500	3000	2500	1600	1800	2400	1800
峰值转速 (r/min.)	9000	9000	9000	9000	9000	10000	8900	8900	8900	6000	11000	5500	5500	4000	5400	4000
额定扭矩 (N.m)	35	35	51	51	100	112	106	160	106	190	170	210	360	420	384	640
峰值扭矩 (N.m)	70	70	102	102	200	225	260	260	260	500	430	530	1000	1100	1200	2000
冷却方式	cooling mehtod 液冷 liquid cooling															
绝缘等级	Insulation grade H															
防护等级	Protective level IP67															

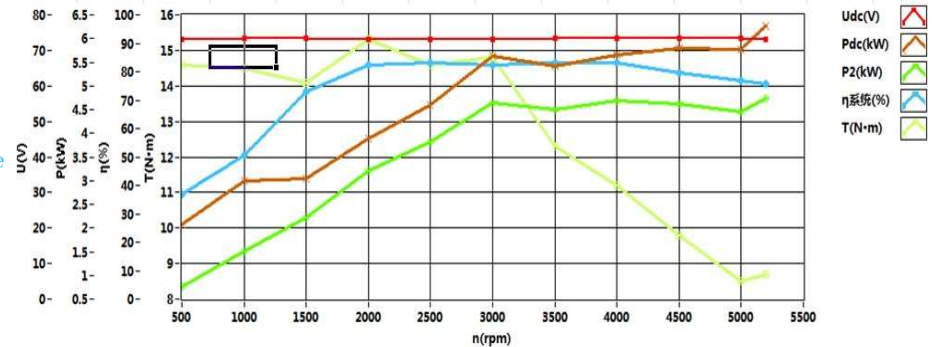
Miniature vehicles below 1T - drive solutions

Motor code: TZQ160-4.5-72B01-X

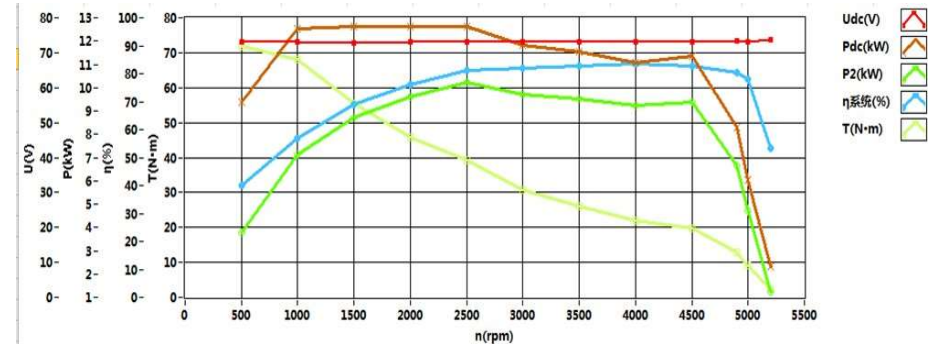
Curve Graph



Rated electric characteristic curve

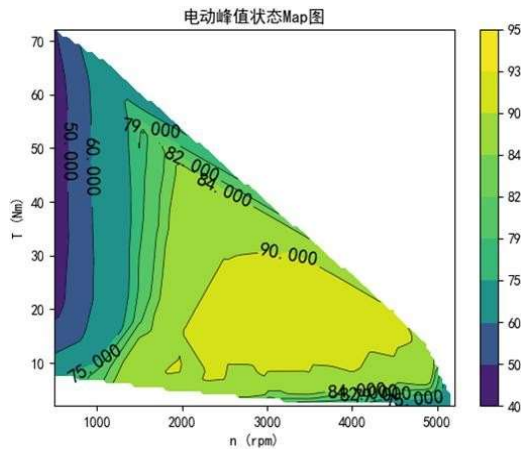
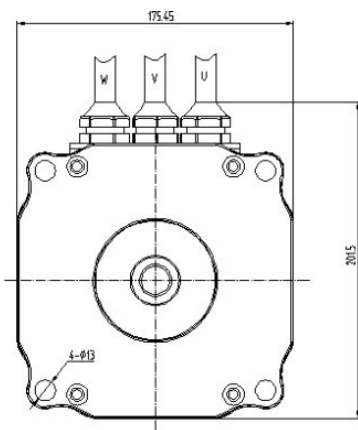


Peak electric characteristic curve



Data Sheets

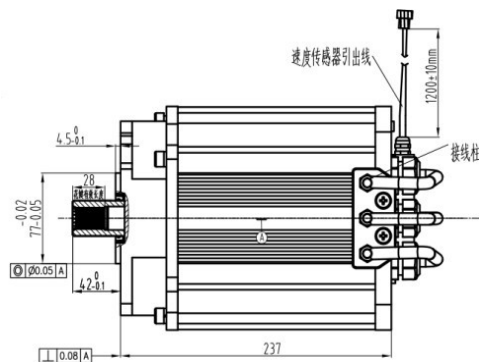
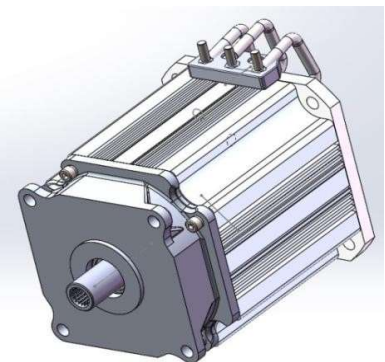
Rated Voltage	72VAC	Peak Power	9KW
Rated Power	4.5KW	Peak Torque	70N.m
Rated Torque	14.3N.m	Peak Speed	5200r/min
Phase	3	Protective Level	IP66
Running Time	S9	Insulation Grade	H
Cooling Method	Air cooling		



