

直流电动机 DC MOTOR

型号的阅读方法 PRODUCT NUMBER CODE

电动机 Motor

5 ①	D ②	90 ③	—	24 ④	GN ⑤	—	30S ⑥
座机号 Code	①	②	③	④	⑤	⑥	⑦
电机安装法兰 Mounting Flange(mm)	60X60	70X70	80X80	90X90	90X90	104X104	
机壳直径 Case Diameter(mm)	60	60	80	80	90	90	
② 马达系列 Motor Series	D:有刷直流DC Motor						
③ 输出功率 Output (W)	例 (Example) 90:90W						
④ 转轴形状 Motor shaft ty	GN:GN型齿轮轴 GN type pinion shaft GU:GU型齿轮轴 GU type pinion shaft A :圆轴型 Round shaft A1:键槽型 Keyway						
⑤ 电源电压 Voltage	12:12v 24:24v 90:90V 120:120V 220:220V						
⑥ 转速 Speed	30S:3000RPM 18S:1800RPM						

减速器 Reducer

5 ①	GN ②	—	60 ③	K ④
① 减速器的尺寸 Reducer frame size	2 :60mm 3 :70mm 4 :80mm 5 :90mm 6 :104mm			
② 类型 Type of pinion	GN:GN型齿轮轴 GN type pinion shaft GU:GU型齿轮轴 GU type pinion shaft			
③ 减速比 Gear ratio	例 (Example) 60: 1:60			
④ 轴承种类 Bearing type	K:滚珠轴承 (对5GU方型箱体标注为KB) Bearing (make KB for type GU square case)			

直流电机得一般规格General specification of DC motor

项目 Item	规格 Specifications
绝缘电阻 InsulationResistance	于常温·常湿下的电动机额定运行后,以DC500V电阻表测量线圈外壳间时,测量值为20MΩ以上 In the circumstance of normal temperature and humidity, the resistance can be up to 100100MΩ, measured DC 500vinsulation resistance measurerbetween the motor wiring and motor shell while the motor is working.
绝缘耐压 Insulationvoltage	于常温·常湿下电动机额定运行后,在线圈外壳间施加一分钟50Hz或60Hz、15kv的电压,亦无异常 In the circumstance of normal temperature and humidity there will be no problem supplying the power of 1.5kv at 50Hz/60Hz between the metal wiring and motor shell for 1 minute while the motor is working.
温度上升 TemperatureRise	运行电机后,用电阻法来测量时,线圈绕组温度的上升数值在80℃一下 The temperature rise should be lower than 80℃ measured by resistance method when the motor is working
绝缘等级 InsulationClass	UL/CSA规格:A种(105℃)、EN规格:B种(130℃) UL/CSA Standards: Class A(105℃) EN Standards: Class B(130℃)
使用环境温度 Ambient Temperature	其他电压:-10℃~+40℃(无结冰) -10℃~+40℃(Non Freezing)
使用环境湿 Ambient Humidity	85%以下 (无结露) ≤85% (Non condensing)

直流电动机 DC MOTOR

NINGBO HENGTUO MOTOR CO.,LTD
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Website: www.motor-reducer.com

●6W ◎60mm



电机性能参数 Motor Performance Parameters

电机型号 Model	电压 Voltage	功率 Power	空载参数 No-load Parameter		负载参数 Load Parameters			电刷寿命 brush life	电机重量 Motor Weight
	V	W	转速Speed r/min	电流Current A	转速speed r/min	力矩torque mN.m	电流current A	H	kg
2D6-12□	12	6	3300	0.6	3000	19	1.2	2000	0.6
2D6-24□	24	6	3300	0.4	3000	19	0.6	2000	0.6

- 电机电压、功率及转速可在配件尺寸等条件下根据客户要求定制。
- 外置电刷,用户可自行在外部更换电刷:内置电刷电机更换电刷时需将电机拆装后方可更换。
- Motor voltage, power and speed will be customized according to his requestment under allowed circumstanceof adoptable dimension.
- For external brush motor,you can replce the brush directly.For internal oones,we need to disassembly the motor first.

减速箱减速比/性能对照表 Gear reduction ratio/performance comparison

型号Model	减速比 Gear Ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200
2D6-24GN	转速 Speed r/min	999	833	600	500	400	333	300	240	200	166	150	120	100	83	75	60	50	40	33	30	25	20	16.5	15
	转矩 Torque N.m	0.05	0.05	0.07	0.09	0.11	0.13	0.15	0.19	0.23	0.27	0.30	0.34	0.41	0.50	0.55	0.69	0.75	0.93	1.12	1.25	1.5	1.88	2.25	2.5

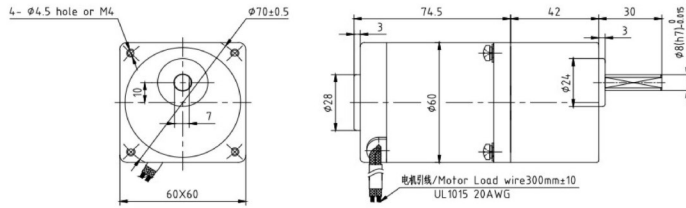
- 表中转速是以电机的平均转速为基数除以减速比而算出的数值。实际转速将随负载大小而变化,变化范围2-20%。
- 表中 色框表示输出轴的旋转方向与电机旋转方向相反。
- 表中转矩是以电机额定转矩×减速比×传动效率计算而得。
- In the table, the speed is calculated from the base of the motor's average speed divided by the deceleration ratio.The actual speed will vary with the load, ranging from 2% to 20%.
- The 色 box in the table indicates that the rotation direction of the output axis is opposite to that of the motor.
- Table transfer torque is calculated from motor rated torque * deceleration ratio * transmission efficiency.

