

ZD LEADER 2012-2013

DC BRUSHLESS GEAR MOTOR CATALOGUE

直流无刷减速电机产品宣传册。





LEADING
POWER OF
CHINA

关于中大。

宁波中大德传动设备有限公司致力于生产微型交流、直流有刷/无刷齿轮减速电动机。感应电机、可逆电机、力矩电机、刹车电机、小型减速电机、无刷直流电动机、微型齿轮箱、硬齿面齿轮减速器、精密蜗杆、高精度行星齿轮减速器、行星齿轮减速电动机等产品都是我们的强项。

Ningbo ZD Leader Transmission Equipment Co.,Ltd has concentrated herself on production of micro ac gear motor and dc gear motor. We have advantage on induction motor, reversible motor, torque motor, brake motor, small gear motor, BLDC motor, micro gearbox, gearbox with hard gear surface, precise worm, high precision planetary gearbox, gearbox, planetary gear motor.

中国电机行业的翘楚。

中大凭借出色的表现，赢得专业的掌声。现为中国电器工业协会常务理事；中国齿轮专业协会理事；中国电器工业协会微电机分会理事；中国电子元件行业协会微特电机与组件分会理事；全国微电机标准化技术委员会委员；浙江省微电机标准化技术委员会委员。

ZD is executive director of Chinese Appliance Industrial Association, director of Chinese Gear Industrial Association, director of micro motor branch in Chinese Electrical Appliance Industrial Association, director of Chinese Micro Motor and Parts Industrial Association, member of Chinese Micro Motor Standardized Technical Committee, member of the Zhejiang province Micro Motor Standardized Technical Committee.

众多国家行业标准的起草者。

中大是国家标准《电子调速微型异步电动机通用技术条件》第一起草单位，国家标准《控制电机型号命名方法》、《交流伺服系统通用技术条件》、《控制微电机用齿轮减速器系列》主要起草单位。

ZD is the first draft-man of national standard 《Common technical terms of micro asynchronous speed adjustable motor》, national standard 《Naming method of motor type control》, 《Common technical terms of ac servo system》 and main draft-man of 《Control gearbox series matching to motor》.

■无刷直流电动机 Brushless DC Motor

Z **5** **BLD(P)** **40 - 220** **GN - 30S**

① ② ③ ④ ⑤ ⑥ ⑦

①	公司名称Company					
	型号尺寸 (Model&Dimension)					
②	座机号Code	2	3	4	5	6
	电机安装法兰Mounting Flange mm	□60	□70	□80	□90	□104
③	电机型式: Motor type	BLD: 无刷直流电机配方式减速器 BLD: brushless motor with square gearbox BLDP: 无刷直流电机配行星减速器 BLDP: motor matched with planetary gearbox				
④	输出功率Output Power	(例) 40: 40W				
⑤	电源电压Voltage	(例) 220: 220V				
⑥	电机轴形状Shape of Motor Shaft	GN: 普通型斜齿轴 GN: General Helival Gear			A1: 铣键槽 A1: Milling Keyway	
		GU: 加强型斜齿轴 GN: Reinforced Helival Gear			A: 铣扁 A: Flat type	
⑦	电机转速Motor Speed	(例) 30S: 3000RPM				

●如果电机需配刹车器可在型号最后增加 - M符号, 如Z4BLD40-220GN-30S - M, 刹车器电压与电机额定电压相同; 型号中电机可解读为方型80mm、GN型、额定电压220VAC、额定功率40W、额定转速3000RPM、配220VAC刹车器。
●Note: we use M to symbolise the brake, such as Z4BLD25-220GN-30S-M, the brake voltage is the same as the rated voltage of the motor; Type of motor can be interpreted as a case diameter of 80mm, GN type, rated voltage 220VAC, rated power25W, rated speed of 3000RPM, with brake-220VAC.

■减速器 Gearbox

5 **GN** **50** **K**

① ② ③ ④

①	型号尺寸Model & Dimension	2: 60mm、3: 70mm、4: 80mm、5: 90mm、6: 104mm	
②	齿轮种类Gear Type	GN: 普通型斜齿轴 GU: 加强型斜齿轴	GN: Common Helical Gear GU: Reinforced Helical Gear
③	减速比Reduction Ratio	50: 减速比为1: 50 10X仅限减速比1: 10的中间减速比	50: Reduction Ratio 1: 50 10X denotes the mid-gearbox ratio 1:10
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 (Mark KB for Type GU square case)	

●注: 非标准分体式的编号为: 在电动型号或减速器型号前加"v" (请在订货时写明具体参数)
●Note: The code of the non-standard split type is to add "V" before the model number of the motor or reducer(Please specify the detailed parameter requirement in the purchase order)

■控制器 Controller

Z **BLD·CON** **- 220** **A** **10** **- V1**

① ② ③ ④ ⑤ ⑥

①	Z: ZD中大电机	⑥	V1: 驱动器特性 Feature of driver
②	BLD.CON: 无刷直流驱动器 BLDC driver	注Note: V1: 驱动器具有一般过压、欠压、过流保护功能, 具有软起动、调速、正反转使用功能。V2: 驱动器增加其它功能	
③	电压: 220V Vol	V1: Generally, driver has function of over voltage, under voltage and current protection. It can start softly, adjust speed and run in both CW and CCW. V2: Other functions.	
④	A: AC 无A时: DC DC: Without A		
⑤	功率: 10W Power		

●说明: 如ZBLD.CON-48200表示中大电机生产的, 48VDC, 200W无刷直流驱动器 2、此驱动器表示型号适用于光轴和齿轴电机
●For example ZBLD.CON-48200 means driver of 48V.200W. 2. This driver can be used for round shaft and gear shaft motor.