Map

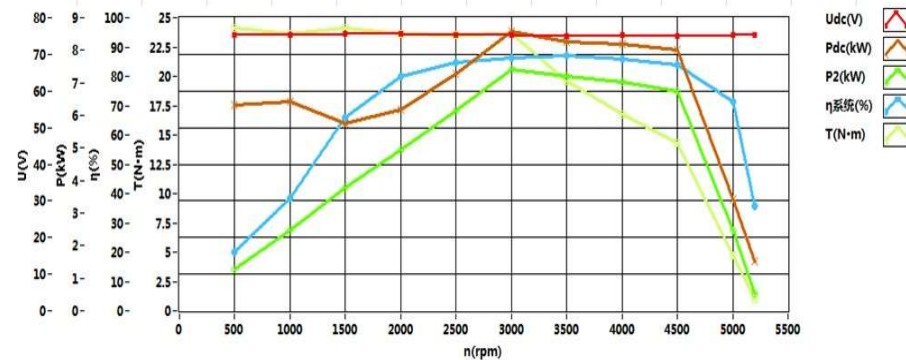
AO models - drive solutions

Motor code: TZQ180-7.5-72B01-X

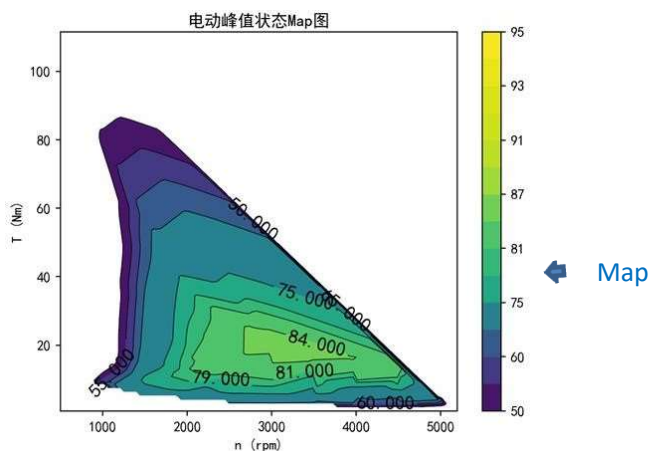
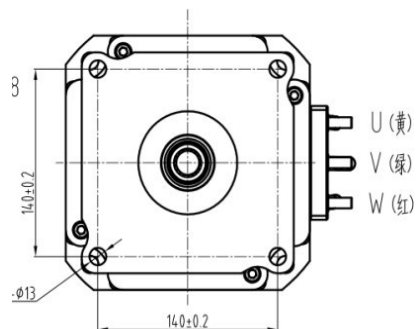
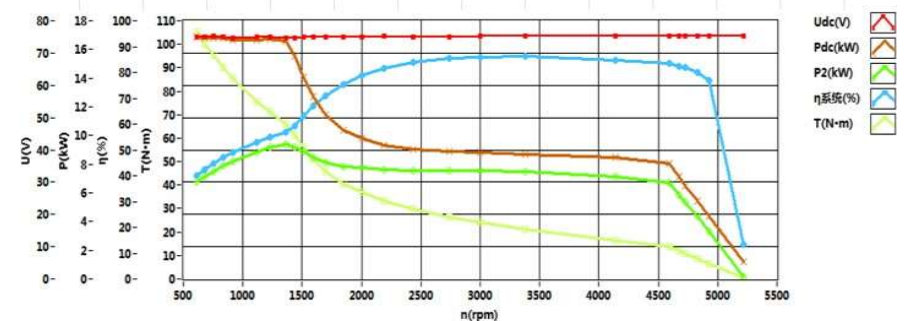


Curve Graph ➔

Rated electric characteristic curve



Peak electric characteristic curve



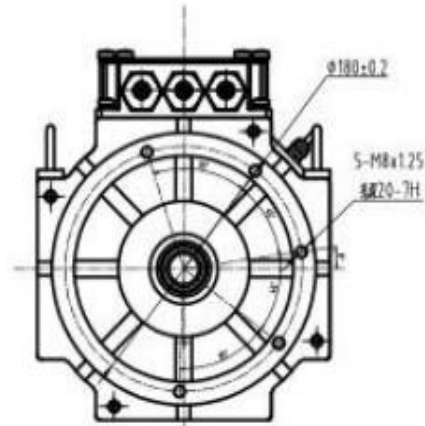
Map

Data Sheets

Model	TZQ180-7.5-72		
Rated Power	7.5KW	Battery Voltage	72VDC
Rated Torque	23.8Nm	Rated Frequency	200HZ
Rated Speed	3000r/min	Peak Power	15KW
Rated Current	108A	Peak Speed	5200r/min
Running Time	S9	Cooling Method	Air cooling
Protective Level	IP67	Insulation Grade	H

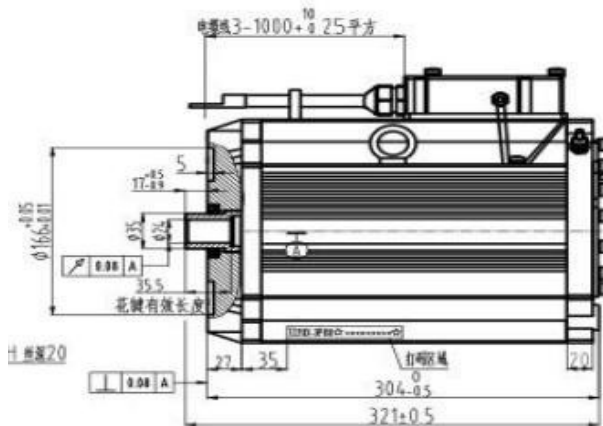
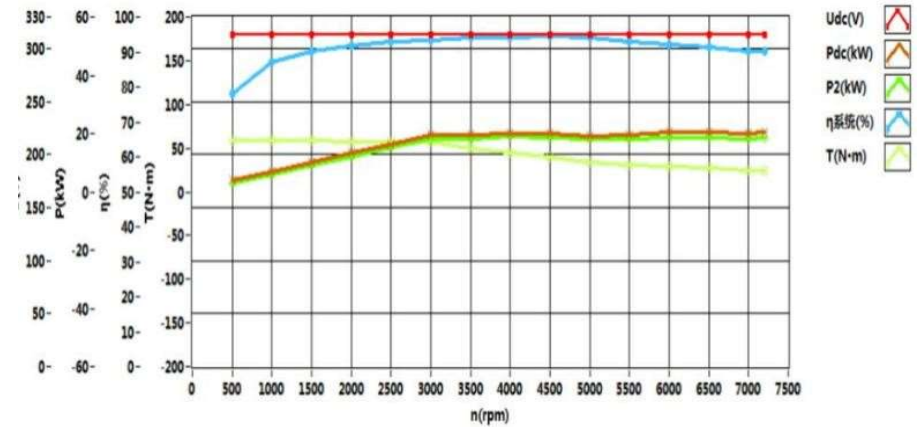
2T cabin logistics AO grade vehicle-drive solution