直流电动机 DC MOTOR

外形尺寸 (单位mm) Dimension (unit mm)

●导线型 Lead Wring Type

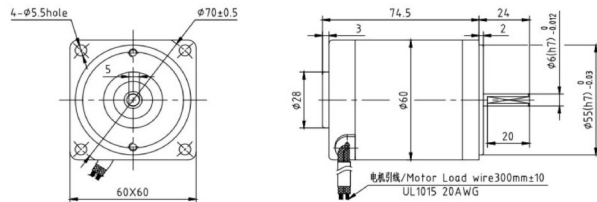
重量Weight: 电机 Motor:0.6Kg 减速器 Gearhead: 0.4Kg



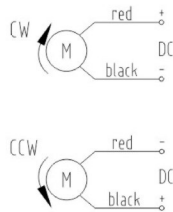
其中速比3~18可以做成短型减速箱 (L=42)
Gear ratio 3~18, short case is possible (L=42)

●圆轴电机 Round Shaft Motor

重量 Weight:0.6Kg



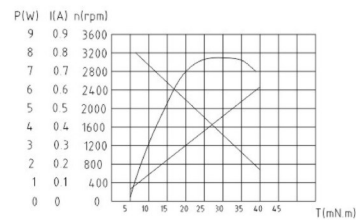
接线图 Wiring Diagram



●运转方向指从电动机轴看来的方向。CW表示顺时针方向,CCW表示逆时针方向。

●The direction of motor rotation is as viewed from the shaft end of motor CW represents the clockwise direction, while CCW represents the counterclockwise direction

电机特性曲线



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●10W ○60mm



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电机性能参数 Motor Performance Parameters

电机型号 Model	电压 Voltage V	功率 Power W	空载参数 No-load Parameter		负载参数 Load Parameters			电刷寿命 brush life H	电机重量 Motor Weight kg
			转速Speed r/min	电流Current A	转速speed r/min	力矩torque mN.m	电流current A		
2D10-12□	12	10	3400	0.7	3000	32	1.8	2000	0.7
2D10-24□	24	10	3400	0.5	3000	32	0.9	2000	0.7

●电机电压、功率及转速可在配件尺寸等条件下根据客户要求定制。

●外置电刷,用户可自行在外部更换电刷;内置电刷电机更换电刷时需将电机拆装后方可更换。

●Motor voltage, power and speed will be customized according to his requestment under allowed circumstance of adoptable dimension.

●For external brush motor, you can replace the brush directly. For internal ones, we need to disassembly the motor first.

减速箱减速比/性能对照表 Gear reduction ratio/performance comparison

型号Model	减速比 Gear Ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200
2D10-24GN	转速 Speed r/min	999	833	600	500	400	333	300	240	200	166	150	120	100	83	75	60	50	40	33	30	25	20	16.5	15
	转矩 Torque N.m	0.08	0.09	0.07	0.15	0.19	0.23	0.25	0.32	0.38	0.46	0.51	0.57	0.69	0.83	0.92	1.15	1.25	1.56	1.87	2.08	2.5	3.0	3.0	3.0

●表中转速是以电机的平均转速为基数除以减速比而算出的数值。实际转速将随负载大小而变化,变化范围2~20%。

●表中色框表示输出轴的旋转方向与电机旋转方向相反。

●表中转矩是以电机额定转矩×减速比×传动效率计算而得。

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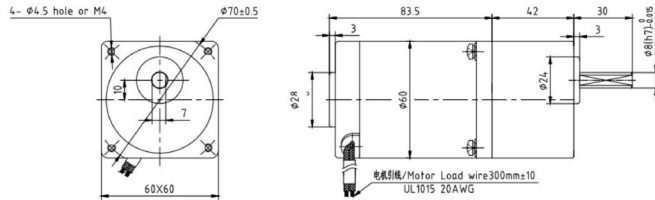
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直流电动机 DC MOTOR

外形尺寸 (单位mm) Dimension (unit mm)

●导线型 Lead Wring Type

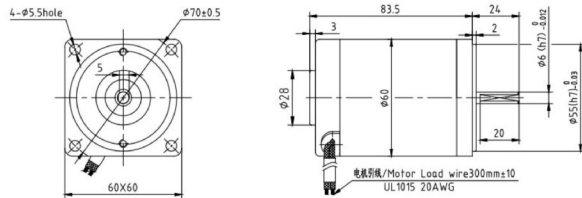
重量 Weight: 电机 Motor:0.7Kg 减速器 Gearhead: 0.4Kg



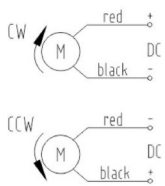
其中速比3~18可以做成短型减速箱 (L=42)
Gear ratio 3~18, short case is possible (L=42)

●圆轴电机 Round Shaft Motor

重量 Weight:0.7Kg



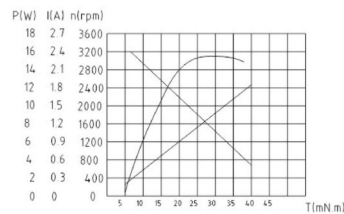
接线图 Wiring Diagram



●运转方向指从电动机轴看来的方向。CW表示顺时针方向,CCW表示逆时针方向。

●The direction of motor rotation is as viewed from the shaft end of motor CW represents the clockwise direction, while CCW represents the counterclockwise direction