无刷直流电机由电动机主体和驱动器组成, 是一种典型的机电一体化产品, 其以体积小、噪音低、效率高、调速范围广、稳态转速误差小等特点, 越来越被市场所推崇。中大电机致力于无刷直流电机+驱动器+齿轮减速器一整套的转动解决方案, 产品目前已广泛应用于工业传动设备、纺织机械、医疗器械等领域, 中大电机本着质量第一, 信誉至上的原则, 竭诚为您打造更合理的机电一体化产品解决方案!

Brushless DC motor (BLDC) is made up of motor and driver, which is a kind of typical product of mechanical and electrical integration. It is high regarded by market as its small volume, low noise, high efficiency, wide range of speed control and steady working state with less inaccuracy. ZD-motor factory applies itself to the complete set of transmission solutions including motor, gearbox and driver. And the product is widely used in transmission equipment, textile machinery and medical devices, etc. ZD-motor factory takes Quality and Reputation first as its principle, and it tries its best to make a more reasonable transmission program for all customers.

■直流电机的一般规格General specification of DC motor

项目Items	
绝缘电阻 Insulation resistance	在常温、常湿度下, 运转电机后, 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 ambient temperature and humidity, the resistance can be up to 20MΩ or more when 500VDC megge is applied between the windings and the frame after rated motor operations.
绝缘电压 Insulation voltage	在常温、常湿度下电动机额定运行后, 在线圈、外壳间施加一分钟50Hz、1.5kV(三相400V为2kV)的电压, 亦无异常。 In the circumstance of normal ambient temperature and humidity, there will be no problem to withstand 1.5kV (three phase400v: 2kV) at 50hz between the windings and the frame for 1 minute after rated motor operation.
温度上升 Temperature rise	运转电机后, 用电阻法来测量时, 线圈绕组温度的上升数值在80℃以下。 The temperature rise should be lower than 80 °C measured by resistance method when the motor is working.
绝缘等级 Insulation class	B级(130 °C) Class B (130 °C)
使用温度 Using temperature	-10℃~+40℃ (无冰冻) -10 °C~+40 °C (No freeze)
使用湿度 Using humidity	85%以下(没有结露的场所) ≤85% (Place without dew)

低压无刷直流减速电机 LOW VOLTAGE BLDC MOTOR

25W

□60mm



电机性能参数 Motor performance parameters

型号 Model	电压 Voltage V	额定功率 Rated Power W	空载参数 No-load Parameters		负载参数 Load Parameters			电机寿命 Motor Life H	电机重量 Motor Weight kg
			转速 Speed RPM	电流 Current A	转速 Speed RPM	力矩 Torque N.m	电流 Current A		
Z2BLD25-24□	24	25	3300	MAX 0.4	3000	0.08	1.3	>5000	0.65
Z2BLD25-36□	36	25	3200	MAX 0.3	3000	0.08	0.9	>5000	0.65
Z2BLD25-48□	48	25	3200	MAX 0.2	3000	0.08	0.7	>5000	0.65

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

种类 Type

电动机 MOTOR

机壳 Type	型号 Model	
	齿轮轴型 Pinion Shaft	圆轴型 Round Shaft
导线型 Lead Wire Type	Z2BLD25-24GN	Z2BLD25-24A
	Z2BLD25-36GN	Z2BLD25-36A
	Z2BLD25-48GN	Z2BLD25-48A

平行轴减速器(另售) PARALLEL SHAFT GEARHEAD (SOLD SEPARATELY)

减速器种类 Gearhead Type	减速器型号 Gearhead Model	减速比 Gear Ratio
长寿命·低噪音 Long Life·Low Noise	2GN□K	3、3.6、5、6、7.5、9、12.5、15、18、25、30、36、50、60、75、90、100、120、150、180、200
	2GN10XK(中间减速器 Mid-gearbox)	

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

装有减速器时的容许转矩 Allowable torque when being with gearhead

- 减速器·中间减速器另售
- 减速器型号的□中为减速比的数值。
- 色表示与电动机同一方向运转，其他则为相反方向。
- 转速是以电动机的额定转速为基准除以减速比而算出来的数值。实际转速将随负载大小变化而比所示数值减少2%~20%左右。
- 希望以大于下表的减速比进行进一步减速时，可在电动机与减速器之间安装减速比为10的中间减速器。这时的容许转矩为3N·m
- Gearhead and mid-gearbox can be sold separately.
- Enter the gear ratio in the box (□) within the model name.
- Indicates the same rotating direction of the motor while the others rotate in the opposite direction.

