



Brushless dc motor

BLDC MOTOR

(20W-15KW)

DMKE[®]

德马克电机



Dedicated to the diversification and intelligent application of motors

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产品特点 PRODUCT FEATURES

■ 无刷电机的基本特点

The Characteristics Of Brushless Motor Suitable For Speed Control Are Introduced

无刷电机上，无需使用通常被认为是DC电动机缺点的刷子和整流子等机械触点DC电动机使用刷子和整流子进行旋转，因此，需要定期进行维护，而无刷电动机使用霍尔IC检测到的信号，利用驱动电路的晶体管的ON/OFF进行旋转，因此无需维护。

Brushless motor, no need to use is generally considered to be the shortcomings of DC motor brush and commutator and mechanical contact DC motor using brush and commutator to rotate, therefore, need regular maintenance, and no brush motor using Hall IC detects the signal, the driving circuit of transistor on / off spin, so there is no need to maintain.

■ 可进行稳定的速度控制 Stable Speed Control

无刷电动机持续对设定速度和来自电动机的速度反馈信号进行对比，来调节施加到电动机上的电压；因此，即使负载状况发生变化，仍可以从低速瞬间调整到设定速度，并以此稳定的速度运行。使用变频器控的三相感应电动机不进行反馈控制，因此负载变大时，速度会大幅下降；对于速度稳定性要求较高的用途，建议使用无刷电动机。（如图1）

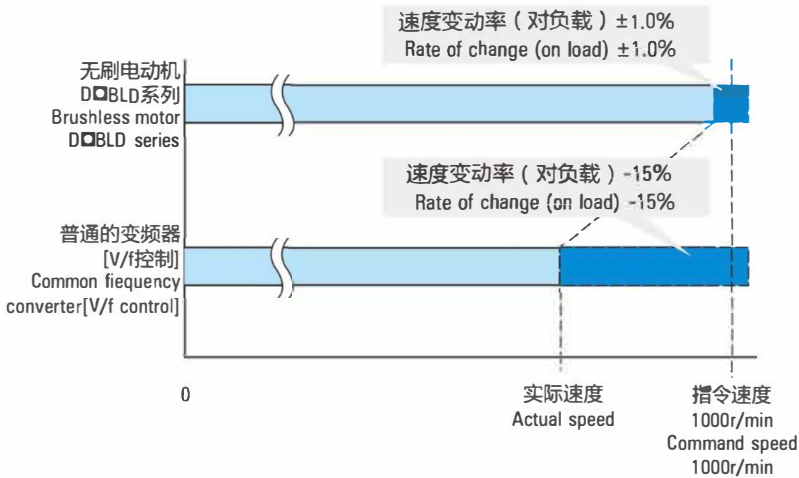
Brushless motor continues to set speed and a feedback signal are compared from the speed of the motor to adjust the voltage applied to the motor; therefore, even if the load change, still can set the speed from slow instantaneous adjustment to, and in order to stabilize the running speed. Three phase induction motor with inverter control is not feedback control, so the load becomes larger, the speed will be greatly reduced; for the high speed stability requirements, it is recommended to use brushless motor. (Figure One)

■ 薄型、大功率 Thin, High Power

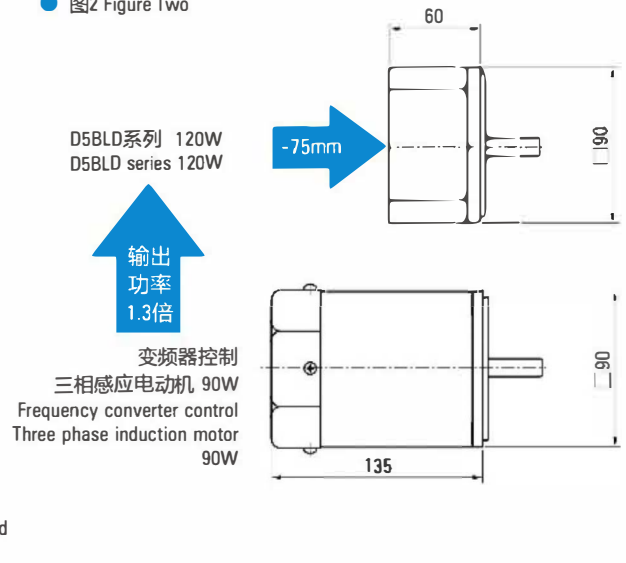
无刷电动机的转子使用永磁体，因此实现了薄型和大功率；比如，与安装尺寸 90 的三相感应电动机相比总长缩短 > 75mm，输出功率达到1.3倍。若采用无刷电动机，有助于实现装置的小型化。（如图2）

The use of permanent magnet brushless motor rotor, thus realizing the thin and high power; for example, and installation size 90 of the three-phase induction motor is compared to the length of the relationship > 75mm, power output reached 1.3 times. If the brushless motor is used, it is helpful to realize the miniaturization of the device. (Figure Two)

● 图1 Figure One



● 图2 Figure Two



■ 宽广的速度控制范围（ZD目前是限速至2500RPM，此驱动更改后可适用于4000RPM电机）

Wide Speed Control Range-(ZD Is Currently The Rate Limiting To 2500RPM, This Drive Change Can Be Applied To The 4000RPM Motor)

无刷电动机的速度控制范围比AC调速电动机及变频器更广，由于不像AC调速电动机那样在低速时有使用转矩限制，因此，无刷电动机适用于从低速到高速都需要一定转矩的用途。

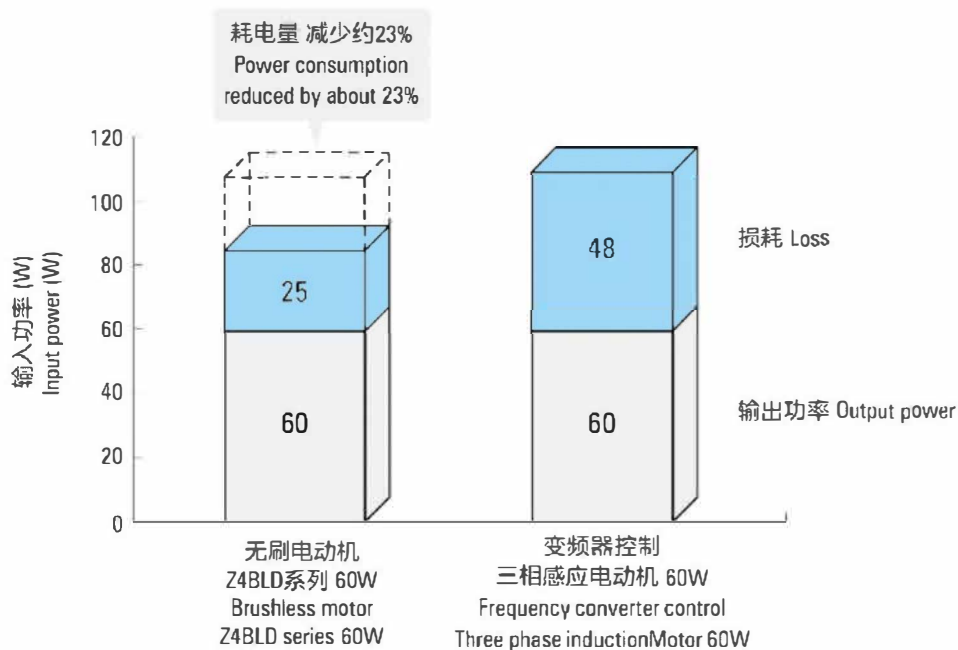
Brushless motor speed control range than speed AC motor and inverter wider, because unlike the speed AC motor that at low speed have restrictions on the use of torque, so there is no brush motor is suitable for from low speed to high speed, all require the use of a certain torque.

产品样式 Product Style	速度控制范围 Speed Control Range	速度比 Rate Ratio
无刷电动机 Brushless Motor	80~4000	50
变频器控制 Frequency Converter Control 三相感应电动机 Three Phase Induction Motor	200~2400	12
AC调速电动机 AC Speed Regulating Motor	50HZ: 90~1400	15
	60HZ: 90~1600	17

■ 有助于节能 Contribute To Energy Saving

无刷电动机的转子使用了永磁铁，可减少转子的二次损耗，因此与采用变频控制的三相感应电动机相比，耗电量减少20%以上，有助于装置的节能。

The rotor of the brushless motor is used for the permanent magnet, which can reduce the two loss of the rotor, so the power consumption is reduced by more than 20% compared with the three phase induction motor with variable frequency control, which is helpful for the energy saving of the device.



■ 搭载保护功能，有助于保护设备系统的安全

Equipped With Protection Function, Help To Protect The Safety Of The Equipment System

无刷电动机的转子使用了永磁铁，可减少转子的二次损耗，因此与采用变频控制的三相感应电动机相比，耗电量减少20%以上，有助于装置的节能。



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■ 电机的一般规格——转速 General Specification For Electric Motors-Speed

电机轴转速 Motor Speed	减速比 Reduction Ratio												
	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	
出轴转速 Output Shaft Speed	67~500	56~417	40~300	33~250	27~200	22~167	20~150	16~120	13~100	11~83	10~75	8~60	
	667	556	400	334	267	223	200	160	134	112	100	80	
	833	695	500	417	334	278	250	200	167	139	125	100	

电机轴转速 Motor Speed	减速比 Reduction Ratio											
	30	36	50	60	75	90	100	120	150	180	200	
出轴转速 Output Shaft Speed	7~500	6~42	4~30	3~25	3~20	2~17	2~15	2~12.5	1.5~10	1~8	1~7.5	
	67	56	40	34	27	23	20	17	14	12	10	
	84	70	50	42	34	28	25	21	17	14	12.5	

■ 电机的一般规格——产品种类 General Specification For Electric Motors-Product Category

电动机 Motor	方形尺寸 Square Size	输出功率 Output Power	机型 Model	驱动器 Driver	电源电压 Supply Voltage
	60X60	25	标准型 Standard type IP40 或 Or IP54		DC24~48V 单相 Single phase 100~120V 单相 Single phase 220~240V
	80X80	60			
	90X90	120			
	104X104	200			

电机的一般规格——基本性能 General Specification For Electric Motors— Basic Performance

项目	电动机	驱动器
绝缘电阻（不得将电机与驱动连接状态下测试）	在常温常湿环境下连续运行后，以DC500V电阻表测试电动机线圈与外壳之间的测量值应在50MΩ以上	在常温常湿环境下连续运行后，电源端子与保护接地端子间、电源端子与输入/输出信号端之间的电阻值以DC500V电阻表测量达50MΩ以上
绝缘耐压（不得将电机与驱动连接状态下测试）	在常温常湿环境下连续运行后，线圈、外壳间以50Hz、AC1.5kV施加1分钟无异常，泄漏电流<10mA	在常温常湿环境下连续运行后，电源端子与保护接地端子间以50Hz、AC1.5kV，电源端子与输入/输出信号端之间以50Hz、AC1.5kV施加1分钟无异常
温度上升	在常温常湿环境下连续运行后，以热电偶法测量的线圈温度上升值在55°C以下、测量外壳表面温度上升值在40°C以下①	在常温常湿环境下连续运行后，以热电偶法测量的铝质散热板温度上升值在50°C以下
使用环境	环境温度	0~+40°C (无结冰)
	环境湿度	85%以下 (无凝霜)
	海拔高度	1000m以下
	介质环境	无腐蚀性气体、尘埃；不可在含有放射性物质、磁场及真空等特殊环境中使用
保存环境②	振动	不可施加连续振动或过度冲击
	环境温度	-10 °C ~+40°C (无结冰)
	环境湿度	85%以下 (无凝霜)
耐热等级	B级	/
保护等级	IP40&IP54	IP20

①为了使电动机外壳表面温度能保持在90°C以下，需将电动机安装在以下尺寸的散热板（材质：铝）上；30W:115X115X厚度5、60W:135X135X厚度5、120W:165X165X厚度5、200W:200X200X厚度5。(单位:mm)

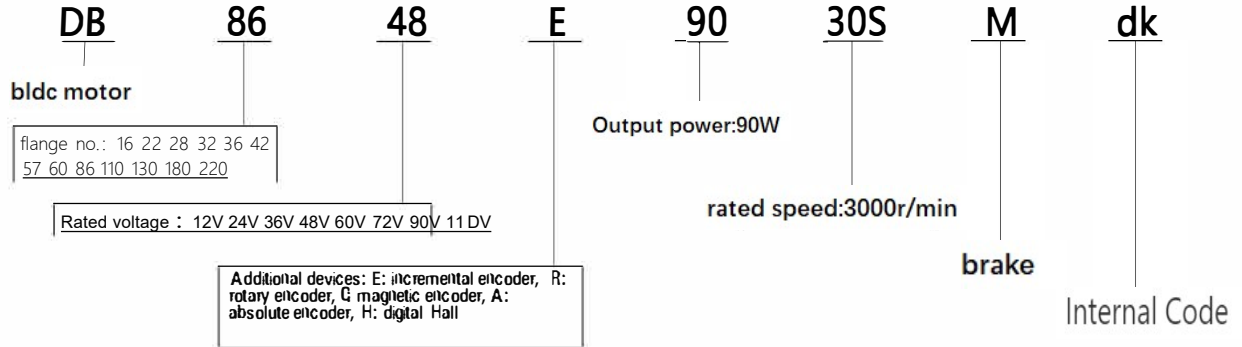
②保护环境也包括运输途中的短期值

Item	Motor	Driver
Insulation resistance (shall not be tested with the motor connected to the drive)	After continuous operation at room temperature and humidity, the value between the motor coil and the shell should be above 50MΩ when tested with a DC500V resistance meter.	After continuous operation at room temperature, the resistance between the power plant and the protective earth terminal and between the power terminal and the input/output signal terminal is more than 50MΩ as measured by a DC500V resistance meter.
Insulation voltage (not to be tested with the motor connected to the drive)	After continuous operation at room temperature and humidity, no abnormality between lines and shells with 50Hz, AC1.5kV applied for 1 minute, the drainage current <10mA	After continuous operation at room temperature and humidity, there is no abnormality between power terminal and protective ground terminal at 50Hz, AC1.5kV, and between power terminal and input/output signal terminal at 50Hz, AC1.5kV for 1 minute.
Temperature rise	After continuous operation at room temperature and humidity, the temperature rise of the coil by thermocouple method is below 60°C, and the temperature rise of the surface of the measuring shell is below 50°C.	After continuous operation at room temperature and humidity, the temperature rise of the aluminum heat sink measured by thermocouple method is below 50°C
Usage environment	Ambient temperature	0-40°C (No icing), If lower ambient temperature below 0°C requested, Please be sure to inform us before placing your order
	Ambient Humidity	< 85% (No Condensation)
	Altitude	< 1000m
	Medium environment	No corrosive gases, dust; not to be used in special environments containing radioactive materials, magnetic fields and vacuum, etc.
Vibration	Do not apply continuous vibration or excessive shock	
Preservation environment	Ambient temperature	(-10-40°C (No icing))
	Ambient Humidity	< 85% (No Condensation)
	Altitude	< 1000m
Heat resistance grade	B	
Protection rank	IP40/IP54/IP65/custom-made IP67 or IP68 for some special items, please be sure to inform us before placing your order	
Remark:1)In order to keep the surface temperature of the motor casing below 90°C, the motor is mounted on a heat sink based on different motor size.		
2)Protecting the environment also includes short-term values in transit		

型号阅读方法 PRODUCT CODE

电动机 Motor

电机型号说明 Motor Model Description



方型减速器 Square Shape Gearbox

5 GN 50 K RC
① ② ③ ④ ⑤

①	减速机安装尺寸 Gearhead frame size	2: 60mm 4: 80mm 5: 90mm 6: 104mm
②	类型 Gear type	GN: GNL型齿轮 GNL type gear GU: GU型齿轮轴 GU type gear
③	减速比 Gear ratio	例.e.g. 50: 减速比 Reduction ratio: 50
④	轴承种类 Bearing type	K: 滚珠轴承 (对GU型方箱体标注为KB) K: ball bearing (on the GU type square box marked as KB)
⑤	齿轮箱输出轴类型 Type of output shaft	RH: 蜗轮蜗杆空心轴输出 Hollow shaft output of worm wheel and worm RA: 蜗轮蜗杆实心轴输出 Solid shaft output of worm gear and worm RC: 弧锥齿空心轴输出 Hollow shaft output of spiral bevel gear RT: 弧锥齿实心轴输出 Solid shaft output of spiral bevel gear

L型减速器 L Type Gearbox

5 GU 50 LC
① ② ③ ④

①	减速机安装尺寸 Gearhead frame size	2: 60mm 4: 80mm 5: 90mm 6: 104mm
②	类型 Gear type	GN: GN型齿轮轴 (针对L系列2&4) Type GN gear shaft (for L series 2&4) GU: GU型齿轮轴 (针对L系列5&6) Type GU gear shaft (for L series 5&6)
③	减速比 Gear ratio	例.e.g. 50: 减速比 Reduction ratio: 50
④	减速箱类型 Bearing type	LC: L型空心轴输出减速器 L type hollow shaft output reducer RC: 弧锥齿空心轴输出 Hollow shaft output of spiral bevel gear LT: L型空实轴输出减速器 L type air solid shaft output reducer RT: 弧锥齿实心轴输出 Solid shaft output of spiral bevel gear



22-42mm micro planetary gear motor

BLDC MOTOR

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DMKE[®]

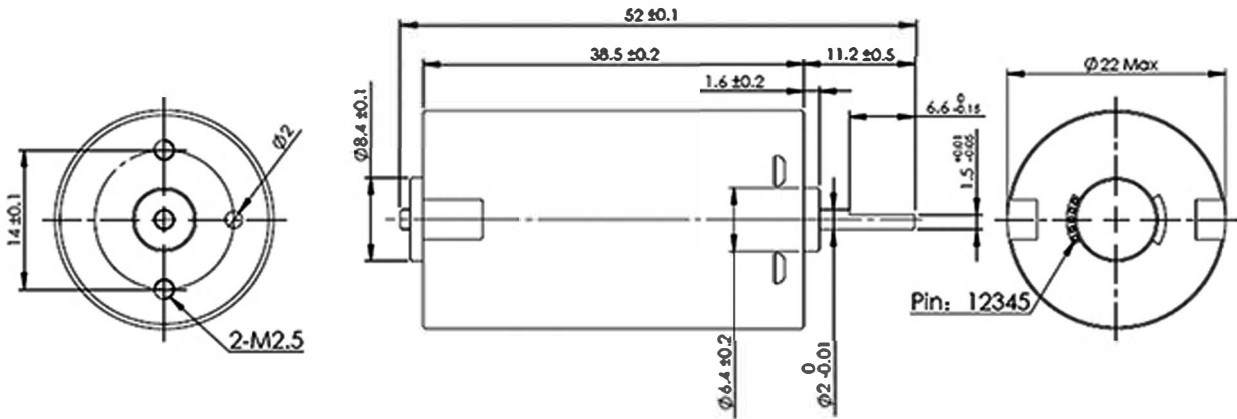
德马克电机

22series dc brushless motor

□ 22MM

DMK2238 22mm brushless motor

接线方式 B	Connection Mode B		
正反转功能	Clockwise Rotation/Counter Clockwise Rotation		
信号输出功能	FG Signal		
脉宽调速功能	PWM Control		
锁定保护	Locked Rotor Protection		
最大功率	5W(内置驱动)	Power	5W(Internal Drive)
电机寿命	约3000H(含油轴承)	Life Expectancy	~3000H(Oil Bearing)
	约5000H(滚珠轴承)		~5000H(Ball Bearing)

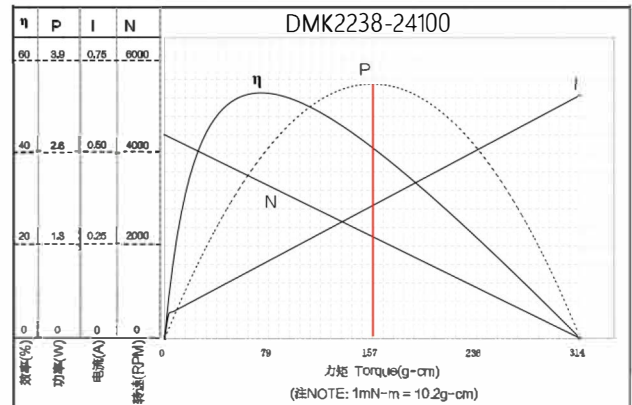
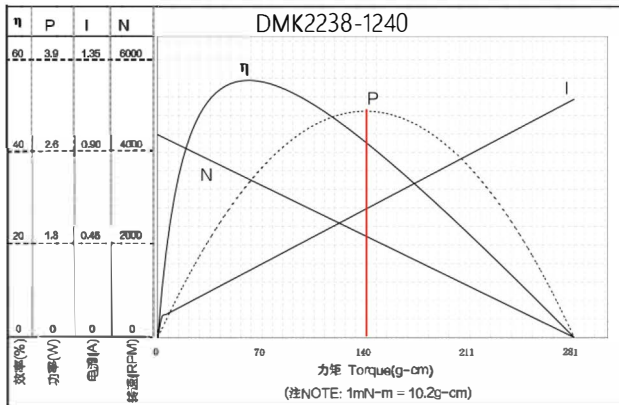


Weight: 65g(Approx)

Unit(mm)

单电机技术参数 Motor Technical Data

电机型号 Motor model	额定电压 Rated voltage	无负荷 No-load		额定 Rated				堵转 Stall	
		转速 Speed	电流 Current	转速 Speed	力矩 Torque	电流 Current	功率 Power	力矩 Torque	电流 Current
	VDC	r/min	mA	r/min	g.cm	mA	W	g.cm	A
DMK2238-0640	6	4000	0.09	3075	4.61	0.45	1.49	20.0	0.8
DMK2238-1245	12	4480	0.04	3490	3.92	0.19	1.44	17.7	0.85
DMK2238-24100	24	9980	0.08	8090	5.89	0.33	4.98	30.7	0.75



备注：红线左侧为电机可以连续工作区域NOTE: the left side of red line area can continuous work

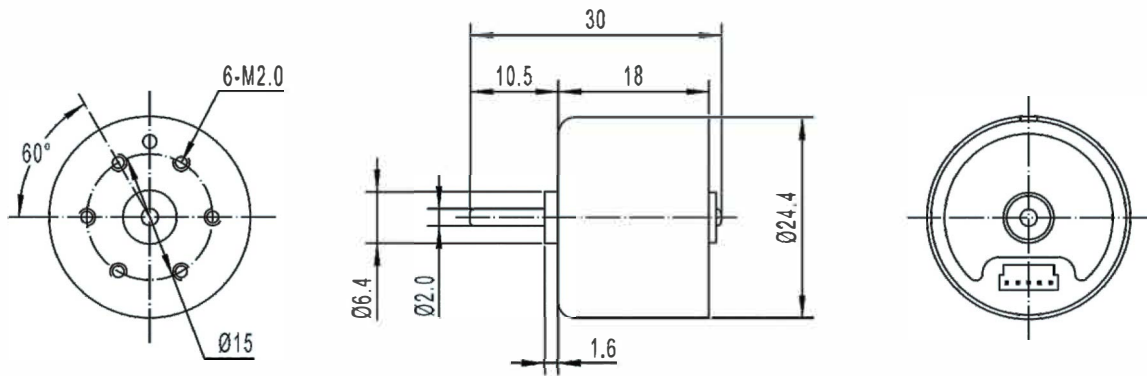
24mm dc brushless motor

□ 24MM

DMK2418 24mm brushless motor



接线方式 A	Connection Mode A		
正反转功能	Clockwise Rotation/Counter Clockwise Rotation		
信号输出功能	FG Signal		
脉宽调速功能	PWM Control		
锁定保护	Locked Rotor Protection		
最大功率	3W(内置驱动)	Power	3W(Internal Drive)
	/		/
电机寿命	约3000H(含油轴承)	Life Expectancy	~3000H(Oil Bearing)
	/		/

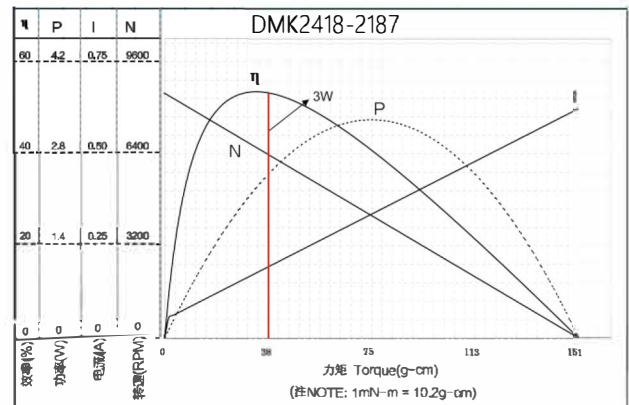
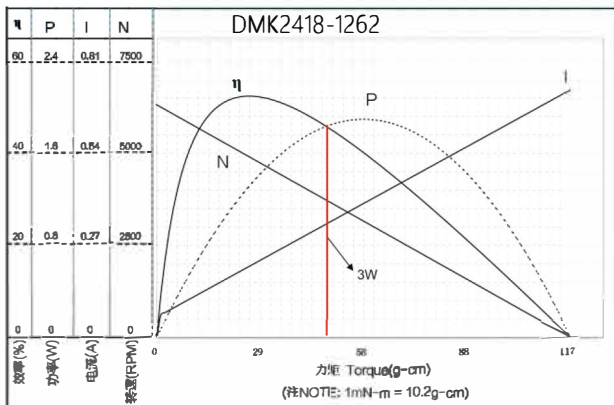


Weight: 30g(Approx)

Unit(mm)

单电机技术参数 Motor Technical Data

电机型号 Motor model	额定电压 Rated voltage	无负荷 No-load		额定 Rated				堵转 Stall	
		转速 Speed	电流 Current	转速 Speed	力矩 Torque	电流 Current	功率 Power	力矩 Torque	电流 Current
	VDC	r/min	mA	r/min	g.cm	mA	W	g.cm	A
DMK2418-1262	12.0	6200	60	5100	20	180	1.05	110	0.7
DMK2418-2487	24.0	8700	50	7500	20	130	1.54	145	0.7



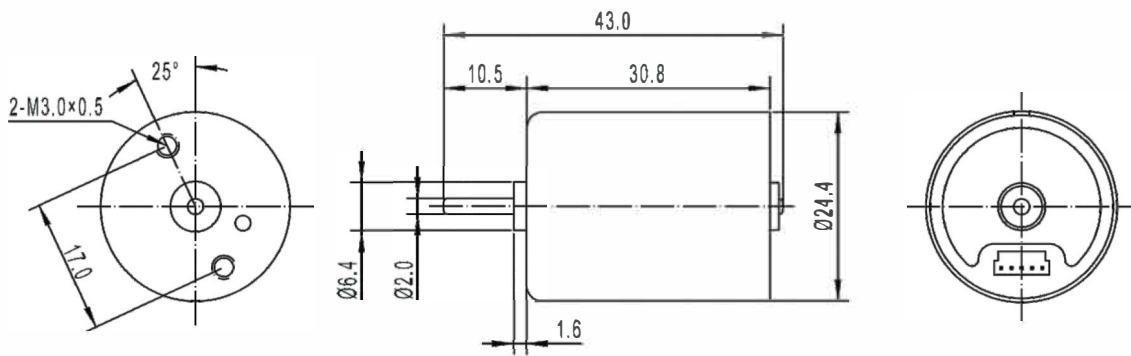
备注：红线左侧为电机可以连续工作区域 NOTE: the left side of red line area can continuous work

24mm dc brushless motor

□ 24MM

DEC2430 24mm brushless motor

接线方式A	Connection Mode A		
正反转功能	Clockwise Rotation/Counter Clockwise Rotation		
信号输出功能	FG Signal		
脉宽调速功能	PWM Control		
锁定保护	Locked Rotor Protection		
最大功率	3W(内置驱动)	Power	3W(Internal Drive)
	/		/
电机寿命	约3000H(含油轴承)	Life Expectancy	~3000H(Oil Bearing)
	/		/

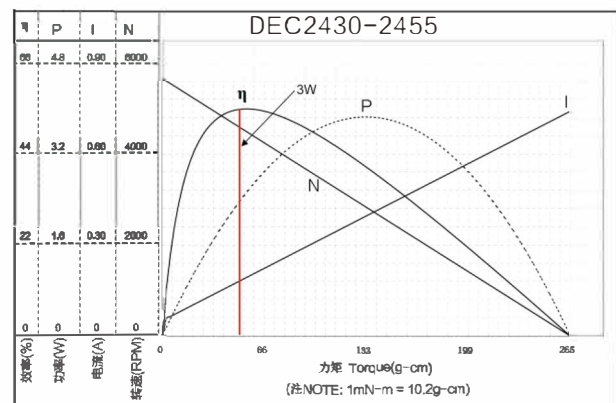
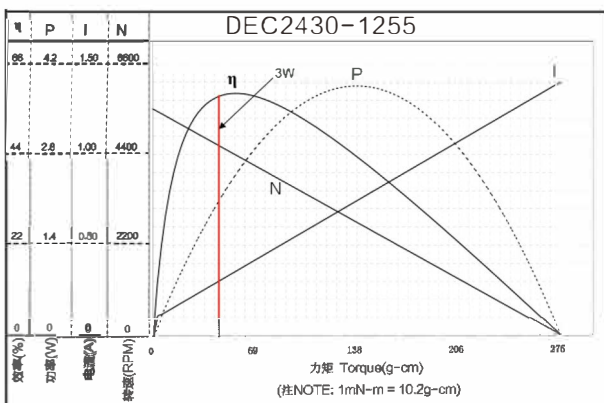


Weight: 55g(Approx)

Unit(mm)

电机技术参数 Motor Technical Data

电机型号 Motor model	额定电压 Rated voltage	无负荷 No-load		额定 Rated				堵转 Stall	
		转速 Speed	电流 Current	转速 Speed	力矩 Torque	电流 Current	功率 Power	力矩 Torque	电流 Current
	VDC	r/min	mA	r/min	g.cm	mA	W	g.cm	A
DEC2430-1255	12.0	5500	90	4500	50	330	2.3	270	1.4
DEC2430-2455	24.0	5500	50	4500	50	180	2.3	270	0.75



备注：红线左侧为电机可以连续工作区域NOTE: the left side of red line area can continuous work

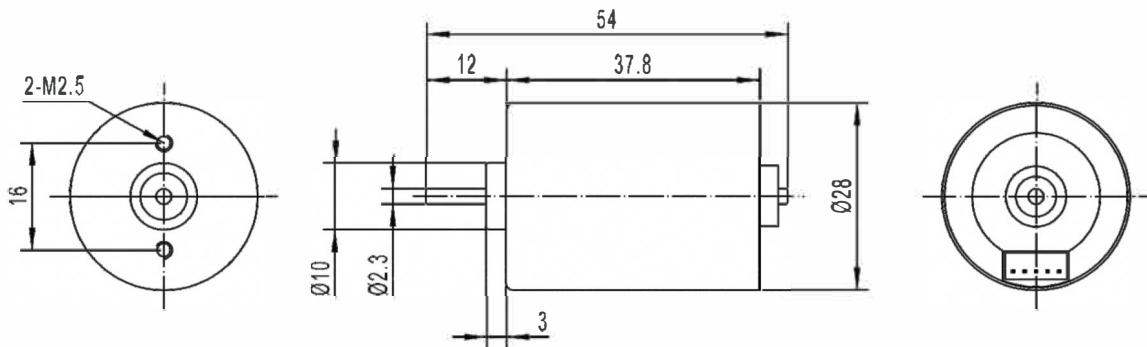
28mm dc brushless motor

□ 28MM

DMK2838

28mm brushless motor

接线方式B	Connection Mode B		
正反转功能	Clockwise Rotation/Counter Clockwise Rotation		
信号输出功能	FG Signal		
脉宽调速功能	PWM Control		
锁定保护	Locked Rotor Protection		
最大功率	8W(内置驱动)	Power	8W(Internal Drive)
	/		/
电机寿命	约3000H(含油轴承)	Life Expectancy	~3000H(Oil Bearing)
	约5000H(滚珠轴承)		~5000H(Ball Bearing)