Motor code: TZQ210-18-320V-X

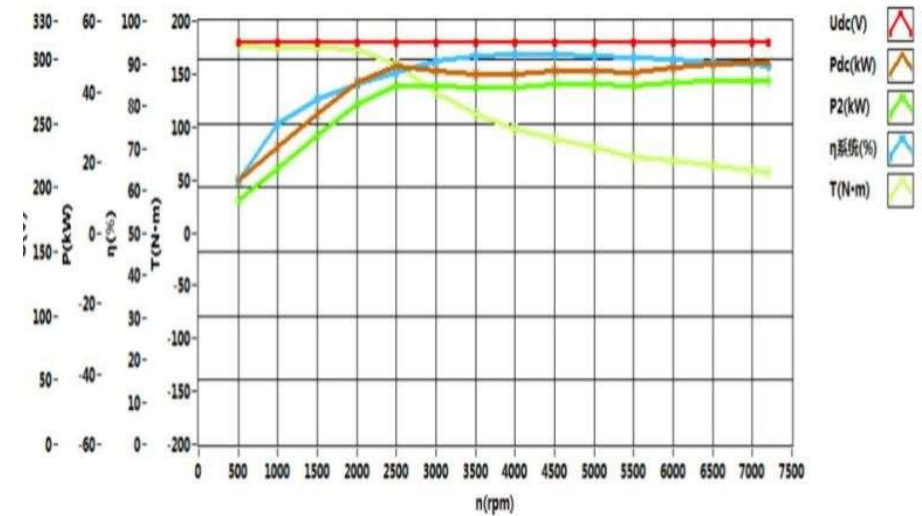


Curve Graph

Rated electric characteristic curve



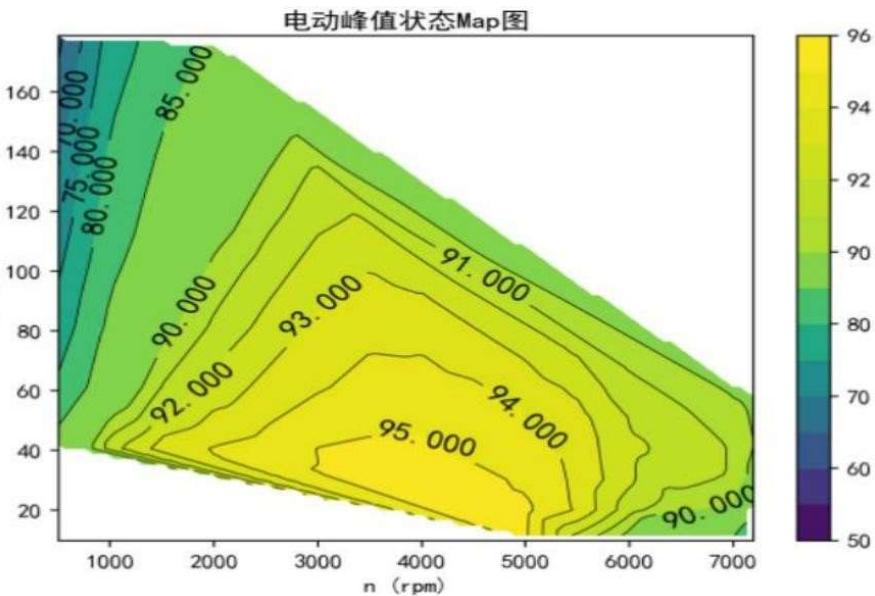
Peak electric characteristic curve



2T box logistics AO grade vehicle-drive solution

Motor code: TZQ210-18-320V-X

Map



Data Sheets

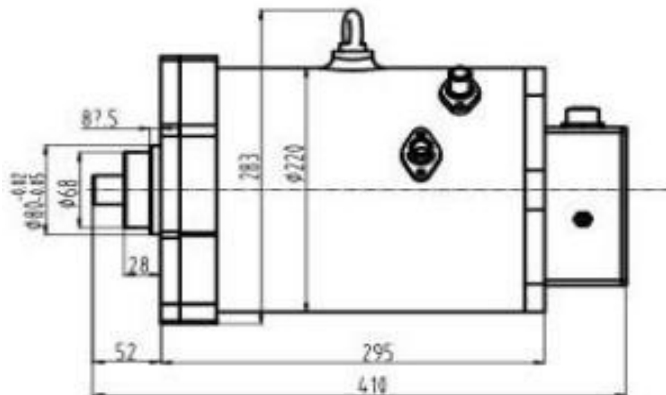
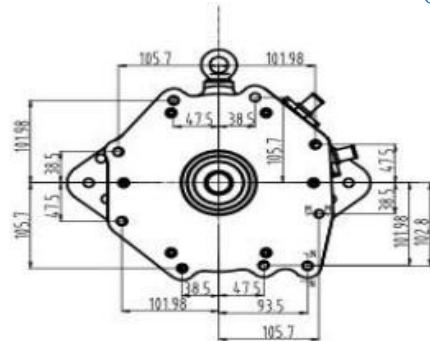
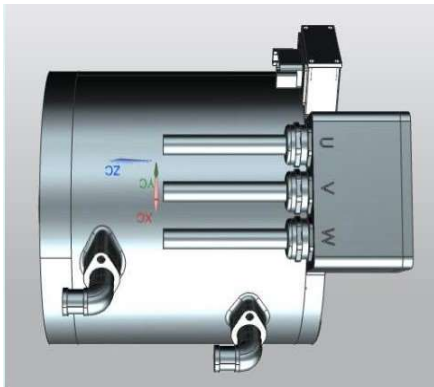


Motor type	PMSM	Supplier	Xinda Motor
Model	TZQ210-18-320V-X	Cooling Method	liquid cooling
Continous Power	18KW	Peak Power	45KW
Continous Torque	57N.m	Peak Torque	180N.m
Rated Speed	3000r/min	Peak Speed	6600r/min
Rated Voltage	320VAC	Rated Current	83AAC
Weight	52kg	Size	220*220*321
Insulation Grade	H	Protective Level	IP67
Winding connection	Star shape	Running Time	S9

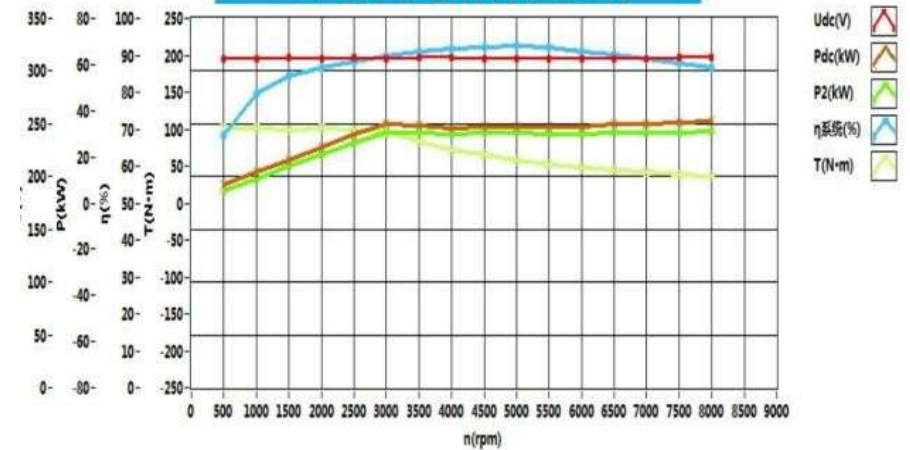
2.2T box logistics A-class vehicle-drive solution