- The speed is calculated by dividing the motor's synchronous speed by the gear ratio. The actual speed is 2%~20% less than the displayed value, depending on the size of the load.
- To reduce the speed beyond the gear ratio in the table, attach a mid-gearbox (gear ratio: 10) between the gearhead and motor. In that case, the permissible torque is 3N·m.

容许力矩单位 Allowance Torque Unit: 上段 Upside (N.m) / 下段 Belowside (kgf.cm)

减速比 Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	200
输出轴转速 r/min Out put shaft speed	1000	833	600	500	400	333	240	200	167	120	100	83	60	50	40	33	30	25	20	17	15
GN允许力矩 N.m Allowance Torque	0.19	0.23	0.32	0.39	0.48	0.58	0.81	0.97	1.16	1.45	1.74	2.09	2.63	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
GN允许力矩 kgf.cm Allowance Torque	1.97	2.37	3.29	3.95	4.93	5.92	8.22	9.87	11.84	14.82	17.78	21.34	26.8	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6

容许悬挂负载·容许轴向负载 Permissible Overhung load and thrust load

电动机(圆轴型)→42页 Motor (Round Shaft)→P42
 减速器→42页 Gearhead→P42

减速器的容许负载惯性量 J Permissible load inertia J for gearhead

→42页→P42

接线插孔对应信号说明 Wire plughole corresponding signal explanation

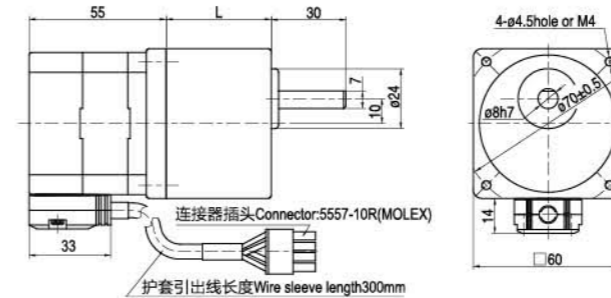
plughole signal	1	2	3	4
plughole signal	U	W	Hv	Hu
plughole signal	V	GND	Hw	Vcc

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.

导线型 Lead wiring Type

重量 Weight: 电动机 Motor: 0.65kg 减速器 Gearhead 0.4kg

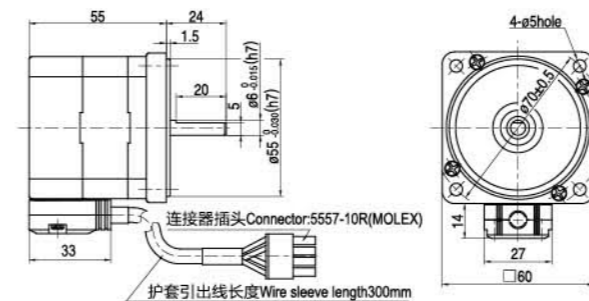


电动机型号 Motor Model	减速器型号 Gearhead type	速比 Gear Ratio	L尺寸 Dimension
Z2BLD25-24GN	2GN□K	3~18	32
Z2BLD25-36GN		25~200	41
Z2BLD25-48GN			

- 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

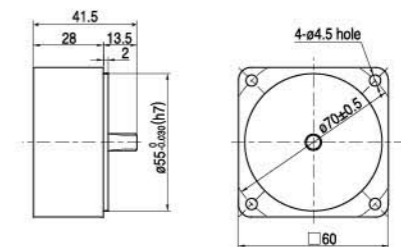
圆轴型的转轴部分 Shaft Section of Round Shaft Type

除重量及轴部外，电动机外形与齿轮轴型相同
 Excluding weight and the shaft section Motor shape are the same as those of the pinion shaft



中间减速器 Mid-gearbox

可安装在GN齿轮轴型上
 Can be connected to GN pinion Shaft type 2GN10XK
 重量 Weight: 0.24kg



低压无刷直流减速电机 LOW VOLTAGE BLDC MOTOR

60W

80mm



电机性能参数 Motor performance parameters

型号 Model	电压 Voltage V	额定功率 Rated Power W	空载参数 No-load Parameters		负载参数 Load Parameters			电机寿命 Motor Life H	电机重量 Motor Weight kg
			转速 Speed RPM	电流 Current A	转速 Speed RPM	力矩 Torque N.m	电流 Current A		
Z4BLD60-24□	24	60	3300	MAX 0.50	3000	0.19	3.2	>5000	1.2
Z4BLD60-36□	36	60	3200	MAX 0.35	3000	0.19	2.1	>5000	1.2
Z4BLD60-48□	48	60	3200	MAX 0.25	3000	0.19	1.6	>5000	1.2