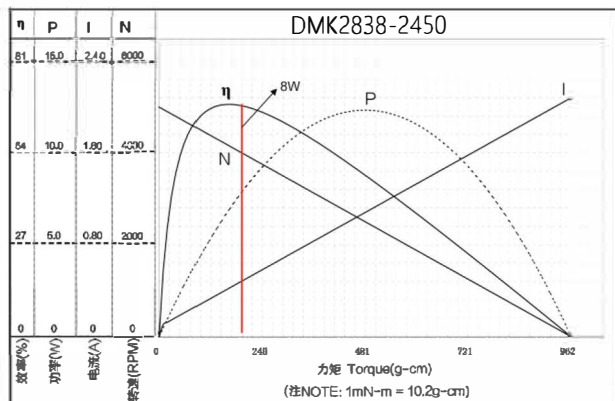
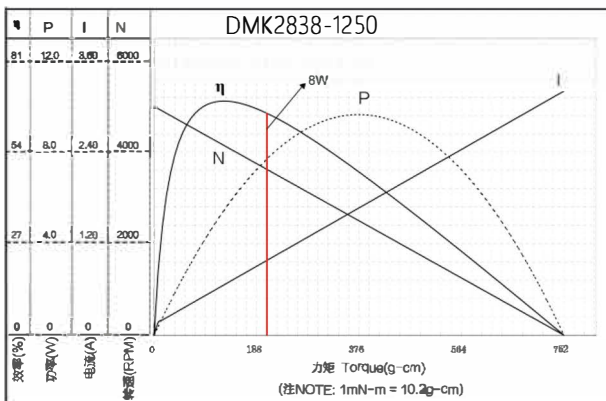


Weight: 90g(Approx)

Unit(mm)

单电机技术参数 Motor Technical Data

电机型号 Motor model	额定电压 Rated voltage	无负荷 No-load		额定 Rated				堵转 Stall	
		转速 Speed	电流 Current	转速 Speed	力矩 Torque	电流 Current	功率 Power	力矩 Torque	电流 Current
	VDC	r/min	mA	r/min	g.cm	mA	W	g.cm	A
DMK2838-1250	12.0	5000	140	4200	100	550	4.3	750	3.2
DMK2838-2450	24.0	5000	90	4400	100	300	4.5	960	2.1



备注：红线左侧为电机可以连续工作区域NOTE: the left side of red line area can continuous work

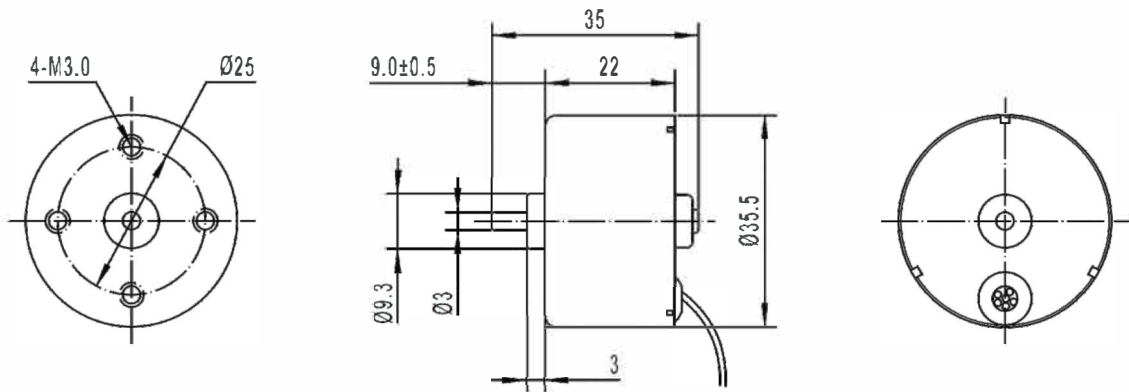
36mm dc brushless motor

□ 36MM

DMK3625 36mm brushless motor



接线方式 B	Connection Mode B		
正反转功能	Clockwise Rotation/Counter Clockwise Rotation		
信号输出功能	FG Signal		
脉宽调速功能	PWM Control		
锁定保护	Locked Rotor Protection		
最大功率	15W(内置驱动)	Power	15W(Internal Drive)
	/		/
电机寿命	约3000H(含油轴承)	Life Expectancy	~3000H(Oil Bearing)
	约5000H(滚珠轴承)		~5000H(Ball Bearing)

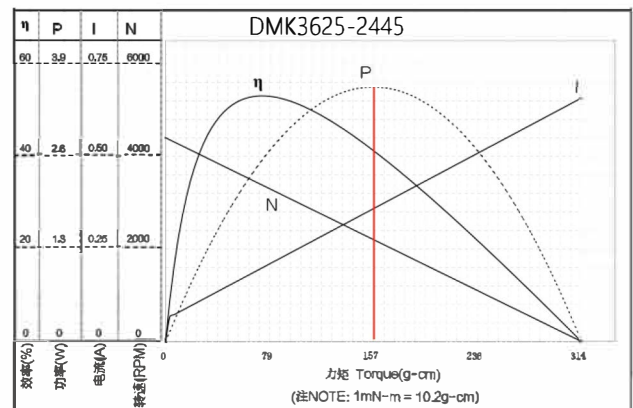
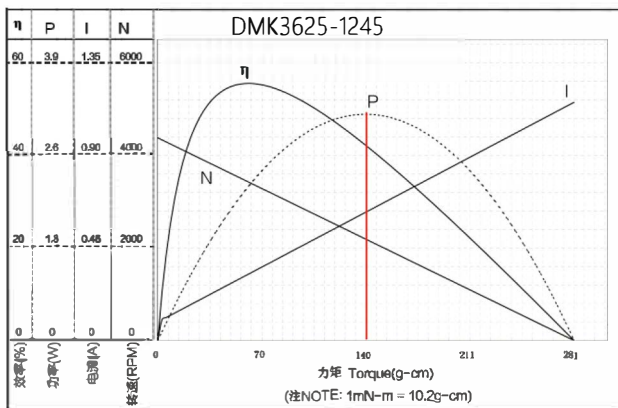


Weight: 65g(Approx)

Unit(mm)

单电机技术参数 Motor Technical Data

电机型号 Motor model	额定电压 Rated voltage	无负荷 No-load		额定 Rated				堵转 Stall	
		转速 Speed	电流 Current	转速 Speed	力矩 Torque	电流 Current	功率 Power	力矩 Torque	电流 Current
	VDC	r/min	mA	r/min	g.cm	mA	W	g.cm	A
DMK3625-1245	12.0	4500	90	3650	50	280	1.9	280	1.25
DMK3625-2445	24.0	4500	60	3700	50	160	1.9	310	0.65



备注：红线左侧为电机可以连续工作区域 NOTE: the left side of red line area can continuous work

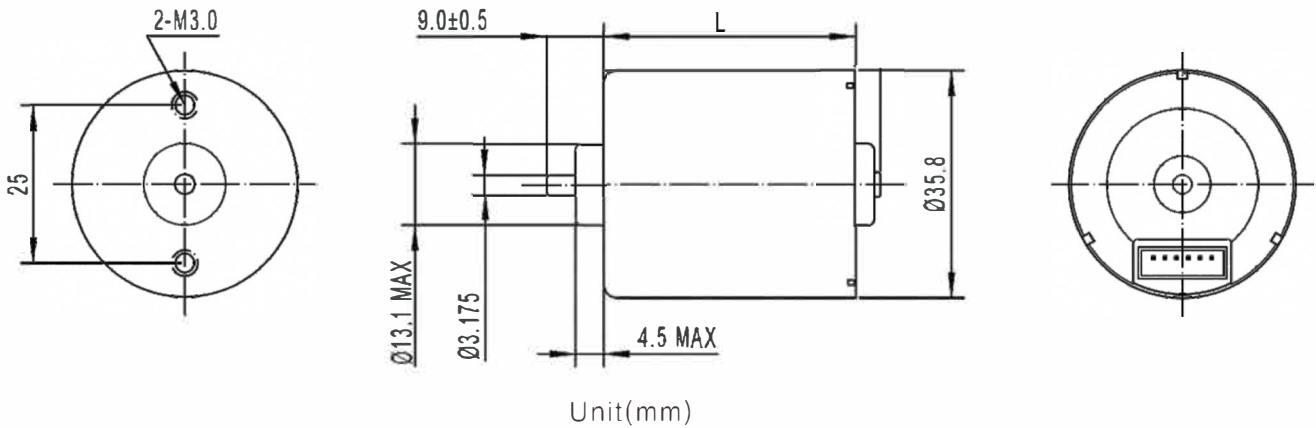
36mm dc brushless motor

□ 36MM

DMK3650 36mm brushless motor

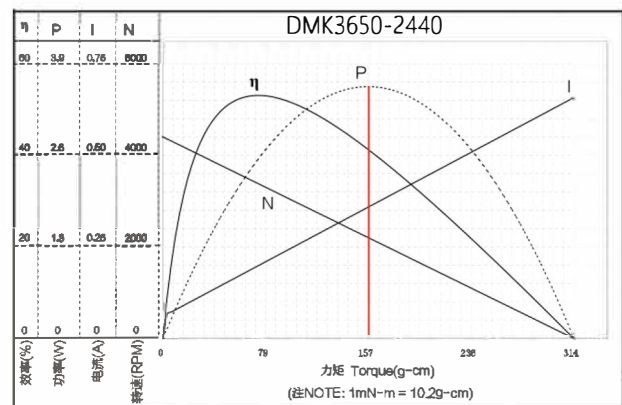
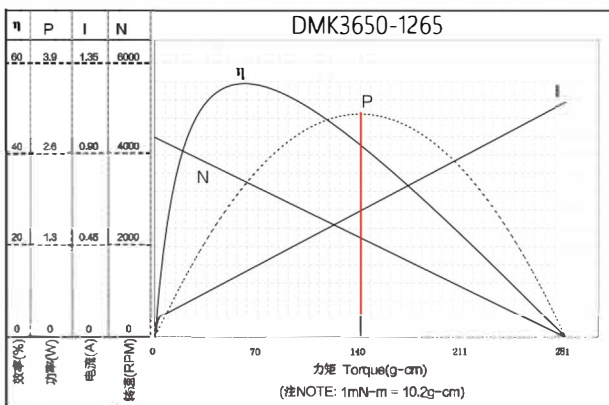


接线方式 B或C	Connection Mode B & C		
正反转功能	Clockwise Rotation/Counter Clockwise Rotation		
信号输出功能	FG Signal		
脉宽调速功能	PWM Control		
锁定保护	Locked Rotor Protection		
最大功率	30W(内置驱动)	Power	30W(Internal Drive)
	50W(外置驱动)		50W(External Drive)
电机寿命	约3000H(含油轴承)	Life Expectancy	~3000H(Oil Bearing)
	约5000H(滚珠轴承)		~5000H(Ball Bearing)



单电机技术参数 Motor Technical Data

电机型号 Motor model	额定电压 Rated voltage	无负荷 No-load		额定 Rated				堵转 Stall	
		转速 Speed	电流 Current	转速 Speed	力矩 Torque	电流 Current	功率 Power	力矩 Torque	电流 Current
	VDC	r/min	mA	r/min	g.cm	mA	W	g.cm	A
DMK3640-1265	12.0	6500	150	5600	100	700	5.7	720	4.0
DMK3640-2440	24.0	4000	60	3200	100	250	3.3	500	1.0
DMK3650-1265	12.0	6500	250	5300	200	1400	11	1050	4.0
DMK3650-240	24.0	4000	80	3400	200	420	7	1300	2.4



备注：红线左侧为电机可以连续工作区域NOTE: the left side of red line area can continuous work

42mm dc brushless motor

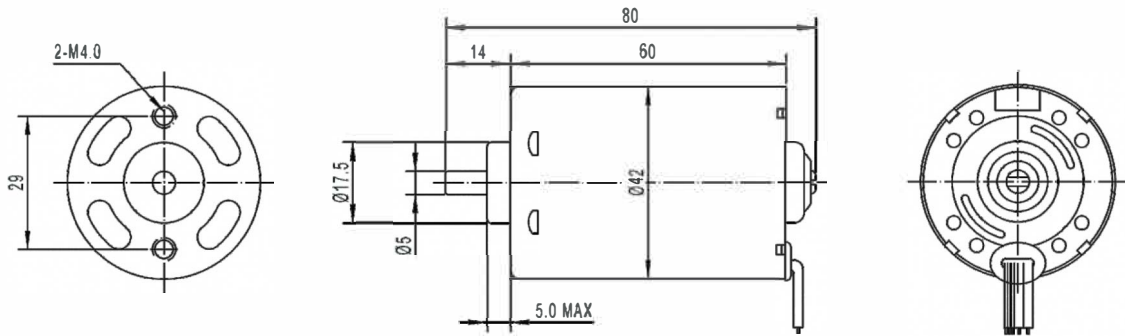
□ 42MM

DMK4260

42mm brushless motor



接线方式 B或C	Connection Mode B & C		
正反转功能	Clockwise Rotation/Counter Clockwise Rotation		
信号输出功能	FG Signal		
脉宽调速功能	PWM Control		
锁定保护	Locked Rotor Protection		
最大功率	30W(内置驱动)	Power	30W(Internal Drive)
	50W(外置驱动)		50W(External Drive)
电机寿命	约3000H(含油轴承)	Life Expectancy	~3000H(Oil Bearing)
	约5000H(滚珠轴承)		~5000H(Ball Bearing)

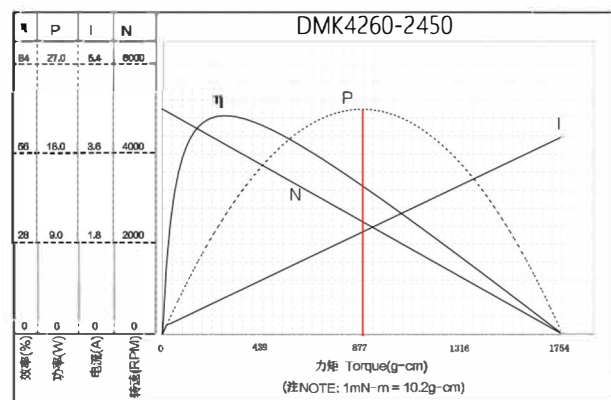
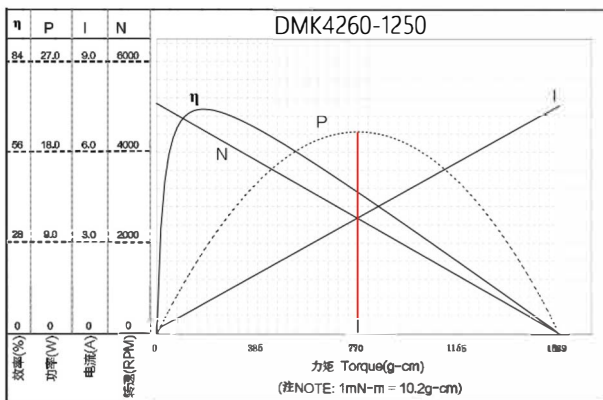


Weight: 300g(Approx)

Unit(mm)

单电机技术参数 Motor Technical Data

电机型号 Motor model	额定电压 Rated voltage	无负荷 No-load		额定 Rated				堵转 Stall	
		转速 Speed	电流 Current	转速 Speed	力矩 Torque	电流 Current	功率 Power	力矩 Torque	电流 Current
	VDC	r/min	mA	r/min	g.cm	mA	W	g.cm	A
DMK4260-1250	12.0	5000	300	3400	500	2500	17	1500	4.0
DMK4260-2450	24.0	5000	140	3550	500	1300	18	1700	4.0



备注：红线左侧为电机可以连续工作区域 NOTE: the left side of red line area can continuous work

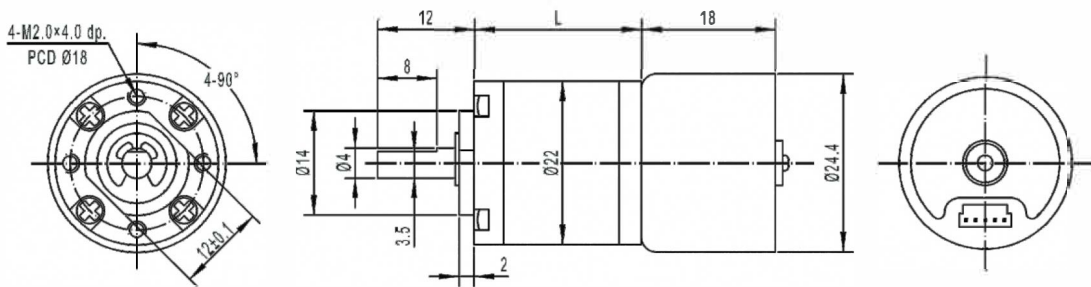
24mm DC brushless deceleration motor

□ 24MM

GMP22-DMK2418 22mm planetary gearbox plus 24mm brushless motor



模数 Module	0.3				
额定负载 Rated torque (kg.cm)	3.0 kg.cm max				
瞬间允许力矩 Max momentary tolerance torque (kg.cm)	6.0 kg.cm max				
减速比 Reduction ratio	1/4	1/14 1/16 1/19	1/53、1/62 1/84、1/104	1/198、1/231 1/316、1/370 1/455	1/1024
齿轮箱减速级数 Number of gear stages	1	2	3	4	5
减速箱长度 L (mm)	14.4	18.1	21.7	35.4	29



Weight: 90g(Approx)

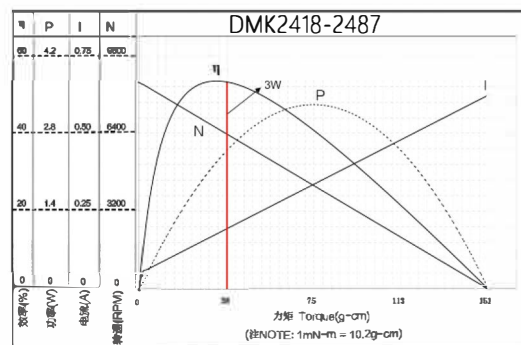
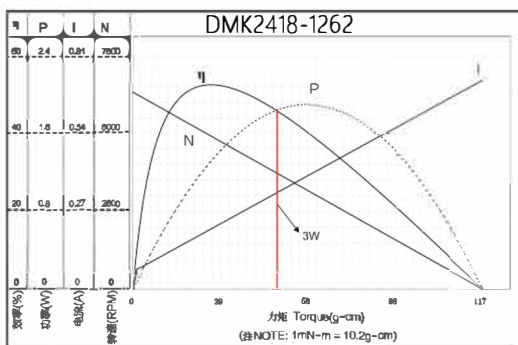
Unit(mm)

减速电机技术参数 Gear Motor Technical Data

减速比 Reduction ratio	16	62	84	104	231	316	370	455	1014
空载转速 No-load speed (rpm)	380	100	70	58	25	20	17	14	6
12.0V 负载转速 Rated speed (rpm)	320	82	60	50	22	17	15	13	5
负载力矩 Rated torque (kg.cm)	0.2	0.7	1.0	1.2	2.5	3.0	3.0	3.0	3.0
24.0V 空载转速 No-load speed (rpm)	540	140	100	80	36	27	23	19	8
负载转速 Rated speed (rpm)	470	120	90	70	32	24	20	16	7
负载力矩 Rated torque (kg.cm)	0.2	0.7	1.0	1.2	2.5	3.0	3.0	3.0	3.0

单电机技术参数 Motor Technical Data

电机型号 Motor model	额定电压 Rated voltage	无负荷 No-load		额定 Rated				堵转 Stall	
		转速 Speed	电流 Current	转速 Speed	力矩 Torque	电流 Current	功率 Power	力矩 Torque	电流 Current
	VDC	r/min	mA	r/min	g.cm	mA	W	g.cm	A
DMK2418-1262	12.0	6200	60	5100	20	180	1.05	110	0.7
DMK2418-2487	24.0	8700	50	7500	20	130	1.54	145	0.7



备注：红线左侧为电机可以连续工作区域 NOTE: the left side of red line area can continuous work

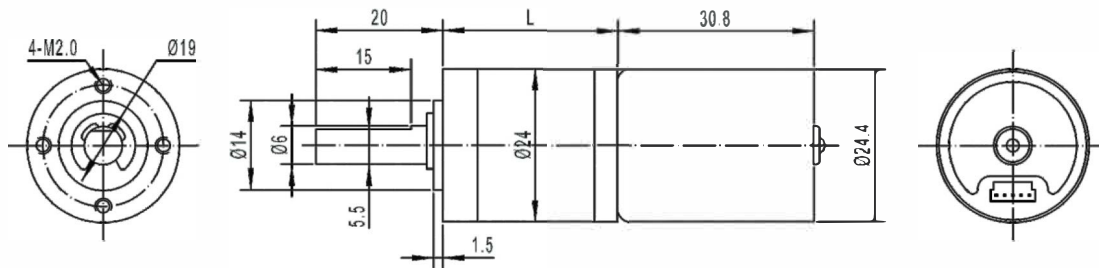
24mm DC brushless deceleration motor

□ 24MM

GMP24-DMK2430 24mm planetary gearbox plus 24mm brushless motor



模数 Module	0.4			
额定负载 Rated torque (kg.cm)	5.0 kg.cm max			
瞬间允许力矩 Max momentary tolerance torque (kg.cm)	10.0 kg.cm max			
减速比 Reduction ratio	1/4	1/14 1/19 1/27	1/51、1/71 1/100、1/139	1/189、1/264 1/369、1/516 1/720
齿轮箱减速级数 Number of gear stages	1	2	3	4
减速箱长度 L (mm)	23	28	33	38



Weight: 100g(Approx)

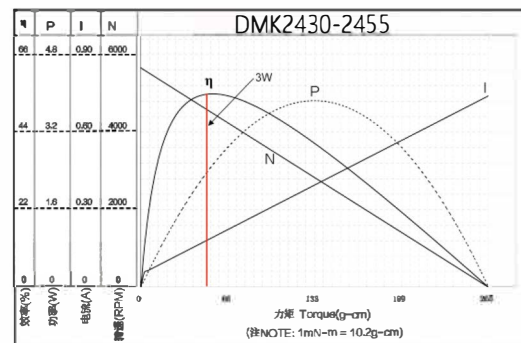
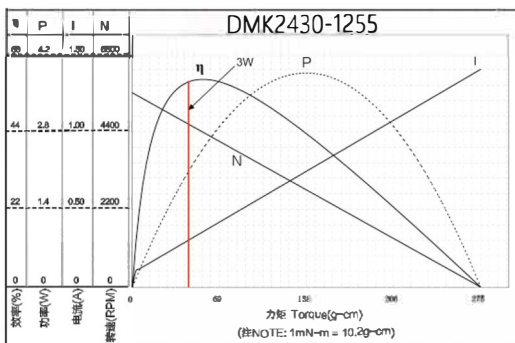
Unit(mm)

减速电机技术参数 Gear Motor Technical Data

减速比 Reduction ratio	19	27	51	71	100	139	189	264	369	516
空载转速 No-load speed (rpm)	280	195	105	75	55	40	29	21	15	11
12.0V 负载转速 Rated speed (rpm)	250	180	95	68	48	35	25	18	13	9
负载力矩 Rated torque (kg.cm)	0.6	1.0	1.4	2.0	2.8	4.0	5.0	5.0	5.0	5.0
24.0V 空载转速 No-load speed (rpm)	280	195	105	75	55	40	29	21	15	11
负载转速 Rated speed (rpm)	250	180	95	68	48	35	25	18	13	9
负载力矩 Rated torque (kg.cm)	0.6	1.0	1.4	2.0	2.8	4.0	5.0	5.0	5.0	5.0

单电机技术参数 Motor Technical Data

电机型号 Motor model	额定电压 Rated voltage	无负荷 No-load		额定 Rated				堵转 Stall	
		转速 Speed	电流 Current	转速 Speed	力矩 Torque	电流 Current	功率 Power	力矩 Torque	电流 Current
	VDC	r/min	mA	r/min	g.cm	mA	W	g.cm	A
DMK2430-1255	12.0	5500	90	4500	50	330	2.3	270	1.4
DMK2430-2455	24.0	5500	50	4500	50	180	2.3	270	0.75



备注：红线左侧为电机可以连续工作区域 NOTE: the left side of red line area can continuous work

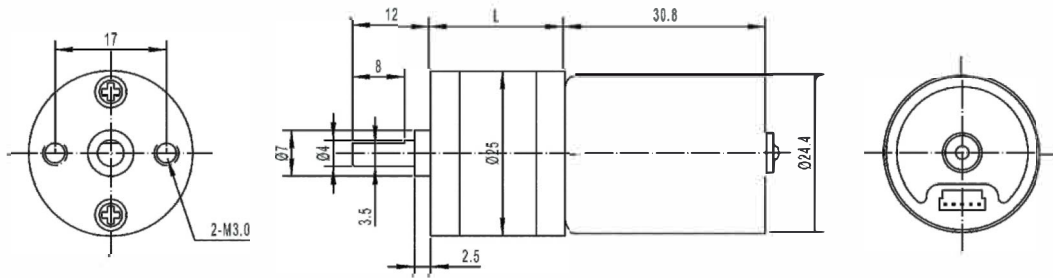
24mm DC brushless deceleration motor

□ 24MM

GMP25-DMKE2430 25mm gearbox plus 24mm brushless motor



模数 Module	0.4						
额定负载 Rated torque (kg.cm)	3.0 kg.cm max						
瞬间允许力矩 Max momentary tolerance torque (kg.cm)	6.0 kg.cm max						
减速比 Reduction ratio	1/4.2 1/4.4	1/9.3 1/10	1/20 1/21	1/34 1/45 1/47	1/75 1/78 1/99 1/103	1/130 1/165 1/172 1/217 1/227	1/362 1/378 1/478 1/499
齿轮箱减速级数 Number of gear stages	2	3	4	5	6	7	8
减速箱长度 Gearbox length L (mm)	17	19	21	23	25	27	



Weight: 100g(Approx)

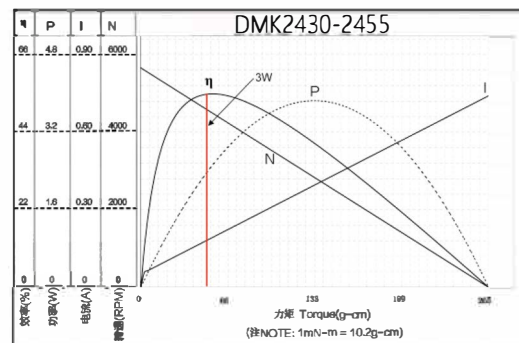
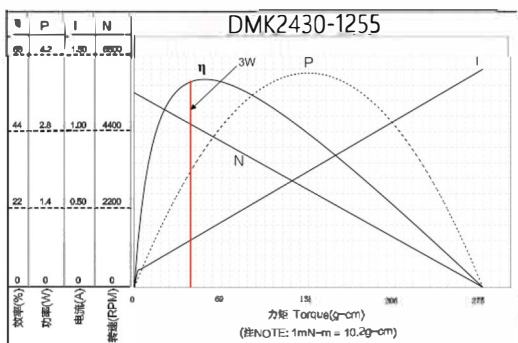
Unit(mm)

减速电机技术参数 Gear Motor Technical Data

Voltage	Reduction ratio	Performance Parameters									
		4	10	21	34	47	78	103	130	227	499
12.0V	No-load speed(rpm)	1350	550	260	160	115	70	52	42	24	11
	Rated speed(rpm)	1212	485	230	140	102	60	47	36	20	10
	Rated torque(kg.cm)	0.16	0.34	0.8	1.2	1.6	2.4	3.0	3.0	3.0	3.0
24.0V	No-load speed(rpm)	1350	550	260	160	115	70	52	42	24	11
	Rated speed(rpm)	1212	485	230	140	102	60	47	36	20	10
	Rated torque(kg.cm)	0.16	0.34	0.8	1.2	1.6	2.4	3.0	3.0	3.0	3.0

单电机技术参数 Motor Technical Data

Motor model	额定电压 Rated voltage	No-load		On-load			Stall		
		转速 Speed	电流 Current	转速 Speed	力矩 Torque	电流 Current	功率 Power	力矩 Torque	电流 Current
	VDC	r/min	mA	r/min	g.cm	mA	W	g.cm	A
DMK2430-1255	12.0	5500	90	4500	50	330	2.3	270	1.4
DMK2430-2455	24.0	5500	50	4500	50	180	2.3	270	0.75



备注：红线左侧为电机可以连续工作区域NOTE: the left side of red line area can continuous work

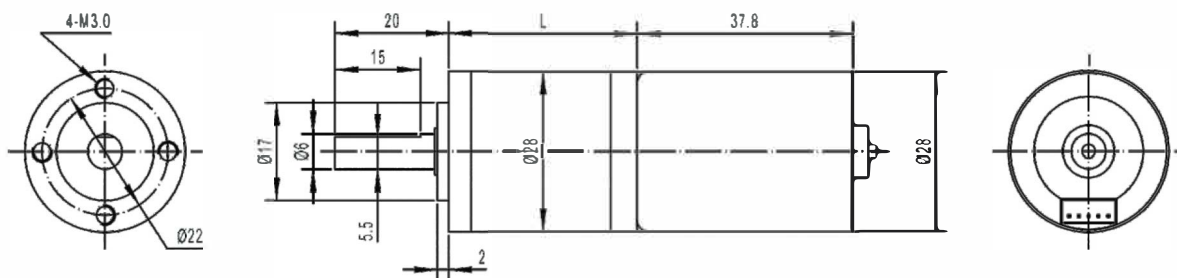
28mm DC brushless deceleration motor

□ 28MM

GMP28-DMK2838 28mm planetary gearbox plus 28mm brushless motor



模数 Module	0.5			
额定负载 Rated torque (kg.cm)	20.0 kg.cm max			
瞬间允许力矩 Max momentary tolerance torque (kg.cm)	40.0 kg.cm max			
减速比 Reduction ratio	1/4	1/14 1/19 1/27	1/51, 1/71 1/100, 1/139	1/189, 1/264 1/369, 1/516 1/720
齿轮箱减速级数 Number of gear stages	1	2	3	4
减速箱长度 L (mm)	28.5	36	43	50



Weight: 200g(Approx)

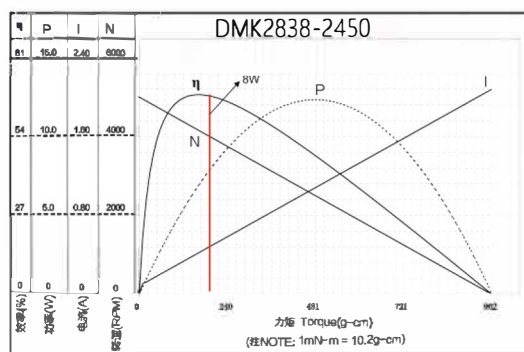
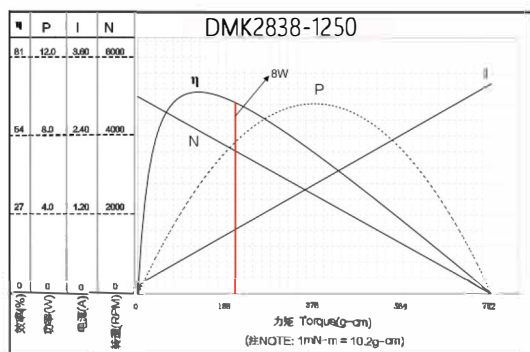
Unit(mm)

减速电机技术参数 Gear Motor Technical Data

减速比 Reduction ratio	4	19	27	51	100	189	264	369	516	720
12.0V 空载转速 No-load speed (rpm)	1200	260	180	96	50	25	18	13	9	7
负载转速 Rated speed (rpm)	1050	220	155	80	42	22	16	11	8	6
负载力矩 Rated torque (kg.cm)	0.3	1.3	1.8	3.0	6	10	13	18	20	20
24.0V 空载转速 No-load speed (rpm)	1200	260	180	96	50	25	18	13	9	7
负载转速 Rated speed (rpm)	1100	230	160	85	42	23	17	12	8	6
负载力矩 Rated torque (kg.cm)	0.3	1.3	1.8	3.0	6	10	13	18	20	20

单电机技术参数 Motor Technical Data

电机型号 Motor model	额定电压 Rated voltage	无负荷 No-load		额定 Rated			堵转 Stall		
		转速 Speed	电流 Current	转速 Speed	力矩 Torque	电流 Current	功率 Power	力矩 Torque	电流 Current
	VDC	r/min	mA	r/min	g.cm	mA	W	g.cm	A
DMK2838-1250	12.0	5000	140	4200	100	550	4.3	750	3.2
DMK2838-2450	24.0	5000	90	4400	100	300	4.5	960	2.1