电机特性曲线



直流电动机 DC MOTOR

●15W ○60mm



电机性能参数 Motor Performance Parameters

电机型号 Model	电压 Voltage V	功率 Power W	空载参数 No-load Parameter		负载参数 Load Parameters			电刷寿命 brush life H	电机重量 Motor Weight kg
			转速Speed r/min	电流Current A	转速speed r/min	力矩torque mN.m	电流current A		
2D15-12□	12	15	3400	0.8	3000	47	2.1	2000	0.8
2D15-24□	24	15	3350	0.4	3000	47	1.1	2000	0.8

●电机电压、功率及转速可在配件尺寸等条件下根据客户要求定制。

●外置电刷,用户可自行在外部更换电刷;内置电刷电机更换电刷时需将电机拆装后方可更换。

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2D15-24GN	转速 Speed r/min	999	833	600	500	400	333	300	240	200	166	150	120	100	83	75	60	50	40	33	30	25	20	16.5	15
	转矩 Torque N.m	0.11	0.13	0.19	0.22	0.28	0.34	0.38	0.47	0.57	0.68	0.76	0.85	1.02	1.23	1.37	1.71	1.85	2.31	2.77	3.0	3.0	3.0	3.0	3.0

●表中转速是以电机的平均转速为基数除以减速比而算出的数值。实际转速将随负载大小而变化,变化范围2~20%。

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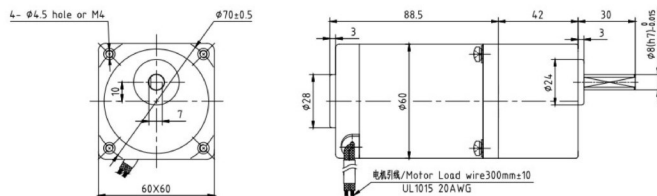
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直流电动机 DC MOTOR

外形尺寸 (单位mm) Dimension (unit mm)

●导线型 Lead Wring Type

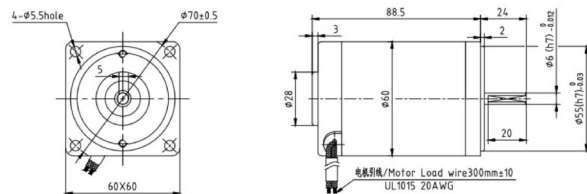
重量 Weight:电机 Motor:0.8Kg 减速器 Gearhead:0.4Kg



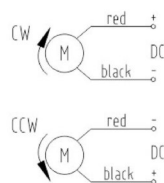
其中速比3~18可以做成短型减速箱 (L=42)
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●圆轴电机 Round Shaft Motor

重量 Weight:0.8Kg

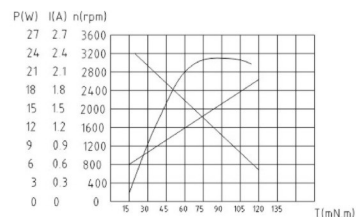


接线图 Wiring Diagram



- 运转方向指从电动机轴看来的方向。CW表示顺时针方向,CCW表示逆时针方向。
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电机特性曲线



直流电动机 DC MOTOR

●25W ○70mm



电机性能参数 Motor Performance Parameters

电机型号 Model	电压 Voltage V	功率 Power W	空载参数 No-load Parameter		负载参数 Load Parameters			电刷寿命 brush life H	电机重量 Motor Weight kg
			转速Speed r/min	电流Current A	转速speed r/min	力矩torque mN.m	电流current A		
3D25-12□	12	30	3450	0.8	3000	80	3	2000	1
3D25-24□	24	30	3400	0.4	3000	80	1.5	2000	1

- 电机电压、功率及转速可在配件尺寸等条件下根据客户要求定制。
- 外置电刷,用户可自行在外部更换电刷;内置电刷电机更换电刷时需将电机拆装后方可更换。
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减速箱减速比/性能对照表 Gear reduction ratio/performance comparison

型号Model	减速比 Gear Ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200
3D25-24GN	转速 Speed r/min	999	833	600	500	400	333	300	240	200	166	150	120	100	83	75	60	50	40	33	30	25	20	16.5	15
	转矩 Torque N.m	0.23	0.27	0.38	0.46	0.57	0.69	0.76	0.96	1.15	1.38	1.53	1.73	2.07	2.49	2.77	3.46	3.73	4.67	5	5.0	5.0	5.0	5.0	5.0

- 表中转速是以电机的平均转速为基数除以减速比而算出的数值。实际转速将随负载大小而变化,变化范围2~20%。
- 表中■色框表示输出轴的旋转方向与电机旋转方向相反。
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- Table transfer torque is calculated from motor rated torque * deceleration ratio * transmission efficiency.