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

种类 Type

电动机 MOTOR

机型号 Type	型号 Model	
	齿轮轴型 Pinion Shaft	圆轴型 Round Shaft
导线型 Lead Wire Type	Z4BLD60-24GN	Z4BLD60-24A
	Z4BLD60-36GN	Z4BLD60-36A
	Z4BLD60-48GN	Z4BLD60-48A

平行轴减速器(另售) PARALLEL SHAFT GEARHEAD (SOLD SEPARATELY)

减速器种类 Gearhead Type	减速器型号 Gearhead Model	减速比 Gear Ratio
长寿命·低噪音 Long Life · Low Noise	4GN□K	3、3.6、5、6、7.5、9、12.5、15、18、25、30、36、50、60、75、90、100、120、150、180、200
	4GN10XK (中间减速器 Mid-gearbox)	

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

装有减速器时的容许转矩

Allowable torque when being with gearhead

- 减速器·中间减速器另售
- 减速器型号的□中为减速比的数值。
- 色表示与电动机同一方向运转，其他则为相反方向。
- 转速是以电动机的额定转速为基准除以减速比而算出来的数值。实际转速将随负载大小变化而比所示数值减少2%~20%左右。
- 希望以大于下表的减速比进行进一步减速时，可在电动机与减速器之间安装减速比为10的中间减速器。这时的容许转矩为8N·m
- Gearhead and mid-gearbox can be sold separately.
- Enter the gear ratio in the box (□) within the model name.
- Indicates the same rotating direction of the motor while the others rotate in the opposite direction.

- The speed is calculated by dividing the motor's synchronous speed by the gear ratio. The actual speed is 2%~20% less than the displayed value, depending on the size of the load.
- To reduce the speed beyond the gear ratio in the table, attach a mid-gearbox (gear ratio: 10) between the gearhead and motor. In that case, the permissible torque is 8N·m.

容许力矩单位 Allowance Torque Unit: 上段 Upside (N.m) / 下段 Belowside (kgf.cm)

减速比 Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	200
输出轴转速 r/min Out put shaft speed	1000	833	600	500	400	333	240	200	167	120	100	83	60	50	40	33	30	25	20	16	15
GN允许力矩 N.m Allowance Torque	0.46	0.56	0.77	0.93	1.16	1.39	1.93	2.32	2.78	3.49	4.18	5.02	6.3	7.56	8.00	8.00	8.00	8.00	8.00	8.00	8.00
GN允许力矩 kgf.cm Allowance Torque	4.74	5.68	7.89	9.47	11.84	14.21	19.73	23.68	28.42	35.57	42.68	51.22	64.32	77.18	81.6	81.6	81.6	81.6	81.6	81.6	81.6

容许悬挂负载·容许轴向负载

Permissible Overhung load and thrust load

电动机(圆轴型)→42页 Motor (Round Shaft) →P42
 减速器→42页 Gearhead →P42

减速器的容许负载惯性惯量J

Permissible load inertia J for gearhead

→42页→P42

接线插孔对应信号说明

Wire plughole corresponding signal explanation

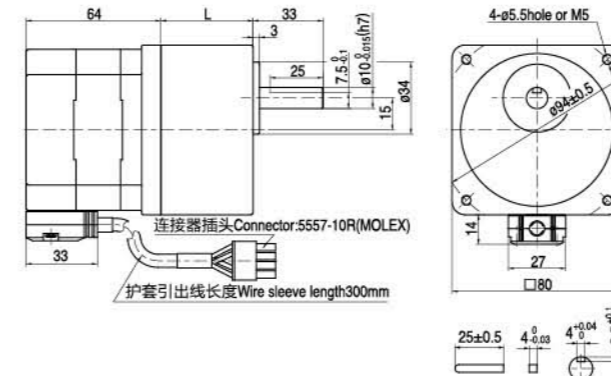
plughole signal	1	2	3	4
plughole signal	U	W	Hv	Hu
plughole signal	5	6	7	8
plughole signal	V	GND	Hw	Vcc

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.

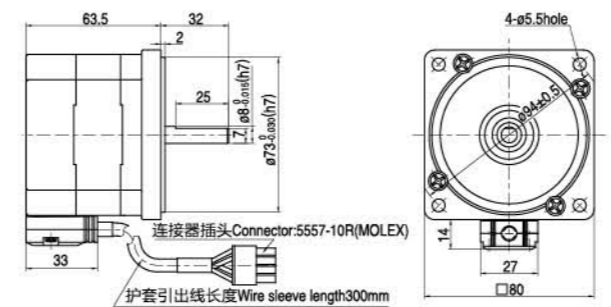
导线型 Lead wiring Type

重量 Weight: 电动机 Motor: 1.2kg 减速器 Gearhead 0.8kg



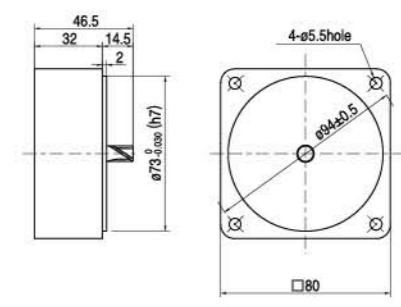
圆轴型的转轴部分 Shaft Section of Round Shaft Type