备注：红线左侧为电机可以连续工作区域 NOTE: the left side of red line area can continuous work

36mm DC brushless deceleration motor

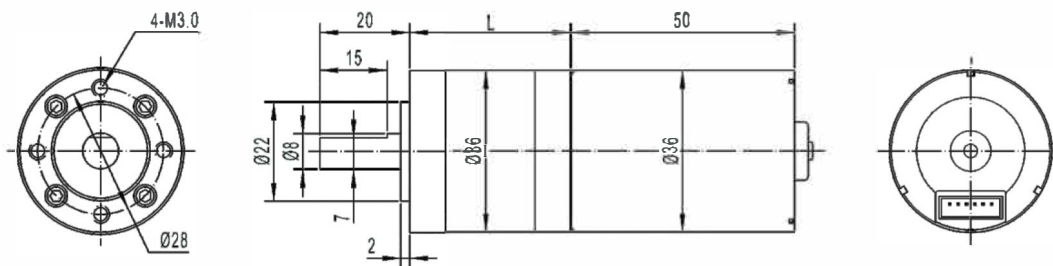
□ 36MM

GMP36-DMK3650

36mm planetary gearbox plus 36mm brushless motor



模数 Module	0.5			
额定负载 Rated torque (kg.cm)	30.0 kg.cm max			
瞬间允许力矩 Max momentary tolerance torque (kg.cm)	60.0 kg.cm max			
减速比 Reduction ratio	1/4	1/14 1/19 1/27	1/51、1/71 1/100、1/139	1/189、1/264 1/369、1/516 1/720
齿轮箱减速级数 Number of gear stages	1	2	3	4
减速箱长度 L (mm)	26	33.5	40.5	47.5



Weight: 420g(Approx)

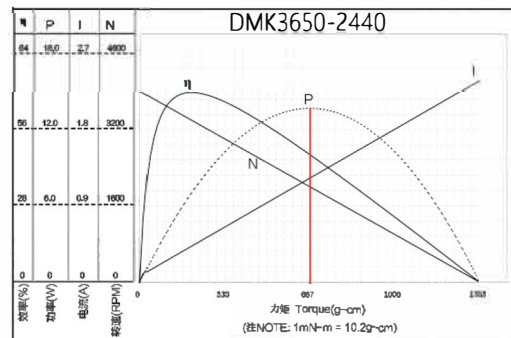
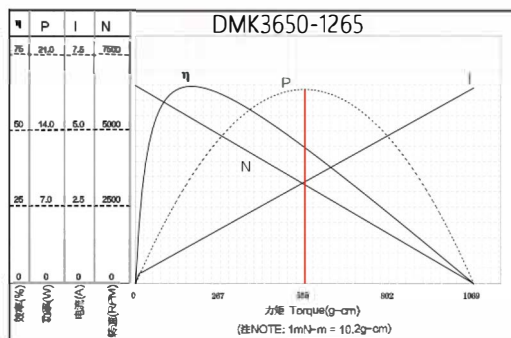
Unit(mm)

减速电机技术参数 Gear Motor Technical Data

减速比 Reduction ratio	4	19	51	100	139	189	264	369	516	720
12.0V 空载转速 No-load speed (rpm)	1600	340	125	63	45	34	25	18	12	9
负载转速 Rated speed (rpm)	1320	280	100	53	38	28	20	14	10	8
负载力矩 Rated torque (kg.cm)	0.7	3.0	8	15	20	28	30	30	30	30
24.0V 空载转速 No-load speed (rpm)	1000	200	78	40	28	20	15	11	8	5
负载转速 Rated speed (rpm)	850	180	65	34	24	18	13	9	7	4
负载力矩 Rated torque (kg.cm)	0.7	3.0	8	15	20	28	30	30	30	30

单电机技术参数 Motor Technical Data

电机型号 Motor model	额定电压 Rated voltage	无负荷 No-load		额定 Rated				堵转 Stall	
		转速 Speed	电流 Current	转速 Speed	力矩 Torque	电流 Current	功率 Power	力矩 Torque	电流 Current
	VDC	r/min	mA	r/min	g.cm	mA	W	g.cm	A
DMK3650-1265	12.0	6500	250	5300	200	1400	11	1050	4.0
DMK3650-2440	24.0	4000	80	3400	200	420	7	1300	2.4



备注：红线左侧为电机可以连续工作区域 NOTE: the left side of red line area can continuous work

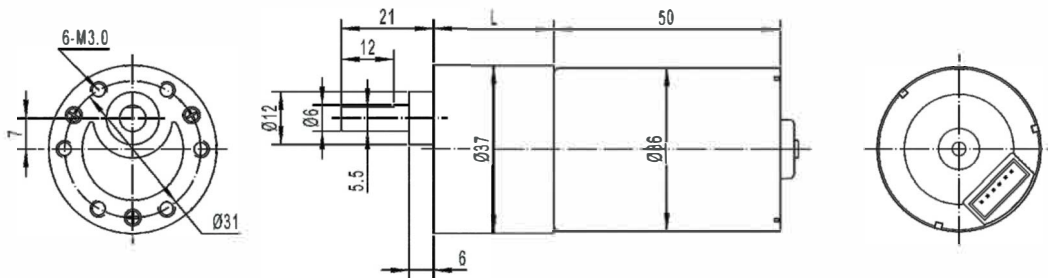
36series DC brushless deceleration motor

□ 36MM

GMP37-DMK3650 37mm gearbox plus 36mm brushless motor



模数 Module	0.5/0.6				
额定负载 Rated torque (kg.cm)	8.0 kg.cm max				
瞬间允许力矩 Max momentary tolerance torque (kg.cm)	15.0 kg.cm max				
减速比 Reduction ratio	1/6 1/10	1/19 1/30	1/44 1/90	1/131 1/270	1/506 1/810
齿轮箱减速级数 Number of gear stages	2	3	4	5	6
减速箱长度 Gearbox length L (mm)	19	21.5	24	26.5	29



Weight: 300g(Approx)

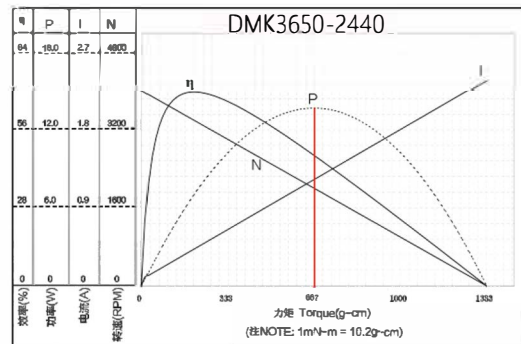
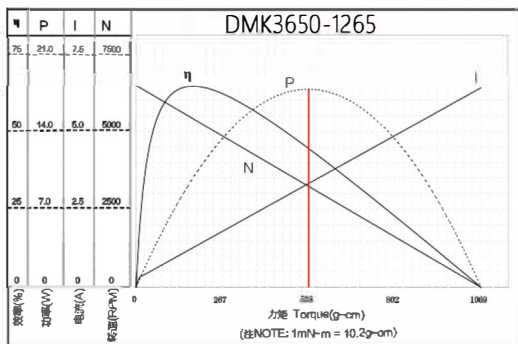
Unit(mm)

减速电机技术参数 Gear Motor Technical Data

减速比 Reduction ratio	6	10	30	44	56	90	169	270	506	810
12.0V 空载转速 No-load speed (rpm)	1000	630	210	145	115	70	38	24	13	8
12.0V 负载转速 Rated speed (rpm)	850	530	175	120	93	60	32	20	11	7
12.0V 负载力矩 Rated torque (kg.cm)	1.0	1.6	4.5	6	8	10	10	10	10	10
24.0V 空载转速 No-load speed (rpm)	630	400	130	90	70	43	24	15	8	5
24.0V 负载转速 Rated speed (rpm)	540	340	110	77	60	38	20	13	7	4
24.0V 负载力矩 Rated torque (kg.cm)	1.0	1.6	4.5	6	8	10	10	10	10	10

单电机技术参数 Motor Technical Data

电机型号 Motor model	额定电压 Rated voltage	无负荷 No-load		额定 Rated				堵转 Stall	
		转速 Speed	电流 Current	转速 Speed	力矩 Torque	电流 Current	功率 Power	力矩 Torque	电流 Current
	VDC	r/min	mA	r/min	g.cm	mA	W	g.cm	A
DMK3650-1265	12.0	6500	250	5300	200	1400	11	1050	4.0
DMK3650-2440	24.0	4000	80	3400	200	420	7	1300	2.4



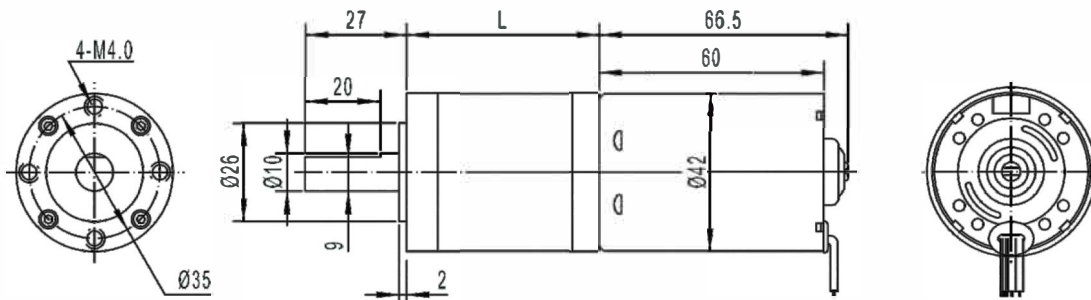
备注：红线左侧为电机可以连续工作区域 NOTE: the left side of red line area can continuous work

42mm DC brushless deceleration motor

□ 42MM

GMP42-DMK4260 42mm planetary gearbox plus 42mm brushless motor

模数 Module	0.6			
额定负载 Rated torque (kg.cm)	60.0 kg.cm max			
瞬间允许力矩 Max momentary tolerance torque (kg.cm)	120.0 kg.cm max			
减速比 Reduction ratio	1/4	1/14 1/19 1/27	1/51、1/71 1/100、1/139	1/189、1/264 1/369、1/516 1/720
齿轮箱减速级数 Number of gear stages	1	2	3	4
减速箱长度 L (mm)	31.5	42	52	62



Weight: 650g(Approx)

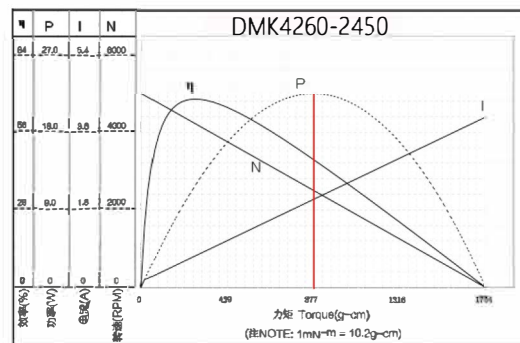
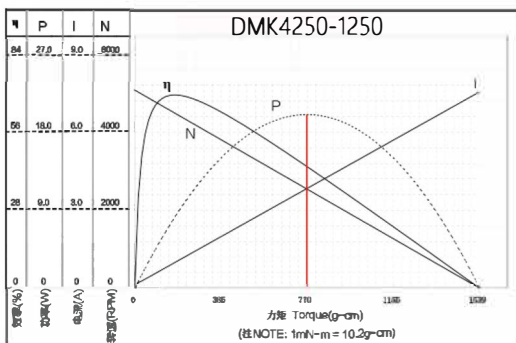
Unit(mm)

减速电机技术参数 Gear Motor Technical Data

减速比 Reduction ratio	4	19	51	100	139	189	264	369	516	720
12.0V 空载转速 No-load speed (rpm)	1200	250	96	50	35	25	19	13	10	7
负载转速 Rated speed (rpm)	850	180	65	34	24	18	13	9	9	6
负载力矩 Rated torque (kg.cm)	1.8	8	18	35	50	56	60	60	60	60
24.0V 空载转速 No-load speed (rpm)	1200	250	96	50	35	25	19	13	10	7
负载转速 Rated speed (rpm)	890	190	68	35	24	18	14	10	9	6
负载力矩 Rated torque (kg.cm)	1.8	8	18	35	50	56	60	60	60	60

单电机技术参数 Motor Technical Data

电机型号 Motor model	额定电压 Rated voltage	无负荷 No-load		额定 Rated				堵转 Stall	
		转速 Speed	电流 Current	转速 Speed	力矩 Torque	电流 Current	功率 Power	力矩 Torque	电流 Current
	VDC	r/min	mA	r/min	g.cm	mA	W	g.cm	A
DMK4260-1250	12.0	5000	300	3400	500	2.5	17	1500	4.0
DMK4260-2450	24.0	5000	140	3550	500	1.3	18	1700	4.0



备注：红线左侧为电机可以连续工作区域 NOTE: the left side of red line area can continuous work



42mm to 180mm BLDC MOTOR

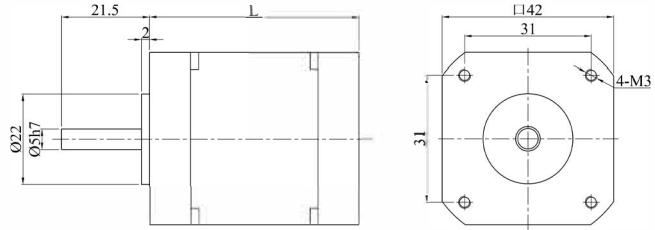
15-60页

DMKE[®]

德马克电机

42mm dc brushless motor

□ 42MM



Unit:mm

Technical parameters

Style number	Voltage(V)	Power(w)	no-load speed (rpm)	rated speed (rpm)	rated current (A)	rated torque (N.m)	peak torque (N.m)	no-load current (A)	motor length L(mm)
DB42-12-20-30S	12	20	3300	3000	2.08	0.06	0.19	<0.7	41
DB42-24-20-30S	24	20	3300	3000	1.04	0.06	0.19	<0.6	41
DB42-36-20-30S	36	20	3300	3000	0.69	0.06	0.19	<0.3	41
DB42-48-20-30S	48	20	3300	3000	0.52	0.06	0.19	<0.1	41
DB42-310-20-30S	310	20	3300	3000	0.08	0.06	0.19	<0.02	41
DB42-12-30-30S	12	30	3300	3000	3.13	0.10	0.29	<0.9	51
DB42-24-30-30S	24	30	3300	3000	1.56	0.10	0.29	<0.7	51
DB42-36-30-30S	36	30	3300	3000	1.04	0.10	0.29	<0.3	51
DB42-48-30-30S	48	30	3300	3000	0.78	0.10	0.29	<0.2	51
DB42-310-30-30S	310	30	3300	3000	0.12	0.10	0.29	<0.05	51
DB42-12-40-30S	12	40	3300	3000	4.17	0.13	0.38	<1.2	61
DB42-24-40-30S	24	40	3300	3000	2.08	0.13	0.38	<0.9	61
DB42-36-40-30S	36	40	3300	3000	1.39	0.13	0.38	<0.6	61
DB42-48-40-30S	48	40	3300	3000	1.04	0.13	0.38	<0.4	61
DB42-310-40-30S	310	40	3300	3000	0.16	0.13	0.38	<0.06	61
DB42-12-50-30S	12	50	3300	3000	5.21	0.16	0.48	<1.3	81
DB42-24-50-30S	24	50	3300	3000	2.60	0.16	0.48	<0.8	81
DB42-36-50-30S	36	50	3300	3000	1.74	0.16	0.48	<0.6	81
DB42-48-50-30S	48	50	3300	3000	1.30	0.16	0.48	<0.4	81
DB42-310-50-30S	310	50	3300	3000	0.20	0.16	0.48	<0.05	81

备注：电机接口、电压、转速可按客户要求定制。Motor interface, Voltage, Speed can be customized.

42mm DC brushless reduction motor

□ 42MM

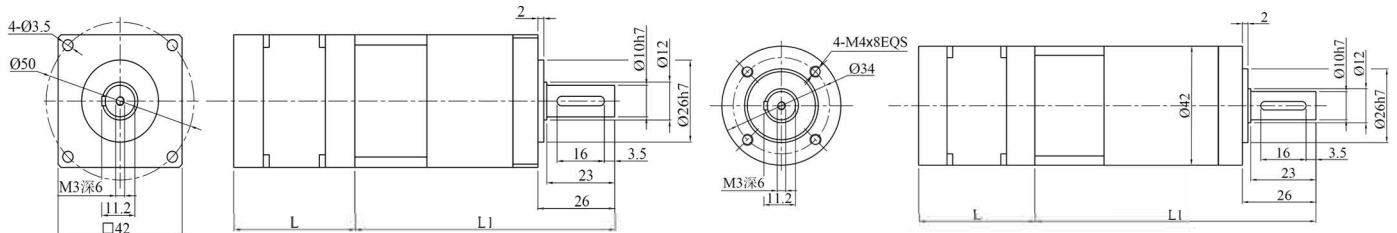
■ 无刷行星减速电机 Brushless planetary reduction motor

● 42行星减速机参数表 Reducer Parameter Table

Gearbox type	PLF042			PLE042		
Gear stage	1	2	3	1	2	3
Gearbox length(L1)(mm)	88	99.2	110.4	88	99.2	110.4
Gear ratio	Stage 1: 3, 4, 5, 8					
	Stage 2: 16, 20, 25, 32, 40, 64					
	Stage 3: 64, 80, 100, 120, 160, 200, 256, 320, 512.					

● 外形图(单位mm) DIMENSIONS(Unit mm)

减速器附有安装用螺丝 Mounting screws are included with gearhead



42mm bldc motor+PLF042 planetary gearbox

42mm bldc motor+PLE042 planetary gearbox

The speed is calculated by dividing the rated speed of the motor by the reduction ratio, and the actual speed will be reduced by 2%-20% depending on the load.

□ 电压 Voltage 36/48/72/310 □ 速比数值 Velocity Ratio Value

● DB42-□-20-30S/(PLF42、PLE42) □ K整机容许力矩 (单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	4	5	8	16	20	25	32	40	64	80	100	120	160	200	256	320	512	—
Rated speed after gearbox(r/min)	1000	750	600	375	188	150	120	94	75	47	38	30	25	19	15	12	10	6	—
Rated torque after gearbox(r/min)	0.17	0.23	0.29	0.46	0.92	1.15	1.44	1.84	2.30	3.69	4.60	5.76	6.91	9.22	11.52	14.75	13.50	7.50	—
Max.output torque(N.m)	0.51	0.69	0.87	1.92	2.76	3.45	4.32	5.52	6.90	7.38	9.20	11.52	13.82	18.44	23.04	29.50	27.0	15.0	—
Rotational inertia(kgcm ²)	0.03	0.022	0.019	0.017	0.022	0.019	0.019	0.017	0.016	0.016	0.019	0.019	0.029	0.016	0.016	0.016	0.016	0.016	—

● DB86-□-30-30S/(PLF42、PLE42) □ K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	4	5	8	16	20	25	32	40	64	80	100	120	160	200	256	320	512	—
Rated speed after gearbox(r/min)	1000	750	600	375	188	150	120	94	75	47	38	30	25	19	15	12	10	6	—
Rated torque after gearbox(r/min)	0.26	0.35	0.43	0.69	1.38	1.73	2.16	2.76	3.46	5.53	6.91	8.64	9.0	13.82	13.50	15.30	13.50	7.50	—
Max.output torque(N.m)	0.78	1.05	1.29	2.07	4.14	5.19	6.48	8.28	10.38	11.06	13.82	17.28	18.0	27.64	27.0	30.60	27.0	15.0	—
Rotational inertia(kgcm ²)	0.03	0.022	0.019	0.017	0.022	0.019	0.019	0.017	0.016	0.016	0.019	0.019	0.029	0.016	0.016	0.016	0.016	0.016	—

● DB86-□-40-30S/(PLF42、PLE42) □ K整机容许力矩 (单位N.m) Machine Allowable Torque (Unit:N.m)

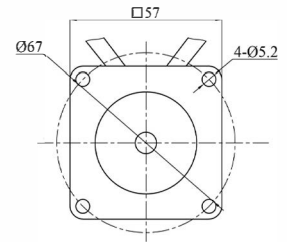
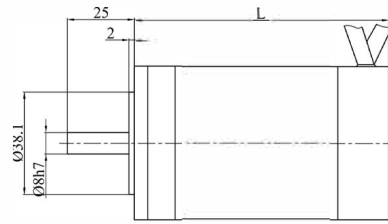
Gear ratio	3	4	5	8	16	20	25	32	40	64	80	100	120	160	200	256	320	512	—
Rated speed after gearbox(r/min)	1000	750	600	375	188	150	120	94	75	47	38	30	25	19	15	12	10	6	—
Rated torque after gearbox(r/min)	0.35	0.47	0.59	0.94	1.87	2.34	2.93	3.74	4.68	7.48	9.36	11.70	9.0	15.50	13.50	15.30	13.50	7.50	—
Max.output torque(N.m)	1.05	1.41	1.77	2.82	5.61	7.02	8.79	11.22	14.04	14.96	18.72	23.40	18.0	31.0	27.0	30.60	27.0	15.0	—
Rotational inertia(kgcm ²)	0.03	0.022	0.019	0.017	0.022	0.019	0.019	0.017	0.016	0.016	0.019	0.019	0.029	0.016	0.016	0.016	0.016	0.016	—

● DB86-□-50-30S/(PLF42、PLE42) □ K整机容许力矩 (单位N.m) Machine Allowable Torque (Unit:N.m)

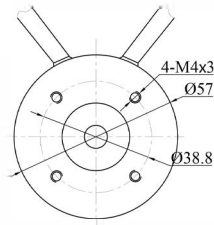
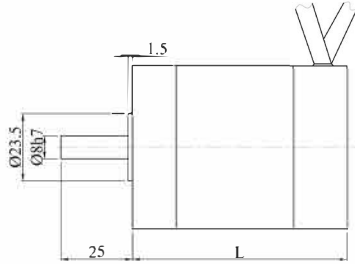
Gear ratio	3	4	5	8	16	20	25	32	40	64	80	100	120	160	200	256	320	512	—
Rated speed after gearbox(r/min)	1000	750	600	375	188	150	120	94	75	47	38	30	25	19	15	12	10	6	—
Rated torque after gearbox(r/min)	0.43	0.58	0.72	1.15	2.30	2.88	3.60	4.61	5.76	9.22	11.52	14.40	9.0	15.50	13.50	15.30	13.50	7.50	—
Max.output torque(N.m)	1.29	1.74	2.16	3.45	6.90	8.64	10.80	13.83	17.28	18.44	23.04	28.80	18.0	31.0	27.0	30.60	27.0	15.0	—
Rotational inertia(kgcm ²)	0.03	0.022	0.019	0.017	0.022	0.019	0.019	0.017	0.016	0.016	0.019	0.019	0.029	0.016	0.016	0.016	0.016	0.016	—

57mm dc brushless motor

□ 57MM

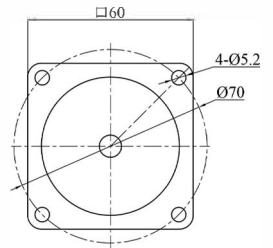
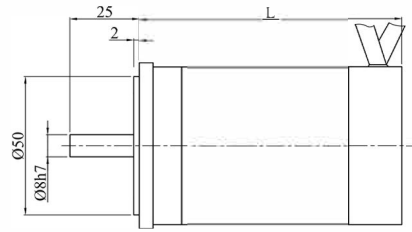


57mm bldc motor+57mm square flange



57mm bldc motor+57mm round flange

unit :mm



57mm bldc motor+60mm square flange

Technical parameters

Style number	Voltage(V)	Power(w)	no-load speed (rpm)	rated speed (rpm)	rated current (A)	rated torque (N.m)	peak torque (N.m)	no-load current (A)	motor length L(mm)	建议适配驱动器型号
DB57-12-30-30S	12	30	3300	3000	3.13	0.10	0.29	<0.6	55	
DB57-24-30-30S	24	30	3300	3000	1.56	0.10	0.29	<0.4	55	
DB57-36-30-30S	36	30	3300	3000	1.04	0.10	0.29	<0.3	55	
DB57-310-30-30S	310	30	3300	3000	0.12	0.10	0.29	<0.2	55	
DB57-12-50-30S	12	50	3300	3000	5.21	0.16	0.48	<0.8	75	
DB57-24-50-30S	24	50	3300	3000	2.60	0.16	0.48	<0.4	75	
DB57-36-50-30S	36	50	3300	3000	1.74	0.16	0.48	<0.3	75	
DB57-310-50-30S	310	50	3300	3000	0.20	0.16	0.48	<0.2	75	
DB57-12-75-30S	12	75	3300	3000	7.81	0.24	0.72	<1.0	75	
DB57-24-75-30S	24	75	3300	3000	3.91	0.24	0.72	<0.7	75	
DB57-36-75-30S	36	75	3300	3000	2.60	0.24	0.72	<0.5	75	
DB57-48-75-30S	48	75	3300	3000	1.95	0.24	0.72	<0.4	75	
DB57-310-75-30S	310	75	3300	3000	0.30	0.24	0.72	<0.3	75	
DB57-12-100-30S	12	100	3300	3000	10.42	0.32	0.96	<1.2	95	
DB57-24-100-30S	24	100	3300	3000	5.21	0.32	0.96	<0.8	95	
DB57-36-100-30S	36	100	3300	3000	3.47	0.32	0.96	<0.6	95	
DB57-48-100-30S	48	100	3300	3000	2.60	0.32	0.96	<0.4	95	
DB57-310-100-30S	310	100	3300	3000	0.40	0.32	0.96	<0.3	95	
DB57-12-150-30S	12	150	3300	3000	15.63	0.48	1.43	<1.5	115	
DB57-24-150-30S	24	150	3300	3000	7.81	0.48	1.43	<1.0	115	
DB57-36-150-30S	36	150	3300	3000	5.21	0.48	1.43	<0.8	115	
DB57-48-150-30S	48	150	3300	3000	3.91	0.48	1.43	<0.6	115	
DB57-310-150-30S	310	100	3300	3000	0.60	0.48	1.43	<0.4	115	

备注：电机接口、电压、转速可按客户要求定制。Motor interface, Voltage, Speed can be customized.

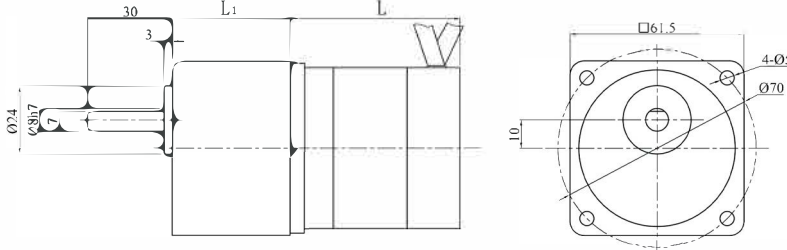
57 DC brushless reduction motor

□ 57MM or 60MM

Parallel Shaft Speed Reducer

●外形图(单位mm) DIMENSIONS(Unit mm)

减速器附有安装用螺丝 Mounting screws are included with gearhead



□-电压Voltage /12/24/36/310 □-速比数值Velocity Ratio Value



Gearbox type	Gear ratio	L1 length(mm)
2GN*K	3 to 18	32/41.5
	20 to 200	41.5
Motor power(W)	30 50 75 100 150	
Motor length L (mm)	60 80 80 100 120	

●DB57-□GN-30-30S/2GN□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	5	7.5	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200
Rated speed after gearbox(r/min)	1000	600	400	300	240	200	166.7	150	120	100	83.33	75	60	50	40	33.33	30	25	20	16.67	15
Rated torque after gearbox(N.m)	0.232	0.387	0.58	0.774	0.967	1.16	1.392	1.394	1.743	2.091	2.51	2.789	3	3	3	3	3	3	3	3	3
Rated torque after gearbox(kgf.cm)	2.321	3.868	5.802	7.736	9.669	11.6	13.92	13.94	17.43	20.91	25.1	27.89	30	30	30	30	30	30	30	30	30

●DB57-□GN-50-30S/2GN□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	5	7.5	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200
Rated speed after gearbox(r/min)	1000	600	400	300	240	200	166.7	150	120	100	83.33	75	60	50	40	33.33	30	25	20	16.67	15
Rated torque after gearbox(N.m)	0.386	0.644	0.966	1.288	1.61	1.932	2.318	2.321	2.902	3	3	3	3	3	3	3	3	3	3	3	3
Rated torque after gearbox(kgf.cm)	3.864	6.44	9.659	12.88	16.1	19.32	23.18	23.21	29.02	30	30	30	30	30	30	30	30	30	30	30	30

●色表示与电动机同一方向运转,其他则为相反方向.

● The speed is calculated by dividing the rated speed of the motor by the reduction ratio, and the actual speed will be reduced by 2%-20% compared with the value shown when the load size changes.

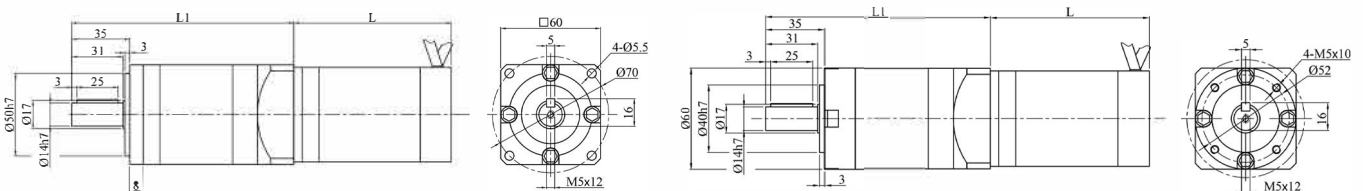
Brushless planetary reduction motor

●Reducer Parameter Table

Gearbox type	PLF060			PLE060			ZPLF060			ZPLE060		
Gear stage	1	2	3	1	2	3	1	2	3	1	2	3
Gearbox length(L1(mm))	119	135	151	119	135	151	129.5	161	177	129.5	161	177
Gear ratio	Stage 1: 3, 4, 5, 7, 10											
	Stage 2: 16, 20, 25, 28, 35, 40, 50, 70											
	Stage 3: 64, 80, 100, 125, 140, 175, 200, 250, 280, 350											

●外形图(单位mm) DIMENSIONS(Unit mm)

减速器附有安装用螺丝 Mounting screws are included with gearhead



57mm bldc motor+PLF060 planetary gearbox

57mm bldc motor+PLE060 planetary gearbox

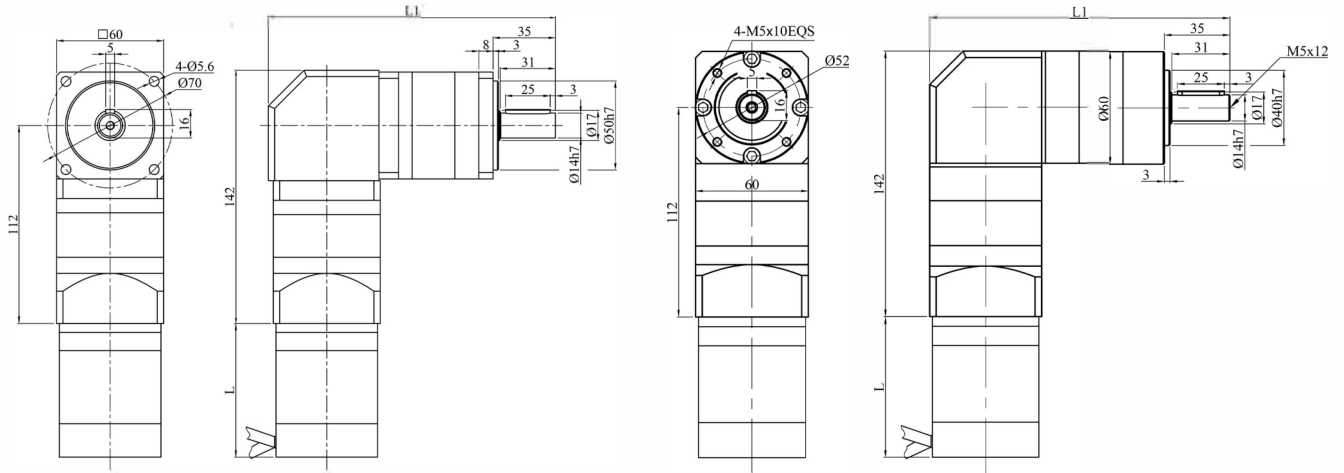


57 DC brushless reduction motor

□ 57MM or 60MM

●外形图(单位mm) DIMENSIONS(Unit mm)

减速器附有安装用螺丝 Mounting screws are included with gearhead



57mm bldc motor+ZPLF060 planetray gearbox

57mm bldc motor+ZPLE060 planetray gearbox

The speed is calculated by dividing the rated speed of the motor by the reduction ratio, and the actual speed will be reduced by 2%-20% depending on the load.