Motor code: TZQ180-30-312S-V01

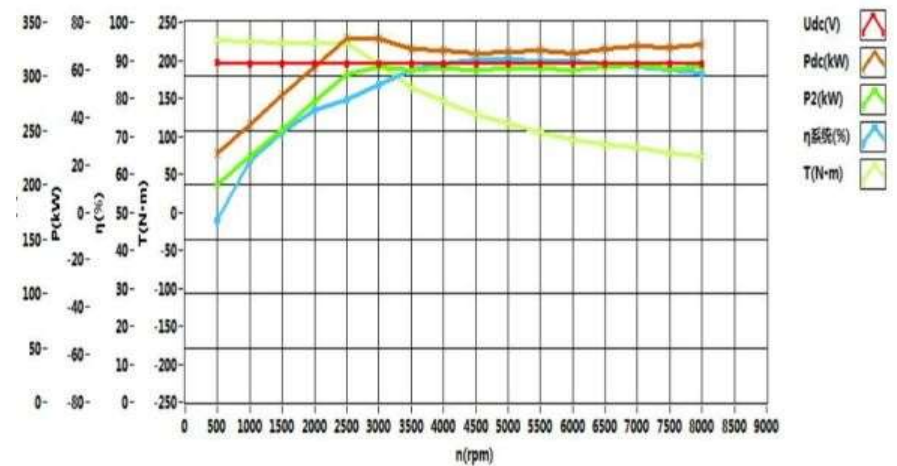
Curve Graph



1、额定电动特性曲线

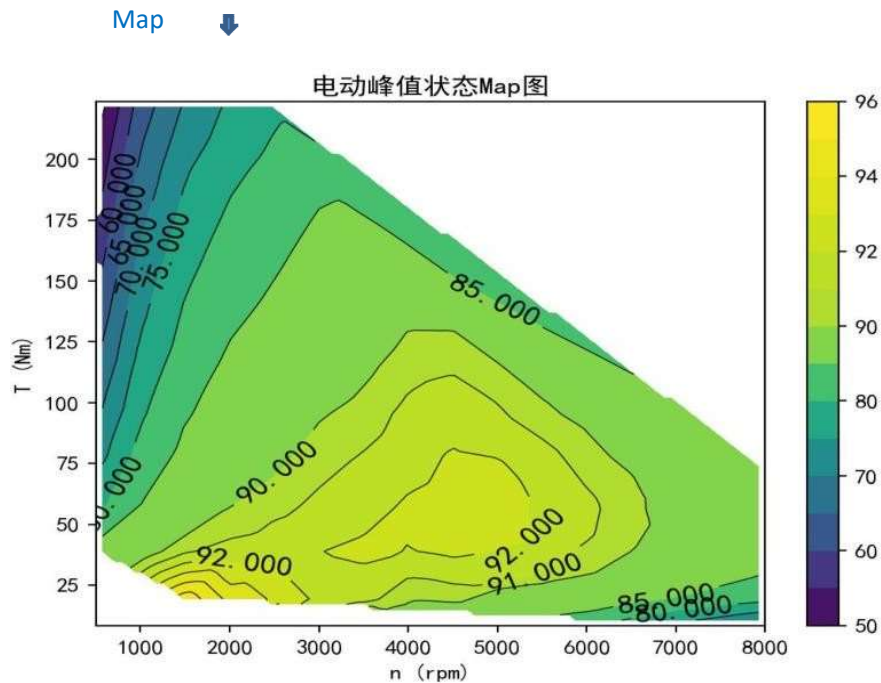


2. Peak electric characteristic curve



2.2T box logistics A-class vehicle-drive solution

Motor code: TZQ180-30-312S-V01



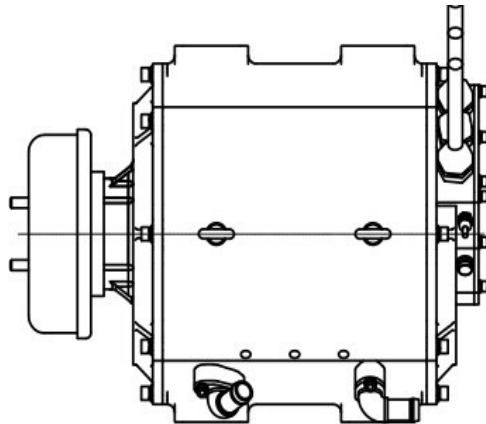
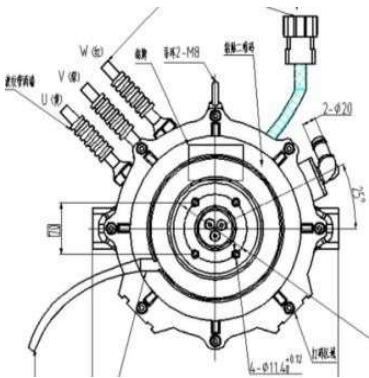
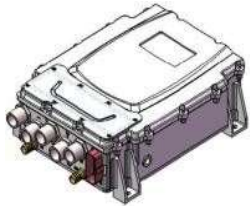
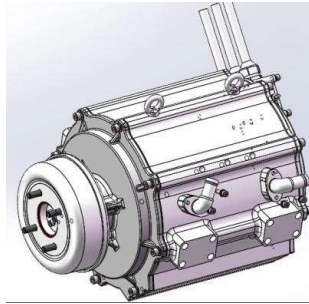
Data Sheets



PHOTO	Item	Specification	Standard
	Motortype	PMSM	GB/T18488.1-2015 Motors and controllers for electric vehicles Part 1 Technical conditions
	Three-phaseconnection	Y	
	RatedPower	30KW	
	RatedSpeed	2865r/min	
	RatedTorque	100N.m	
	PeakPower	60KW	
	PeakSpeed	9000r/min	GB/T18488.2-2015 Motors and controllers for electric vehicles Part 2 Test methods
	PeakTorque	225N.m	
	AmbientTemperature	-25°C~40°C	
	StorageTemperature	-40°C~85°C	
	Weight	35kg±2	
	InsulationLevel	H	
	CoolingMehtod	liquidcooling	