除重量及轴部外，电动机外形与齿轴型相同
 Excluding weight and the shaft section Motor shape are the same as those of the pinion shaft



中间减速器 Mid-gearbox

可安装在GN齿轴型上
 Can be connected to GN pinion Shaft type 4GN10XK
 重量 Weight: 0.41kg



低压无刷直流减速电机 LOW VOLTAGE BLDC MOTOR

200W

□90mm



电机性能参数 Motor performance parameters

型号 Model	电压 Voltage V	额定功率 Rated Power W	空载参数 No-load Parameters		负载参数 Load Parameters			电机寿命 Motor Life H	电机重量 Motor Weight kg
			转速 Speed RPM	电流 Current A	转速 Speed RPM	力矩 Torque N.m	电流 Current A		
Z5BLD200-24□	24	200	3500	MAX 0.80	3000	0.64	10.5	>5000	1.6
Z5BLD200-36□	36	200	3400	MAX 0.65	3000	0.64	7.0	>5000	1.6
Z5BLD200-48□	48	200	3300	MAX 0.45	3000	0.64	5.2	>5000	1.6

- 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。
- Motor voltage, power and speed will be customized according to his request under the allowed circumstance of adoptable dimension.

种类 TYPE

电动机 MOTOR

机型号 Type	型号 Model	
	齿轮轴型 Pinion Shaft	圆轴型 Round Shaft
导线型 Lead Wire Type	Z5BLD200-24GU	Z5BLD200-24A1
	Z5BLD200-36GU	Z5BLD200-36A1
	Z5BLD200-48GU	Z5BLD200-48A1

平行轴减速器(另售) PARALLEL SHAFT GEARHEAD (SOLD SEPARATELY)

减速器种类 Gearhead Type	减速器型号 Gearhead Model	减速比 Gear Ratio
长寿命·低噪音 Long Life · Low Noise	5GU□K(B)	3、3.6、5、6、7.5、9、12.5、15、18、25、30、36、50、60、75、90、100、120、150、180、200
	5GU10XK (中间减速器 Mid-gearbox)	

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

装有减速器时的容许转矩

Allowable torque when being with gearhead

- 减速器·中间减速器另售
- 减速器型号的□中为减速比的数值。
- 色表示与电动机同一方向运转，其他则为相反方向。
- 转速是以电动机的额定转速为基准除以减速比而算出来的数值。实际转速将随负载大小变化而比所示数值减少2%~20%左右。
- 希望以大于下表的减速比进行进一步减速时，可在电动机与减速器之间安装减速比为10的中间减速器。这时的容许转矩为20N·m
- Gearhead and mid-gearbox can be sold separately.
- Enter the gear ratio in the box (□) within the model name.
- Indicates the same rotating direction of the motor while the others rotate in the opposite direction.
- The speed is calculated by dividing the motor's synchronous speed by the gear ratio. The actual speed is 2%~20% less than the displayed value, depending on the size of the load.
- To reduce the speed beyond the gear ratio in the table, attach a mid-gearbox (gear ratio: 10) between the gearhead and motor. In that case, the permissible torque is 20N·m.

容许力矩单位 Allowance Torque Unit: 上段 Upside (N.m) / 下段 Belowside (kgf.cm)

减速比 Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	200
输出轴转速 r/min Out put shaft speed	1000	833	600	500	400	333	240	200	167	120	100	83	60	50	40	33	30	25	20	17	15
GU允许力矩 N.m Allowance Torque	1.55	1.86	2.58	3.09	3.87	4.64	5.81	6.97	8.37	10.51	12.61	15.13	20	20	20	20	20	20	20	20	20
GU允许力矩 kgf.cm Allowance Torque	15.79	18.94	26.12	31.11	38.76	46.42	58.11	69.71	83.71	105.11	126.11	151.31	200	200	200	200	200	200	200	200	200

容许悬挂负载·容许轴向负载

Permissible Overhung load and thrust load

电动机(圆轴型)→42页 Motor (Round Shaft) →P42

减速器→42页 Gearhead →P42

减速器的容许负载惯性量J

Permissible load inertia J for gearhead

→42页 →P42

外形图(单位 mm) Dimensions(Unit mm)

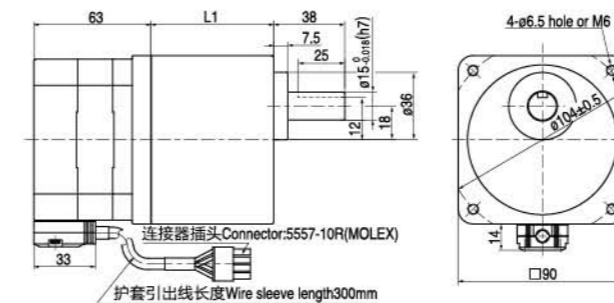
减速器附有安装用螺丝 Mounting screws are included with gearhead.