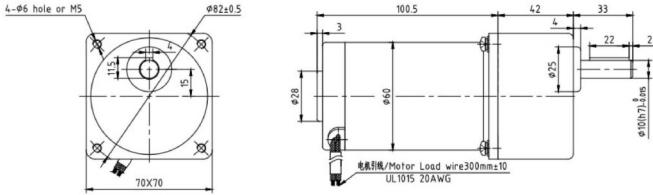
直流电动机 DC MOTOR

直流电动机 DC MOTOR

外形尺寸（单位mm） Dimension (unit mm)

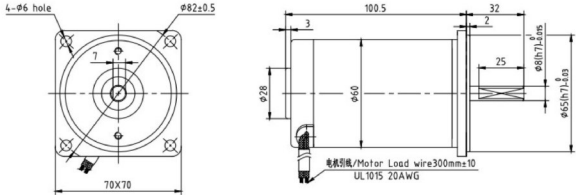
●25W ○80mm

- 导线型 Lead Wring Type
重量Weight:电机 Motor:1.0Kg 减速器 Gearhead: 0.5Kg

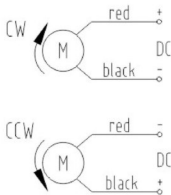


其中速比3~18可以做成短型减速箱 (L=42)
Gear ratio 3~18, short case is possible (L=42)

- 圆轴电机 Round Shaft Motor
重量 Weight:1.0Kg

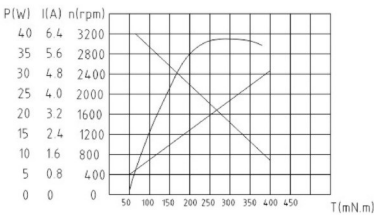


接线图 Wiring Diagram



- 运转方向指从电动机轴看来的方向。CW表示顺时针方向，CCW表示逆时针方向。
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			转速Speed r/min	电流Current A	转速speed r/min	力矩torque mN.m	电流current A		
4D25-12□	12	25	3250	1.6	3000	80	3	2000	1.7
4D25-24□	24	25	3250	0.8	3000	80	1.5	2000	1.7
4D25-90□	90	25	3200	0.2	3000	80	0.5	2000	1.7

- 电机电压、功率及转速可在配件尺寸等条件下根据客户要求定制。
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型号Model	减速比 Gear Ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200
4D25-24GN	转速 Speed r/min	999	833	600	500	400	333	300	240	200	166	150	120	100	83	75	60	50	40	33	30	25	20	16.5	15
	转矩 Torque N.m	0.19	0.23	0.31	0.38	0.47	0.57	0.63	0.79	0.95	1.15	1.27	1.43	1.72	2.07	2.30	2.87	3.10	3.88	4.66	5.18	6.21	7.77	8	8

- 表中转速是以电机的平均转速为基数除以减速比而算出的数值。实际转速将随负载大小而变化，变化范围2-20%。
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直流电动机

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- 表中  色框表示输出轴的旋转方向与电机旋转方向相反。
- 表中转矩是以电机额定转矩×减速比×传动效率计算而得。
- In the table, the speed is calculated from the base of the motor's average speed divided by the deceleration ratio. The actual speed will vary with the load, ranging from 2% to 20%.
- The  box in the table indicates that the rotation direction of the output axis is opposite to that of the motor.
- Table transfer torque is calculated from motor rated torque * deceleration ratio * transmission efficiency.

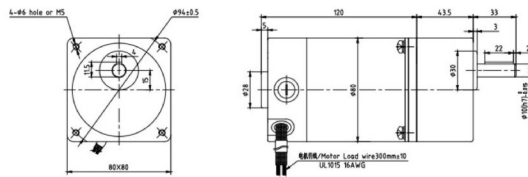
直流电动机

直流电动机 DC MOTOR

外形尺寸 (单位mm) Dimension (unit mm)

●导线型 Lead Wring Type

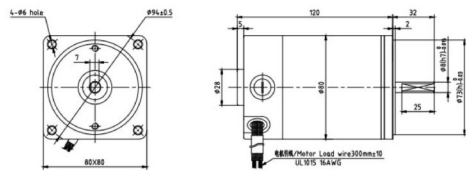
重量 Weight:电机 Motor:1.8Kg 减速器 Gearhead:0.8Kg



其中速比3~18可以做成短型减速箱 (L=42)
Gear ratio 3~18, short case is possible (L=42)

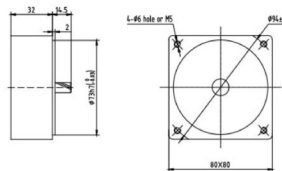
●圆轴电机 Round Shaft Motor

重量 Weight:1.8Kg



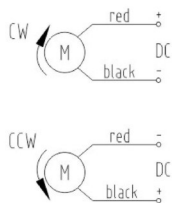
●中间减速器 Mid-gearbox

重量 Weight:0.41Kg



可安装在GN齿轮轴型上
Can be connected to GN pinion 4GN10XK

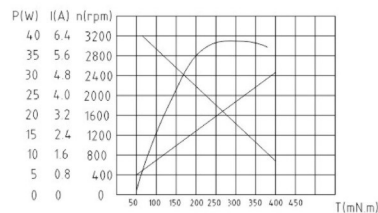
接线图 Wiring Diagram



●运转方向指从电动机轴看来的方向。CW表示顺时针方向,CCW表示逆时针方向。

●The direction of motor rotation is as viewed from the shaft end of motoc CW represents the clockwise direction, while CCW represents the counterclockwise direction

电机特性曲线



直流电动机 DC MOTOR

●40W ◎90mm



电机性能参数 Motor Performance Parameters

电机型号 Model	电压 Voltage V	功率 Power W	空载参数 No-load Parameter		负载参数 Load Parameters			电刷寿命 brush life H	电机重量 Motor Weight kg
			转速Speed r/min	电流Current A	转速speed r/min	力矩torque mN.m	电流current A		
5D40-12□	12	40	3350	1.6	3000	127	4.8	2000	1.9
5D40-24□	24	40	3300	0.8	3000	127	2.4	2000	1.9
5D40-90□	90	40	3250	0.2	3000	127	0.65	2000	1.9

●电机电压、功率及转速可在配件尺寸等条件下根据客户要求定制。

●外置电刷,用户可自行在外部更换电刷;内置电刷电机更换电刷时需将电机拆装后方可更换。

●Motor voltage, power and speed will be customized according to his requestment under allowed circumstance of adoptable dimension.