35T Logistics Model-Drive Solution

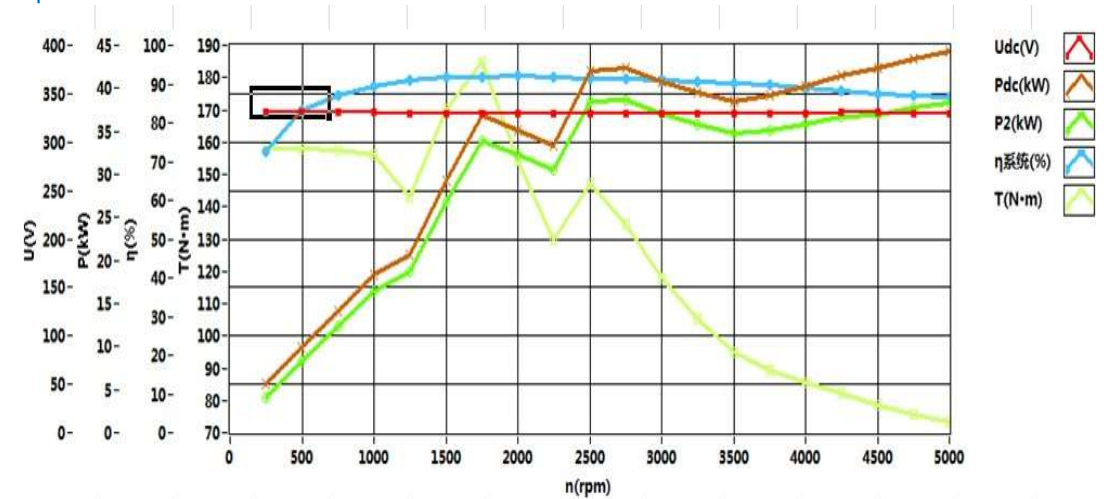
Motor code: TZQ180-30-312S-V01



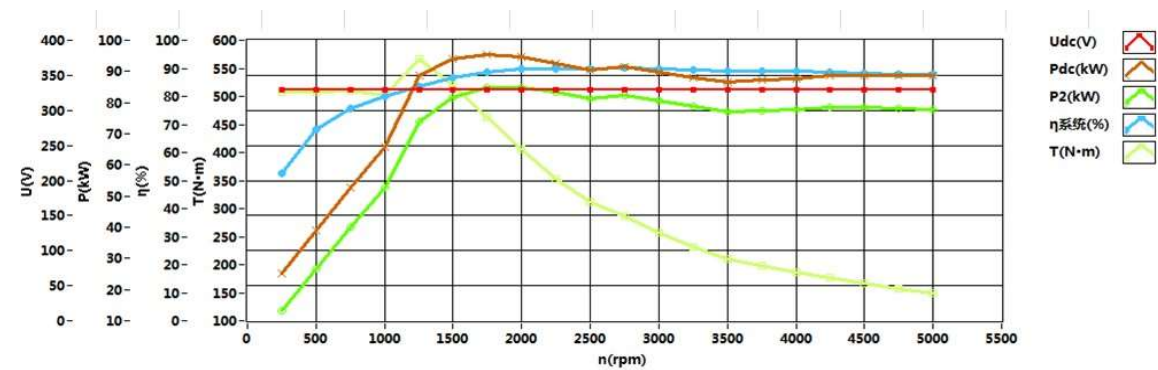
Curve Graph



Rated electric characteristic curve



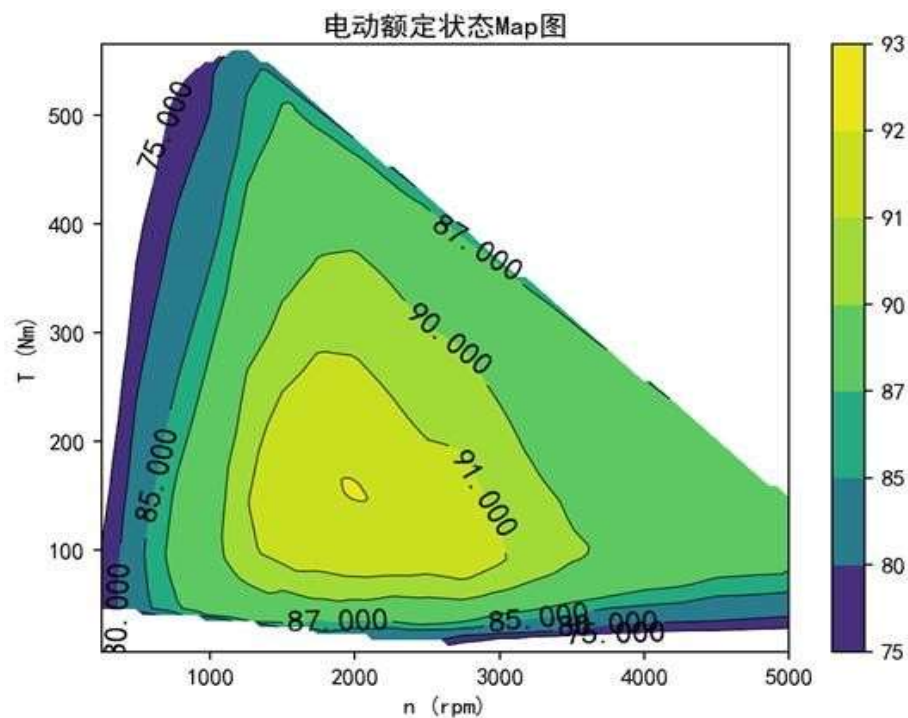
Peak electric characteristic curve



35T Logistics Model-Drive Solution

Motor code: TZQ180-30-312S-V01

Map



Data Sheets

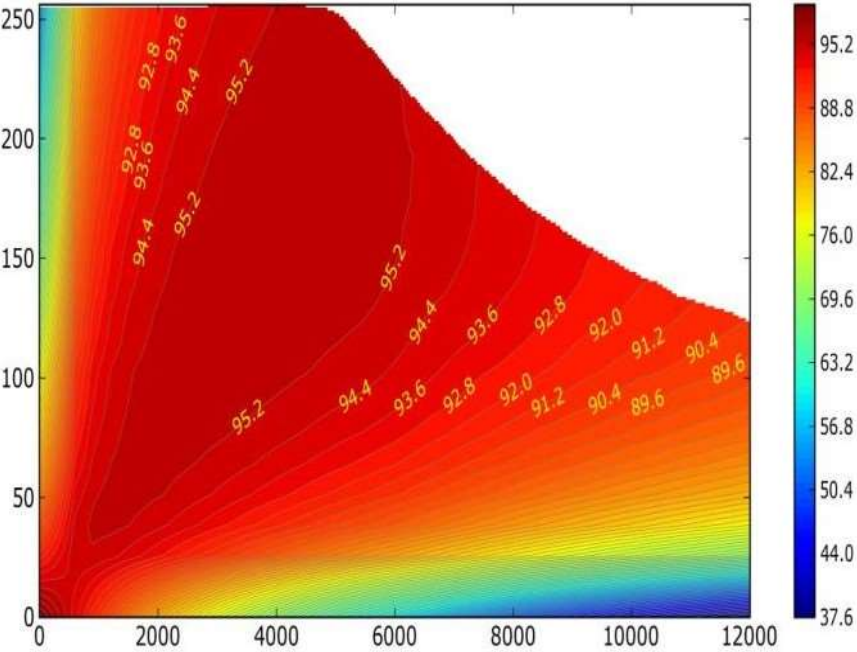


Model	TZ260SX-XP035	Motor Type	PMSM
Rated Voltage	330V DC	Continuous Torque	191 N.m
Rated Power	35 KW	Peak Torque	570 N.m
Peak Power	70 KW	Peak Speed	5000r/min
Protective Level	IP67	Phase Number	Three-phase
Running Time	S9	Insulation Grade	H