□-电压Voltage 36/48/72/310 □-速比数值Velocity Ratio Value

●DB57-□-75-30S/(PLF60/PLE60)□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	4	5	7	10	16	20	25	28	35	40	50	70	80	100	125	140	175	200
Rated speed after gearbox(r/min)	750	600	429	300	188	150	120	107	86	75	60	43	38	30	24	21	17	15
Rated torque after gearbox(r/min)	0.9	1.1	1.6	2.3	3.6	4.5	5.6	6.3	7.9	9.0	11.2	15.7	17.2	21.5	26.9	30.1	37.6	37.5
Max.output torque(N.m)	2.8	3.4	4.8	6.9	10.8	13.5	16.8	18.9	23.6	26.9	33.7	43.0	51.6	64.5	80.6	75.0	82.0	75.0
Rotational inertia(kgcm ²)	0.094	0.092	0.091	0.091	0.094	0.092	0.092	0.091	0.091	0.091	0.091	0.091	0.092	0.092	0.092	0.091	0.091	0.091

●DB57-□-100-30S/(PLF60/PLE60)□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	4	5	7	10	16	20	25	28	35	40	50	70	80	100	125	140	175	200
Rated speed after gearbox(r/min)	750	600	429	300	188	150	120	107	86	75	60	43	38	30	24	21	17	15
Rated torque after gearbox(r/min)	1.2	1.5	2.1	3.1	4.8	6.0	7.5	8.4	10.5	12.0	14.9	20.9	22.9	28.7	35.8	37.5	41.0	37.5
Max.output torque(N.m)	3.7	4.6	6.4	9.2	14.3	17.9	22.4	25.1	31.4	35.9	44.8	62.8	68.8	75.0	82.0	75.0	82.0	75.0
Rotational inertia(kgcm ²)	0.094	0.092	0.091	0.091	0.094	0.092	0.092	0.091	0.091	0.091	0.091	0.091	0.092	0.092	0.092	0.091	0.091	0.091

●DB57-□-150-30S/(PLF60/PLE60)□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	4	5	7	10	16	20	25	28	35	40	50	70	80	100	125	140	175	200
Rated speed after gearbox(r/min)	750	600	429	300	188	150	120	107	86	75	60	43	38	30	24	21	17	15
Rated torque after gearbox(r/min)	1.8	2.3	3.2	4.6	7.2	9.0	11.2	12.6	15.7	18.0	22.4	31.4	34.4	37.5	41.0	37.5	41.0	37.5
Max.output torque(N.m)	5.5	6.9	9.6	13.8	21.5	26.9	33.7	37.7	47.1	53.9	66.0	43.0	75.0	75.0	82.0	75.0	82.0	75.0
Rotational inertia(kgcm ²)	0.094	0.092	0.091	0.091	0.094	0.092	0.092	0.091	0.091	0.091	0.091	0.091	0.092	0.092	0.092	0.091	0.091	0.091

60 DC brushless reduction motor

□ 57MM or 60MM



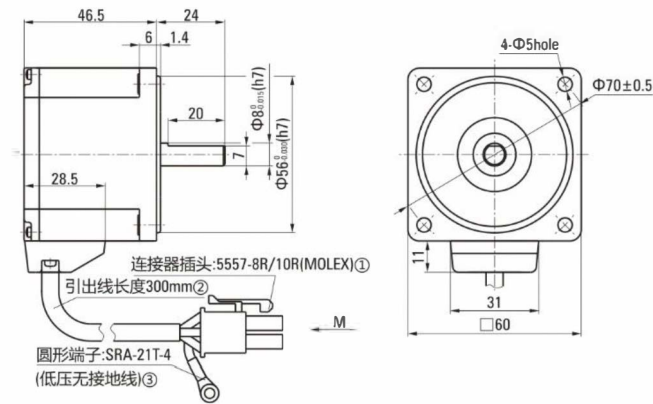
Basic Characteristics Of Motor

● 25W (DC电源时适用于24VDC/36VDC/48VDC) 25W (DC Power Supply When Applied To 24VDC/36VDC/48VDC)

额定功率(连续) Rated power(continuous)		W	25 (15W/25W)		
额定转速 Rated speed		r/min	2500		
额定转矩 Rated torque		N.m	0.096		
瞬时最大转矩 Instantaneous maximum torque		N.m	0.144		
转子转动惯量 Rotor moment of inertia		J: X10 ⁻⁴ kg.m ²	0.042		
速度控制范围 Speed control range		RPM	高压High pressure 200-2500RPM (低压Low pressure 200-3000RPM)		
速度变化率 Speed con. l range to	对负载 On load	±1.0%以下: 条件 0~额定转矩、额定转速、额定电压、常温 Below ±1%: condition 0~rated torque, rated speed, rated voltage, room temperature			
	对电压 On voltage	±1.0%以下: 条件 额定电压±10%、额定转速、额定负载、常温 Below ±1%: condition rated voltage ±10%, rated speed, rated load, room temperature			
	对温度 On temperature	±1.0%以下: 条件 使用环境温度0~+40°C 额定转速、额定负载、额定电压 Below ±1%: Conditions of ambient temperature 0~+40°C rated voltage, rated load and rated speed			
电源输入 Power input	额定电压 Rated voltage	V	单相Single phase 110V	单相Single phase 220V	24VDC(可选Optional 36VDC/48VDC)
	电压容许范围 Voltage tolerance range		±10%		
	频率 Frequency	Hz	50/60		/
	频率容许范围 Frequency tolerance range		±5%		/
	额定输入电流 Rated input current	A	1.0	0.6	1.7
	瞬时最大输入电流 Instantaneous maximum input current	A	2.0	1.2	2.6

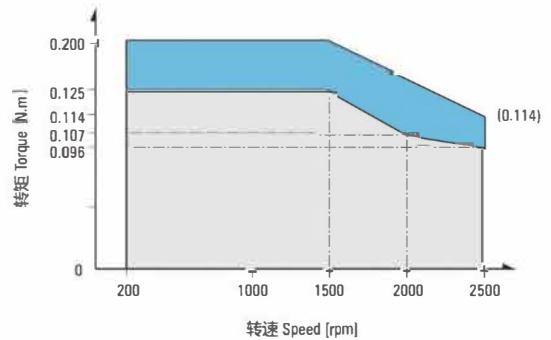
圆轴型光电机 Circular Shaft Type Optical Motor

● DB60-24-15-25S —电压 Voltage 24/36/48/110/220



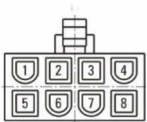
①Connector: 5557-8R/10R (MOLEX) ②The sheath length of lead line 300mm ③Round terminal: SRA-21T-4 (low ground)

● DB60-24-15-25S 曲线图 Diagram (标准驱动器 Standard Drive)



● 低压电机接线插孔对应信号说明

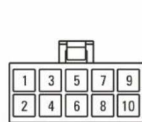
Low Voltage Wrie Plughole Corresp-onding Signal Explanation



plughole	1	2	3	4
signal	U	W	Hz	Hu
plughole	5	6	7	8
signal	V	GND	Hw	Vcc

● 高压电机接线插孔对应信号说明

High Voltage Wrie Plughole Corresp-onding Signal Explanation



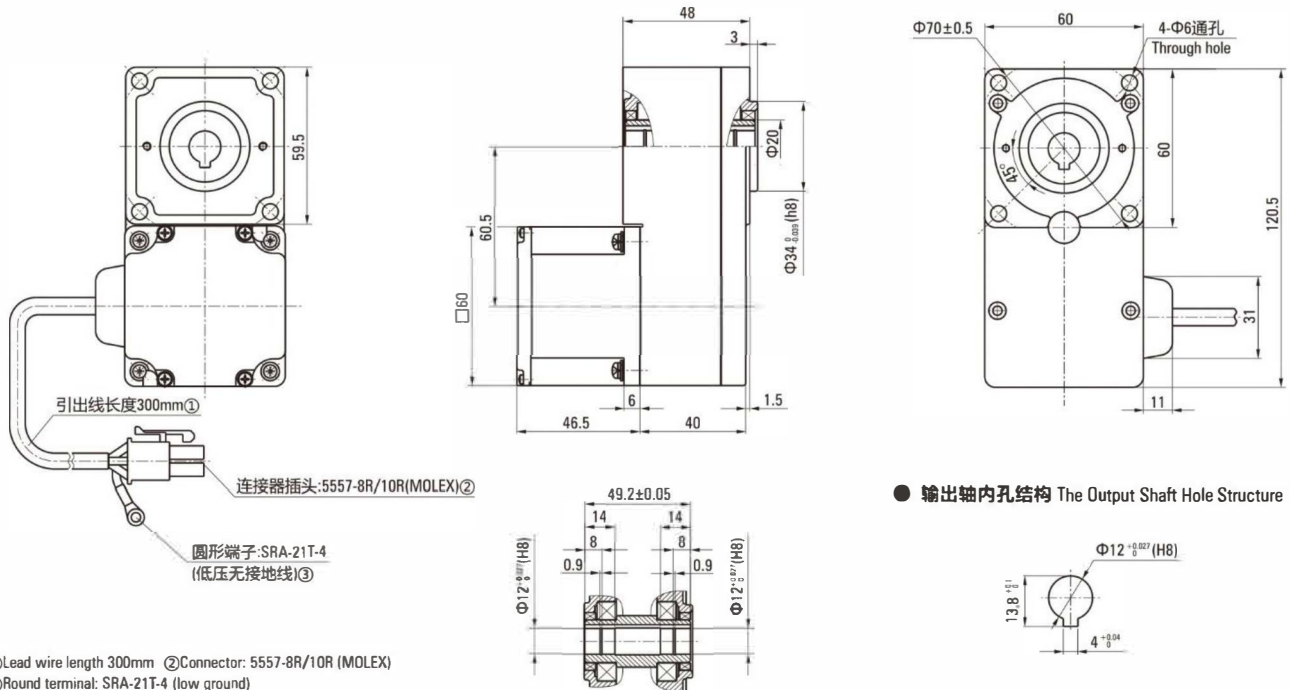
排线对应的意义									
1	2	3	4	5	6	7	8	9	10
蓝 (相)	黄 (相)	灰 (相)	绿 (相)	粉 (相)	棕 (相)		金属丝网	橙 (相)	白 (相)
W	Hu	U	Hv	V	Hw			Vcc+5V	GND

60 DC brushless reduction motor

□ 57MM or 60MM

L-type Reduction Motor

□ --电压Voltage 12/24/48/310 □ --速比数值Velocity Ratio Value



①Lead wire length 300mm ②Connector: 5557-8R/10R (MOLEX)
③Round terminal: SRA-21T-4 (low ground)

● DB60-□GN-15-25S-LC整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

电机轴转速 Motor Speed	减速比 Reduction Ratio	5	10	15	20	30	50	100	200
200~1500RPM		0.27	0.54	0.82	1.09	1.63	2.72	5.44	10.9
2000RPM		0.23	0.46	0.69	0.92	1.38	2.30	4.60	9.20
2500RPM		0.21	0.42	0.63	0.84	1.25	2.09	4.18	8.37

注Note : 表格中的所有速比旋转方向与电机转向相反。All gearbox output turn direction in form are opposite as motor turn direction.
(不同转速及速比下的力矩为标准驱动器下测试所得。The torque under different speed and speed ratio is obtained under the standard.)

● DB60-□GN-25-25S-LC整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

电机轴转速 Motor Speed	减速比 Reduction Ratio	5	10	15	20	30	50	100	200
200~1500RPM		0.50	1.00	1.51	2.01	2.72	4.53	9.06	16.4
2000RPM		0.43	0.85	1.28	1.70	2.30	3.83	7.67	13.9
2500RPM		0.39	0.77	1.16	1.55	2.09	3.49	6.97	12.6

注Note : 表格中的所有速比旋转方向与电机转向相反。All gearbox output turn direction in form are opposite as motor turn direction.
(不同转速及速比下的力矩为标准驱动器下测试所得。The torque under different speed and speed ratio is obtained under the standard.)

57 DC brushless reduction motor

57MM or 60MM

Worm Gear and Worm Reduction Motor

● Basic parameters

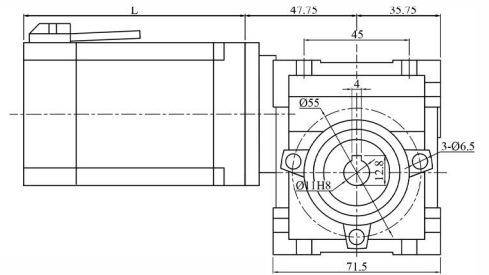
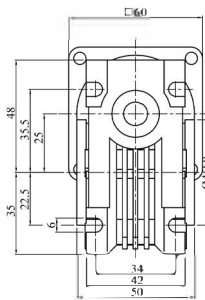
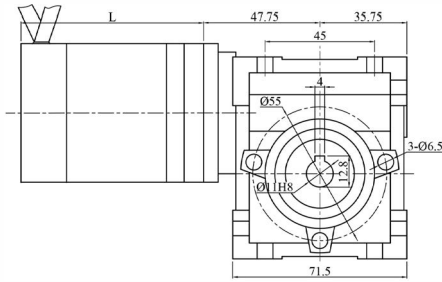
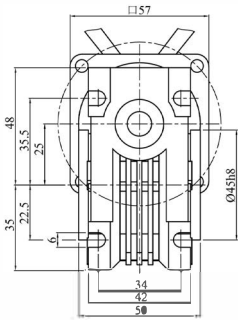
Motor power (W)	50	75	100
Motor length=L(mm)	75	95	115
Motor speed(r/min)	2000		



Gearbox type	Worm gear item	Gear ratio
Worm gearbox	RV020-	5, 7.5, 10, 15, 20, 30, 40, 50, 60
	RV030-	7.5, 10, 15, 20, 30, 40, 50, 60, 80

● 外形图(单位mm) DIMENSIONS(Unit mm)

减速器附有安装用螺丝 Mounting screws are included with gearhead



57mm bldc motor +RV025

60mm bldc motor+RV025

-电压Voltage 12/24/36/48/310 -速比数值Velocity Ratio Value

● DB57--50-20S/RV25/K 整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

gear ratio	7.5	10	15	20	30	40	50	60
Ratedspeed(rpm)	267	200	133	100	67	50	40	33
Ratedtorque (n.m)	1.1	1.5	2.2	2.9	4.3	5.7	7.2	8.6

● DB57--100-20S/RV25/K 整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

gear ratio	7.5	10	15	20	30	40	50	60
Ratedspeed(rpm)	267	200	133	100	67	50	40	33
Ratedtorque (n.m)	2.2	3	4.4	5.8	8.6	10	10	10

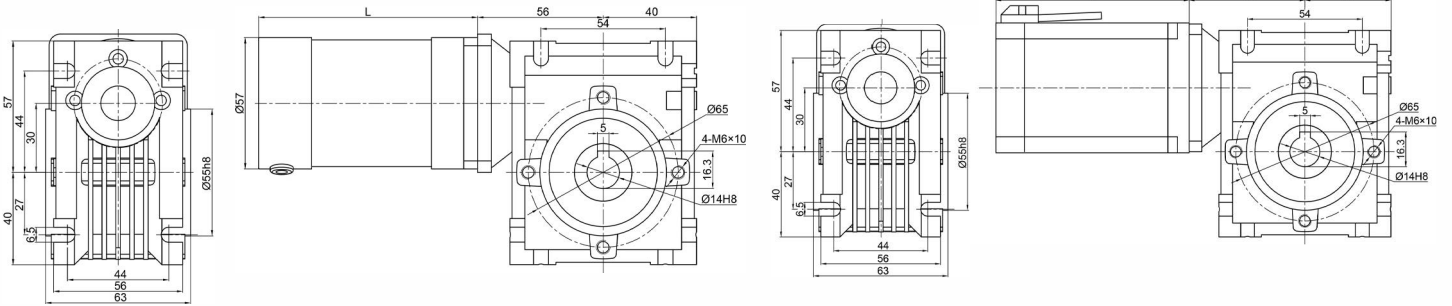
57 DC brushless reduction motor

□ 57MM or 60MM

Worm Gear and Worm Reduction Motor

●外形图(单位mm) DIMENSIONS(Unit mm)

减速器附有安装用螺丝 Mounting screws are included with gearhead



57mmbldc motor+Rv030 worm gearbox

60mmbldc motor+Rv030 worm gearbox

□-电压Voltage 12/24/36/48/310 □-速比数值Velocity Ratio Value

● DB57-□-100-20S/RV30 □K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

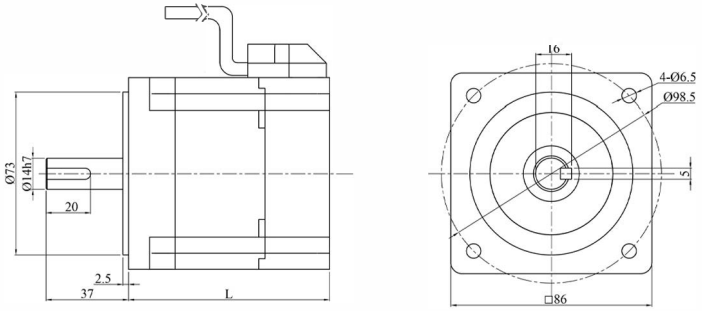
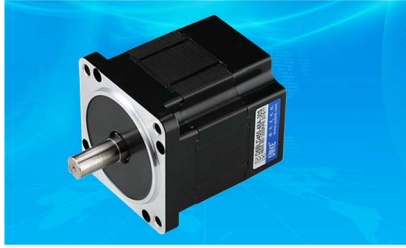
gear ratio	7.5	10	15	20	25	30	40	50	60	80
Ratedspeed(rpm)	267	200	133	100	80	67	50	40	33	25
Ratedtorque (n.m)	2.2	3	4.4	5.8	7.2	8.6	11.5	14.3	17	15

● DB60-□-200-20S/RV30 □K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

gear ratio	7.5	10	15	20	25	30	40	50	60	80
Ratedspeed(rpm)	267	200	133	100	80	67	50	40	33	25
Ratedtorque (n.m)	4.4	6	8.8	11.6	14.4	17.2	21	18	17	15

86series dc brushless motor

□ 86MM



Technical parameters

Unit:mm

Style number	Voltage(V)	Power(w)	no-load speed (rpm)	rated speed (rpm)	rated current (A)	rated torque (N.m)	peak torque (N.m)	no-load current (A)	motor length L(mm)	建议适配驱动器型号
DB86-12-90-30S	12	90	3300	3000	9.38	0.29	0.86	< 0.85	60	
DB86-24-90-30S	24	90	3300	3000	4.69	0.29	0.86	< 0.70	60	
DB86-36-90-30S	36	90	3300	3000	3.13	0.29	0.86	< 0.60	60	
DB86-48--90-30S	48	90	3300	3000	2.34	0.29	0.86	< 0.50	60	
DB86-310-90-30S	310	90	3300	3000	0.36	0.29	0.86	< 0.30	60	
DB86-12-150-30S	12	150	3300	3000	15.63	0.48	1.43	< 5.20	70	
DB86-24-150-30S	24	150	3300	3000	7.81	0.48	1.43	< 3.13	70	
DB86-36-150-30S	36	150	3300	3000	5.21	0.48	1.43	< 2.60	70	
DB86-48-150-30S	48	150	3300	3000	3.91	0.48	1.43	< 1.61	70	
DB86-310-150-30S	310	150	3300	3000	0.60	0.48	1.43	< 0.30	70	
DB86-12-200-30S	12	200	3300	3000	20.83	0.64	1.91	< 6.20	70	
DB86-24-200-30S	24	200	3300	3000	10.42	0.64	1.91	< 4.13	70	
DB86-36-200-30S	36	200	3300	3000	6.94	0.64	1.91	< 2.50	70	
DB86-48-200-30S	48	200	3300	3000	5.21	0.64	1.91	< 1.61	70	
DB86-310-20-30S	310	200	3300	3000	0.81	0.64	1.91	< 0.40	70	
DB86-12-300-30S	12	300	3300	3000	31.25	0.96	2.87	< 7.20	80	
DB86-24-30-30S	24	300	3300	3000	15.63	0.96	2.87	< 6.13	80	
DB86-36-30-30S	36	300	3300	3000	10.42	0.96	2.87	< 3.50	80	
DB86-48-300-30S	48	300	3300	3000	7.81	0.96	2.87	< 2.61	80	
DB86-310-30-30S	310	300	3300	3000	1.21	0.96	2.87	< 0.70	80	
DB86-12-450-30S	12	450	3300	3000	46.88	1.43	4.30	< 10.2	90	
DB86-24-450-30S	24	450	3300	3000	23.44	1.43	4.30	< 7.13	90	
DB86-36-450-30S	36	450	3300	3000	15.63	1.43	4.30	< 6.50	90	
DB86-48-450-30S	48	450	3300	3000	11.72	1.43	4.30	< 5.61	90	
DB86-310-450-30S	310	450	3300	3000	1.81	1.43	4.30	< 0.80	90	

备注：电机接口、电压、转速可按客户要求定制。Motor interface, Voltage, Speed can be customized.

86mm dc brushless motor

□ 86MM

DB86-24-550-30S	24	600	3300	3000	31.25	1.91	5.73	< 7.42	105	
DB86-36-550-30S	36	600	3300	3000	20.83	1.91	5.73	< 4.95	105	
DB86-48-550-30S	48	600	3300	3000	15.63	1.91	5.73	< 3.71	105	
DB86-310-550-30S	310	600	3300	3000	2.42	1.91	5.73	< 0.57	105	
DB86-24-750-30S	24	750	3300	3000	39.06	2.39	7.16	< 9.20	130	
DB86-36-750-30S	36	750	3300	3000	26.04	2.39	7.16	< 8.13	130	
DB86-48-750-30S	48	750	3300	3000	19.53	2.39	7.16	< 6.50	130	
DB86-310-750-30S	310	750	3300	3000	3.02	2.39	7.16	< 1.61	130	

备注：电机接口、电压、转速可按客户要求定制。Motor interface, Voltage, Speed can be customized.

86mm DC brushless reduction motor

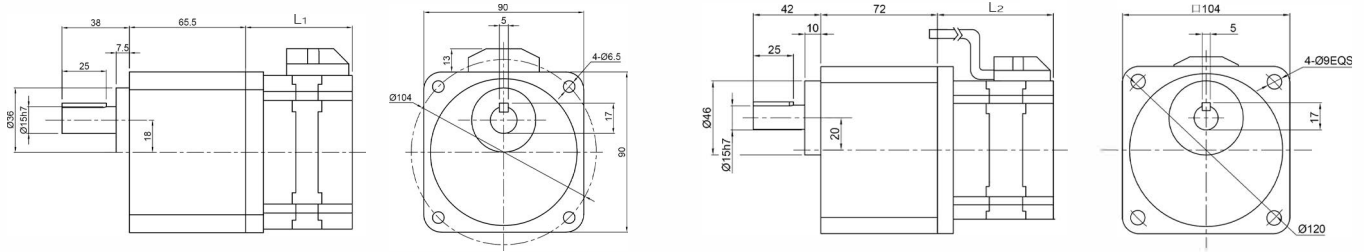
86MM



Parallel Shaft Speed Reducer

外形图(单位mm) DIMENSIONS(Unit mm)

减速器附有安装用螺丝 Mounting screws are included with gearhead



86mm bldc motor+5GU gearbox

86mm bldc motor+6GU gearbox

Motor parameters

Motor power(W)	90	150	200	300	450	550	750
Motor length=L1(mm)	55	60	65	75	85	95	125
Motor length=L2(mm)	62	67	72	82	92	102	127
Motor rated speed(r/min)	3000						

电压Voltage /12/24/36/310 速比数值Velocity Ratio Value

DB86-□GU-90-30S/ 5GU□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	5	7.5	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200	300*
Rated speed after gearbox(r/min)	1000	600	400	300	240	200	166.7	150	120	100	83.33	75	60	50	40	33.33	30	25	20	16.67	15	10
Rated torque after gearbox(N.m)	0.696	1.16	1.74	2.321	2.614	3.137	3.765	3.782	4.727	5.673	6.807	7.564	9.455	11.35	14.18	15.21	16.9	20	20	20	20	20
Rated torque after gearbox(kgf.cm)	6.962	11.6	17.4	23.21	26.14	31.37	37.65	37.82	47.27	56.73	68.07	75.64	94.55	113.5	141.8	152.1	169	200	200	200	200	200

DB86-□GU-150-30S/ 5GU□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	5	7.5	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200	300*
Rated speed after gearbox(r/min)	1000	600	400	300	240	200	166.7	150	120	100	83.33	75	60	50	40	33.33	30	25	20	16.67	15	10
Rated torque after gearbox(N.m)	1.16	1.934	2.901	3.868	4.357	5.229	6.274	6.303	7.879	9.455	11.35	12.61	15.76	18.91	20	20	20	20	20	20	20	20
Rated torque after gearbox(kgf.cm)	11.6	19.34	29.01	38.68	43.57	52.29	62.74	63.03	78.79	94.55	113.5	126.1	157.6	189.1	200	200	200	200	200	200	200	200

DB86-□GU-200-30S/ 5GU□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	5	7.5	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200	300*
Rated speed after gearbox(r/min)	1000	600	400	300	240	200	166.7	150	120	100	83.33	75	60	50	40	33.33	30	25	20	16.67	15	10
Rated torque after gearbox(N.m)	1.547	2.579	3.868	5.157	5.81	6.972	8.366	8.404	10.51	12.61	15.13	16.81	20	20	20	20	20	20	20	20	20	20
Rated torque after gearbox(kgf.cm)	15.47	25.79	38.68	51.57	58.1	69.72	83.66	84.04	105.1	126.1	151.3	168.1	200	200	200	200	200	200	200	200	200	200

DB86-□GU-300-30S/ 5GU□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	5	7.5	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200	300*
Rated speed after gearbox(r/min)	1000	600	400	300	240	200	166.7	150	120	100	83.33	75	60	50	40	33.33	30	25	20	16.67	15	10
Rated torque after gearbox(N.m)	2.321	3.868	5.802	7.736	8.714	10.46	12.55	12.61	15.76	18.91	20	20	20	20	20	20	20	20	20	20	20	20
Rated torque after gearbox(kgf.cm)	23.21	38.68	58.02	77.36	87.14	104.6	125.5	126.1	157.6	189.1	200	200	200	200	200	200	200	200	200	200	200	200

The color indicates the same direction of operation as the motor, while the others are in the opposite direction.

The speed is calculated by dividing the rated speed of the motor by the reduction ratio, and the actual speed will be reduced by about 2%-20% with the change of load size.

86mm DC brushless reduction motor



□ 86MM

Parallel Shaft Speed Reducer

□ 电压Voltage /12/24/36/48/310 □ 速比数值Velocity Ratio Value

● DB86-□GU-450-30S/ 5GU□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	5	7.5	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200	300*
Rated speed after gearbox(r/min)	1000	600	400	300	240	200	166.7	150	120	100	83.33	75	60	50	40	33.33	30	25	20	16.67	15	10
Rated torque after gearbox(N.m)	3.481	5.802	8.702	11.6	13.07	15.69	18.82	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Rated torque after gearbox(kgf.cm)	34.81	58.02	87.02	116	130.7	156.9	188.2	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200

● DB86-□GU-600-30S/ 5GU□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	5	7.5	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200	300*
Rated speed after gearbox(r/min)	1000	600	400	300	240	200	166.7	150	120	100	83.33	75	60	50	40	33.33	30	25	20	16.67	15	10
Rated torque after gearbox(N.m)	4.58	7.64	11.46	15.28	17.20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Rated torque after gearbox(kgf.cm)	45.8	76.4	114.6	152.8	172.0	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200

● DB86-□GU-750-30S/ 5GU□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	5	7.5	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200	300*
Rated speed after gearbox(r/min)	1000	600	400	300	240	200	166.7	150	120	100	83.33	75	60	50	40	33.33	30	25	20	16.67	15	10
Rated torque after gearbox(N.m)	5.802	9.669	14.5	19.34	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Rated torque after gearbox(kgf.cm)	58.02	96.69	145	193.4	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200

● DB86-□GU-90-30S/ 6GU□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	5	7.5	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200	300*
Rated speed after gearbox(r/min)	1000	600	400	300	240	200	166.7	150	120	100	83.33	75	60	50	40	33.33	30	25	20	16.67	15	10
Rated torque after gearbox(N.m)	0.696	1.16	1.74	2.321	2.614	3.137	3.765	3.782	4.727	5.673	6.807	7.564	9.455	11.35	14.18	17.02	18.91	22.69	28.36	34.04	37.82	40
Rated torque after gearbox(kgf.cm)	6.962	11.6	17.4	23.21	26.14	31.37	37.65	37.82	47.27	56.73	68.07	75.64	94.55	113.5	141.8	170.2	189.1	226.9	283.6	340.4	378.2	400

● DB86-□GU-150-30S/ 6GU□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	5	7.5	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200	300*
Rated speed after gearbox(r/min)	1000	600	400	300	240	200	166.7	150	120	100	83.33	75	60	50	40	33.33	30	25	20	16.67	15	10
Rated torque after gearbox(N.m)	1.16	1.934	2.901	3.868	4.357	5.229	6.274	6.303	7.879	9.455	11.35	12.61	15.76	18.91	23.64	28.36	31.52	37.82	40	40	40	40
Rated torque after gearbox(kgf.cm)	11.6	19.34	29.01	38.68	43.57	52.29	62.74	63.03	78.79	94.55	113.5	126.1	157.6	189.1	236.4	283.6	315.2	378.2	400	400	400	400

● DB86-□GU-200-30S/ 6GU□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	5	7.5	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200	300*
Rated speed after gearbox(r/min)	1000	600	400	300	240	200	166.7	150	120	100	83.33	75	60	50	40	33.33	30	25	20	16.67	15	10
Rated torque after gearbox(N.m)	1.547	2.579	3.868	5.157	5.81	6.972	8.366	8.404	10.51	12.61	15.13	16.81	21.01	25.21	31.52	37.82	40	40	40	40	40	40
Rated torque after gearbox(kgf.cm)	15.47	25.79	38.68	51.57	58.1	69.72	83.66	84.04	105.1	126.1	151.3	168.1	210.1	252.1	315.2	378.2	400	400	400	400	400	400

● The color indicates the same direction of operation as the motor, while the others are in the opposite direction.

The speed is calculated by dividing the rated speed of the motor by the reduction ratio, and the actual speed will be reduced by about 2%-20% with the change of load size.

86 DC brushless reduction motor

□ 86MM

Parallel Shaft Speed Reducer



□-电压Voltage /12/24/36/48/310 □-速比数值Velocity Ratio Value

● DB86-□GU-300-30S/ 6GU□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	5	7.5	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200	300*
Rated speed after gearbox(r/min)	1000	600	400	300	240	200	166.7	150	120	100	83.33	75	60	50	40	33.33	30	25	20	16.67	15	10
Rated torque after gearbox(N.m)	3.481	5.802	8.702	11.6	13.07	15.69	18.82	18.91	23.64	28.36	34.04	37.82	40	40	40	40	40	40	40	40	40	40
Rated torque after gearbox(kgf.cm)	34.81	58.02	87.02	116	130.7	156.9	188.2	189.1	236.4	283.6	340.4	378.2	400	400	400	400	400	400	400	400	400	400

● DB86-□GU-450-30S/ 6GU□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	5	7.5	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200	300*
Rated speed after gearbox(r/min)	1000	600	400	300	240	200	166.7	150	120	100	83.33	75	60	50	40	33.33	30	25	20	16.67	15	10
Rated torque after gearbox(N.m)	2.321	3.868	5.802	7.736	8.714	10.46	12.55	12.61	15.76	18.91	22.69	25.21	31.52	37.82	40	40	40	40	40	40	40	40
Rated torque after gearbox(kgf.cm)	23.21	38.68	58.02	77.36	87.14	104.6	125.5	126.1	157.6	189.1	226.9	252.1	315.2	378.2	400	400	400	400	400	400	400	400

● DB86-□GU-600-30S/ 6GU□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	5	7.5	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200	300*
Rated speed after gearbox(r/min)	1000	600	400	300	240	200	166.7	150	120	100	83.33	75	60	50	40	33.33	30	25	20	16.67	15	10
Rated torque after gearbox(N.m)	4.58	7.64	11.46	15.28	17.20	20.63	24.75	27.50	34.38	40	40	40	40	40	40	40	40	40	40	40	40	40
Rated torque after gearbox(kgf.cm)	45.8	76.4	114.6	152.8	172.0	206.3	247.5	275.0	343.8	400	400	400	400	400	400	400	400	400	400	400	400	400

● DB86-□GU-750-30S/ 6GU□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	5	7.5	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200	300*
Rated speed after gearbox(r/min)	1000	600	400	300	240	200	166.7	150	120	100	83.33	75	60	50	40	33.33	30	25	20	16.67	15	10
Rated torque after gearbox(N.m)	5.802	9.669	14.5	19.34	21.79	26.14	31.37	31.52	39.39	40	40	40	40	40	40	40	40	40	40	40	40	40
Rated torque after gearbox(kgf.cm)	58.02	96.69	145	193.4	217.9	261.4	313.7	315.2	393.9	400	400	400	400	400	400	400	400	400	400	400	400	400

● The color indicates the same direction of operation as the motor, while the others are in the opposite direction.

