



120W 90mm

直流无刷减速电机 BLDC GEAR MOTOR

■ 低压无刷电机性能参数 Low Voltage Motor Parameters

型号 Model	额定功率 Rated power W	电压 Voltage V	额定电流 Rated current A	启动转矩 Starting torque N.m	额定力矩 Rated torque N.m	额定转速 Rated speed N.m	防护等级 Grade protection IP
M5BLD60-24GU-30S	60	24	3.5	0.382	0.191	3000	20
M5BLD60-48GU-30S	60	48	1.8	0.382	0.191	3000	20
M5BLD90-24GU-30S	90	24	5.2	0.573	0.286	3000	20
M5BLD90-48GU-30S	90	48	2.6	0.573	0.286	3000	20
M5BLD120-24GU-30S	120	24	7	0.764	0.382	3000	20
M5BLD120-48GU-30S	120	48	3.2	0.764	0.382	3000	20

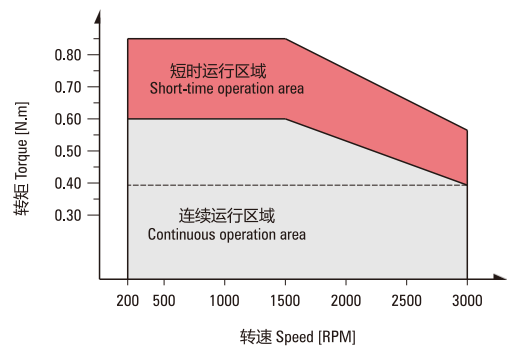
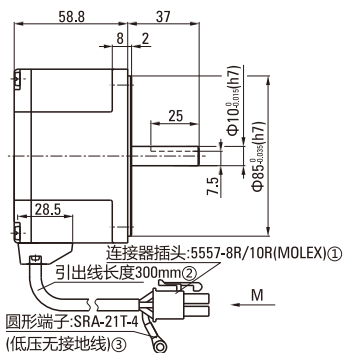
■ 高压无刷电机性能参数 High Voltage Motor Parameters

型号 Model	额定功率 Rated power W	电压 Voltage V	额定电流 Rated current A	启动转矩 Starting torque N.m	额定力矩 Rated torque N.m	额定转速 Rated speed N.m	防护等级 Grade protection IP
M5BLD60-220GU-30S	60	220	0.5	0.382	0.191	3000	20
M5BLD90-220GU-30S	90	220	0.8	0.573	0.286	3000	20
M5BLD120-220GU-30S	120	220	1.3	0.764	0.382	3000	20

■ 圆轴型光电机 Circular Shaft Type Optical Motor

● M5BLD120-□A-30S □—电压 Voltage 24/48/220

● M5BLD120-220A-30S 曲线图 Diagram



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

● 低压电机接线插孔对应信号说明

Low Voltage Wire Plughole Corresponding Signal Explanation

1	2	3	4	5	6	7	8
绿 (粗)	黑 (细)	蓝 (细)	红 (细)	黄 (粗)	蓝 (粗)	绿 (细)	黄 (细)
V	GND	Hv	Vcc+5V	U	W	Hv	Hu