SUV models - drive solutions

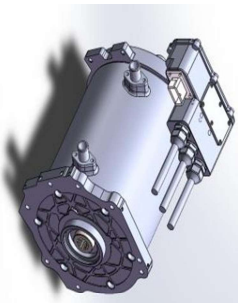
Motor code: TZQ180-45-336S-B01-X

Map 图 ↓



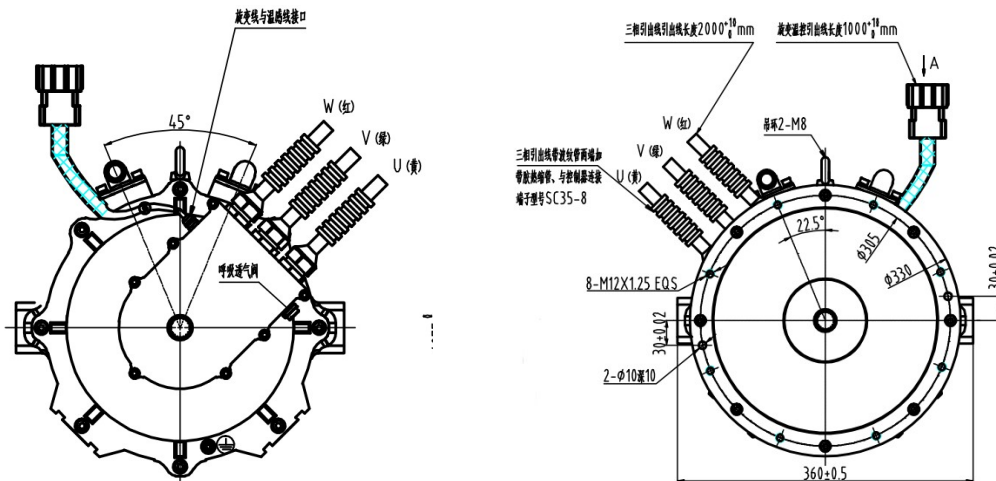
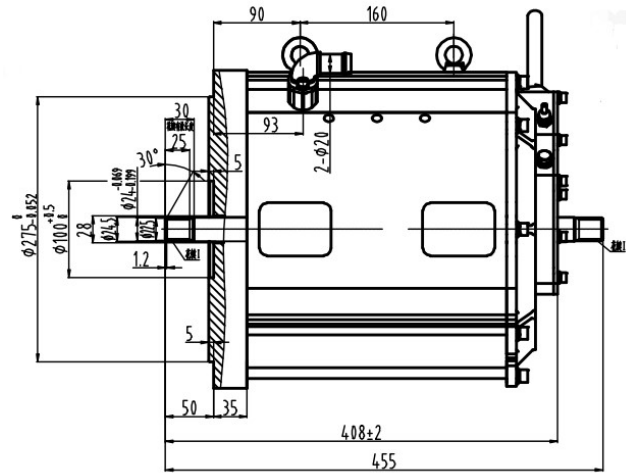
Data Sheets



PHOTO	Item	Specification	Standard
	Motortype	PMSM	GB/T18488.1-2015MotorsandcontrollersforelectricvehiclesPart1Technicalconditions
	Three-phaseconnection	Y	
	RatedPower	45KW	
	RatedSpeed	3360r/min	
	RatedTorque	128N.m	
	PeakPower	129KW	
	PeakSpeed	12000r/min	GB/T18488.2-2015MotorsandcontrollersforelectricvehiclesPart2Testmethods
	PeakTorque	259N.m	
	AmbientTemperature	-25°C~40°C	
	StorageTemperature	-40°C~85°C	
	Weight	45kg±2	
	InsulationLevel	H	
	CoolingMehtod	liquidcooling	

50KW model-drive solution

Motor code: TZQ260-50-380S-012



Permanent magnet synchronous motor 50KW applicable models

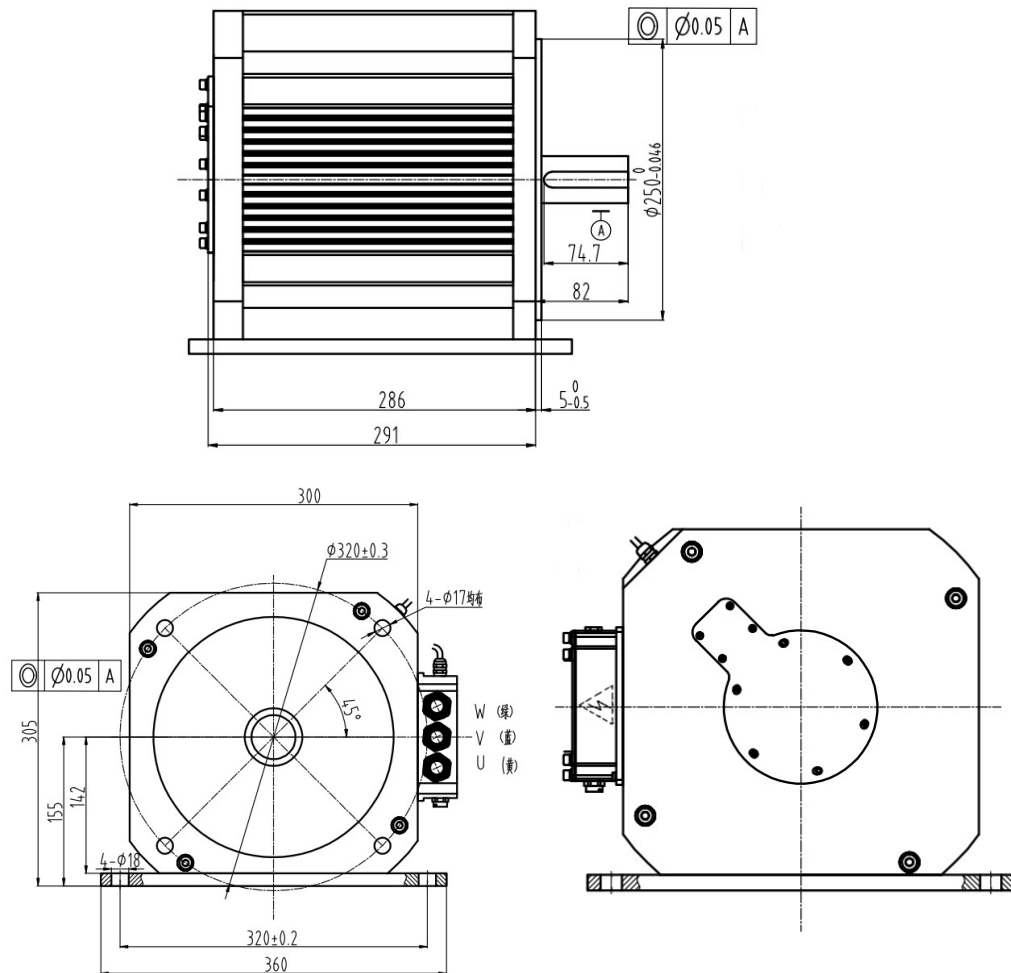


Data Sheets

Rated Voltage	540V DC	Continuous Torque	217N.M
Continuous Power	50 KW	Peak Torque	325.5N.M
Peak Power	75 KW	Peak Speed	3000r/min
Protective Level	IP54	Insulation Grade	H
Running Time	S9	Phase Number	Three-phase

16.3KW model-drive solution

Motor code: TZQ260-16.3-144-D



Permanent magnet synchronous motor 16.3KW applicable models



Data Sheets



Rated Voltage	144VDC	Continuous Torque	78N. M
Continuous Power	16. 3KW	Peak Torque	125N. M
Peak Power	30KW	Peak Speed	3200r/min
Protective Level	IP66	Insulation Grade	H
Running Time	S9	Phase Number	Three-phase