The speed is calculated by dividing the rated speed of the motor by the reduction ratio, and the actual speed will be reduced by about 2%-20% with the change of load size.

86 DC brushless reduction motor

□ 86MM

Brushless planetary gear motor

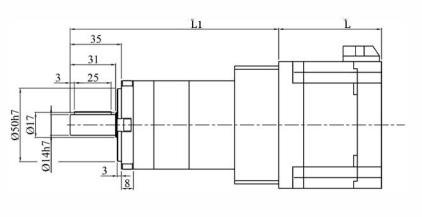
● 60行星减速机参数表 Reducer Parameter Table



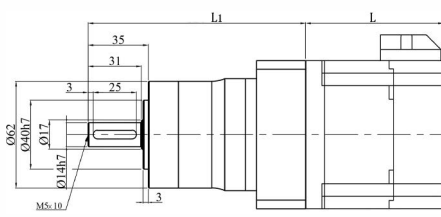
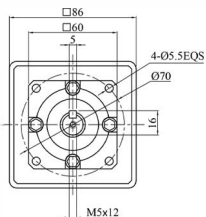
Gearbox type	PLF060			PLE060		
Gearbox stage	1	2	3	1	2	3
Gearbox length L1(mm)	126	142	158	126	142	158
Gear ratio	1 stage	3, 4, 5, 7, 10				
	2 stage	16, 20, 25, 28, 35, 40, 70				
	3 stage	64, 80, 100, 125, 140, 175, 200, 250				

● DIMENSIONS(Unit mm)

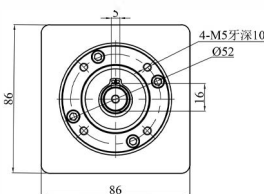
减速机附有安装用螺丝 Mounting screws are included with gearhead



86mm bldc motor+PLF060



86mm bldc motor+PLE060



The speed is calculated by dividing the rated speed of the motor by the reduction ratio, and the actual speed will be reduced by 2%-20% depending on the load.

□ 电压 Voltage 36/48/72/310 □ 速比数值 Velocity Ratio Value

● DB86-□-90-30S/(PLF60、PLE60) □ K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	4	5	7	10	16	20	25	28	35	40	50	70	80	100	125	140	175	200	250
Rated speed after gearbox(r/min)	750	600	429	300	188	150	120	107	86	75	60	43	38	30	24	21	17	15	12
Rated torque after gearbox(N.m)	1	1.3	1.8	2.6	4.1	5.1	6.5	7.3	9.1	10.5	13	18.3	21	26.1	32.6	37.5	41	37.5	41
Max.output torque(N.m)	3.3	4.1	5.8	8.3	12.9	16.2	20.2	22.6	28.3	32.3	40.4	43.0	61.9	64.5	80.6	75.0	82.0	75.0	82.0
Rotational inertia(kgcm ²)	0.094	0.092	0.091	0.091	0.094	0.092	0.092	0.091	0.091	0.091	0.091	0.091	0.091	0.092	0.092	0.091	0.091	0.091	0.091

● DB86-□-150-30S/(PLF60、PLE60) □ K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	4	5	7	10	16	20	25	28	35	40	50	70	80	100	125	140	175	200	250
Rated speed after gearbox(r/min)	750	600	429	300	188	150	120	107	86	75	60	43	38	30	24	21	17	15	12
Rated torque after gearbox(N.m)	1.8	2.3	3.2	4.6	7.2	8.7	11	12.2	15.2	17.3	21.6	21.5	34.5	37.5	41	37.5	41	37.5	41
Max.output torque(N.m)	7.3	9.2	12.8	17.0	28.7	35.9	44.9	50.3	62.9	60.0	66.0	43.0	75.0	75.0	82.0	75.0	82.0	75.0	82.0
Rotational inertia(kgcm ²)	0.094	0.092	0.091	0.091	0.094	0.092	0.092	0.091	0.091	0.091	0.091	0.091	0.091	0.092	0.092	0.091	0.091	0.091	0.091

● DB86-□-200-30S/(PLF60、PLE60) □ K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	4	5	7	10	16	20	25	28	35	40	50	70	80	100	125	140	175	200	250
Rated speed after gearbox(r/min)	750	600	429	300	188	150	120	107	86	75	60	43	38	30	24	21	17	15	12
Rated torque after gearbox(N.m)	2.4	3.1	4.3	6.1	9.6	12.0	15.0	16.8	21.0	24.0	29.9	21.5	37.5	37.5	41.0	37.5	41.0	37.5	41.0
Max.output torque(N.m)	7.3	9.2	12.8	17.0	28.7	35.9	44.9	50.3	62.9	60.0	66.0	43.0	75.0	75.0	82.0	75.0	82.0	75.0	82.0
Rotational inertia(kgcm ²)	0.094	0.092	0.091	0.091	0.094	0.092	0.092	0.091	0.091	0.091	0.091	0.091	0.091	0.092	0.092	0.091	0.091	0.091	0.091

86 DC brushless gear motor

86MM

The speed is calculated by dividing the rated speed of the motor by the reduction ratio, and the actual speed will be reduced by 2%-20% depending on the load.

□-电压Voltage 36/48/72/310 □-速比值Velocity Ratio Value

●DB86-□-300-30S/(PLF60、PLE60)□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	4	5	7	10	16	20	25	28	35	40	50	70	80	100	125	140	175	200	250
Rated speed after gearbox(r/min)	750	600	429	300	188	150	120	107	86	75	60	43	38	30	24	21	17	15	12
Rated torque after gearbox(N.m)	3.7	4.6	6.4	8.5	14.4	18.0	22.4	25.1	31.4	30.0	33.0	21.5	37.5	37.5	41.0	37.5	41.0	37.5	41.0
Max.output torque(N.m)	11.0	13.8	19.3	17.0	43.1	53.9	66.0	60.0	66.0	60.0	66.0	43.0	75.0	75.0	82.0	75.0	82.0	75.0	82.0
Rotational inertia(kgcm ²)	0.094	0.092	0.091	0.091	0.094	0.092	0.092	0.091	0.091	0.091	0.091	0.091	0.092	0.092	0.092	0.091	0.091	0.091	0.091

●DB86-□-450-30S/(PLF60、PLE60)□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	4	5	7	10	16	20	25	28	35	40	50	70	80	100	125	140	175	200	250
Rated speed after gearbox(r/min)	750	600	429	300	188	150	120	107	86	75	60	43	38	30	24	21	17	15	12
Rated torque after gearbox(N.m)	5.5	6.9	9.6	8.5	21.5	26.9	33.0	30.0	33.0	30.0	33.0	21.5	37.5	37.5	41.0	37.5	41.0	37.5	41.0
Max.output torque(N.m)	16.5	20.6	28.9	17.0	60.0	60.0	66.0	60.0	66.0	60.0	66.0	43.0	75.0	75.0	82.0	75.0	82.0	75.0	82.0
Rotational inertia(kgcm ²)	0.094	0.092	0.091	0.091	0.094	0.092	0.092	0.091	0.091	0.091	0.091	0.091	0.092	0.092	0.092	0.091	0.091	0.091	0.091

Brushless planetary gear motor

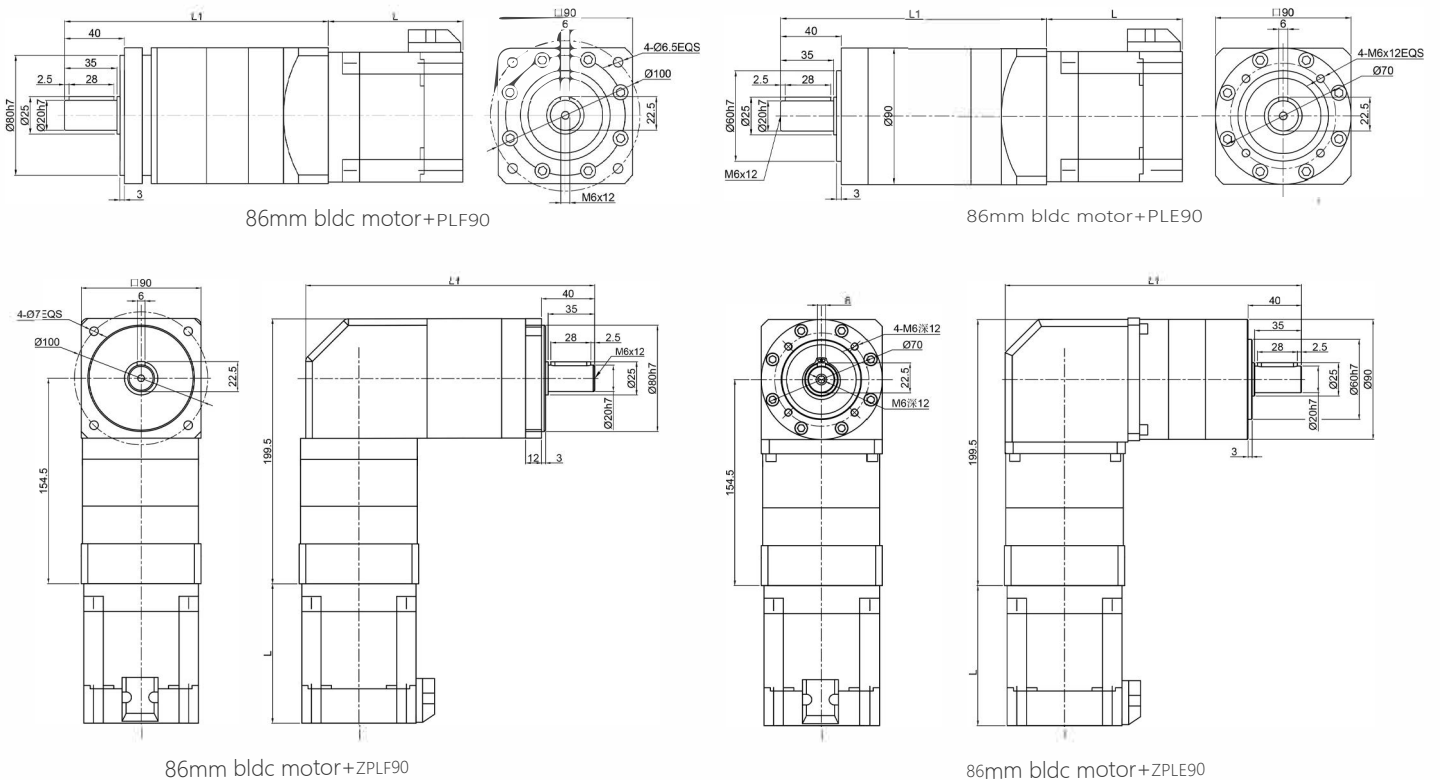
●90行星减速机参数表Reducer Parameter Table

Gearbox type	PLF090			PLE090			ZPLF090			ZPLE090		
	1	2	3	1	2	3	1	2	3	1	2	3
Gearbox stage	1	2	3	1	2	3	1	2	3	1	2	3
Gearbox length L1(mm)	153	176.5	199.5	153	176.5	199.5	187.5	222	245.5	187.5	222	245.5
Gear ratio	1 stage 3, 4, 5, 7, 10											
	2 stage 16, 20, 25, 28, 35, 40, 70											
	3 stage 64, 80, 100, 125, 140, 175, 200, 250											



●外形图(单位mm) DIMENSIONS(Unit mm)

减速机附有安装用螺丝 Mounting screws are included with gearhead



86 DC brushless gear motor

86MM

The speed is calculated by dividing the rated speed of the motor by the reduction ratio, and the actual speed will be reduced by 2%-20% depending on the load.

-电压Voltage 36/48/72/310 -速比数值Velocity Ratio Value

● DB86--90-30S/(PLF90、PLE90、ZPLF90、ZPLE90)K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	4	5	7	10	16	20	25	28	35	40	50	70	80	100	125	140	175	200	250
Rated speed after gearbox(r/min)	750	600	429	300	188	150	120	107	86	75	60	43	38	30	24	21	17	15	12
Rated torque after gearbox(N.m)	1	1	2	3	4	5	7	8	9	11	13	19	21	26	32	36	45	52	64
Max.output torque(N.m)	3.3	4.1	5.8	8.3	12.9	16.2	20.2	22.6	28.3	32.3	40.4	56.6	61.9	77.4	96.7	108.3	135.4	154.7	193.4
Rotational inertia(kgcm ²)	0.4	0.31	0.29	0.28	0.29	0.29	0.29	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.29	0.29	0.28	0.28

● DB86--150-30S/(PLF90、PLE90、ZPLF90、ZPLE90)K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	4	5	7	10	16	20	25	28	35	40	50	70	80	100	125	140	175	200	250
Rated speed after gearbox(r/min)	750	600	429	300	188	150	120	107	86	75	60	43	38	30	24	21	17	15	12
Rated torque after gearbox(N.m)	1.8	2.3	3.2	4.6	7.2	9.0	11.2	12.6	15.7	18.0	22.4	31.4	34.4	43.0	53.7	60.2	75.2	86.0	107.4
Max.output torque(N.m)	5.5	6.9	9.6	13.8	21.5	26.9	33.7	37.7	47.1	53.9	67.3	94.3	103.1	128.9	161.2	180.5	225.6	240.0	264.0
Rotational inertia(kgcm ²)	0.4	0.31	0.29	0.28	0.29	0.29	0.29	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.29	0.29	0.28	0.28

● DB86--200-30S/(PLF90、PLE90、ZPLF90、ZPLE90)K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	4	5	7	10	16	20	25	28	35	40	50	70	80	100	125	140	175	200	250
Rated speed after gearbox(r/min)	750	600	429	300	188	150	120	107	86	75	60	43	38	30	24	21	17	15	12
Rated torque after gearbox(N.m)	2.4	3.1	4.3	6.1	9.8	12.2	15.3	17.1	21.4	24.5	29.9	41.9	47.9	59.9	74.8	83.8	104.8	119.8	149.7
Max.output torque(N.m)	7.3	9.2	12.8	18.3	29.4	36.7	45.9	51.4	64.2	73.4	89.8	125.7	143.7	179.6	224.5	240.0	264.0	240.0	264.0
Rotational inertia(kgcm ²)	0.4	0.31	0.29	0.28	0.29	0.29	0.29	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.29	0.29	0.28	0.28

● DB86--300-30S/(PLF90、PLE90、ZPLF90、ZPLE90)K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	4	5	7	10	16	20	25	28	35	40	50	70	80	100	125	140	175	200	250
Rated speed after gearbox(r/min)	750	600	429	300	188	150	120	107	86	75	60	43	38	30	24	21	17	15	12
Rated torque after gearbox(N.m)	3.7	4.6	6.4	9.2	14.4	18.0	22.4	25.1	31.4	35.9	44.9	62.8	71.8	89.8	109.8	123.0	153.8	175.7	219.7
Max.output torque(N.m)	11.0	13.8	19.3	17.0	43.1	53.9	67.3	75.4	94.3	107.7	134.7	143.0	215.4	240.0	264.0	240.0	264.0	240.0	264.0
Rotational inertia(kgcm ²)	0.4	0.31	0.29	0.28	0.29	0.29	0.29	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.29	0.29	0.28	0.28

● DB86--450-30S/(PLF90、PLE90、ZPLF90、ZPLE90)K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	4	5	7	10	16	20	25	28	35	40	50	70	80	100	125	140	175	200	250
Rated speed after gearbox(r/min)	750	600	429	300	188	150	120	107	86	75	60	43	38	30	24	21	17	15	12
Rated torque after gearbox(N.m)	5.5	6.9	9.6	13.8	22.0	27.5	34.4	38.5	48.1	55.0	67.4	94.4	107.9	134.9	168.6	188.8	236.1	240.0	264.0
Max.output torque(N.m)	16.5	20.6	28.9	41.3	66.0	82.5	103.1	115.5	144.4	165.0	202.3	143.0	240.0	240.0	264.0	240.0	264.0	240.0	264.0
Rotational inertia(kgcm ²)	0.4	0.31	0.29	0.28	0.29	0.29	0.29	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.29	0.29	0.28	0.28

86 DC brushless gear motor

86MM

The speed is calculated by dividing the rated speed of the motor by the reduction ratio, and the actual speed will be reduced by 2%-20% depending on the load.

-电压Voltage 36/48/72/310 -速比数值Velocity Ratio Value

● DB86--600-30S/(PLF90、PLE90、ZPLF9、ZPLE90) K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	4	5	7	10	16	20	25	28	35	40	50	70	80	100	125	140	175	200	250
Rated speed after gearbox(r/min)	750	600	429	300	188	150	120	107	86	75	60	43	38	30	24	21	17	15	12
Rated torque after gearbox(N.m)	6.9	8.6	12	17.2	27.5	34.4	43	48	60.2	68.8	86	71.5	120	120	132.5	120	132.5	120	132.5
Max.output torque(N.m)	20.7	25.8	36	51.6	82.5	103.2	129	144	180.6	206.4	258	214.5	360	360	397.5	360	397.5	360	397.5
Rotational inertia(kgcm ²)	0.4	0.31	0.29	0.28	0.29	0.29	0.29	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.29	0.29	0.28	0.28

● DB86--750-30S/(PLF90、PLE90、ZPLF9、ZPLE90) K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	4	5	7	10	16	20	25	28	35	40	50	70	80	100	125	140	175	200	250
Rated speed after gearbox(r/min)	750	600	429	300	188	150	120	107	86	75	60	43	38	30	24	21	17	15	12
Rated torque after gearbox(N.m)	9.2	11.5	16.0	22.9	35.9	44.9	56.1	62.8	78.5	89.8	112.2	143.0	179.5	219.7	264.0	240.0	264.0	240.0	264.0
Max.output torque(N.m)	27.5	34.4	48.1	68.8	107.7	134.7	168.3	188.5	211.0	192.0	211.0	143.0	240.0	240.0	264.0	240.0	264.0	240.0	264.0
Rotational inertia(kgcm ²)	0.4	0.31	0.29	0.28	0.29	0.29	0.29	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.29	0.29	0.28	0.28

80 DC brushless gear motor

□ 80MM



Basic Characteristics Of Motor

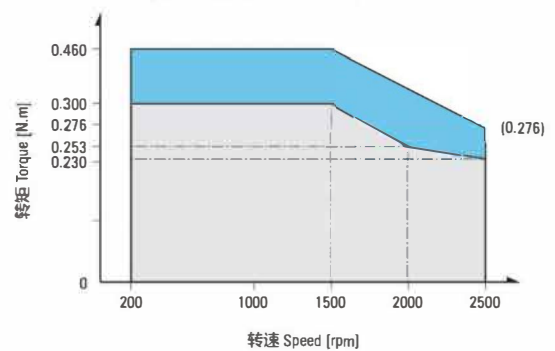
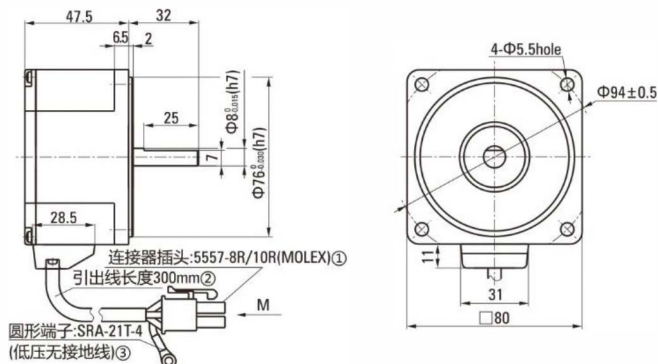
● 60W (DC电源时适用于24VDC/36VDC/48VDC) 60W (DC Power Supply When Applied To 24VDC/36VDC/48VDC)

额定功率(连续) Rated power (continuous)	W	60 (40W/60W)			
额定转速 Rated speed	r/min	2500			
额定转矩 Rated torque	N.m	0.230			
瞬时最大转矩 Instantaneous maximum torque	N.m	0.345			
转子转动惯量 Rotor moment of inertia	J: 10^{-4}kg.m^2	0.082			
速度控制范围 Speed control range	RPM	高压 High pressure 200-2500RPM (低压 Low pressure 200-3000RPM)			
速率变化率 Speed control range	对负载 On load	±1.0%以下: 条件 0~额定转矩、额定转速、额定电压、常温 Below ±1%: condition 0~rated torque, rated speed, rated voltage, room temperature			
	对电压 On voltage	±1.0%以下: 条件 额定电压±10%、额定转速、额定负载、常温 Below ±1%: condition rated voltage ±10%, rated speed, rated load, room temperature			
	对温度 On temperature	±1.0%以下: 条件 使用环境温度 0~+40°C 额定转速、额定负载、额定电压 Below ±1%: Conditions of ambient temperature 0~+40°C rated voltage, rated load and rated speed			
电源输入 Power input	额定电压 Rated voltage	V	单相 Single phase 110V	单相 Single phase 220V 24VDC (可选 Optional 36VDC/48VDC)	
	电压容许范围 Voltage tolerance range		±10%		
	频率 Frequency	Hz	50/60	/	
	频率容许范围 Frequency tolerance range		±5%	/	
	额定输入电流 Rated input current	A	1.7	1.0	3.7
	瞬时最大输入电流 Instantaneous maximum input current	A	3.3	1.9	5.6

圆轴型光电机 Circular Shaft Type Optical Motor

● DB80-24-60-25S 一电压 Voltage 24/36/48/110/220

● DB80-24-60-25S 曲线图 Diagram
(标准驱动器 Standard Drive)



① Connector: 5557-8R/10R (MOLEX) ② The sheath length of lead line 300mm ③ Round terminal: SRA-21T-4 (low ground)

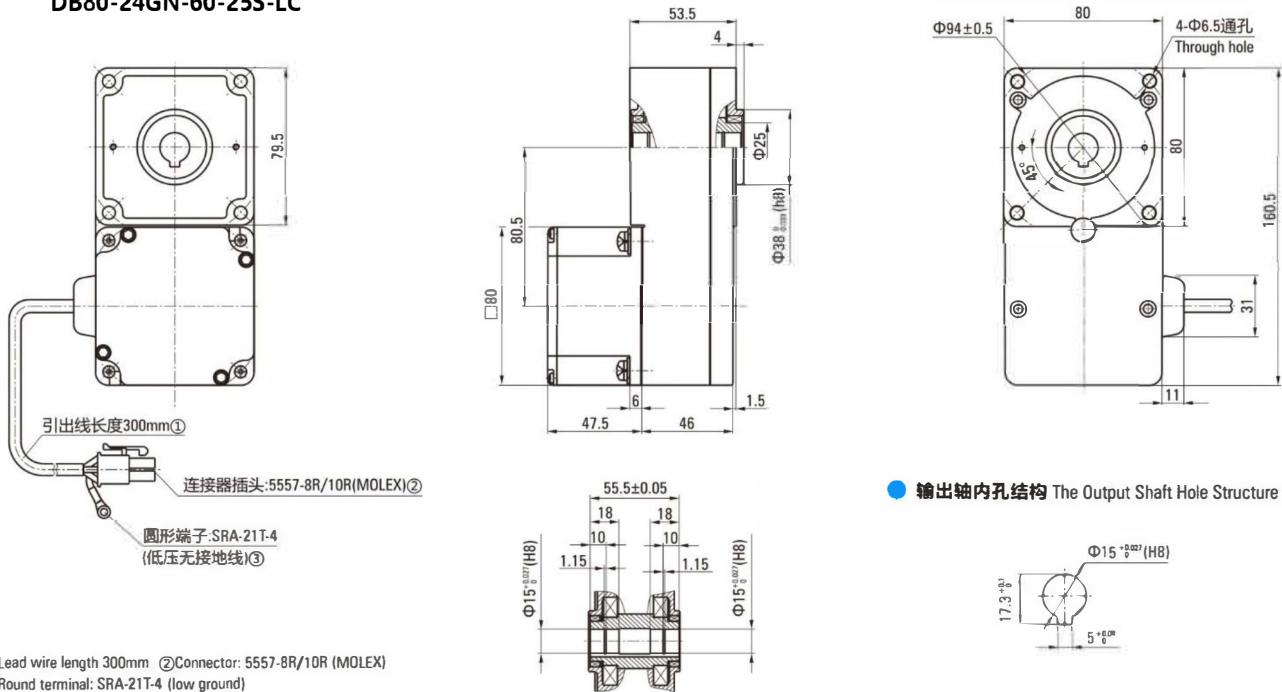
80 DC brushless gear motor

□ 80MM

L型减速电机 L-type Reduction Motor

□ --电压 Voltage 12/24/48/310 □ --速比数值 Velocity Ratio Value

DB80-24GN-60-25S-LC



①Lead wire length 300mm ②Connector: 5557-8R/10R (MOLEX)
③Round terminal: SRA-21T-4 (low ground)

● DB80-□GN-40-25S-4GN□LC整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

电机轴转速 Motor Speed	减速比 Reduction Ratio	5	10	15	20	30	50	100	200
200~1500RPM		0.73	1.45	2.18	2.90	4.35	7.25	14.5	29.0
2000RPM		0.61	1.23	1.84	2.45	3.68	6.13	12.3	24.5
2500RPM		0.56	1.12	1.67	2.23	3.35	5.58	11.2	22.3

● DB80-□GN-60-25S-4GN□LC整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

电机轴转速 Motor Speed	减速比 Reduction Ratio	5	10	15	20	30	50	100	200
200~1500RPM		1.21	2.41	3.62	4.83	6.53	10.9	21.8	39.3
2000RPM		1.02	2.04	3.06	4.08	5.52	9.20	18.4	33.3
2500RPM		0.93	1.86	2.78	3.71	5.02	8.37	16.7	30.3

注Note: 表格中的所有速比旋转方向与电机转向相反。All gearbox output turn direction in form are opposite as motor turn direction.
(不同转速及速比下的力矩为标准驱动器下测试所得。The torque under different speed and speed ratio is obtained under the standard.)

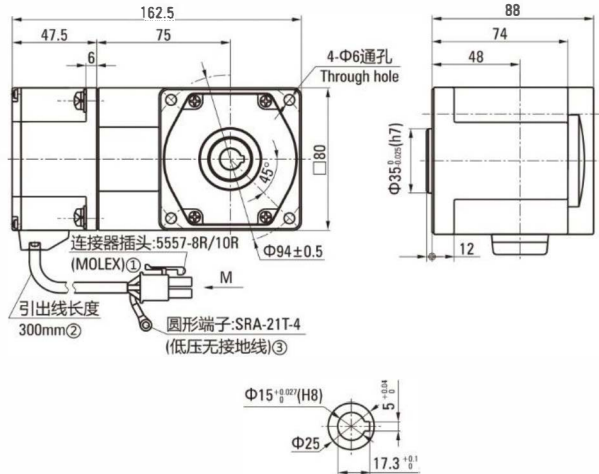
80 DC brushless gear motor

□ 80MM

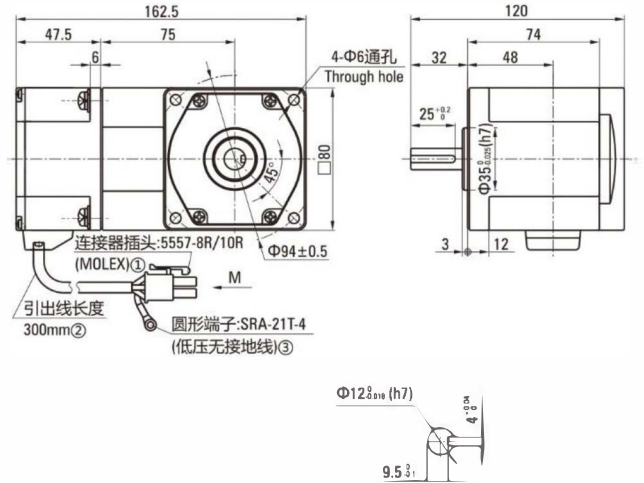
■ 弧锥直角减速机 Arc Cone Right Angle Speed Reducer Motor

□ --电压Voltage 12/24/48/310 □ --速比数值Velocity Ratio Value

DB80-24GN-60-25S-4GN□RC



DB80-24GN-60-25S-4GN□RT



● DB80-□GN-40-25S-4GN□RC/RT整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

型号 Model	电机轴转速 Motor Speed	减速比 Reduction Ratio																	
		7.5	9	10	12.5	15	18	20	25	30	36	50	60	75	90	100	120	150	180
D4BLD40-□GN	200~1500RPM	1.21	1.45	1.61	2.01	2.41	2.90	2.90	3.63	4.35	5.22	7.25	7.87	8.00	8.00	8.00	8.00	8.00	8.00
	2000RPM	1.02	1.23	1.36	1.70	2.04	2.45	2.45	3.07	3.68	4.42	6.13	6.66	8.00	8.00	8.00	8.00	8.00	8.00
	2500RPM	0.93	1.11	1.24	1.55	1.86	2.23	2.23	2.79	3.35	4.02	5.58	6.05	7.56	8.00	8.00	8.00	8.00	8.00

● DB80-□GN-60-25S-4GN□RC/RT整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

型号 Model	电机轴转速 Motor Speed	减速比 Reduction Ratio																	
		7.5	9	10	12.5	15	18	20	25	30	36	50	60	75	90	100	120	150	180
D4BLD60-□GN	200~1500RPM	1.81	2.17	2.41	3.02	3.62	4.34	4.35	5.44	6.53	7.83	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
	2000RPM	1.53	1.84	2.04	2.55	3.06	3.68	3.68	4.60	5.52	6.63	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
	2500RPM	1.39	1.67	1.86	2.32	2.78	3.34	3.35	4.18	5.02	6.02	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00

注Note: 表格中的 (灰底部分) 表示旋转方向与电机转向一致。The (gray) in the table indicates that the rotation direction is consistent with the motor. (不同转速及速比下的力矩为标准驱动器下测试所得。The torque under different speed and speed ratio is obtained under the standard.)