●For external brush motor, you can replace the brush directly. For internal ones, we need to disassembly the motor first.

减速箱减速比/性能对照表 Gear reduction ratio/performance comparison

型号Model	减速比 Gear Ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200
5D40-24GN	转速 Speed r/min	999	833	600	500	400	333	300	240	200	166	150	120	100	83	75	60	50	40	33	30	25	20	16.5	15
	转矩 Torque N.m	0.31	0.37	0.51	0.61	0.77	0.92	1.02	1.28	1.54	1.66	1.85	2.31	2.77	3.33	3.34	4.16	4.99	6.24	7.49	8.33	10	10	10	10

●表中转速是以电机的平均转速为基数除以减速比而算出的数值。实际转速将随负载大小而变化,变化范围2~20%。

●表中色框表示输出轴的旋转方向与电机旋转方向相反。

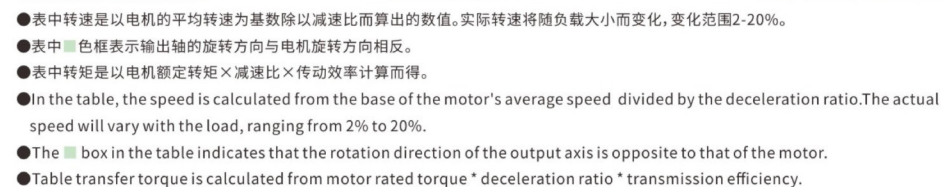
●表中转矩是以电机额定转矩×减速比×传动效率计算而得。

●In the table, the speed is calculated from the base of the motor's average speed divided by the deceleration ratio. The actual speed will vary with the load, ranging from 2% to 20%.

●The box in the table indicates that the rotation direction of the output axis is opposite to that of the motor.

●Table transfer torque is calculated from motor rated torque * deceleration ratio * transmission efficiency.

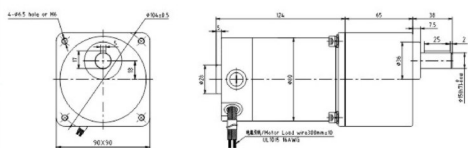
直流电动机



直流电动机 DC MOTOR

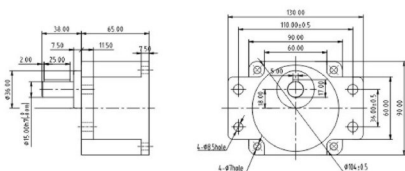
外形尺寸 (单位mm) Dimension (unit mm)

- 导线型 Lead Wring Type
重量 Weight:电机 Motor:1.9Kg
减速器 Gearhead:1.5Kg



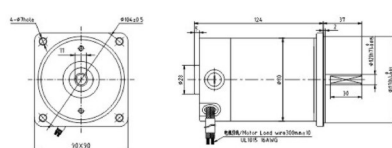
其中速比3~18可以做成短型减速箱 (L=42)
Gear ratio 3~18, short case is possible (L=42)

- 凸缘安装型减速器 Flange Mounting Reducer
重量 Weight:1.5Kg

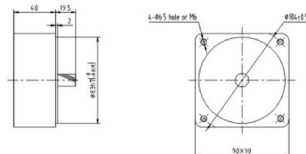


可安装在GU齿轮轴型上
Can be Mounted on GU Type gear shaft 5GU□K

- 圆轴电机 Round Shaft Motor
重量 Weight:1.9Kg

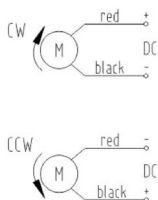


- 中间减速器 Mid-gearbox
重量 Weight:0.65Kg



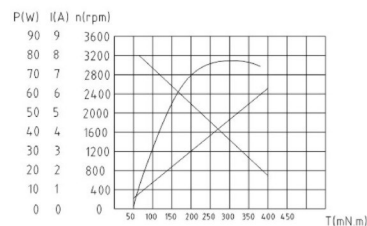
可安装在GU齿轮轴型上
Can be connected to GU pinion 5GU10XK

接线图 Wiring Diagram



- 运转方向指从电动机轴看来的方向。CW表示顺时针方向, CCW表示逆时针方向。
- The direction of motor rotation is as viewed from the shaft end of motor CW represents the clockwise direction, while CCW represents the counterclockwise direction

电机特性曲线



直流电动机 DC MOTOR

●90W ○90mm



电机性能参数 Motor Performance Parameters

电机型号 Model	电压 Voltage V	功率 Power W	空载参数 No-load Parameter		负载参数 Load Parameters			电刷寿命 brush life H	电机重量 Motor Weight kg
			转速Speed r/min	电流Current A	转速speed r/min	力矩torque mN.m	电流current A		
5D90-12□	12	90	3400	1.7	3000	286	10.0	2000	2.2
5D90-24□	24	90	3350	0.9	3000	286	5.2	2000	2.2
5D90-90□	90	90	3300	0.35	3000	286	1.4	2000	2.2

- 电机电压、功率及转速可在配件尺寸等条件下根据客户要求定制。
- 外置电刷, 用户可自行在外部更换电刷; 内置电刷电机更换电刷时需将电机拆装后方可更换。
- Motor voltage, power and speed will be customized according to his request under allowed circumstance of adoptable dimension.
- For external brush motor, you can replace the brush directly. For internal ones, we need to disassemble the motor first.