电动机型号 Motor Model	减速器型号 Gearhead type	速比 Gear Ratio	L尺寸 Dimension
Z5BLD200-24GU	5GU□K(B)	3~200	65.5
Z5BLD200-36GU			
Z5BLD200-48GU			

- 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

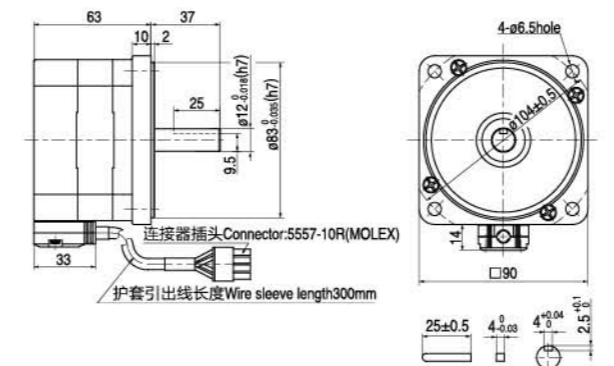
导线型 Lead wiring Type

重量 Weight: 电动机 Motor: 1.6kg 减速器 Gearhead 1.5kg



圆轴型的转轴部分 Shaft Section of Round Shaft Type

除重量及轴部外，电动机外形与齿轴型相同 Excluding weight and the shaft section Motor shape are the same as those of the pinion shaft



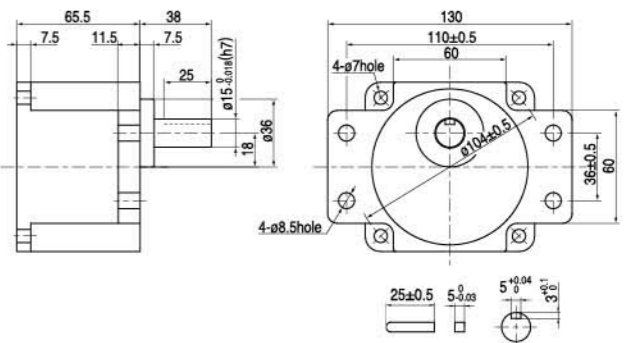
接线插孔对应信号说明

Wire plughole corresponding signal explanation

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

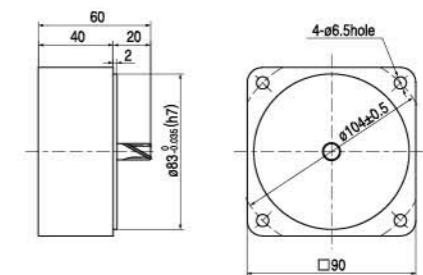
凸缘安装型减速器 Flange Mounting Reducer

可安装在GU齿轮轴型上 Can be Mounted on GU Type gear shaft 5GU□K 重量 Weight: 1.5kg



中间减速器 Mid-gearbox

可安装在GU齿轴型上 Can be connected to GU pinion Shaft type 5GU10XK 重量 Weight: 0.65kg



低压无刷直流减速电机 LOW VOLTAGE BLDC MOTOR

300W

□90mm



电机性能参数 Motor performance parameters

型号 Model	电压 Voltage V	额定功率 Rated Power W	空载参数 No-load Parameters		负载参数 Load Parameters			电机寿命 Motor Life H	电机重量 Motor Weight kg
			转速 Speed RPM	电流 Current A	转速 Speed RPM	力矩 Torque N.m	电流 Current A		
Z5BLD300-36□	36	300	3500	MAX 1.00	3000	0.96	10.5	>5000	2.0
Z5BLD300-48□	48	300	3400	MAX 0.75	3000	0.96	8.0	>5000	2.0
Z5BLD300-72□	72	300	3300	MAX 0.50	3000	0.96	5.5	>5000	2.0

- 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。
- Motor voltage, power and speed will be customized according to his request under the allowed circumstance of adoptable dimension.

种类 Type

电动机 MOTOR

机壳类型 Type	型号 Model	
	齿轮轴型 Pinion Shaft	圆轴型 Round Shaft
导线型 Lead Wire Type	Z5BLD300-36GU	Z5BLD300-36A1
	Z5BLD300-48GU	Z5BLD300-48A1
	Z5BLD300-72GU	Z5BLD300-72A1

平行轴减速器(另售) PARALLEL SHAFT GEARHEAD (SOLD SEPARATELY)

减速器种类 Gearhead Type	减速器型号 Gearhead Model	减速比 Gear Ratio
长寿命·低噪音 Long Life · Low Noise	5GU□K(B)	3、3.6、5、6、7.5、9、12.5、15、18、25、30、36、50、60、75、90、100、120、150、180、200
	5GU10XK (中间减速器 Mid-gearbox)	