● 高压电机接线插孔对应信号说明

High Voltage Wire Plughole Corresponding Signal Explanation

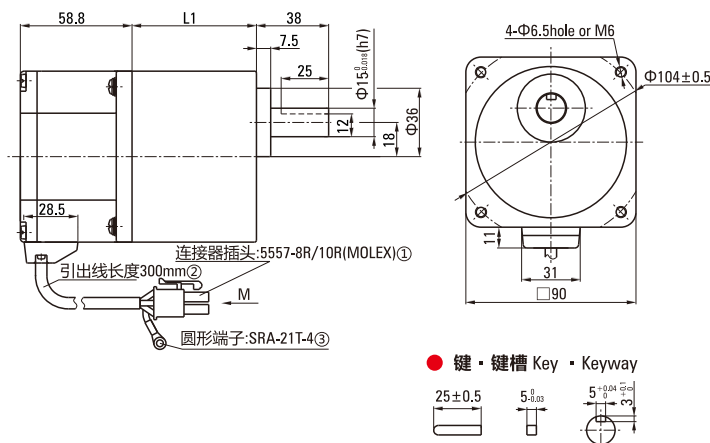
1	2	3	4	5	6	7	8	9	10
黄 (细)	绿 (细)	蓝 (细)	金属丝网	黑 (细)	蓝 (粗)	黄 (粗)	绿 (粗)		红 (细)
Hu	Hv	Hw		GND	W	U	V		Vcc+5V

120W

● 平行轴减速器 Parallel Shaft Speed Reducer

M5BLD120-□GU-30S/5GU□KB □—电压 Voltage 24/48/220

□—速比数值 Velocity Ratio Value



● 键·键槽 Key · Keyway

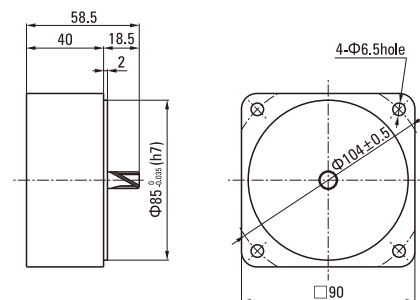


①Connector: 5557-8R/10R (MOLEX) ②The sheath length of lead line 300mm ③Round terminal: SRA-21T-4

● 中间减速器 Decmal Gearhead

5GU□XK

□—速比数值, 一般为10 Velocity Ratio Value, Generally 10



减速器型号 Gearhead Model	减速比 Gear Ratio	L尺寸 Dimension
5GU□K	3~200	65.5

●减速器型号的□中为减速比的数值

Enter the gear ratio in the box (□) within the model name

● M5BLD60-□GU-30S/5GU□K整机容许力矩 (单位: N.m) M5BLD60-□GU-30S/5GU□K Machine Allowable Torque (Unit: N.m)

型号 Model	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	30	36	50	60	75	90	100	120	150	180	200
M5BLD60-□GU	200~1500RPM		0.72	0.87	1.21	1.45	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	10.0	10.0	10.0
	2000RPM		0.61	0.74	1.02	1.23	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	10.0
	2500RPM		0.56	0.67	0.93	1.11	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	10.0
	3000RPM		0.46	0.56	0.77	0.93	1.16	1.39	1.55	1.93	2.32	2.78	2.79	3.49	4.18	5.02	6.97	7.52	9.40	10.0	10.0	10.0	10.0	10.0	10.0

● M5BLD90-□GU-30S/5GU□K整机容许力矩 (单位: N.m) M5BLD90-□GU-30S/5GU□K Machine Allowable Torque (Unit: N.m)