减速箱减速比/性能对照表 Gear reduction ratio/performance comparison

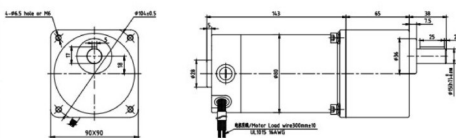
型号Model	减速比 Gear Ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200
5D90-24GU	转速 Speed r/min	999	833	600	500	400	333	300	240	200	166	150	120	100	83	75	60	50	40	33	30	25	20	17	15
	转矩 Torque N.m	0.69	0.83	1.15	1.38	1.73	2.08	2.08	2.60	3.12	3.75	3.75	4.69	5.62	6.75	7.50	9.38	11.25	14.0	15.19	16.88	20	20	20	20

- 表中转速是以电机的平均转速为基数除以减速比而算出的数值。实际转速将随负载大小而变化, 变化范围2~20%。
- 表中色框表示输出轴的旋转方向与电机旋转方向相反。
- 表中转矩是以电机额定转矩×减速比×传动效率计算而得。
- In the table, the speed is calculated from the base of the motor's average speed divided by the deceleration ratio. The actual speed will vary with the load, ranging from 2% to 20%.
- The box in the table indicates that the rotation direction of the output axis is opposite to that of the motor.
- Table transfer torque is calculated from motor rated torque * deceleration ratio * transmission efficiency.

直流电动机 DC MOTOR

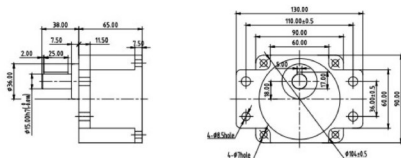
外形尺寸 (单位mm) Dimension (unit mm)

- 导线型 Lead Wring Type
重量 Weight:电机 Motor:2.2Kg
减速器 Gearhead:1.5Kg



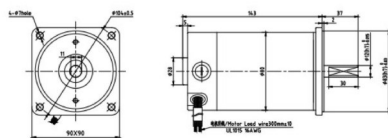
其中速比3~18可以做成短型减速箱 (L=42)
Gear ratio 3~18, short case is possible (L=42)

- 凸缘安装型减速器 Flange Mounting Reducer
重量 Weight:1.5Kg

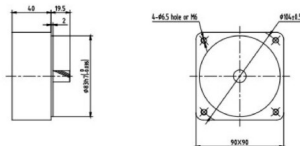


可安装在GU齿轮轴型上
Can be Mounted on GU Type gear shaft 5GU10XK

- 圆轴电机 Round Shaft Motor
重量 Weight:2.2Kg

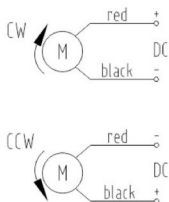


- 中间减速器 Mid-gearbox
重量 Weight:0.65Kg



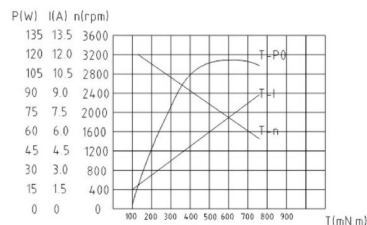
可安装在GU齿轮轴型上
Can be connected to GU pinion 5GU10XK

接线图 Wiring Diagram



- 运转方向指从电动机轴看来的方向。CW表示顺时针方向,CCW表示逆时针方向。
- The direction of motor rotation is as viewed from the shaft end of motor CW represents the clockwise direction, while CCW represents the counterclockwise direction

电机特性曲线



直流电动机 DC MOTOR

●120W ◎90mm



电机性能参数 Motor Performance Parameters

电机型号 Model	电压 Voltage V	功率 Power W	空载参数 No-load Parameter		负载参数 Load Parameters			电刷寿命 brush life H	电机重量 Motor Weight kg
			转速Speed r/min	电流Current A	转速speed r/min	力矩torque mN.m	电流current A		
5D120-12□	12	120	3500	2.1	3000	382	13.9	2000	2.2
5D120-24□	24	120	3500	1.2	3000	382	7.1	2000	2.2
5D120-90□	90	120	3400	0.4	3000	382	1.9	2000	2.2

- 电机电压、功率及转速可在配件尺寸等条件下根据客户要求定制。
- 外置电刷,用户可自行在外部更换电刷;内置电刷电机更换电刷时需将电机拆装后方可更换。
- Motor voltage, power and speed will be customized according to his requestment under allowed circumstance of adoptable dimension.
- For external brush motor, you can replace the brush directly. For internal ones, we need to disassembly the motor first.

减速箱减速比/性能对照表 Gear reduction ratio/performance comparison

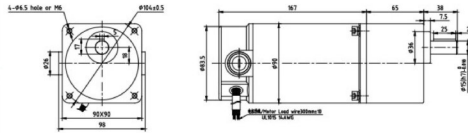
型号Model	减速比 Gear Ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200
5D120-24GU	转速 Speed r/min	999	833	600	500	400	333	300	240	200	166	150	120	100	83	75	60	50	40	33	30	25	20	17	15
	转矩 Torque N.m	0.69	0.83	1.15	1.38	1.73	2.08	2.08	2.60	3.12	3.75	3.75	4.69	5.62	6.75	7.50	9.38	11.25	14.0	15.19	16.88	20	20	20	20

- 表中转速是以电机的平均转速为基数除以减速比而算出的数值。实际转速将随负载大小而变化,变化范围2~20%。
- 表中色框表示输出轴的旋转方向与电机旋转方向相反。
- 表中转矩是以电机额定转矩×减速比×传动效率计算而得。
- In the table, the speed is calculated from the base of the motor's average speed divided by the deceleration ratio. The actual speed will vary with the load, ranging from 2% to 20%.
- The 色框 in the table indicates that the rotation direction of the output axis is opposite to that of the motor.
- Table transfer torque is calculated from motor rated torque * deceleration ratio * transmission efficiency.