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

装有减速器时的容许转矩 Allowable torque when being with gearhead

- 减速器·中间减速器另售
- 减速器型号的□中为减速比的数值。
- 色表示与电动机同一方向运转，其他则为相反方向。
- 转速是以电动机的额定转速为基准除以减速比而算出来的数值。实际转速将随负载大小变化而比所示数值减少2%~20%左右。
- 希望以大于下表的减速比进行进一步减速时，可在电动机与减速器之间安装减速比为10的中间减速器。这时的容许转矩为20N·m
- Gearhead and mid-gearbox can be sold separately.
- Enter the gear ratio in the box (□) within the model name.
- Indicates the same rotating direction of the motor while the others rotate in the opposite direction.
- The speed is calculated by dividing the motor's synchronous speed by the gear ratio. The actual speed is 2%~20% less than the displayed value, depending on the size of the load.
- To reduce the speed beyond the gear ratio in the table, attach a mid-gearbox (gear ratio: 10) between the gearhead and motor. In that case, the permissible torque is 20N·m.

容许力矩单位 Allowance Torque Unit: 上段 Upside (N.m) / 下段 Belowside (kgf.cm)

减速比 Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	200
输出轴转速 r/min Out put shaft speed	1000	833	600	500	400	333	240	200	167	120	100	83	60	50	40	33	30	25	20	17	15
GU允许力矩 N.m Allowance Torque	2.32	2.78	3.87	4.64	5.8	6.96	8.71	10.46	12.55	15.76	18.91	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GU允许力矩 kgf.cm Allowance Torque	23.68	28.42	39.47	47.4	59.2	71.04	88.92	106.7	128.1	160.8	193	204	204	204	204	204	204	204	204	204	204

容许悬挂负载·容许轴向负载

Permissible Overhung load and thrust load

电动机(圆轴型)→42页 Motor (Round Shaft) →P42
 减速器→42页 Gearhead →P42

减速器的容许负载惯性惯量J

Permissible load inertia J for gearhead

→42页→P42

外形图(单位 mm) Dimensions(Unit mm)

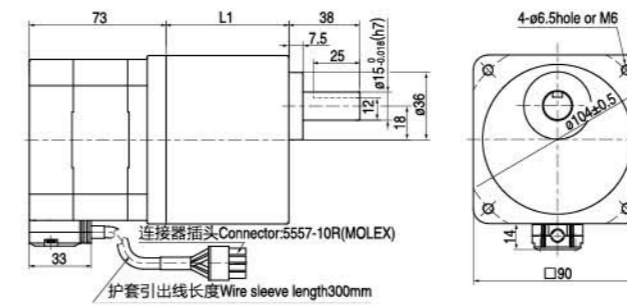
减速器附有安装用螺丝 Mounting screws are included with gearhead.

电动机型号 Motor Model	减速器型号 Gearhead type	速比 Gear Ratio	L尺寸 Dimension
Z5BLD300-36GU	5GU□K(B)	3~200	65.5
Z5BLD300-48GU			
Z5BLD300-72GU			

- 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

导线型 Lead wiring Type

重量 Weight: 电动机 Motor: 2.0kg 减速器 Gearhead 1.5kg



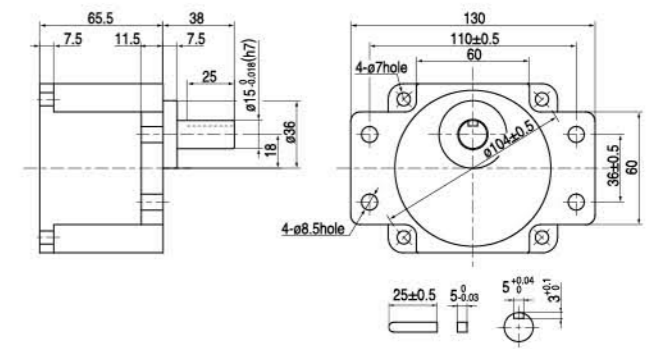
接线插孔对应信号说明

Wire plughole corresponding signal explanation

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

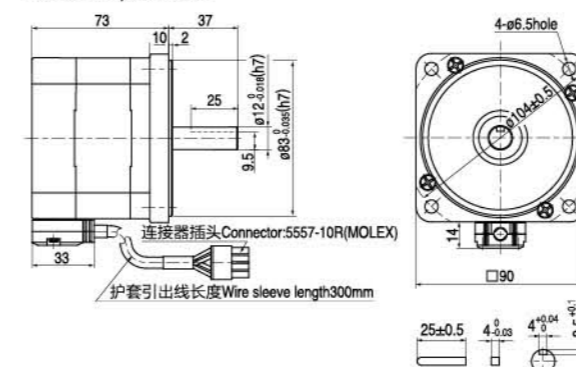
凸缘安装型减速器 Flange Mounting Reducer

可安装在GU齿轮轴型上 Can be Mounted on GU Type gear shaft 5GU□K
 重量 Weight: 1.5kg



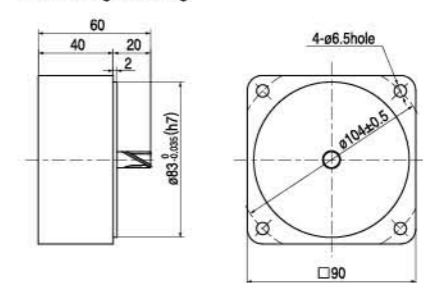
圆轴型的轴部分 Shaft Section of Round Shaft Type