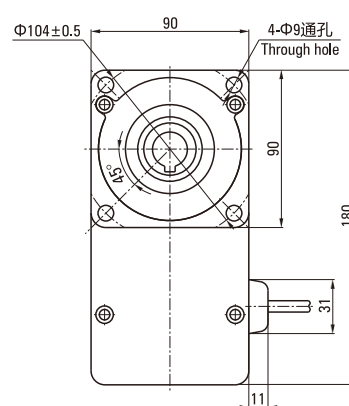
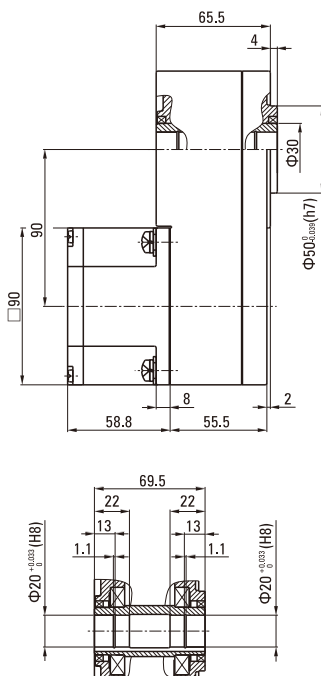
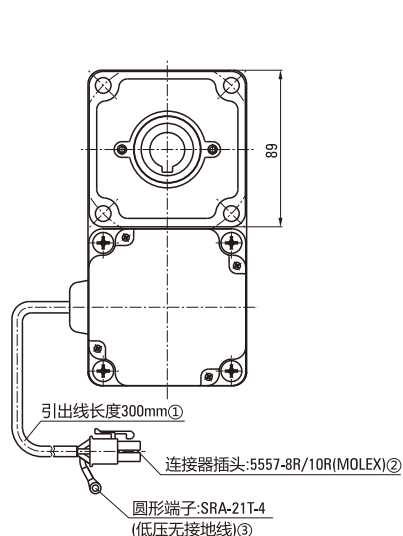
型号 Model	电机轴转速 Motor Speed	减速比 Reduction Ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	50	60	75	90	100	120	150	180	200
M5BLD90-□GU	200~1500RPM		1.09	1.30	1.81	2.18	2.72	3.26	3.62	4.53	5.43	6.52	6.53	8.16	9.79	11.8	14.7	17.7	20.0	20.0	20.0	20.0	20.0	20.0	20.0
	2000RPM		0.92	1.10	1.53	1.84	2.30	2.76	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	20.0
	2500RPM		0.84	1.00	1.39	1.67	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	20.0
	3000RPM		0.70	0.84	1.16	1.39	1.74	2.09	2.32	2.90	3.48	4.18	4.18	5.23	6.27	7.53	10.46	11.28	14.1	16.91	18.79	20.0	20.0	20.0	20.0

● M5BLD120-□GU-30S/5GU□KB整机容许力矩 (单位: N.m) M5BLD120-□GU-30S/5GU□KB Machine Allowable Torque (Unit: N.m)

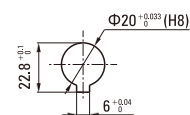
型号 Model	电机轴转速 Motor Speed	减速比 Reduction Ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	50	60	75	90	100	120	150	180	200
M5BLD120-□GU	200~1500RPM		1.45	1.74	2.41	2.90	3.62	4.34	4.35	5.44	6.53	7.83	7.87	9.83	11.8	14.2	19.7	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
	2000RPM		1.23	1.47	2.04	2.45	3.06	3.68	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	20.0
	2500RPM		1.11	1.34	1.86	2.23	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	20.0
	3000RPM		0.93	1.11	1.55	1.86	2.32	2.78	3.09	3.87	4.64	5.57	5.58	6.97	8.37	10.04	13.94	15.04	18.79	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.

- **L型减速机 L Type Speed Reducer**
M5BLD120-**■**GUL-30S/5GU**□**LC **■**—电压 Voltage 24/48/220
□—速比数值 Velocity Ratio Value



● **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)

● **M5BLD60-**■**GUL-30S/5GU**□**LC整机容许力矩（单位：N.m） M5BLD60-**■**GUL-30S/5GU**□**LC 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		1.09	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
3000RPM		0.70	1.39	2.09	2.79	4.18	6.97	13.94	27.89

● **M5BLD90-**■**GUL-30S/5GU**□**LC整机容许力矩（单位：N.m） M5BLD90-**■**GUL-30S/5GU**□**LC 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		1.63	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
3000RPM		1.05	2.09	3.14	4.18	6.27	10.46	20.91	41.83