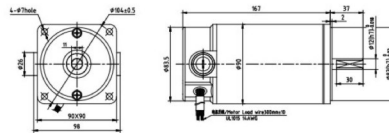
直流电动机 DC MOTOR

外形尺寸 (单位mm) Dimension (unit mm)

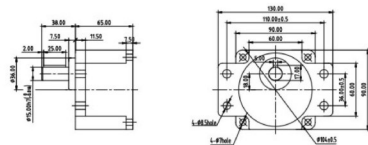
- 导线型 Lead Wring Type
重量 Weight:电机 Motor:3.2Kg
减速器 Gearhead:1.5Kg



- 圆轴电机 Round Shaft Motor
重量 Weight:3.2Kg

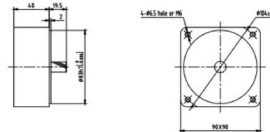


- 凸缘安装型减速器 Flange Mounting Reducer
重量 Weight:1.5Kg



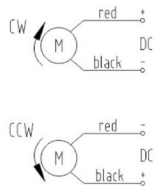
可安装在GU齿轮轴型上
Can be Mounted on GU Type gear shaft 5GU□K

- 中间减速器 Mid-gearbox
重量 Weight:0.65Kg



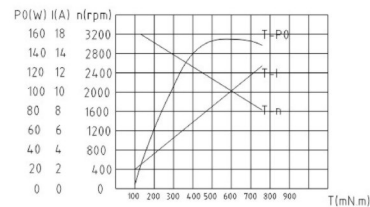
可安装在GU齿轮轴型上
Can be connected to GU pinion 5GU10XK

接线图 Wiring Diagram



- 运转方向指从电动机轴看来的方向。CW表示顺时针方向，CCW表示逆时针方向。
●The direction of motor rotation is as viewed from the shaft end of motor CW represents the clockwise direction, while CCW represents the counter-clockwise direction

电机特性曲线



直流电动机 DC MOTOR

●250W ◎104mm

NINGBO HENG TUO MOTOR CO.,LTD
Whatsapp/Wechat: +86 150 5823 3371
Website: www.motor-reducer.com



电机性能参数 Motor Performance Parameters

电机型号 Model	电压 Voltage	功率 Power	空载参数 No-load Parameter		负载参数 Load Parameters			电刷寿命 brush life	电机重量 Motor Weight
	V	W	转速Speed r/min	电流Current A	转速speed r/min	力矩torque mN.m	电流current A		
6D250-12□	12	250	3550	3.5	3000	795	27.4	2000	3.2
6D250-24□	24	250	3500	1.5	3000	795	13.7	2000	3.2
6D250-48□	48	250	3350	0.9	3000	795	6.7	2000	3.2

- 电机电压、功率及转速可在配件尺寸等条件下根据客户要求定制。
●外置电刷，用户可自行在外部更换电刷；内置电刷电机更换电刷时需将电机拆装后方可更换。
●Motor voltage, power and speed will be customized according to his requestment under allowed circumstance of adoptable dimension.
●For external brush motor, you can replace the brush directly. For internal ones, we need to disassembly the motor first.

减速箱减速比/性能对照表 Gear reduction ratio/performance comparison

型号Model	减速比 Gear Ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200
6D250-24GU	转速 Speed r/min	999	833	600	500	400	333	300	240	200	166	150	120	100	83	75	60	50	40	33	30	25	20	16.5	15
	转矩 Torque N.m	1.93	2.32	3.21	3.86	4.82	5.79	5.79	7.24	8.69	10.43	10.43	13.03	15.64	18.8	20.9	26.1	31.3	39.1	40	40	40	40	40	40

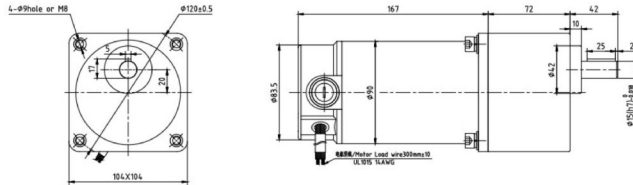
- 表中转速是以电机的平均转速为基数除以减速比而算出的数值。实际转速将随负载大小而变化，变化范围2-20%。
●表中 色框表示输出轴的旋转方向与电机旋转方向相反。
●表中转矩是以电机额定转矩×减速比×传动效率计算而得。
●In the table, the speed is calculated from the base of the motor's average speed divided by the deceleration ratio. The actual speed will vary with the load, ranging from 2% to 20%.
●The 色 box in the table indicates that the rotation direction of the output axis is opposite to that of the motor.
●Table transfer torque is calculated from motor rated torque * deceleration ratio * transmission efficiency.