Minibus models - drive solutions

Motor code: TZQ290-55



Data Sheets



Rated Power	Peak Power	Battery Voltage	Poles	Rated Current	Peak Current	Rated Frequency	Rated speed	Peak Speed
55KW	90KW	540VDC	8	115A	315A	100HZ	1500RPM	3500RPM
Rated Torque	Peak Torque	Connection Method	Running Time	Cooling Method	Weight	Insulation Grade	Protective Level	Efficiency
350N.m	1000N.m	Star shape	S9	Liquid Cooling	160kg	H	IP67	97%



Minibus models - drive solutions

Applicable motor power: 64KW

Data Sheets

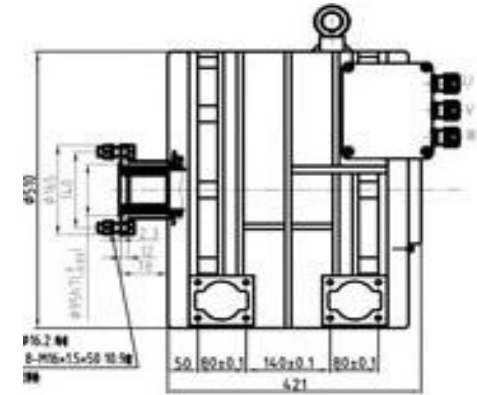
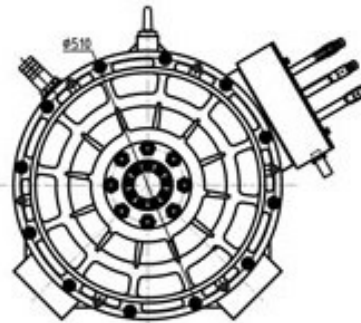


Item	Specification
Continuous power/peak power	64/115
Continuous torque/peak torque	485/1300
Rated speed/max.speed	1500/3300
Max.efficiency	94.5%
Rated voltage/battery voltage	576
Voltage range	300-720
Motor size	Φ420*256.5
Motor weight	131kg
Cooling method	Water cooling (50% hexanediol aqueous solution + 50% water)
Position sensor	Resolver



CMB and CMB commercial vehicles - drive solutions

Application motor power: 80KW



Data Sheets



Rated Power	Peak Power	Battery Voltage	Poles Number	Rated Current	Peak Current	Rated Frequency	Rated Speed	Peak Speed
80KW	150KW	576VDC	8	210A	550A	100HZ	1500RPM	3500RPM
Rated Torque	Peak Torque	Connection Method	Running Time	Cooling Method	Weight	Insulation Grade	Protective Level	Efficiency
764N. m	2000N. m	Star shape	S1	Liquid Cooling	235kg	H	IP67	95%

Commercial buses and minibuses - drive solutions

Applicable motor power: 80KW



Data Sheets



Rated Power	Peak Power	Battery Voltage	Poles Number	Rated Current	Peak Current	Rated Frequency	Rated Speed	Peak Speed
100KW	200KW	540VDC	18	250A	560A	150HZ	1000RPM	3000RPM
Rated Torque	Peak Torque	Connection Method	Running Time	Cooling Method	Weight	Insulation Grade	Protective Level	Efficiency
955N.m	2500N.m	星形	S9	水冷	261kg	H	IP67	97%

Commercial buses and minibuses - drive solutions

Applicable motor power: 64KW



[Data Sheets](#)



Item	Specification
Continuous power/peak power	135/185
Continuous torque/peak torque	1520/2500
Rated speed/max.speed	850/2600
Max.efficiency	96%
Rated voltage/battery voltage	576
Voltage range	300-720
Motor size	Φ 512*318
Motor weight	296kg
Cooling method	Water cooling (50% hexanediol aqueous solution + 50% water)
Position sensor	Resolver

DC Traction Motor

Product Overview

It is suitable for various battery-powered vehicles, such as electric cars, mobile police stations, sightseeing buses, golf carts, forklifts, trucks, sanitation trucks, electric walking vehicles, and can also be used as equipment power motors.

Advantages:

1. The motor has good mechanical characteristics and speed regulation characteristics;
2. Strong overload capability, can withstand 3 times the overload current and generate 4.5 times the overload torque (1min)
3. Through the adjustment of the controller, stepless and smooth speed regulation can be achieved to fully meet the various working conditions of vehicle starting with load, climbing and variable speed operation on different road surfaces.

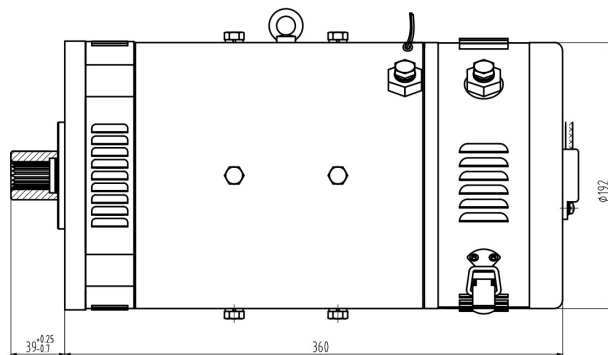
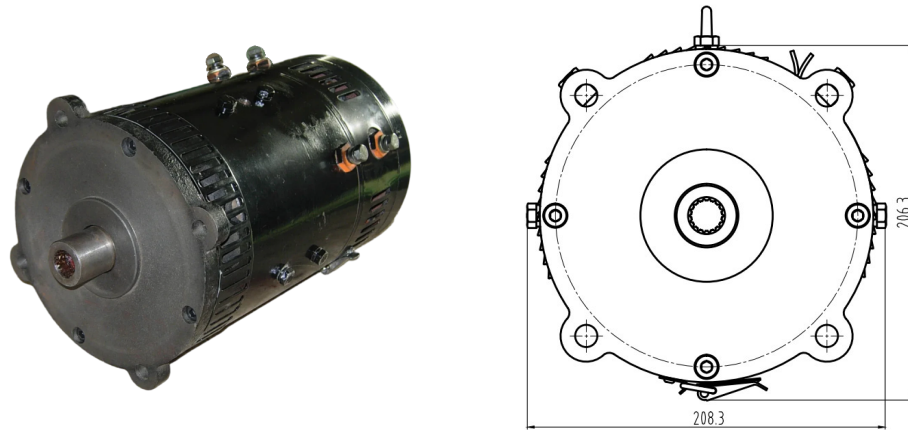


DC Traction Motor Models Chart (including but not limited)