86 DC brushless worm gear motor

□ 86MM

Worm Gear and Worm gear Motor

基本参数 Basic parameters

motor power(W)	90	150	200	300	450	600	750
motor length L(mm)	65	80	80	90	130	130	130
motor rated speed(r/min)	2000						

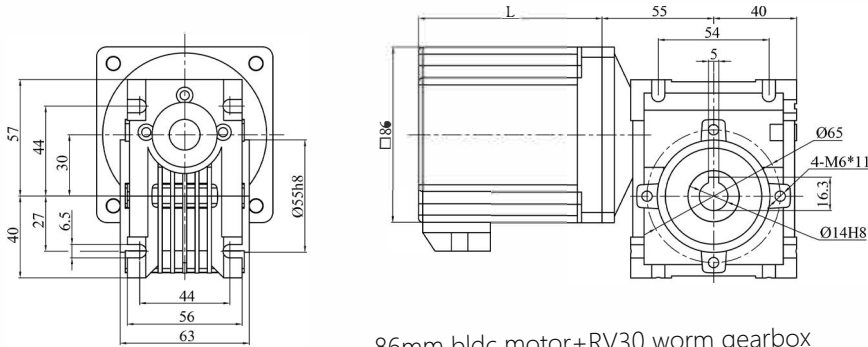


	Worm gear type	gear ratio
worm gearbox	RV030-□	7.5、10、15、20、25、30、40、50、60、80
	RV040-□	7.5、10、15、20、25、30、40、50、60、80、100
	RV050-□	7.5、10、15、20、25、30、40、50、60、80、100
	RV063-□	7.5、10、15、20、25、30、40、50、60、80、100

The □ is the gear ratio for the worm gearbox

外形图(单位mm) DIMENSIONS(Unit mm)

减速器附有安装用螺丝 Mounting screws are included with gearhead



86mm bldc motor+RV30 worm gearbox

□-电压Voltage 12/24/36/48/310 □-速比数值Velocity Ratio Value

DB86-□-90-20S/RV30□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

gear ratio	7.5	10	15	20	25	30	40	50	60	80
rated speed after gearbox(r/min)	267	200	133	100	80	67	50	40	33	25
rated torque after gearbox(N.m)	1.93	2.58	3.87	5.16	6.45	7.74	10.32	12.9	15.48	13

DB86-□-150-20S/RV30□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

gear ratio	7.5	10	15	20	25	30	40	50	60	80
rated speed after gearbox(r/min)	267	200	133	100	80	67	50	40	33	25
rated torque after gearbox(N.m)	3.24	4.32	6.48	8.64	10.8	12.96	17.28	17	16	13

DB86-□-200-20S/RV30□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

gear ratio	7.5	10	15	20	25	30	40	50	60	80
rated speed after gearbox(r/min)	267	200	133	100	80	67	50	40	33	25
rated torque after gearbox(N.m)	4.30	5.76	8.64	11.52	14.4	17.28	18	17	16	13

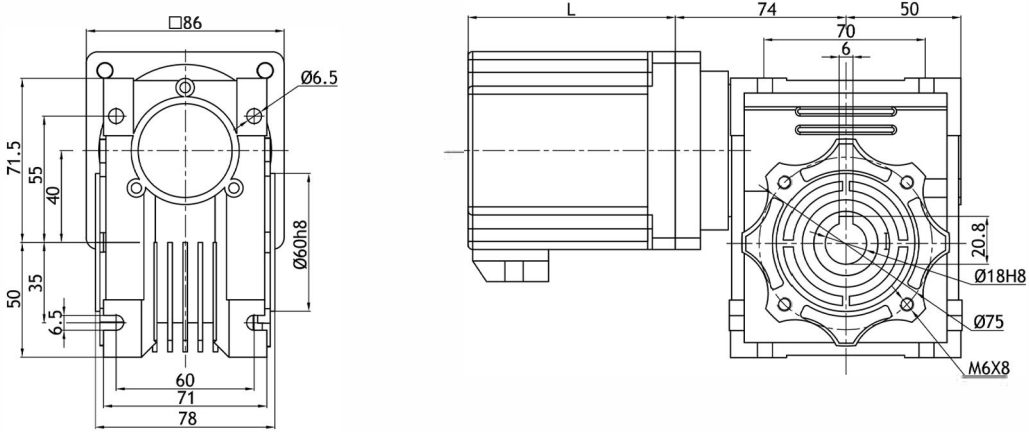
86 DC brushless worm gear motor

□ 86MM

Worm Gearbox and Worm gear Motor

● 外形图(单位mm) DIMENSIONS(Unit mm)

减速器附有安装用螺丝 Mounting screws are included with gearhead



86mm bldc motor+RV040

□ -电压Voltage 12/24/36/48/310 □ -速比数值Velocity Ratio Value

● DB86-□-300-20S/RV40 □ K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

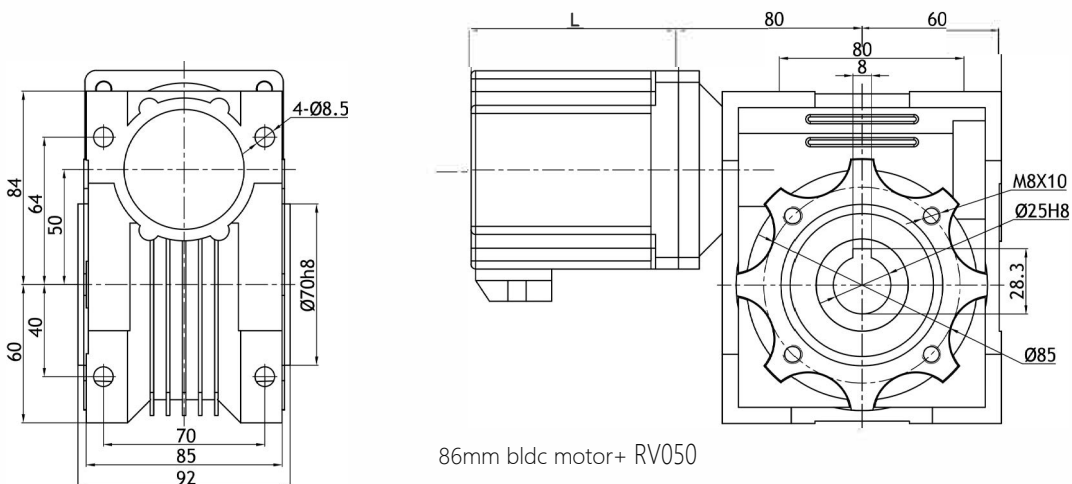
gear ratio	7.5	10	15	20	25	30	40	50	60	80	100
rated speed after gearbox(r/min)	267	200	133	100	80	67	50	40	33	25	20
rated torque after gearbox(N.m)	4.30	5.76	8.64	11.52	14.4	17.28	23	28.8	34.56	33	29

● DB86-□-450-20S/RV40 □ K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

gear ratio	7.5	10	15	20	25	30	40	50	60	80	100
rated speed after gearbox(r/min)	267	200	133	100	80	67	50	40	33	25	20
rated torque after gearbox(N.m)	9.68	12.9	19.35	25.8	32.25	38.7	41	39	36	33	29

● 外形图(单位mm) DIMENSIONS(Unit mm)

减速器附有安装用螺丝 Mounting screws are included with gearhead



86mm bldc motor+ RV050

86mm DC brushless worm gear motor

□ 86MM

Worm Gearbox and Worm gear Motor

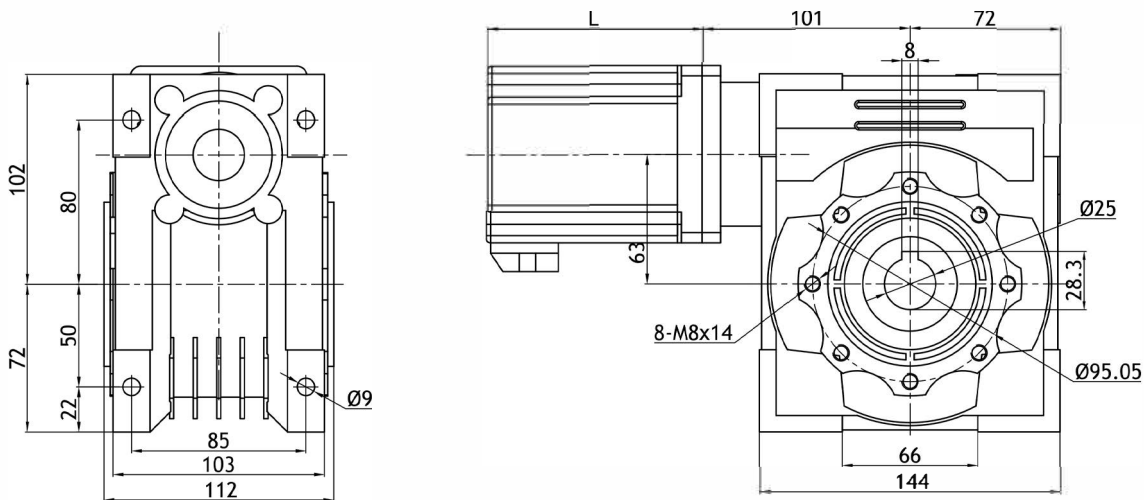
□-电压Voltage 12/24/36/48/310 □-速比数值Velocity Ratio Value

● DB86-□-600-20S/RV50 □K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

gear ratio	7.5	10	15	20	25	30	40	50	60	80	100
rated speed after gearbox(r/min)	267	200	133	100	80	67	50	40	33	25	20
rated torque after gearbox(N.m)	12.9	17.2	25.8	34.4	43	51.7	68.9	73	68	65	55

●外形图(单位mm) DIMENSIONS(Unit mm)

减速器附有安装用螺丝 Mounting screws are included with gearhead



86mm bldc motor+RV063

□-电压Voltage 12/24/36/48/310 □-速比数值Velocity Ratio Value

● DB86-□-600-20S/RV50 □K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

gear ratio	7.5	10	15	20	25	30	40	50	60	80	100
rated speed after gearbox(r/min)	267	200	133	100	80	67	50	40	33	25	20
rated torque after gearbox(N.m)	12.9	17.2	25.8	34.4	43	51.7	68.9	73	68	65	55

90 DC brushless L-tape gear motor

□ 90MM



Basic Characteristics Of Motor

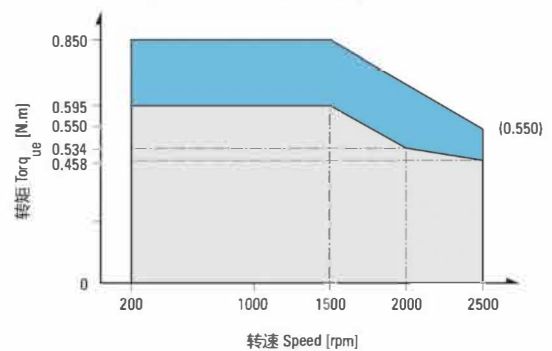
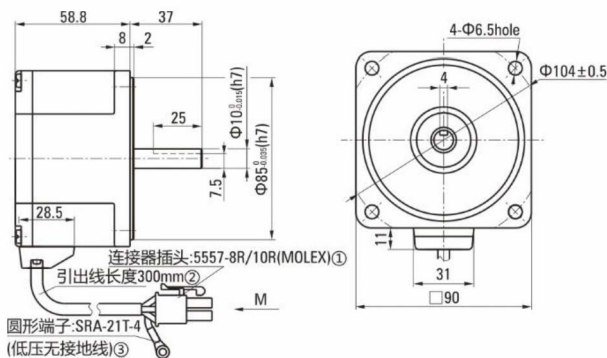
● 120W (DC电源时适用于24VDC/36VDC/48VDC) 120W (DC Power Supply When Applied To 24VDC/36VDC/48VDC)

额定功率(连续) Rated power(continuous)	W	120 (60W/90W/120W)		
额定转速 Rated speed	r/min	2500		
额定转矩 Rated torque	N.m	0.458		
瞬时最大转矩 Instantaneous maximum torque	N.m	0.687		
转子转动惯量 Rotor moment of inertia	J·X10 ⁻⁴ kg.m ²	0.250		
速度控制范围 Speed control range	RPM	高压High pressure 200-2500RPM (低压Low pressure 200-3000RPM)		
速度变化率 Speed control range	对负载 On load	±1.0%以下: 条件 0~额定转矩、额定转速、额定电压、常温 Below ±1%: condition 0~rated torque, rated speed, rated voltage, room temperature		
	对电压 On voltage	±1.0%以下: 条件 额定电压±10%、额定转速、额定负载、常温 Below ±1%: condition rated voltage ±10%, rated speed, rated load, room temperature		
	对温度 On temperature	±1.0%以下: 条件 使用环境温度0~+40°C 额定转速、额定负载、额定电压 Below ±1%: Conditions of ambient temperature 0~+40°C rated voltage, rated load and rated speed		
电源输入 Power input	额定电压 Rated voltage	V	单相Single phase 110V	单相Single phase 220V 24VDC(可选Optional 36VDC/48VDC)
	电压容许范围 Voltage tolerance range		±10%	
	频率 Frequency	Hz	50/60	/
	频率容许范围 Frequency tolerance range		±5%	/
	额定输入电流 Rated input current	A	3.5	2.0
瞬时最大输入电流 Instantaneous maximum input current	A	7.0	4.5	13.0

圆轴型光电机 Circular Shaft Type Optical Motor

● DB90-24-120-25S—电压 Voltage 24/36/48/110/220

● DB90-24-120-25S 曲线图 Diagram
(标准驱动器 Standard Drive)



①Connector: 5557-8R/10R (MOLEX) ②Lead wire length 300mm ③Round terminal: SRA-21T-4 (low ground)

90 DC brushless L-type gear motor

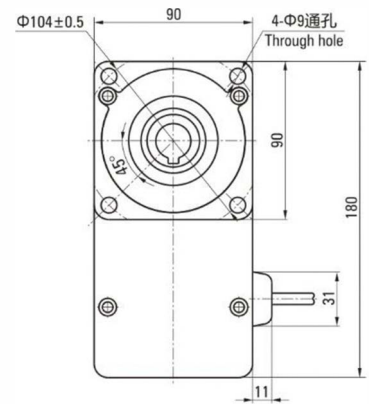
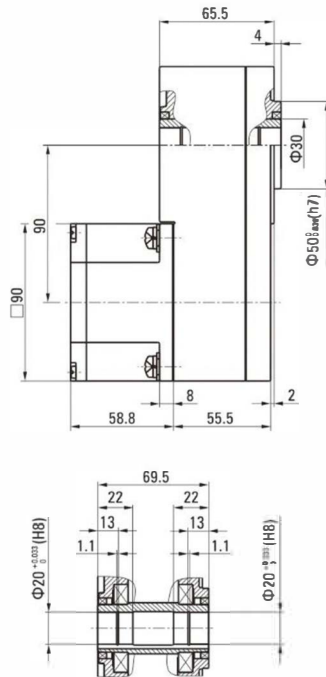
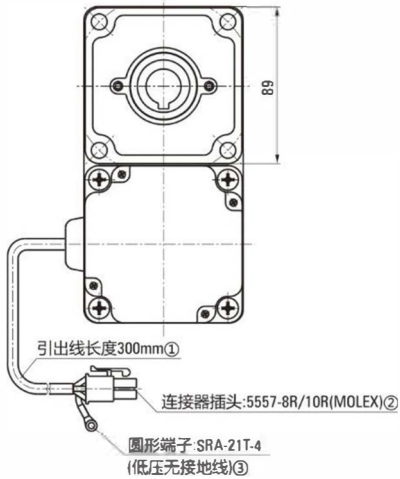
□ 90MM

L型减速电机 L-type Reduction Motor

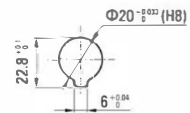
● 外形图(单位mm) DIMENSIONS(Unit mm)

减速器附有安装用螺丝 Mounting screws are included with gearhead

DB90-24GU-60-25S-LS



● 输出轴内孔结构 The Output Shaft Hole Structure



①Lead wire length 300mm ②Connector: 5557-8R/10R (MOLEX) ③Round terminal: SRA-21T-4 (low ground)

□ --电压Voltage 12/24/48/310 □ --速比数值Velocity Ratio Value

● DB90-□GU-60-25S-5GU□LC整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

电机轴转速 Motor Speed	5	10	15	20	30	50	100	200
200~1500RPM	1.09	2.18	3.26	4.35	6.53	10.9	21.8	43.5
2000RPM	0.92	1.84	2.76	3.68	5.52	9.20	18.4	36.8
2500RPM	0.84	1.67	2.51	3.35	5.02	8.37	16.7	33.5

● DB90-□GU-90-25S-5GU□LC整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

电机轴转速 Motor Speed	5	10	15	20	30	50	100	200
200~1500RPM	1.63	3.26	4.90	6.53	9.79	16.3	32.6	65.3
2000RPM	1.38	2.76	4.14	5.52	8.28	13.8	27.6	55.2
2500RPM	1.25	2.51	3.76	5.02	7.53	12.5	25.1	50.2

● DB90-□GU-120-25S-5GU□LC整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

电机轴转速 Motor Speed	5	10	15	20	30	50	100	200
200~1500RPM	2.41	4.83	7.24	9.65	13.1	21.8	43.5	68.0
2000RPM	2.04	4.08	6.13	8.17	11.0	18.4	36.8	66.6
2500RPM	1.86	3.71	5.57	7.43	10.0	16.7	33.5	60.5

注 Note : 表格中的所有速比旋转方向与电机转向相反。 All gearbox output turn direction in form are opposite as motor turn direction.
(不同转速及速比下的力矩为标准驱动器下测试所得。 The torque under different speed and speed ratio is obtained under the standard.)

90 DC brushless Arc Cone Right Angle gear motor

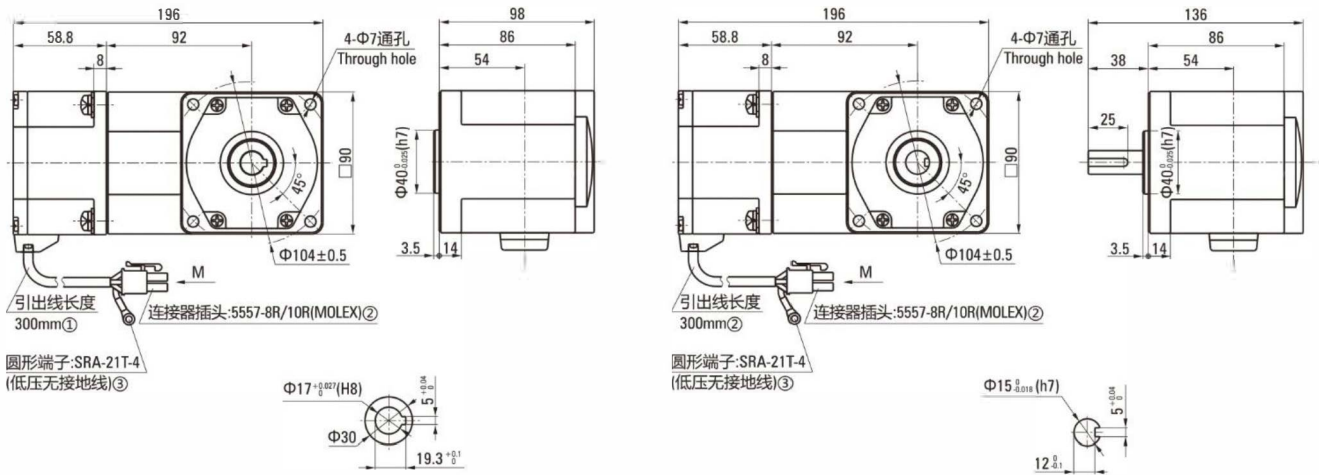
□ 90MM

■ 弧锥直角减速机 Arc Cone Right Angle Speed Reducer Motor

● 外形图(单位mm) DIMENSIONS(Unit mm)

减速器附有安装用螺丝 Mounting screws are included with gearhead

DB90-24GU-60-25S-RC



①The sheath length of lead line 300mm ②Connector: 5557-8R/10R (MOLEX) ③Round terminal: SRA-21T-4 (low ground)

□ --电压Voltage 12/24/48/310 □ --速比数值Velocity Ratio Value

● DB90-□GU-60-25S-5GU□RC/RT整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

型号 Model	减速比 Reduction Ratio 电机 轴转速 Motor Speed	7.5	9	10	12.5	15	18	20	25	30	36	50	60	75	90	100	120	150	180
		D5BLD60-□GU	200~1500RPM	1.81	2.17	2.41	3.02	3.62	4.34	4.35	5.44	6.53	7.83	9.83	10.0	10.0	10.0	10.0	10.0
	2000RPM	1.53	1.84	2.04	2.55	3.06	3.68	3.68	4.60	5.52	6.63	8.32	9.98	10.0	10.0	10.0	10.0	10.0	10.0
	2500RPM	1.39	1.67	1.86	2.32	2.78	3.34	3.35	4.18	5.02	6.02	7.56	9.08	10.0	10.0	10.0	10.0	10.0	10.0

● DB90-□GU-90-25S-5GU□RC/RT整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

型号 Model	减速比 Reduction Ratio 电机 轴转速 Motor Speed	7.5	9	10	12.5	15	18	20	25	30	36	50	60	75	90	100	120	150	180
		D5BLD90-□GU	200~1500RPM	2.72	3.26	3.62	4.53	5.43	6.52	6.53	8.16	9.79	11.8	14.7	17.7	20.0	20.0	20.0	20.0
	2000RPM	2.30	2.76	3.06	3.83	4.59	5.51	5.52	6.90	8.28	9.94	12.5	15.0	18.7	20.0	20.0	20.0	20.0	20.0
	2500RPM	2.09	2.51	2.78	3.48	4.18	5.01	5.02	6.27	7.53	9.04	11.3	13.6	17.0	20.0	20.0	20.0	20.0	20.0

● DB90-□GU-120-25S-5GU□RC/RT整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

型号 Model	减速比 Reduction Ratio 电机 轴转速 Motor Speed	7.5	9	10	12.5	15	18	20	25	30	36	50	60	75	90	100	120	150	180
		D5BLD120-□GU	200~1500RPM	3.62	4.34	4.35	5.44	6.53	7.83	7.87	9.83	11.8	14.2	19.7	20.0	20.0	20.0	20.0	20.0
	2000RPM	3.06	3.68	3.68	4.60	5.52	6.63	6.66	8.32	9.98	12.0	16.6	20.0	20.0	20.0	20.0	20.0	20.0	20.0
	2500RPM	2.78	3.34	3.35	4.18	5.02	6.02	6.05	7.56	9.08	10.9	15.1	18.2	20.0	20.0	20.0	20.0	20.0	20.0

注Note: 表格中的 (灰底部分) 表示旋转方向与电机转向一致。The (gray) in the table indicates that the rotation direction is consistent with the motor. (不同转速及速比下的力矩为标准驱动器下测试所得。The torque under different speed and speed ratio is obtained under the standard.)

104 DC brushless reduction motor

□ 104MM



电机基本特性 Basic Characteristics Of Motor

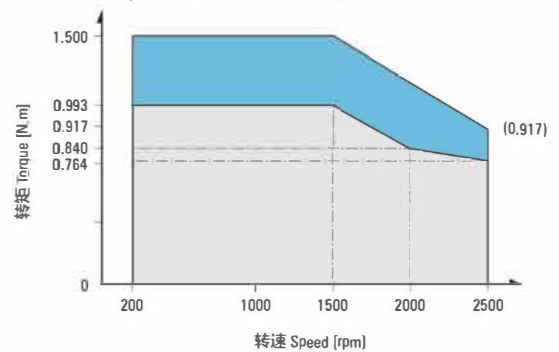
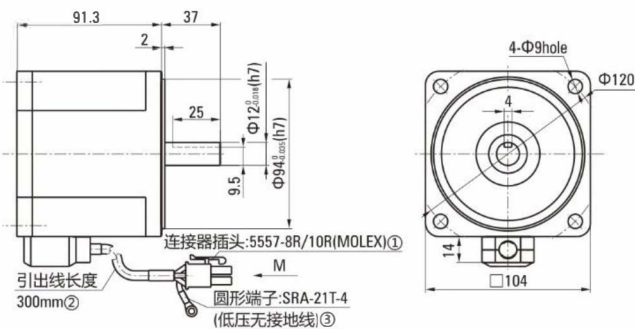
● 200W (DC电源时适用于24VDC/36VDC/48VDC) 200W (DC Power Supply When Applied To 24VDC/36VDC/48VDC)

额定功率(连续) Rated power(continuous)		W	200 (200W/400W)		
额定转速 Rated speed		r/min	2500		
额定转矩 Rated torque		N.m	0.764		
瞬时最大转矩 Instantaneous maximum torque		N.m	1.146		
转子转动惯量 Rotor moment of inertia		J:×10 ⁻⁴ kg.m ²	0.460		
速度控制范围 Speed control range		RPM	高压High pressure 200-2500RPM (低压Low pressure 200-3000RPM)		
速度控制范围 Speed control range	对负载 On load	±1.0%以下: 条件 0~额定转矩、额定转速、额定电压、常温 Below ±1%: condition 0~rated torque, rated speed, rated voltage, room temperature			
	对电压 On voltage	±1.0%以下: 条件 额定电压±10%、额定转速、额定负载、常温 Below ±1%: condition rated voltage ±10%, rated speed, rated load, room temperature			
	对温度 On temperature	±1.0%以下: 条件 使用环境温度0~+40°C 额定转速、额定负载、额定电压 Below ±1%: Conditions of ambient temperature 0~+40°C rated voltage, rated load and rated speed			
电源输入 Power input	额定电压 Rated voltage	V	单相Single phase 110V	单相Single phase 220V	36VDC(可选Optional 48VDC)
	电压容许范围 Voltage tolerance range		±10%		
	频率 Frequency	Hz	50/60	/	
	频率容许范围 Frequency tolerance range		±5%	/	
	额定输入电流 Rated input current	A	4.7	2.4	7.5
瞬时最大输入电流 Instantaneous maximum input current	A	9.0	4.8	11.5	

圆轴型光电机 Circular Shaft Type Optical Motor

● DB104-24-200-25S —电压 Voltage 24/36/48/110/220

● DB104-24-200-25S 曲线图 Diagram
(标准驱动器 Standard Drive)



① Connector: 5557-8R/10R (MOLEX) ② Lead wire length 300mm ③ Round terminal: SRA-21T4 (low ground)

104 DC brushless reduction motor

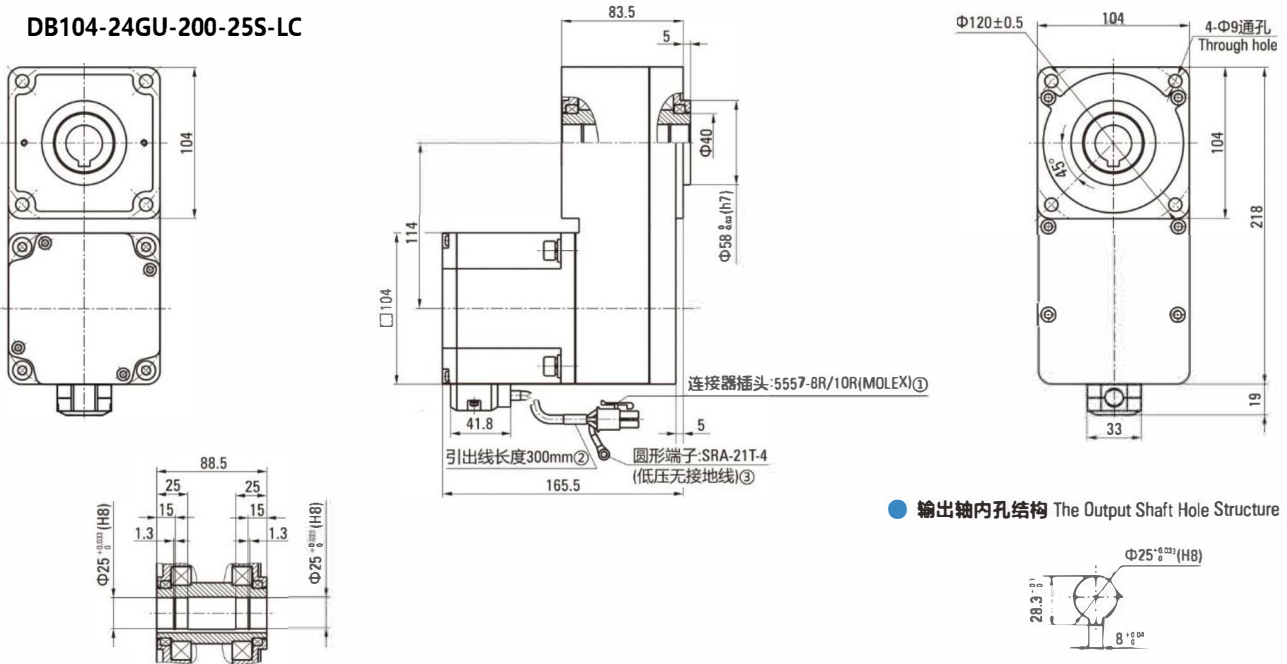
□ 104MM

L型减速电机 L-type Reduction Motor

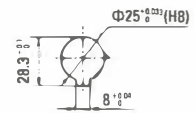
● 外形图(单位mm) DIMENSIONS(Unit mm)

减速器附有安装用螺丝 Mounting screws are included with gearhead

DB104-24GU-200-25S-LC



● 输出轴内孔结构 The Output Shaft Hole Structure



①Connector: 5557-8R/10R (MOLEX) ②Lead wire length 300mm ③Round terminal: SRA-21T-4 (low ground)

□ --电压Voltage 12/24/48/310 □ --速比数值Velocity Ratio Value

● DB104-□GU-200-25S-6GU□LC整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

电机轴转速 Motor Speed	减速比 Reduction Ratio	5	10	15	20	30	50	100	200
200~1500RPM		4.02	8.04	12.1	16.1	21.8	36.3	72.5	120
2000RPM		3.40	6.81	10.2	13.6	18.4	30.7	61.3	110
2500RPM		3.09	6.19	9.28	12.4	16.7	27.9	55.8	100

● DB104-□GU-400-25S-6GU□LC整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

电机轴转速 Motor Speed	减速比 Reduction Ratio	5	10	15	20	30	50	100	200
200~1500RPM		7.25	14.5	21.8	29.0	43.5	72.5	120	120
2000RPM		6.13	12.3	18.4	24.5	36.8	61.3	120	120
2500RPM		5.58	11.2	16.7	22.3	33.5	55.8	112	120

注Note: 表格中的所有速比旋转方向与电机转向相反。All gearbox output turn direction in form are opposite as motor turn direction.

(不同转速及速比下的力矩为标准驱动器下测试所得。The torque under different speed and speed ratio is obtained under the standard.)

104 DC brushless reduction motor

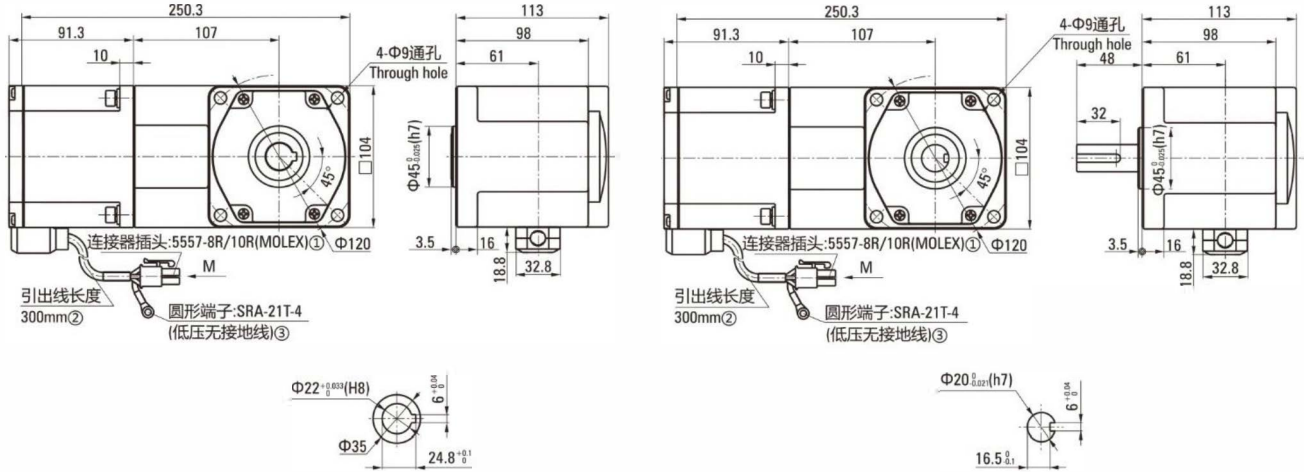
□ 104MM

■ 弧锥直角减速机 Arc Cone Right Angle Speed Reducer Motor

● 外形图(单位mm) DIMENSIONS(Unit mm)

减速机附有安装用螺丝 Mounting screws are included with gearhead

DB104-24GU-200-25S-LC



①Connector: 5557-8R/10R (MOLEX) ②The sheath length of lead line 300mm ③Round terminal: SRA-21T-4 (low ground)

□ --电压Voltage 12/24/48/310 □ --速比数值Velocity Ratio Value

● DB104-□GU-200-25S-6GU□RC/RT整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

型号 Model	电机轴转速 Motor Speed	减速机 Reduction Ratio																
		7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	200
D6BLD200-□GU	200~1500RPM	6.03	7.24	9.06	10.9	13.1	16.4	19.7	23.6	32.8	39.3	40.0	40.0	40.0	40.0	40.0	40.0	40.0
	2000RPM	5.11	6.13	7.67	9.20	11.0	13.9	16.6	20.0	27.7	33.3	40.0	40.0	40.0	40.0	40.0	40.0	40.0
	2500RPM	4.64	5.57	6.97	8.37	10.0	12.6	15.1	18.2	25.2	30.3	37.8	40.0	40.0	40.0	40.0	40.0	40.0

● DB104-□GU-400-25S-6GU□RC/RT整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

型号 Model	电机轴转速 Motor Speed	减速机 Reduction Ratio																
		7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	200
D6BLD400-□GU	200~1500RPM	12.1	14.5	14.5	18.1	21.8	26.1	26.2	32.8	39.3	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
	2000RPM	10.2	12.3	12.3	15.3	18.4	22.1	22.2	27.7	33.3	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
	2500RPM	9.28	11.1	11.2	13.9	16.7	20.1	20.2	25.2	30.3	36.3	40.0	40.0	40.0	40.0	40.0	40.0	40.0

注Note : 表格中的 (灰底部分) 表示旋转方向与电机转向一致。The (gray) in the table indicates that the rotation direction is consistent with the motor. (不同转速及速比下的力矩为标准驱动器下测试所得。The torque under different speed and speed ratio is obtained under the standard.)