直流电动机 DC MOTOR

外形尺寸 (单位mm) Dimension (unit mm)

●导线型 Lead Wring Type

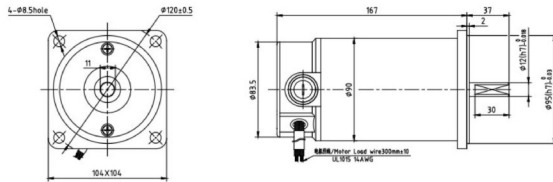
重量 Weight:电机 Motor:3.2Kg 减速器 Gearhead: 2.1Kg



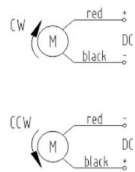
其中, 速比3~40, 减速箱高度为L=65mm;速比50~200, 减速器高度为L=72mm。
Among them, Gear ratio 3~40, The gearbox height is L=65 mm; Gear ratio 50~200, The gearbox height is L=72 mm;

●圆轴电机 Round Shaft Motor

重量 Weight: 3.2Kg



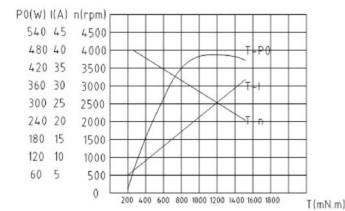
接线图 Wiring Diagram



●运转方向指从电动机轴看来的方向。CW表示顺时针方向, CCW表示逆时针方向。

●The direction of motor rotation is as viewed from the shaft end of motor. CW represents the clockwise direction, while CCW represents the counterclockwise direction.

电机特性曲线



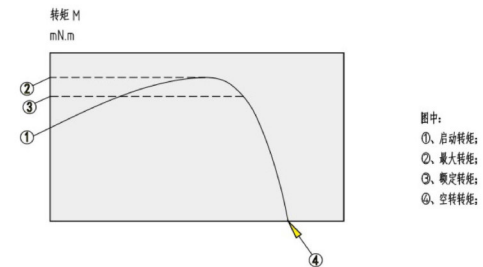
技术参数 TECHNICAL

名词解释 Glossary

电机 Motor

- 启动转矩。电机启动瞬间产生的转矩, 通常, 单相电机启动转矩为额定转矩60~70%, 三相电机启动转矩为额定转矩2~3倍。
- 额定转矩。电机在额定电压、额定频率下可连续输出的转矩。· 额定转速。电机在额定电压、额定频率、额定输出功率下的转速。
- 空载转速。电机在额定电压、额定频率、无负载下的转速。
- 停止过转矩。电机转子轴从切断电源的瞬间到完全停止时, 因惯性继续旋转的圈数。
- 制动力。为使电机输出轴快速减速、制动停止、或使电机输出轴保持原状态所施加于电机转子轴的力。电磁制动电机的制动力约等于额定转矩。阻尼电机的制动力约等于10%的额定转矩。
- 齿轮轴。电机转子轴形状为齿轮状, 用于配套、连接减速箱用。
- 圆轴。电机转子轴形状为圆柱状, 用于电机单独使用, 无法配接减速箱。
- Starting torque The torque generated by the motor starting moment, usually, the single-phase motor starting torque is 60~70% of the rated torque, and the three-phase motor starting torque is 2~3 times of the rated torque.
- Rated torque The continuously torque at rated voltage and rated frequency.
- Rated speed The speed of the motor at rated voltage, rated frequency, and rated output power.
- No-load speed. The speed of the motor at rated voltage, rated frequency and no load.
- Stop overturn The number of turns that the motor rotor shaft continues to rotate due to inertia from the moment the power is turned off to completely stop
- Braking force The force applied to the rotor shaft of the motor to quickly decelerate the motor output shaft, stop the brake, or maintain the motor output shaft in its original state. The braking force of the electromagnetic brake motor is equal to the rated torque. The braking force of the damper motor is approximately equal to 10% of the rated torque.
- Gear shaft. The shape of the rotor shaft of the motor is gear-shaped and is used for supporting and connecting the reduction gear box.
- Round shaft The rotor shaft of the motor has a cylindrical shape and is used for the motor alone. It cannot be equipped with a reduction gearbox.

电机转矩-转速曲线 Motor torque-speed curve



图中:
①、启动转矩;
②、最大转矩;
③、额定转矩;
④、空转转矩;

减速箱 Gearbox

- 容许转矩。电机经减速箱减速, 电机端输出转矩比减速箱放大减速比的倍数, 当减速比较大时, 如1:180, 电机输出转矩放大180倍后, 若此时减速箱负载很大时, 理论上电机可以驱动负载, 但由于减速箱机械强度无法承受此负载, 减速箱将损坏, 保证减速箱不损坏的最大负载转矩即为减速箱容许转矩。
- 格雷森弧齿轮。该齿轮为90度传动, 具有传动效率高, 无自锁, 寿命长, 主要用于汽车后桥传动, 为最先进的90度传动结构。
- Allowable torque The motor is decelerated by the reduction gearbox, and the output torque of the motor end is a multiple of the reduction ratio of the reduction gearbox. When the deceleration is relatively large,
- For example, 1:180, after the motor output torque is amplified 180 times, if the load of the reduction gearbox is large at this time,
- In theory, the motor can drive the load, but because the mechanical strength of the gearbox cannot withstand this load,
- The gearbox will be damaged, and the maximum load torque that ensures that the gearbox is not damaged is the allowable torque of the gearbox.
- Grayson arc gear The gear is a 90-degree transmission, which has high transmission efficiency, no self-locking and long service life, and is mainly used for rear axle transmission of automobiles. For the most advanced 90 degree transmission structure.