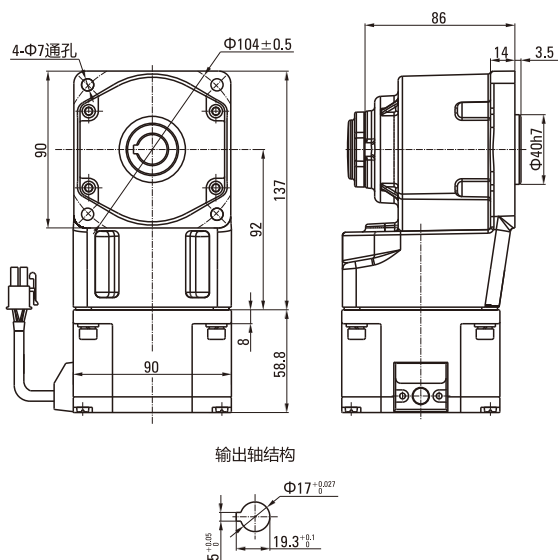
● **M5BLD120-**■**GUL-30S/5GU**□**LC整机容许力矩（单位：N.m） M5BLD120-**■**GUL-30S/5GU**□**LC Machine Allowable Torque (Unit: N.m)**

电机轴转速 Motor Speed	减速比 Reduction Ratio	5	10	15	20	30	50	100	200
200~1500RPM		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
3000RPM		1.39	2.79	4.18	5.58	8.37	13.94	27.89	55.77

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.

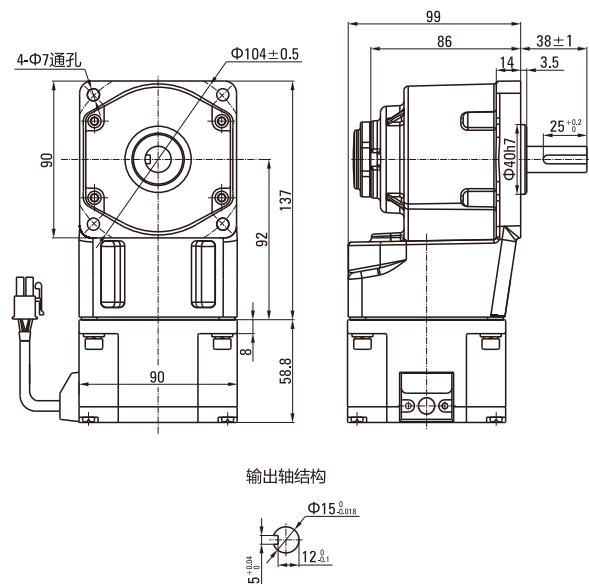
● 弧锥直角减速电机 Arc Cone Right Angle Speed Reducer Motor

M5BLD120-☐GU-30S/5GU☐RC ☒—电压 Voltage 24/48/220
☐—速比数值 Velocity Ratio Value



输出轴结构

M5BLD120-☒GU-30S/5GU☐RT ☒—电压 Voltage 24/48/220
☐—速比数值 Velocity Ratio Value



输出轴结构

● M5BLD60-☒GU-30S/5GU☐RC/RT整机容许力矩（单位：N.m） M5BLD60-☒GU-30S/5GU☐RC/RT 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
M5BLD60- ☒ 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	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
	3000RPM		0.95	1.13	1.26	1.58	1.89	2.27	2.52	3.15	3.78	5.02	6.97	8.37	10.0	10.0	10.0	10.0	10.0	10.0

● M5BLD90-☒GU-30S/5GU☐RC/RT整机容许力矩（单位：N.m） M5BLD90-☒GU-30S/5GU☐RC/RT 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
M5BLD90- ☒ 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	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
	3000RPM		1.42	1.70	1.89	2.36	2.84	3.40	3.78	4.73	5.67	7.53	10.46	12.55	15.69	18.82	20.0	20.0	20.0	20.0

● M5BLD120-☒GU-30S/5GU☐RC/RT整机容许力矩（单位：N.m） M5BLD120-☒GU-30S/5GU☐RC/RT 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
M5BLD120- ☒ 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	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
	3000RPM		1.89	2.27	2.52	3.15	3.78	4.54	5.04	6.30	7.56	10.04	13.94	16.73	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.