110 DC brushless gear motor

□ 110MM

■ Brushless planetary gear motor

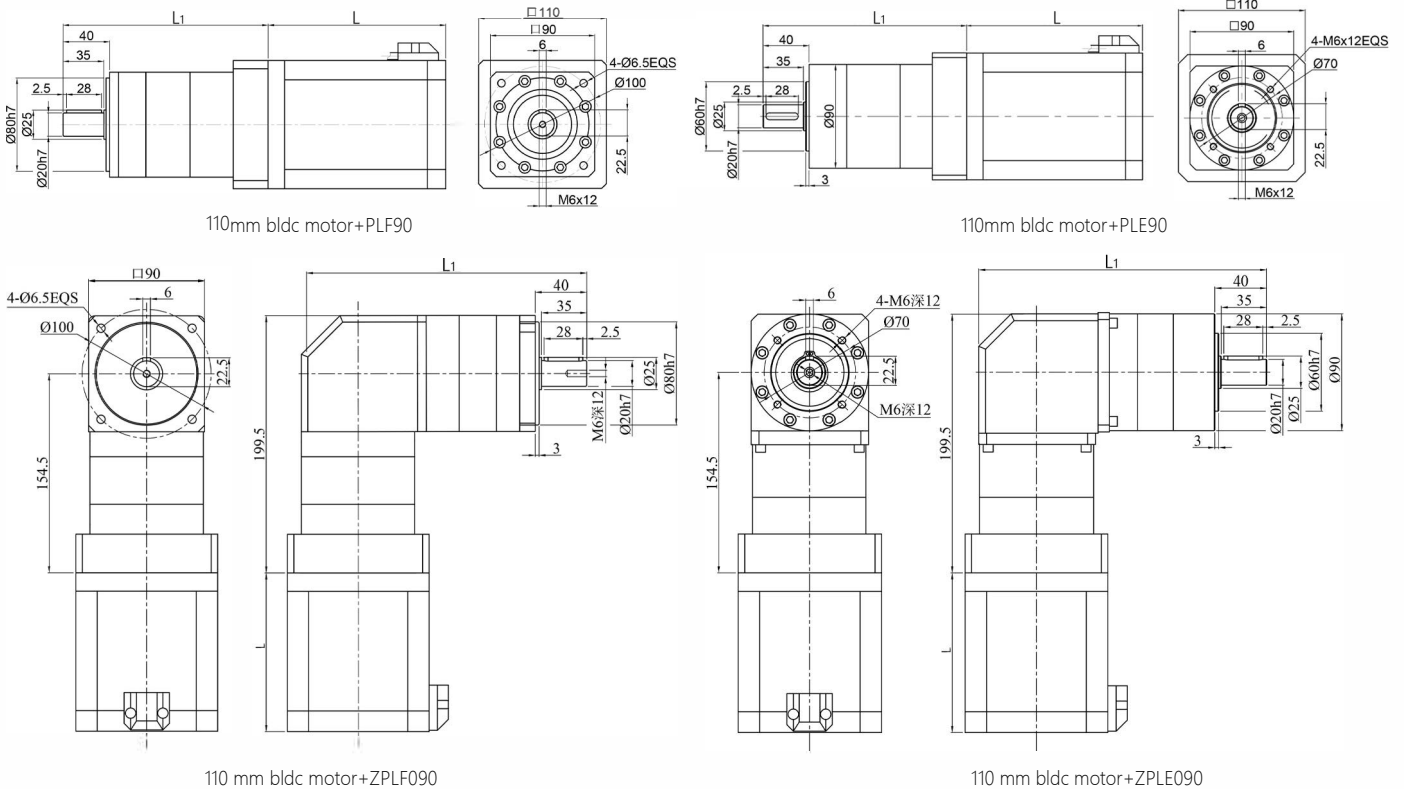
● 90mm planetary Reducer Parameter Table

Gearbox type	PLF090			PLE090			ZPLF090			ZPLE090		
Gearbox stage	1	2	3	1	2	3	1	2	3	1	2	3
Gearbox length L1(mm)	153	176.5	199.5	153	176.5	199.5	187.5	222	245.5	187.5	222	245.5
Gear ratio	1 stage 3, 4, 5, 7, 10											
	2 stage 16, 20, 25, 28, 35, 40, 70											
	3 stage 64, 80, 100, 125, 140, 175, 200, 250											



● 外形图(单位mm) DIMENSIONS(Unit mm)

减速器附有安装用螺丝 Mounting screws are included with gearhead



The speed is calculated by dividing the rated speed of the motor by the reduction ratio, and the actual speed will be reduced by 2%-20% depending on the load.

□ Voltage 36v/48v/72v/310v □ Velocity Ratio Value

● DB110-□-600-30S/(PLF90、PLE90、ZPLF90、ZPLE90) □ K 整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	4	5	7	10	16	20	25	28	35	40	50	70	80	100	125	140	175	200	250
Rated speed after gearbox(r/min)	750	600	429	300	188	150	120	107	86	75	60	43	38	30	24	21	17	15	12
Rated torque after gearbox(N.m)	7	9	12.5	18	27.5	34.5	43	48	60	68.4	85.5	71.5	120	120	132.5	120	132.5	120	132.5
Max.output torque(N.m)	21	27	37.5	54	82.5	103.5	86	96	120	136.8	171	143	240	240	265	240	265	240	265
Rotational inertia(kgcm ²)	0.4	0.31	0.29	0.28	0.29	0.29	0.29	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.29	0.29	0.28	0.28

● DB110-□-1000-30S/(PLF90、PLE90、ZPLF90、ZPLE90) □ K 整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	4	5	7	10	16	20	25	28	35	40	50	80	100	125	140	175	200	250
Rated speed after gearbox(r/min)	1000	750	600	429	300	188	150	120	107	86	75	60	38	30	24	21	17	15	12
Rated torque after gearbox(N.m)	9.2	12.2	15.3	21.4	30.5	47.9	59.8	74.8	83.8	104.7	96.0	105.5	120.0	120.0	132.0	120.0	132.0	120.0	132.0
Max.output torque(N.m)	27.5	36.6	45.8	64.1	91.6	143.6	179.5	211.0	192.0	211.0	192.0	211.0	240.0	240.0	264.0	240.0	264.0	240.0	264.0
Rotational inertia(kgcm ²)	0.400	0.309	0.290	0.285	0.280	0.309	0.290	0.290	0.290	0.285	0.280	0.280	0.290	0.291	0.290	0.285	0.285	0.280	0.283

110 DC brushless planetary gear motor

□ 110MM

Brushless planetary reduction motor

The speed is calculated by dividing the rated speed of the motor by the reduction ratio, and the actual speed will be reduced by 2%-20% depending on the load.

□ Voltage 24/36/48/72/310 □ 速比数值 Velocity Ratio Value

● DB110-□-1500-30S/(PLF90、PLE90、ZPLF90、ZPLE90) □ K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	4	5	7	10	16	20	25	28	35	40	50	80	100	125	140	175	200	250
Rated speed after gearbox(r/min)	1000	750	600	429	300	188	150	120	107	86	75	60	38	30	24	21	17	15	12
Rated torque after gearbox(N.m)	13.8	18.3	22.9	32.1	45.8	71.8	89.8	105.0	96.0	105.0	96.0	105.5	120.0	120.0	132.0	120.0	132.0	120.0	132.0
Max.output torque(N.m)	41.3	55.0	68.8	96.3	137.5	192.0	192.0	211.0	192.0	211.0	192.0	211.0	240.0	240.0	264.0	240.0	264.0	240.0	264.0
Rotational inertia(kgcm ²)	0.400	0.309	0.290	0.285	0.280	0.309	0.290	0.290	0.290	0.285	0.280	0.280	0.290	0.291	0.290	0.285	0.285	0.280	0.283

● DB110-□-2000-30S/(PLF90、PLE90、ZPLF90、ZPLE90) □ K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	4	5	7	10	16	20	25	28	35	40	50	80	100	125	140	175	200	250
Rated speed after gearbox(r/min)	1000	750	600	429	300	188	150	120	107	86	75	60	38	30	24	21	17	15	12
Rated torque after gearbox(N.m)	18.3	24.4	30.6	42.8	61.1	95.8	96.0	105.0	96.0	105.0	96.0	105.5	120.0	120.0	132.0	120.0	132.0	120.0	132.0
Max.output torque(N.m)	55.0	73.3	91.7	128.4	183.4	287.3	192.0	211.0	192.0	211.0	192.0	211.0	240.0	240.0	264.0	240.0	264.0	240.0	264.0
Rotational inertia(kgcm ²)	1.650	1.220	1.150	1.130	1.110	1.220	1.150	1.150	1.130	1.130	0.280	0.280	0.290	0.291	0.290	0.285	0.285	0.280	0.283

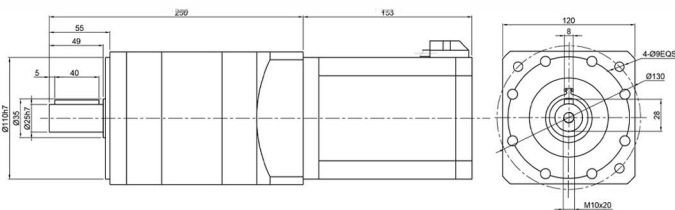
● 120行星减速机参数表 Reducer Parameter Table

Gearbox type	PLF120			PLE120			ZPLF120			ZPLE120		
	1	2	3	1	2	3	1	2	3	1	2	3
Gearbox stage	1	2	3	1	2	3	1	2	3	1	2	3
Gearbox length L1(mm)	200	230	260	200	230	260	244	292	322	244	292	322
Gear ratio	1 stage 3, 4, 5, 7, 10											
	2 stage 16, 20, 25, 28, 35, 40, 70											
	3 stage 64, 80, 100, 125, 140, 175, 200, 250											

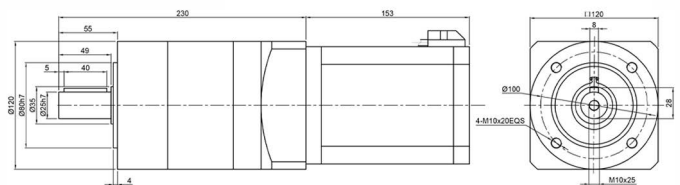


● 外形图(单位mm) DIMENSIONS(Unit mm)

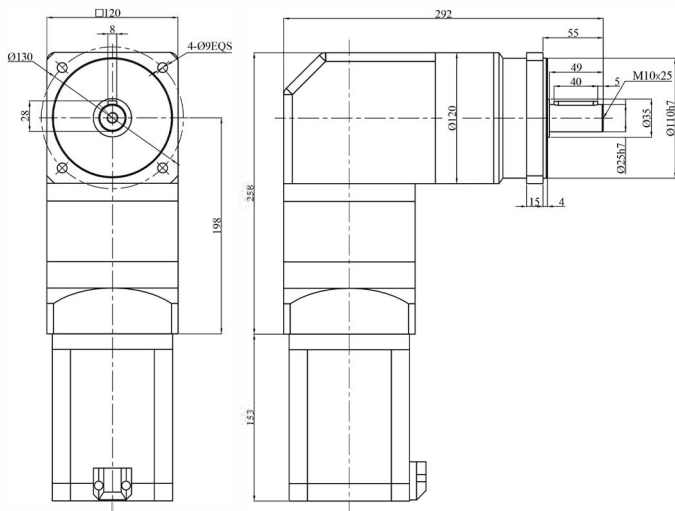
减速器附有安装用螺丝 Mounting screws are included with gearhead



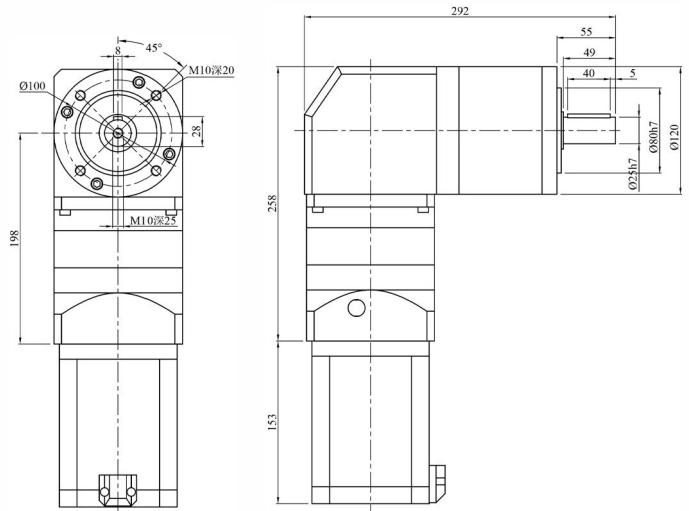
110mm bldc motor+PLF120



110mm bldc motor+PLE120



110mm bldc motor+ZPLF120



110mm bldc motor+ZPLE120

110 DC brushless planetary gear motor

□ 110MM

■ Brushless planetary reduction motor

The speed is calculated by dividing the rated speed of the motor by the reduction ratio, and the actual speed will be reduced by 2%-20% depending on the load.

□ -电压Voltage 36/48/72/310 □ -速比数值Velocity Ratio Value

● DB110-□-600-30S/(PLF120、PLE120、ZPLF120、ZPLE120) □ K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	4	5	7	10	16	20	25	28	35	40	50	80	100	125	140	175	200	250
Rated speed after gearbox(r/min)	1000	750	600	429	300	188	150	120	107	86	75	60	38	30	24	21	17	15	12
Rated torque after gearbox(N.m)	6	7	9	13	18	29	36	45	50	63	72	90	138	172	215	241	301	310	329
Max.output torque(N.m)	16.5	22.0	27.5	38.5	55.0	86.2	107.7	134.7	150.8	188.5	215.4	269.3	412.6	515.7	644.6	620.0	658.0	620.0	658.0
Rotational inertia(kgcm ²)	1.65	1.22	1.15	1.13	1.11	1.22	1.15	1.15	1.13	1.13	1.11	1.11	1.15	1.15	1.15	1.13	1.13	1.11	1.11

● DB110-□-1000-30S/(PLF120、PLE120、ZPLF120、ZPLE120) □ K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	4	5	7	10	16	20	25	28	35	40	50	80	100	125	140	175	200	250
Rated speed after gearbox(r/min)	1000	750	600	429	300	188	150	120	107	86	75	60	38	30	24	21	17	15	12
Rated torque after gearbox(N.m)	9	12	15	21	31	48	60	75	84	105	120	149	239	299	329	310	301	310	329
Max.output torque(N.m)	27.5	36.6	45.8	64.1	91.6	143.6	179.5	224.4	251.3	314.2	358.7	448.4	620.0	620.0	658.0	620.0	658.0	620.0	658.0
Rotational inertia(kgcm ²)	1.65	1.22	1.15	1.13	1.11	1.22	1.15	1.15	1.13	1.13	1.11	1.11	1.15	1.15	1.15	1.13	1.13	1.11	1.11

● DB110-□-1500-30S/(PLF120、PLE120、ZPLF120、ZPLE120) □ K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	4	5	7	10	16	20	25	28	35	40	50	80	100	125	140	175	200	250
Rated speed after gearbox(r/min)	1000	750	600	429	300	188	150	120	107	86	75	60	38	30	24	21	17	15	12
Rated torque after gearbox(N.m)	14	18	23	32	46	72	90	112	126	157	180	224	310	310	329	310	301	310	329
Max.output torque(N.m)	41.3	55.0	68.8	96.3	137.5	215.4	269.3	336.6	377.0	471.3	500.0	528.0	620.0	620.0	658.0	620.0	658.0	620.0	658.0
Rotational inertia(kgcm ²)	1.65	1.22	1.15	1.13	1.11	1.22	1.15	1.15	1.13	1.13	1.11	1.11	1.15	1.15	1.15	1.13	1.13	1.11	1.11

● DB110-□-2000-30S/(PLF120、PLE120、ZPLF120、ZPLE120) □ K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	4	5	7	10	16	20	25	28	35	40	50	80	100	125	140	175	200	250
Rated speed after gearbox(r/min)	1000	750	600	429	300	188	150	120	107	86	75	60	38	30	24	21	17	15	12
Rated torque after gearbox(N.m)	18	24	31	43	61	96	120	150	168	209	239	264	310	310	329	310	301	310	329
Max.output torque(N.m)	55.0	73.3	91.7	128.4	183.4	287.3	359.1	448.9	500.0	528.0	500.0	528.0	620.0	620.0	658.0	620.0	658.0	620.0	658.0
Rotational inertia(kgcm ²)	1.65	1.22	1.15	1.13	1.11	1.22	1.15	1.15	1.13	1.13	1.11	1.11	1.15	1.15	1.15	1.13	1.13	1.11	1.11

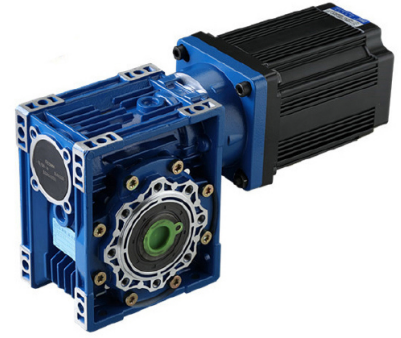
110 DC brushless worm gear motor

□ 110MM

Worm Gearbox and Worm Reduction Motor

Basic parameters

motor power(W)	600	1000	1500
motor length L(mm)	123	153	183
motor rated speed(r/min)	2000		

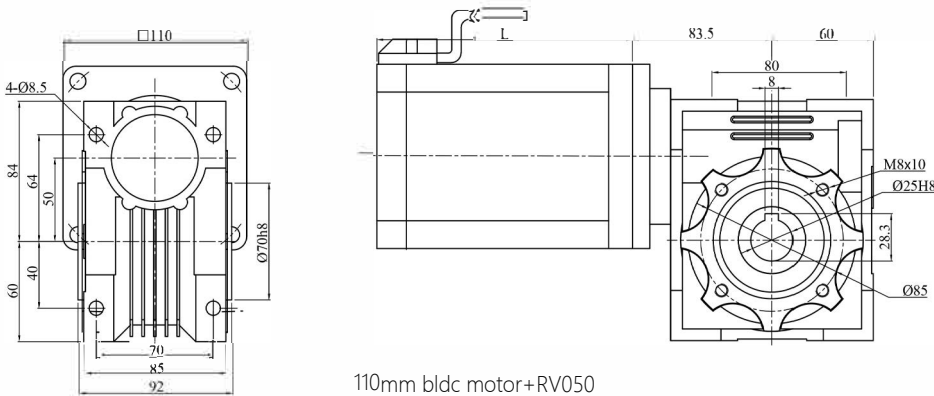


	gearbox type	gear ratio
worm gearbox	RV050-□	7.5、10、15、20、25、30、40、50、60、80、100
	RV063-□	7.5、10、15、20、25、30、40、50、60、80、100
	RV075-□	7.5、10、15、20、25、30、40、50、60、80、100

The □ is the gear ratio of the worm gearbox.

外形图(单位mm) DIMENSIONS(Unit mm)

减速器附有安装用螺丝 Mounting screws are included with gearhead



110mm bldc motor+RV050

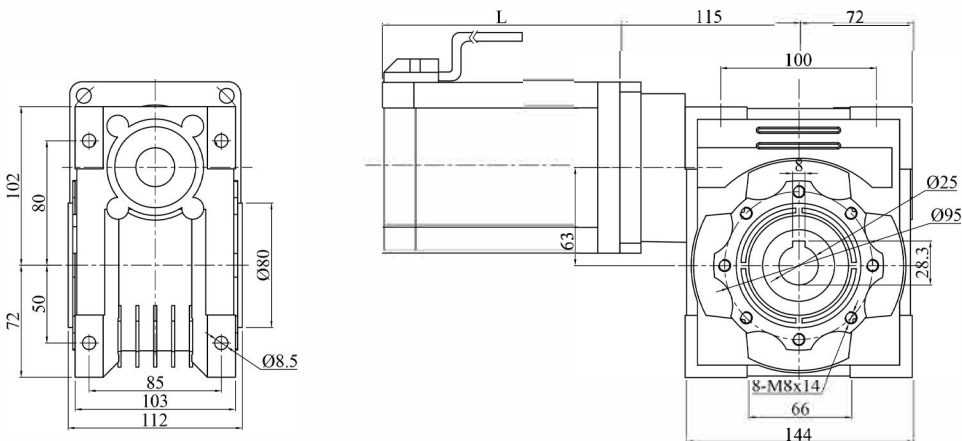
□ 电压 Voltage 36/48/72/310 □ 速比数值 Velocity Ratio Value

DB110-□-600-20S/RV50 □ K 整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

gear ratio	7.5	10	15	20	25	30	40	50	60	80	100
rated speed (N.m)	267	200	133	100	80	67	50	40	33	25	20
rated torque(N.m)	17.2	22.9	34.4	44.7	54.4	63.6	68.0	54.0	60.0	52.0	40.0

外形图(单位mm) DIMENSIONS(Unit mm)

减速器附有安装用螺丝 Mounting screws are included with gearhead



110mm bldc motor+RV063

110 DC brushless worm gear motor

□ 110MM

Worm Gear and Worm Reduction Motor

□ -电压Voltage 36/48/72/310 □ -速比数值Velocity Ratio Value

● DB110-□-600-20S/RV63□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

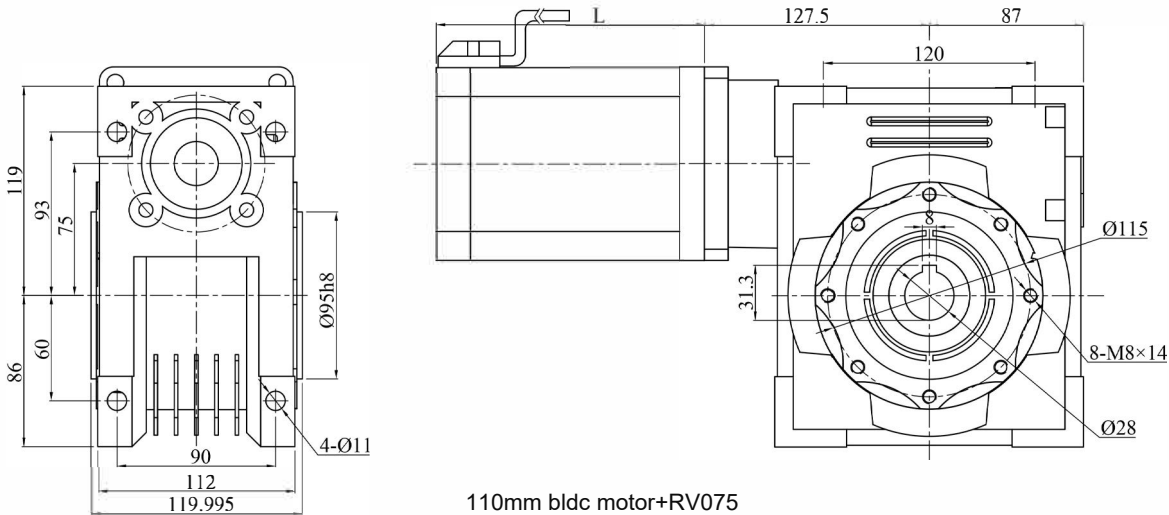
gear ratio	7.5	10	15	20	25	30	40	50	60	80	100
rated speed (N.m)	267	200	133	100	80	67	50	40	33	25	20
rated torque(N.m)	17.2	22.9	34.4	44.7	54.4	63.6	80.2	93.1	94.0	115.0	87.0

● DB110-□-1000-20S/RV63□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

gear ratio	7.5	10	15	20	25	30	40	50	60	80	100
rated speed (N.m)	267	200	133	100	80	67	50	40	33	25	20
rated torque(N.m)	28.7	38.2	57.3	74.5	90.7	106.0	133.7	124.0	94.0	115.0	87.0

● 外形图(单位mm) DIMENSIONS(Unit mm)

减速器附有安装用螺丝 Mounting screws are included with gearhead



□ -电压Voltage 36/48/72/310 □ -速比数值Velocity Ratio Value

● DB110-□-1500-20S/RV75□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

gear ratio	7.5	10	15	20	25	30	40	50	60	80	100
rated speed (N.m)	267	200	133	100	80	67	50	40	33	25	20
rated torque(N.m)	43.0	57.3	86.0	111.7	136.1	159.0	200.6	177.0	200.0	180.0	139.0

130 DC brushless planetary gear motor

□ 130MM

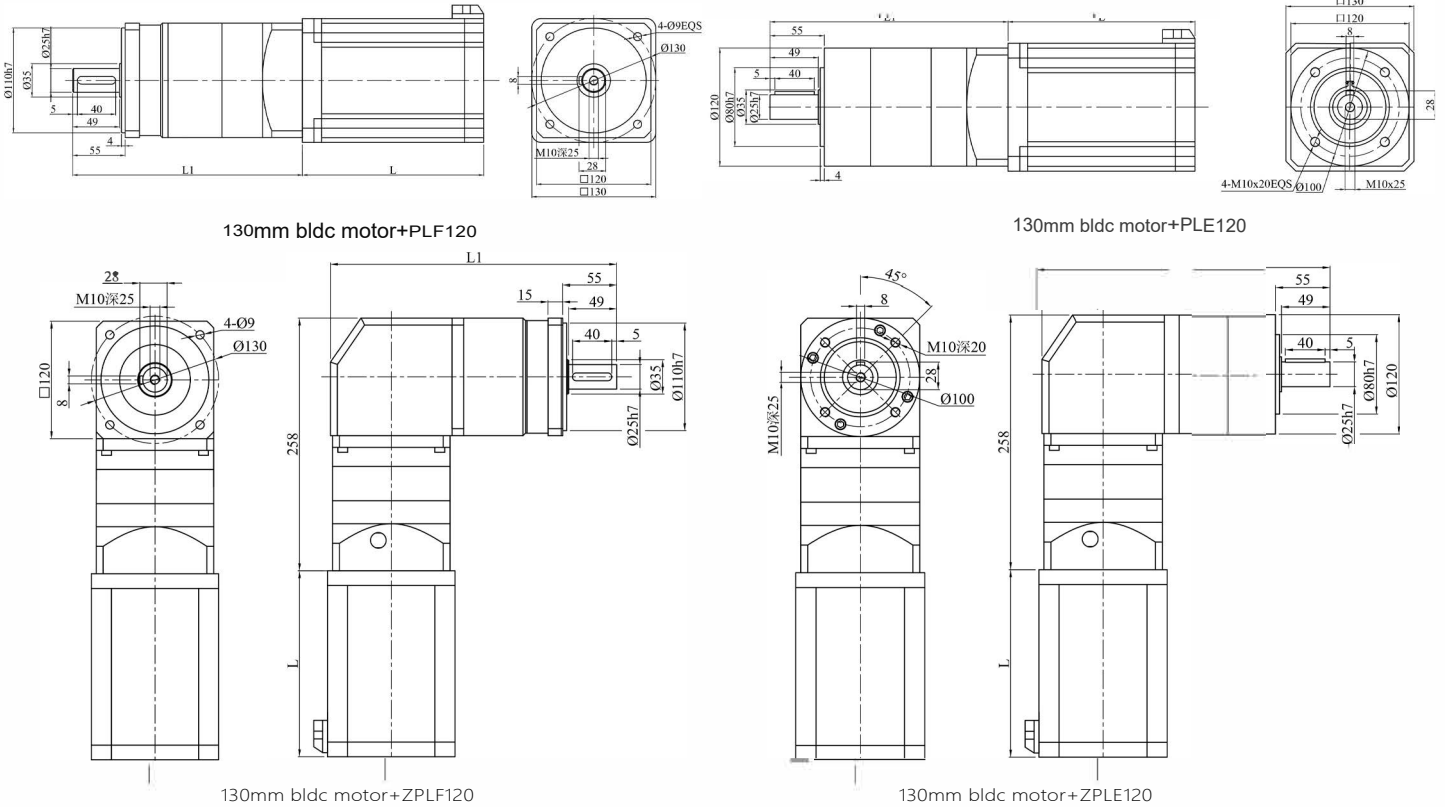
Brushless planetary gear motor

● 120mm planetary Reducer Parameter Table

Gearbox type	PLF120			PLE120			ZPLF120			ZPLE120		
Gearbox stage	1	2	3	1	2	3	1	2	3	1	2	3
Gearbox length L1(mm)	211	241	271	211	241	271	244	292	322	244	292	322
Gear ratio	1 stage 3, 4, 5, 7, 10											
	2 stage 16, 20, 25, 28, 35, 40, 70											
	3 stage 64, 80, 100, 125, 140, 175, 200, 250											

● 外形图(单位mm) DIMENSIONS(Unit mm)

减速器附有安装用螺丝 Mounting screws are included with gearhead



The speed is calculated by dividing the rated speed of the motor by the reduction ratio, and the actual speed will be reduced by 2%-20% according to the load size.

□ 电压 Voltage 36/48/72/310 □ 速比数值 Velocity Ratio Value

● DB130-□-2500-30S/(PLF120、PLE120、ZPLF120、ZPLE120) □ 整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	4	5	7	10	12	15	16	20	25	28	35	40	50	80	100	125	140	175	200	250
Rated speed after gearbox(r/min)	1000	750	600	429	300	250	200	188	150	120	107	86	75	60	38	30	24	21	17	15	12
Rated torque after gearbox(N.m)	21.5	28.7	35.8	50.1	71.6	86	107.5	114.6	143.3	179.1	200.6	250.7	250	264	310	310	329	310	329	310	329
Max.output torque(N.m)	43	57.4	71.6	100.2	93	172	215	229.2	286.6	358.2	401.2	501.4	500	528	620	620	658	620	658	620	658
Rotational inertia(kgcm ²)	1.65	1.22	1.15	1.13	1.11	1.65	1.65	1.22	1.15	1.15	1.13	1.13	1.11	1.11	1.15	1.15	1.15	1.13	1.13	1.11	1.11

● DB130-□-3000-30S/(PLF120、PLE120、ZPLF120、ZPLE120) □ 整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	4	5	7	10	12	15	16	20	25	28	35	40	50	80	100	125	140	175	200	250
Rated speed after gearbox(r/min)	1000	750	600	429	300	250	200	188	150	120	107	86	75	60	38	30	24	21	17	15	12
Rated torque after gearbox(N.m)	25.8	34.4	43	60.2	86	103.1	128.9	137.5	171.9	214.9	240.7	264	250	264	310	310	329	310	329	310	329
Max.output torque(N.m)	51.6	68.8	86	120.4	172	206.2	257.8	275	343.8	429.8	481.4	528	500	528	620	620	658	620	658	620	658
Rotational inertia(kgcm ²)	1.65	1.22	1.15	1.13	1.11	1.65	1.65	1.22	1.15	1.15	1.13	1.13	1.11	1.11	1.15	1.15	1.15	1.13	1.13	1.11	1.11

130 DC brushless planetary gear motor

□ 130MM

Brushless planetary gear motor

The speed is calculated by dividing the rated speed of the motor by the reduction ratio, and the actual speed will be reduced by 2%-20% according to the load size.

