

有刷直流减速电机
DC GEAR MOTOR

60W
90mm



电机型号/性能 List of motor characteristics

电机型号 Model	单压 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		
F5D60-12 □	12	60	3350	2	3000	191	6.7	2000	1.8
F5D60-24 □	24	60	3300	1	3000	191	3.4	2000	1.8
F5D60-90 □	90	60	3250	0.3	3000	191	0.9	2000	1.8
F5D60-12 □	12	60	2200	1	1800	318	6.7	2000	1.8
F5D60-24 □	24	60	2150	0.6	1800	318	3.4	2000	1.8
F5D60-90 □	90	60	2100	0.25	1800	318	0.9	2000	1.8

- 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。
- 外置电刷电机，用户可自行在外更换电刷；内置电刷电机更换电刷时需将电机拆装后方可更换；F5D 此型号是外置电刷电机。
- 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 ones, we need to disassembly the motor fist.F5D this model is external brush motor.

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
F5D60-24 □ -30S	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 Torgne N.m	0.46	0.56	0.77	0.93	1.16	1.39	1.54	1.93	2.32	2.51	2.78	3.48	4.78	5.01	5.01	6.27	7.52	9.40	10	10	10	10	10	10
F5D60-24 □ -18S	转速 Speed r/min	600	500	360	300	240	200	180	144	120	100	90	72	60	50	45	36	30	24	20	18	15	12	10	9
	转矩 Torgne N.m	0.77	0.93	1.29	1.55	1.93	2.32	2.58	3.22	3.86	4.17	4.64	5.80	6.95	8.35	8.35	10	11	12	13	14	15	16	17	18

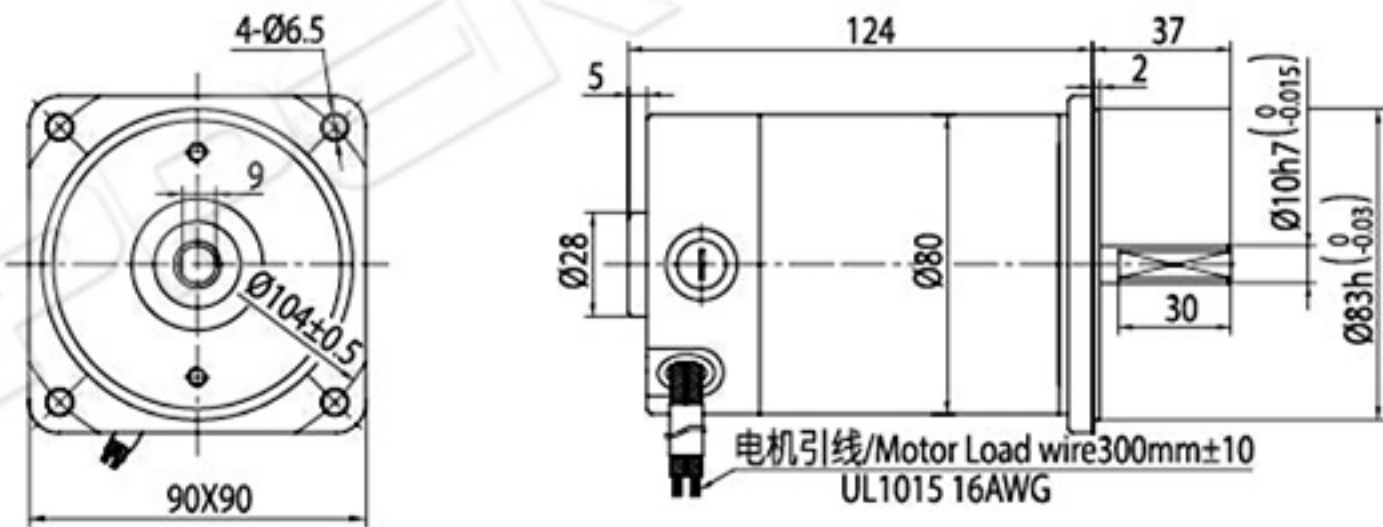
- 表中转速是以电机的平均转速为基数除以减速比而算出的数值。实际转速将随负载大小而变化，变化范围 2-20%。
- 表中 色框表示输出轴的旋转方向与电机旋转方向相反。
- 表中转矩是以电机额定转矩 × 减速比 × 传动效率计算而得。
- In the table, the speed is calculated from the base of the motor's average speed divided by the deceleration ratio.The actual speed will vary with the load, ranging from 2% to 20%.
-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