	Models 直流牵引电机型号规格一览表 DC Traction Motor Models									
Models	型号	ZC3A-45M01	ZC4A-72K01	ZC4A-60K01	ZC7.5B-48D08	ZC10F-72C04	ZC15F-96D01	ZC20F-108D01	ZC25F-312D01	ZC30C-312D01
Rated Power	额定功率 (kW)	3	4	5	7.5	10	15	20	25	30
Rated Vol.	额定电压 (V)	45	72	60	48	72	96	108	312	312
Rated Amp.	额定电流 (A)	83.3	69	104	195	173	195	220	240	240
Rated Torque	额定扭矩 (N.m)	16.1	13.6	17	28.6	63.7	79.5	83.5	96.7	120
Rated Speed	额定转速 (r/min.)	1780	2800	2800	2500	1500	1800	2000	2800	3200
Peak Speed	峰值转速 (r/min.)	3600	3600	3600	3000	2500	2500	3000	3600	4000
Excitation	励磁方式	串励 series excitation								
Cooling	冷却方式	风冷 air cooling								
Insulation	绝缘等级	H								
Protective	防护等级	IP20	IP44		IP20		IP44			
Standard	执行标准	JB/T5335-1991								
Running time	工作制	S2-60min								

5KW model-drive solution

Motor code: ZT5A-72J



DC traction motor 5KW applicable models

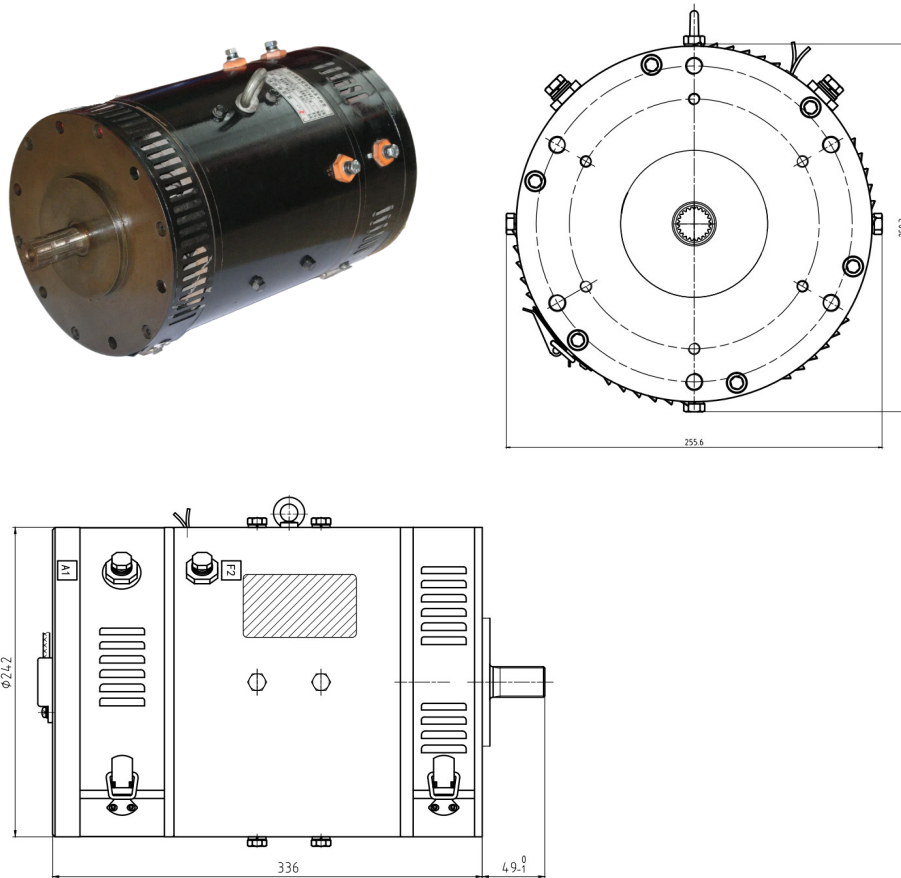


Data Sheets

Rated Voltage	72VAC	Excitation method	seperatedly excited
Rated Power	5KW	Excitation current	A
Rated Speed	1800r/min	Insulation Grade	H
Rated Current	86.81A	Ambient temperature	-25°~40°
Running Time	S2-60min		

7KW model-drive solution

Motor code: ZT7B-72H



DC traction motor 7KW applicable models



Data Sheets

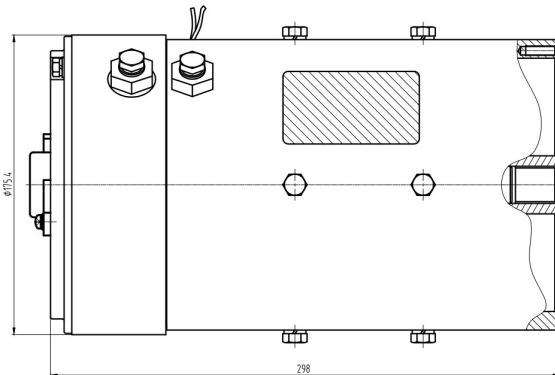
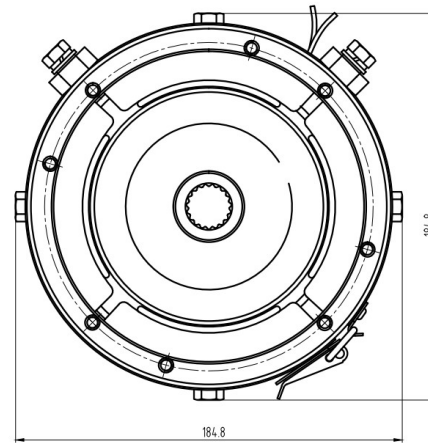
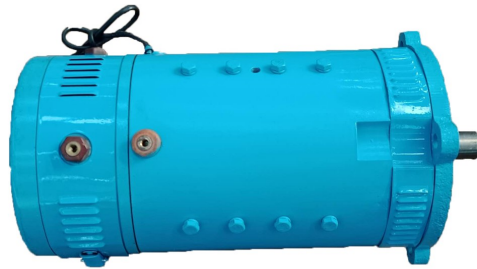


Rated Voltage	72V AC	Excitation method	seperatedly excited
Rated Power	7 KW	Excitation current	A
Rated Speed	2000r/min	Insulation Grade	H
Rated Current	121A	Ambient temperature	-25°~40°
Running Time	S2-60min		

4KW model-drive solution

Motor code: ZT4-48A

DC traction motor 4KW applicable models



Data Sheets



Rated Voltage	48VAC	Excitation method	seperatedly excited
Rated Power	4KW	Excitation current	8A
Rated Speed	2500r/min	Insulation Grade	H
Rated Current	104A	Ambient temperature	-25°~40°
Running Time	S2-60min		



Application Range of Xinda Motor

Applicable market range

Adapt to various new energy products



Engineering machine

Electric excavators, electric loaders, electric forklifts, electric trucks, electric agricultural tools



New energy vehicle

New energy passenger vehicles, commercial vehicles, logistics vehicles, trucks, buses, etc.



Special vehicles

New energy sightseeing buses, police cars, golf carts, patrol cars, mobile police rooms



Marine equipment

Electric boats, electric motor boats.

Some partners

HELI合力



LISHI力士德

恒润
HENG RUN
汽车

Professional Focus Innovation

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Xinda
Motor