□ - 电压 Voltage 36/48/72/310 □ 速比数值 Velocity Ratio Value

● DB130-□-3500-30S/(PLF120、PLE120、ZPLF120、ZPLE120) □ K 整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	4	5	7	10	12	15	16	20	25	28	35	40	50	80	100	125	140	175	200	250
Rated speed after gearbox(r/min)	1000	750	600	429	300	250	200	188	150	120	107	86	75	60	38	30	24	21	17	15	12
Rated torque after gearbox(N.m)	30.1	40.1	50.1	70.2	100.3	120.3	150.4	160.4	200.5	250.7	250	264	250	264	310	310	329	310	329	310	329
Max.output torque(N.m)	60.2	80.2	100.2	140.4	200.6	240.6	300.8	320.8	401	501.4	500	528	500	528	620	620	658	620	658	620	658
Rotational inertia(kgcm ²)	1.65	1.22	1.15	1.13	1.11	1.65	1.65	1.22	1.15	1.15	1.13	1.13	1.11	1.11	1.15	1.15	1.15	1.13	1.13	1.11	1.11

● DB130-□-4000-30S/(PLF120、PLE120、ZPLF120、ZPLE120) □ K 整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	4	5	7	10	12	15	16	20	25	28	35	40	50	80	100	125	140	175	200	250
Rated speed after gearbox(r/min)	1000	750	600	429	300	250	200	188	150	120	107	86	75	60	38	30	24	21	17	15	12
Rated torque after gearbox(N.m)	34.4	45.7	57.2	80	93	137.2	171.5	182.9	228.6	264	250	264	250	264	310	310	329	310	329	310	329
Max.output torque(N.m)	68.8	91.4	114.4	160	186	274.4	345	365.8	457.2	528	500	528	500	528	620	620	658	620	658	620	658
Rotational inertia(kgcm ²)	1.65	1.22	1.15	1.13	1.11	1.65	1.65	1.22	1.15	1.15	1.13	1.13	1.11	1.11	1.15	1.15	1.15	1.13	1.13	1.11	1.11

● DB130-□-4500-30S/(PLF120、PLE120、ZPLF120、ZPLE120) □ K 整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

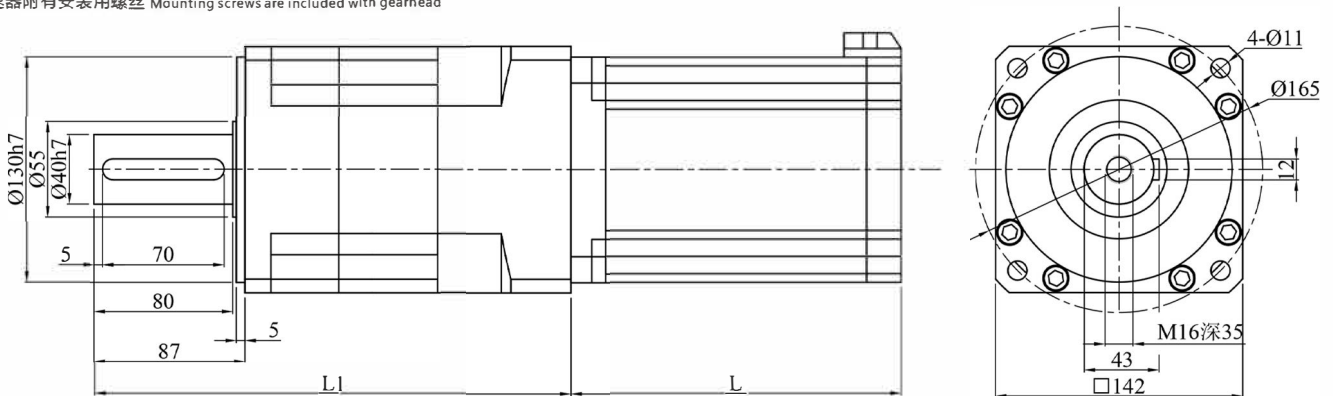
Gear ratio	3	4	5	7	10	12	15	16	20	25	28	35	40	50	80	100	125	140	175	200	250
Rated speed after gearbox(r/min)	1000	750	600	429	300	250	200	188	150	120	107	86	75	60	38	30	24	21	17	15	12
Rated torque after gearbox(N.m)	38.7	51.6	64.4	90.1	93	154.4	193.1	205.9	250	264	250	264	250	264	310	310	329	310	329	310	329
Max.output torque(N.m)	77.4	103.2	128.8	180.2	186	308.8	296.2	411.8	500	528	500	528	500	528	620	620	658	620	658	620	658
Rotational inertia(kgcm ²)	1.65	1.22	1.15	1.13	1.11	1.65	1.65	1.22	1.15	1.15	1.13	1.13	1.11	1.11	1.15	1.15	1.15	1.13	1.13	1.11	1.11

● 142mm planetary Reducer Parameter Table

Gearbox type	PLX142		
Gearbox stage	1	2	3
Gearbox length L1(mm)	275	313	351
Gear ratio	1 stage	3, 4, 5, 8	
	2 stage	12, 16, 20, 25, 32, 40, 64	
	3 stage	60, 64, 80, 100, 120, 160, 200, 256, 320, 512	

● 外形图(单位mm) DIMENSIONS(Unit mm)

减速器附有安装用螺丝 Mounting screws are included with gearhead



130mm bldc motor+PLX142

130 DC brushless planetary gear motor

□ 130MM

■ Brushless planetary reduction motor

The speed is calculated by dividing the rated speed of the motor by the reduction ratio, and the actual speed will be reduced by 2%-20% according to the load size.

□ -电压Voltage 36/48/72/310 □ -速比数值Velocity Ratio Value

● DB130-□-2500-30S/PLX142□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	4	5	8	12	16	20	25	32	40	64	80	100	125	160	200	256	320	512
Rated speed after gearbox(r/min)	1000	750	600	375	250	188	150	120	94	75	47	38	30	24	19	15	12	9.5	6
Rated torque after gearbox(N.m)	21.5	28.8	36	57.6	86.4	115.2	144	180	230.4	288	460	576	720	580	580	900	900	580	400
Max.output torque(N.m)	64.5	86.4	108	127.8	259.2	345.6	342	360	460.8	576	920	1152	1440	1160	1160	1800	1800	1160	800
Rotational inertia(kgcm ²)	4.31	5.15	4.93	4.84	6.31	5.15	4.93	4.93	4.84	4.84	4.84	4.93	4.93	4.84	4.84	4.84	4.84	4.84	4.84

● DB130-□-3000-30S/PLX142□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	4	5	8	12	16	20	25	32	40	64	80	100	125	160	200	256	320	512
Rated speed after gearbox(r/min)	1000	750	600	375	250	188	150	120	94	75	47	38	30	24	19	15	12	9.5	6
Rated torque after gearbox(N.m)	25.8	34.4	43	68.8	103.1	137.5	171.9	214.9	275	343.8	550.1	687.6	859.5	580	580	580	900	580	400
Max.output torque(N.m)	77.4	103.2	129	206.4	309.3	412.5	515.7	429.8	550	687.6	1100.2	1375.2	1719	1160	1160	1160	1800	1160	800
Rotational inertia(kgcm ²)	4.31	5.15	4.93	4.84	6.31	5.15	4.93	4.93	4.84	4.84	4.84	4.93	4.93	4.84	4.84	4.84	4.84	4.84	4.84

● DB130-□-3500-30S/PLX142□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	4	5	8	12	16	20	25	32	40	64	80	100	125	160	200	256	320	512
Rated speed after gearbox(r/min)	1000	750	600	375	250	188	150	120	94	75	47	38	30	24	19	15	12	9.5	6
Rated torque after gearbox(N.m)	30.1	40.1	50.1	80.2	120.3	160.4	200.5	250.7	320.8	401.4	641.7	802.1	900	580	580	580	900	580	400
Max.output torque(N.m)	90.3	103.2	150.3	240.6	360.9	481.2	601.5	501.4	641.6	802.8	1283.4	1604.2	1800	1160	1160	1160	1800	1160	800
Rotational inertia(kgcm ²)	4.31	5.15	4.93	4.84	6.31	5.15	4.93	4.93	4.84	4.84	4.84	4.93	4.93	4.84	4.84	4.84	4.84	4.84	4.84

● DB130-□-4000-30S/PLX142□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

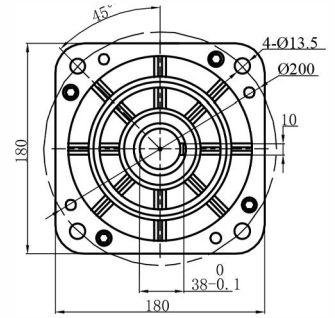
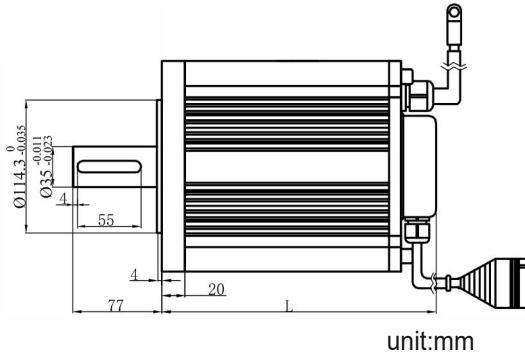
Gear ratio	3	4	5	8	12	16	20	25	32	40	64	80	100	125	160	200	256	320	512
Rated speed after gearbox(r/min)	1000	750	600	375	250	188	150	120	94	75	47	38	30	24	19	15	12	9.5	6
Rated torque after gearbox(N.m)	34.4	45.8	57.2	91.4	137.2	182.9	228.6	285.8	365.8	457.2	731.6	900	900	580	580	580	900	580	400
Max.output torque(N.m)	103.2	137.4	171.6	274.2	411.6	548.7	457.2	571.6	731.6	914.4	1463.2	1800	1800	1160	1160	1160	1800	1160	800
Rotational inertia(kgcm ²)	4.31	5.15	4.93	4.84	6.31	5.15	4.93	4.93	4.84	4.84	4.84	4.93	4.93	4.84	4.84	4.84	4.84	4.84	4.84

● DB130-□-4500-30S/PLX142□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	4	5	8	12	16	20	25	32	40	64	80	100	125	160	200	256	320	512
Rated speed after gearbox(r/min)	1000	750	600	375	250	188	150	120	94	75	47	38	30	24	19	15	12	9.5	6
Rated torque after gearbox(N.m)	38.7	51.6	64.4	103	154.4	205.9	257.4	321.8	411.8	460	823.7	900	900	580	580	580	900	580	400
Max.output torque(N.m)	116.1	154.8	193.2	309	463.2	617.7	514.8	643.6	823.6	920	1647.4	1800	1800	1160	1160	1160	1800	1160	800
Rotational inertia(kgcm ²)	4.31	5.15	4.93	4.84	6.31	5.15	4.93	4.93	4.84	4.84	4.84	4.93	4.93	4.84	4.84	4.84	4.84	4.84	4.84

180series dc brushless motor

□ 180MM



技术参数

Style number	Voltage(V)	Power(w)	no-load speed (rpm)	rated speed (rpm)	rated current (A)	rated torque (N.m)	peak torque (N.m)	no-load current (A)	motor length L(mm)	建议适配驱动器型号
DB180-48-5000-30S	48	5	3600	3000	123	16	40	< 41	235	
DB180-72-5000-30S	72	5	3600	3000	82	16	40	< 27.3	235	
DB180-96-5000-30S	96	5	3600	3000	65	16	40	< 21.7	235	
DB180-310-5000-30S	310	5	3600	3000	20	16	40	< 7.1	235	
DB180-48-6000-30S	48	6	3600	3000	147	19	47.5	< 49	256	
DB180-72-6000-30S	72	6	3600	3000	123	19	47.5	< 41	256	
DB180-96-6000-30S	96	6	3600	3000	78	19	47.5	< 26	256	
DB180-310-6000-30S	310	6	3600	3000	24	19	47.5	< 8	256	
DB180-48-7500-30S	48	7.5	3600	3000	184	25	62.5	< 61	273	
DB180-72-7500-30S	72	7.5	3600	3000	130	25	62.5	< 43	273	
DB180-96-7500-30S	96	7.5	3600	3000	98	25	62.5	< 33	273	
DB180-310-7500-30S	310	7.5	3600	3000	30	25	62.5	< 11	273	
DB180-48-8500-20S	48	8.5	2400	2000	208	42	84	< 74	328	
DB180-72-8500-20S	72	8.5	2400	2000	148	42	84	< 53	328	
DB180-96-8500-20S	96	8.5	2400	2000	111	42	84	< 37	328	
DB180-310-8500-20S	310	8.5	2400	2000	34.1	42	84	< 11	328	
DB180-48-10000-20S	48	10	2400	2000	245	50	100	< 82	345	
DB180-72-10000-20S	72	10	2400	2000	163	50	100	< 58	345	
DB180-96-10000-20S	96	10	2400	2000	123	50	100	< 41	345	
DB180-310-10000-20S	310	10	2400	2000	38	50	100	< 14	345	
DB180-72-11000-30S	72	11	3600	3000	180	36	75	< 66	311	
DB180-96-11000-30S	96	11	3600	3000	135	36	75	< 49	311	
DB180-310-11000-30S	310	11	3600	3000	42	36	75	< 15	311	
DB180-72-13000-30S	72	13	3600	3000	212	42	84	< 78	328	
DB180-96-13000-30S	96	13	3600	3000	159	42	84	< 58	328	

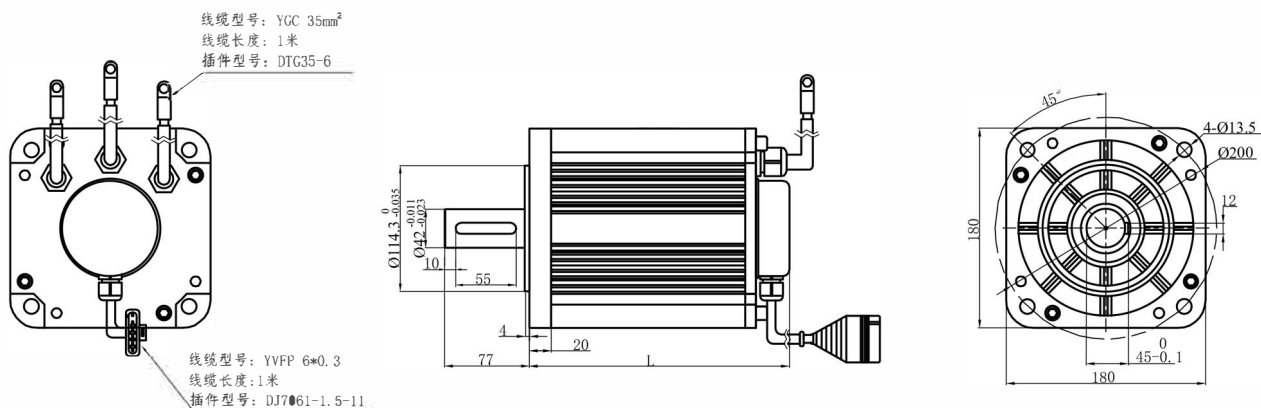
备注：电机接口、电压、转速可按客户要求定制。Motor interface, Voltage, Speed can be customized.

180series dc brushless motor

□ 180MM

DB180-310-13000-30S	310	13	3600	3000	49	42	84	< 18	328	
DB180-72-15000-30S	72	15	3600	3000	245	50	100	< 88	345	
DB180-96-15000-30S	96	15	3600	3000	184	50	100	< 66	345	
DB180-310-15000-30S	310	15	3600	3000	57	42	84	< 20	328	

备注：电机接口、电压、转速可按客户要求定制。Motor interface, Voltage, Speed can be customized.



Unit:mm

The shaft diameter is 42mm when rated power > 42mm

180 DC brushless planetary gear motor

□ 180MM

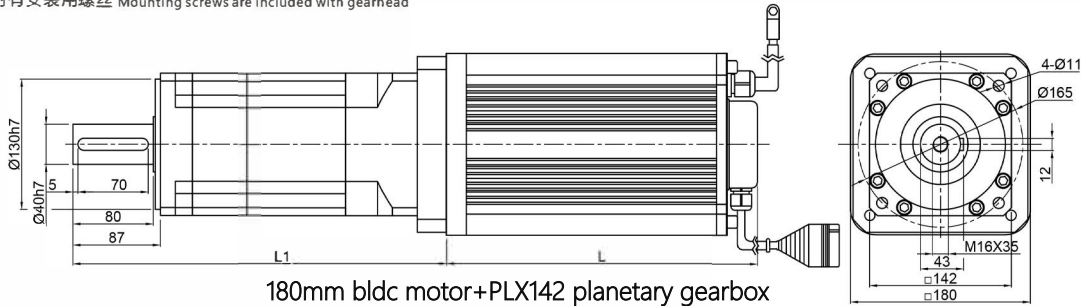
Brushless planetary gear motor

● PLX142 planetary Reducer Parameter Table

Gearbox type	PLX142		
Gearbox stage	1	2	3
Gearbox length L1(mm)	299	337	375
Gear ratio	1 stage	3, 4, 5, 8	
	2 stage	12, 16, 20, 25, 32, 40, 64	
	3 stage	60, 64, 80, 100, 120, 160, 200, 256, 320, 512	

● 外形图(单位mm) DIMENSIONS(Unit mm)

减速器附有安装用螺丝 Mounting screws are included with gearhead



□ 电压Voltage 36/48/72/310 □ 速比数值Velocity Ratio Value

● DB180-□-5000-30S/PLX142□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	4	5	8	12	16	20	25	32	40	64	80	100	125	160	200	256	320	512
Rated speed after gearbox(r/min)	1000	750	600	375	250	188	150	120	94	75	47	38	30	24	19	15	12	9.5	6
Rated torque after gearbox(N.m)	43	57.2	71.6	114.5	171.7	229.2	286.5	357.8	457.9	460	900	900	900	580	580	580	900	580	400
Max.output torque(N.m)	120	171.6	214.8	343.5	515.1	458.4	573	715.6	915.8	920	1800	1800	1800	1160	1160	1160	1800	1160	800
Rotational inertia(kgcm ²)	4.31	5.15	4.93	4.84	6.31	5.15	4.93	4.93	4.84	4.84	4.84	4.93	4.93	4.84	4.84	4.84	4.84	4.84	4.84

● DB180-□-6000-30S/PLX142□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	4	5	8	12	16	20	25	32	40	64	80	100	125	160	200	256	320	512
Rated speed after gearbox(r/min)	1000	750	600	375	250	188	150	120	94	75	47	38	30	24	19	15	12	9.5	6
Rated torque after gearbox(N.m)	51.6	68.8	86	137.5	206.3	309.4	343.8	429.8	550.1	460	900	900	900	580	580	580	900	580	400
Max.output torque(N.m)	154.8	206.4	258	412.5	412.6	618.8	687.6	859.6	1100.2	920	1800	1800	1800	1160	1160	1160	1800	1160	800
Rotational inertia(kgcm ²)	4.31	5.15	4.93	4.84	6.31	5.15	4.93	4.93	4.84	4.84	4.84	4.93	4.93	4.84	4.84	4.84	4.84	4.84	4.84

● DB180-□-7500-30S/PLX142□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	4	5	8	12	16	20	25	32	40	64	80	100	125	160	200	256	320	512
Rated speed after gearbox(r/min)	1000	750	600	375	250	188	150	120	94	75	47	38	30	24	19	15	12	9.5	6
Rated torque after gearbox(N.m)	64.5	86	107.6	172.1	258.1	344.2	430.2	460	680	460	900	900	900	580	580	580	900	580	400
Max.output torque(N.m)	193.5	258	322.8	516.3	516.2	688.4	860.4	920	1360	920	1800	1800	1800	1160	1160	1160	1800	1160	800
Rotational inertia(kgcm ²)	4.31	5.15	4.93	4.84	6.31	5.15	4.93	4.93	4.84	4.84	4.84	4.93	4.93	4.84	4.84	4.84	4.84	4.84	4.84

● DB180-□-8000-30S/PLX142□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	3	4	5	8	12	16	20	25	32	40	64	80	100	125	160	200	256	320	512
Rated speed after gearbox(r/min)	1000	750	600	375	250	188	150	120	94	75	47	38	30	24	19	15	12	9.5	6
Rated torque after gearbox(N.m)	68.8	91.7	114.8	183.6	275.4	376.2	459	460	680	460	900	900	900	580	580	580	900	580	400
Max.output torque(N.m)	206.4	275.1	344.4	367.2	550.8	752.4	918	920	1360	920	1800	1800	1800	1160	1160	1160	1800	1160	800
Rotational inertia(kgcm ²)	4.31	5.15	4.93	4.84	6.31	5.15	4.93	4.93	4.84	4.84	4.84	4.93	4.93	4.84	4.84	4.84	4.84	4.84	4.84

180 DC brushless planetary gear motor

□ 180MM

Brushless planetary gear motor

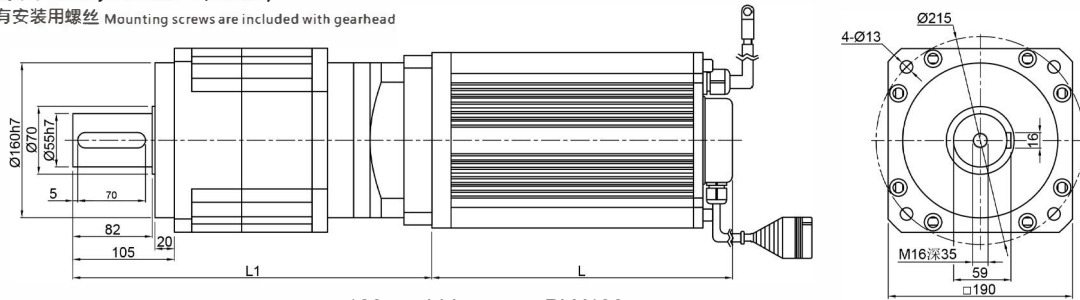
The speed is calculated by dividing the rated speed of the motor by the reduction ratio, and the actual speed will be reduced by 2%-20% according to the load size.

PLX190 planetary Reducer Parameter Table

Gearbox type	PLX190		
Gearbox stage	1	2	3
Gearbox length L1(mm)	318.5	371.5	424.5
Gear ratio	1 stage	4, 5, 8	
	2 stage	12, 16, 20, 25, 32, 40, 64	
	3 stage	64, 80, 100, 120, 160, 200, 256, 320, 512	

●外形图(单位mm) DIMENSIONS(Unit mm)

減速器附有安裝用螺絲 Mounting screws are included with gearbox



180mm bldc motor+PLX190

□-电压Voltage 36/48/72/310 □-速比数值Velocity Ratio Value

●DB180-□-9000-30S/PLX190□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	4	5	8	12	16	20	25	32	40	64	80	100	125	160	200	256	320	512
Rated speed after gearbox(r/min)	750	600	375	250	188	150	120	94	75	47	38	30	24	19	15	12	9.5	6
Rated torque after gearbox(N.m)	103.1	128.9	206.3	310	413.3	516.6	645.8	826.6	1003.2	1653.1	2066.4	2583	1855	2590	1855	2590	1855	1070
Max.output torque(N.m)	309.3	386.7	618.9	930	1239.9	1033.2	1291.6	1653.2	2006.4	3306.2	4132.8	5166	3710	5180	3710	5180	3710	2140
Rotational inertia(kgcm ²)	15.6	15.6	15.6	6.31	5.15	4.93	4.93	4.84	4.84	4.84	4.93	4.93	4.84	4.84	4.84	4.84	4.84	4.84

●DB180-□-10000-30S/PLX190□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	4	5	8	12	16	20	25	32	40	64	80	100	125	160	200	256	320	512
Rated speed after gearbox(r/min)	750	600	375	250	188	150	120	94	75	47	38	30	24	19	15	12	9.5	6
Rated torque after gearbox(N.m)	114.6	143.3	229	343.4	457.9	572.4	715.5	915.8	1144.8	1831.7	2289.6	2590	1855	2590	1855	2590	1855	1070
Max.output torque(N.m)	343.8	429.9	687	1030.2	1373.7	1144.8	1431	1831.6	2289.6	3663.4	4579.2	5180	3710	5180	3710	5180	3710	2140
Rotational inertia(kgcm ²)	15.6	15.6	15.6	6.31	5.15	4.93	4.93	4.84	4.84	4.84	4.93	4.93	4.84	4.84	4.84	4.84	4.84	4.84

●DB180- -11000-30S/PLX190□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	4	5	8	12	16	20	25	32	40	64	80	100	125	160	200	256	320	512
Rated speed after gearbox(r/min)	750	600	375	250	188	150	120	94	75	47	38	30	24	19	15	12	9.5	6
Rated torque after gearbox(N.m)	126.1	157.5	252	378	504	630	787.5	1008	1260	2016	2520	2590	1855	2590	1855	2590	1855	1070
Max.output torque(N.m)	378.3	472.5	750	1134	1512	1260	1575	2016	2520	4032	5040	5180	3710	5180	3710	5180	3710	2140
Rotational inertia(kgcm ²)	15.6	15.6	15.6	6.31	5.15	4.93	4.93	4.84	4.84	4.84	4.93	4.93	4.84	4.84	4.84	4.84	4.84	4.84

●DB180- -13000-30S/PLX190□K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	4	5	8	12	16	20	25	32	40	64	80	100	125	160	200	256	320	512
Rated speed after gearbox(r/min)	750	600	375	250	188	150	120	94	75	47	38	30	24	19	15	12	9.5	6
Rated torque after gearbox(N.m)	149	186.3	298.1	447.1	596.2	745	931.5	1192.3	1490.4	2035	2590	2590	1855	2590	1855	2590	1855	1070
Max.output torque(N.m)	447	558.9	894.3	1341.3	1788.6	1490	1863	2384	2980	4070	5180	5180	3710	5180	3710	5180	3710	2140
Rotational inertia(kgcm ²)	15.6	15.6	15.6	6.31	5.15	4.93	4.93	4.84	4.84	4.84	4.93	4.93	4.84	4.84	4.84	4.84	4.84	4.84

180 DC brushless planetary gear motor

□ 180MM

Brushless planetary gear motor

The speed is calculated by dividing the rated speed of the motor by the reduction ratio, and the actual speed will be reduced by 2%-20% according to the load size.

□ -电压 Voltage 36/48/72/310 □ -速比数值 Velocity Ratio Value

● DB180-□-15000-30S/PLX190 □ K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

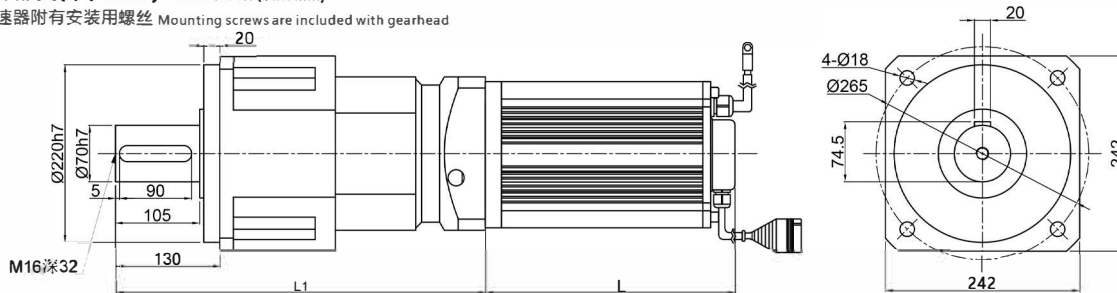
Gear ratio	-	4	5	8	12	16	20	25	32	40	64	80	100	125	160	200	256	320	512
Rated speed after gearbox(r/min)	-	750	600	375	250	188	150	120	94	75	47	38	30	24	19	15	12	9.5	6
Rated torque after gearbox(N.m)	-	172	215	343.8	515.7	687.6	859.5	1074.4	1375.2	1719	2035	2590	2590	1855	2590	1855	2590	1855	1070
Max.output torque(N.m)	-	516	645	1031.4	1547.1	1375.2	1719	2148.8	2750.4	3438	4070	5180	5180	3710	5180	3710	5180	3710	2140
Rotational inertia(kgcm ²)	-	15.6	15.6	15.6	6.31	5.15	4.93	4.93	4.84	4.84	4.84	4.93	4.93	4.84	4.84	4.84	4.84	4.84	4.84

● PLX242 Planetary Reducer Parameter Table

Gearbox type	PLX242		
Gearbox stage	1	2	3
Gearbox length L1(mm)	392	420	461
Gear ratio	1 stage	4, 5, 8	
	2 stage	12, 16, 20, 25, 32, 40, 64	
	3 stage	64, 80, 100, 120, 160, 200, 256, 320, 512	

● 外形图(单位mm) DIMENSIONS(Unit mm)

减压器附有安装用螺丝 Mounting screws are included with gearhead



180mm bldc motor+PLX242

□ -电压 Voltage 36/48/72/310 □ -速比数值 Velocity Ratio Value

● DB180-□-9000-30S/PLX242 □ K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	-	4	5	8	-	16	20	25	32	40	64	80	100	125	160	200	256	320	512
Rated speed after gearbox(r/min)	-	750	600	375	-	188	150	120	94	75	47	38	30	24	19	15	12	9.5	6
Rated torque after gearbox(N.m)	-	103.1	128.9	206.3	-	413.3	516.6	645.8	826.6	1003.2	1653	2066.4	2583	3223.5	4132.8	3420	4420	3420	1840
Max.output torque(N.m)	-	309.3	386.7	618.9	-	1239.9	1033.2	1291.6	1653.2	2006.4	3306.2	4132.8	5166	6447	8265.6	6840	8840	6840	3680
Rotational inertia(kgcm ²)	-	34.6	34.6	34.6	-	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6

● DB180-□-10000-30S/PLX242 □ K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	-	4	5	8	-	16	20	25	32	40	64	80	100	125	160	200	256	320	512
Rated speed after gearbox(r/min)	-	750	600	375	-	188	150	120	94	75	47	38	30	24	19	15	12	9.5	6
Rated torque after gearbox(N.m)	-	114.6	143.3	229	-	457.9	572.4	715.5	915.8	1144.8	1831.7	2289.6	2862	3420	4420	3420	4420	3420	1840
Max.output torque(N.m)	-	343.8	429.9	687	-	1373.7	1144.8	1431	1831.6	2289.6	3663.4	4579.2	5724	6840	8840	6840	8840	6840	3680
Rotational inertia(kgcm ²)	-	34.6	34.6	34.6	-	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6

● DB180-□-11000-30S/PLX242 □ K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	-	4	5	8	-	16	20	25	32	40	64	80	100	125	160	200	256	320	512
Rated speed after gearbox(r/min)	-	750	600	375	-	188	150	120	94	75	47	38	30	24	19	15	12	9.5	6
Rated torque after gearbox(N.m)	-	126	157.5	252	-	504	630	787.5	1008	1260	2016	2520	3150	3420	4420	3420	4420	3420	1840
Max.output torque(N.m)	-	378.3	472.5	750	-	1512	1260	1575	2016	2520	4032	5040	6300	6840	8840	6840	8840	6840	3680
Rotational inertia(kgcm ²)	-	34.6	34.6	34.6	-	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6

180 DC brushless planetary gear motor

180MM

Brushless planetary gear motor

The speed is calculated by dividing the rated speed of the motor by the reduction ratio, and the actual speed will be reduced by 2%-20% according to the load size.

-电压Voltage 36/48/72/310 -速比数值Velocity Ratio Value

● DB180--13000-30S/PLX242 K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	-	4	5	8	-	16	20	25	32	40	64	80	100	125	160	200	256	320	512
Rated speed after gearbox(r/min)	-	750	600	375	-	188	150	120	94	75	47	38	30	24	19	15	12	9.5	6
Rated torque after gearbox(N.m)	-	149	186.3	298.1	-	596.2	745	931.5	1192.3	1490.4	2035	2590	3420	3420	4420	3420	4420	3420	1840
Max.output torque(N.m)	-	447	558.9	894.3	-	1788.6	1490	1863	2384	2980	4070	5180	6840	6840	8840	6840	8840	6840	3680
Rotational inertia(kgcm ²)	-	34.6	34.6	34.6	-	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6

● DB180--15000-30S/PLX242 K整机容许力矩(单位N.m) Machine Allowable Torque (Unit:N.m)

Gear ratio	-	4	5	8	-	16	20	25	32	40	64	80	100	125	160	200	256	320	512
Rated speed after gearbox(r/min)	-	750	600	375	-	188	150	120	94	75	47	38	30	24	19	15	12	9.5	6
Rated torque after gearbox(N.m)	-	172	215	343.8	-	687.6	859.5	1074.4	1375.2	1719	2035	3438	3420	3420	4420	3420	4420	3420	1840
Max.output torque(N.m)	-	516	645	1031.4	-	1375.2	1719	2148.8	2750.4	3438	4070	6876	6840	6840	8840	6840	8840	6840	3680
Rotational inertia(kgcm ²)	-	34.6	34.6	34.6	-	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6

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DMKE motor(Guangzhou) industrial co., limited

Add : No. 439 Fuyi Road, Dalong street, Panyu district, GuangZhou city,China

Tel: 020-34825429 Fax:020-34825439

Contact: Shirley Fu Mobile/wechat/whatsapp:+86 13640275665 Skype:shirleyfu96

Website: <https://www.beudmkemotor.com/>

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