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外形尺寸 (单位mm) Dimension (unit mm)

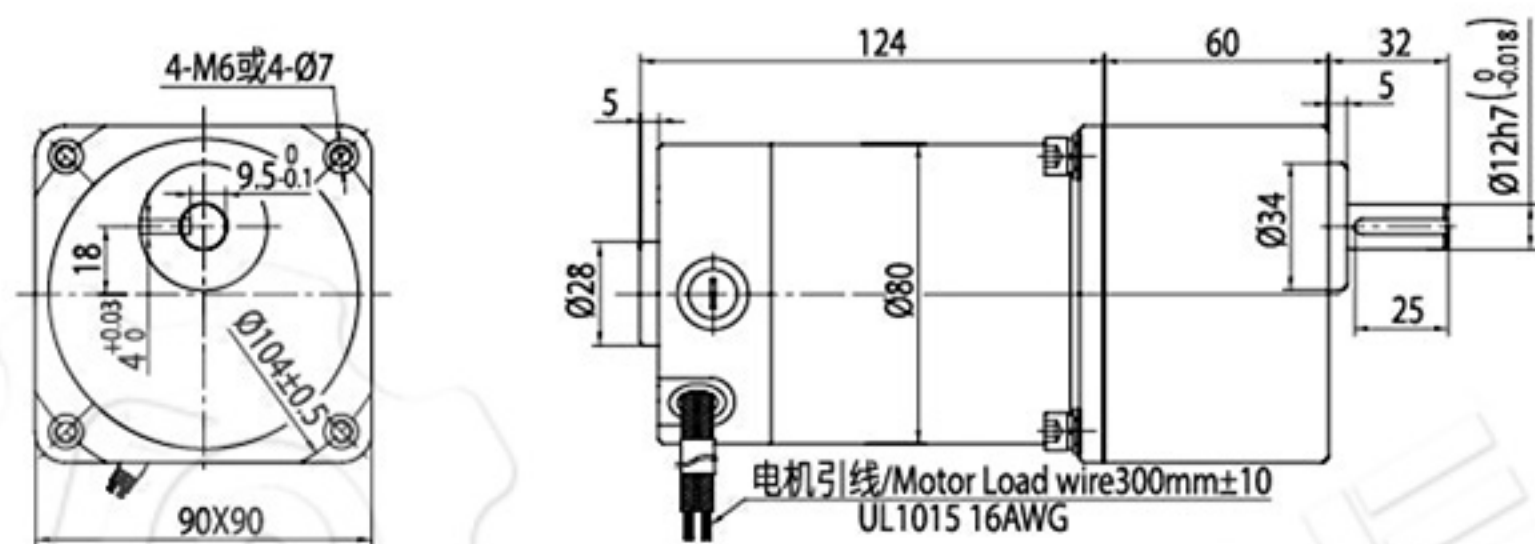
圆轴电机

重量 Weight: 2.0kg

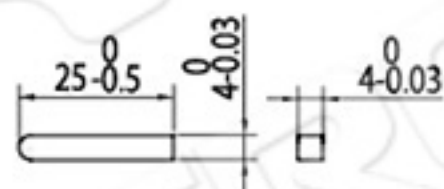


组合: 引线型电机 + 标准减速箱 (减速比 1:3~200)

重量 Weight: 3.5kg

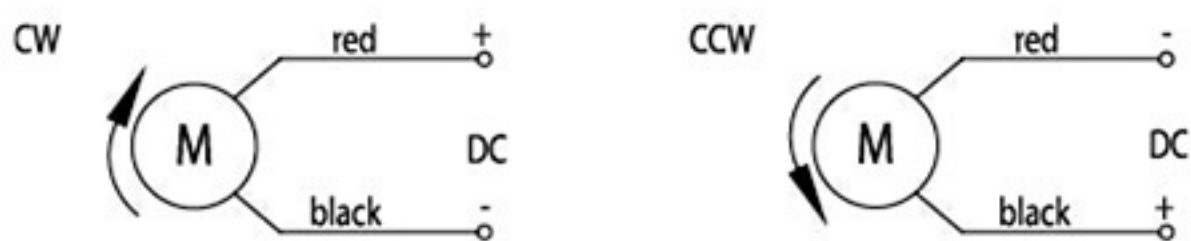


键 (减速器附件)



其中速比 3~18 可以做成短型减速箱，高度为 42mm。Gear ratio 3~18, short case is possible, height of 42mm.

接线图 Wiring Diagram



- 运转方向指从电机轴看来的方向。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 Characteristic Curve of Motor