除重量及轴部外，电动机外形与齿轴型相同
 Excluding weight and the shaft section Motor shape are the same as those of the pinion shaft



中间减速器 Mid-gearbox

可安装在GU齿轮轴型上
 Can be connected to GU pinion Shaft type 5GU10XK
 重量 Weight: 0.65kg



低压无刷直流减速电机 LOW VOLTAGE BLDC MOTOR

400W

90mm



电机性能参数 MOTOR PERFORMANCE PARAMETERS

型号 Model	电压 Voltage V	额定功率 Rated Power W	空载参数 No-load Parameters		负载参数 Load Parameters			电机寿命 Motor Life H	电机重量 Motor Weight kg
			转速 Speed RPM	电流 Current A	转速 Speed RPM	力矩 Torque N.m	电流 Current A		
Z5BLD400-36□	36	400	3600	MAX 1.5	3000	1.27	14.0	>5000	2.2
Z5BLD400-48□	48	400	3500	MAX 1.2	3000	1.27	10.5	>5000	2.2
Z5BLD400-72□	72	400	3400	MAX 0.8	3000	1.27	7.0	>5000	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。
- Motor voltage, power and speed will be customized according to his request under the allowed circumstance of adoptable dimension.

种类 TYPE

● 电动机 MOTOR

机型号 Type	型号 Model	
	齿轮轴型 Pinion Shaft	圆轴型 Round Shaft
导线型 Lead Wire Type	Z5BLD400-36GU	Z5BLD400-36A1
	Z5BLD400-48GU	Z5BLD400-48A1
	Z5BLD400-72GU	Z5BLD400-72A1

● 平行轴减速器(另售) PARALLEL SHAFT GEARHEAD (SOLD SEPARATELY)

减速器种类 Gearhead Type	减速器型号 Gearhead Model	减速比 Gear Ratio
长寿命·低噪音 Long Life · Low Noise	5GU□K(B)	3、3.6、5、6、7.5、9、12.5、15、18、25、30、36、50、60、75、90、100、120、150、180、200
		5GU10XK (中间减速器 Mid-gearbox)

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

装有减速器时的容许转矩

Allowable torque when being with gearhead

- 减速器·中间减速器另售
- 减速器型号的□中为减速比的数值。
- 色表示与电动机同一方向运转，其他则为相反方向。
- 转速是以电动机的额定转速为基准除以减速比而算出来的数值。实际转速将随负载大小变化而比所示数值减少2%~20%左右。
- 希望以大于下表的减速比进行进一步减速时，可在电动机与减速器之间安装减速比为10的中间减速器。这时的容许转矩为20N·m
- Gearhead and mid-gearbox can be sold separately.
- Enter the gear ratio in the box (□) within the model name.
- Indicates the same rotating direction of the motor while the others rotate in the opposite direction.
- The speed is calculated by dividing the motor's synchronous speed by the gear ratio. The actual speed is 2%~20% less than the displayed value, depending on the size of the load.
- To reduce the speed beyond the gear ratio in the table, attach a mid-gearbox (gear ratio: 10) between the gearhead and motor. In that case, the permissible torque is 20N·m.

容许力矩单位 Allowance Torque Unit: 上段 Upside (N.m) / 下段 Belowside (kgf.cm)

减速比 Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	200
输出轴转速 r/min Out put shaft speed	1000	833	600	500	400	333	240	200	167	120	100	83	60	50	40	33	30	25	20	17	15
GU允许力矩 N.m Allowance Torque	3.09	3.71	5.16	4.64	7.74	9.28	11.62	13.94	16.73	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GU允许力矩 kgf.cm Allowance Torque	31.57	37.89	52.62	47.4	78.93	94.72	118.6	142.3	173.7	204	204	204	204	204	204	204	204	204	204	204	204

● 容许悬挂负载·容许轴向负载

Permissible Overhung load and thrust load

电动机(圆轴型)→42页 Motor (Round Shaft) →P42

减速器→42页 Gearhead →P42

● 减速器的容许负载惯性惯量J

Permissible load inertia J for gearhead

→42页 →P42

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.

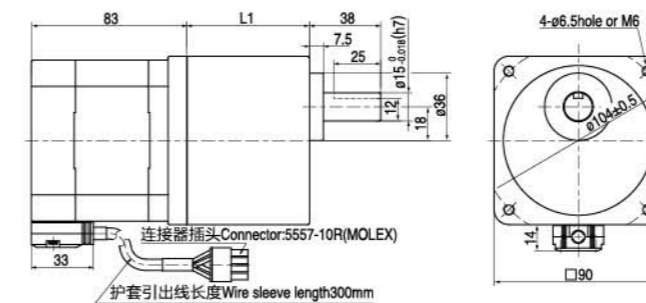
电动机型号 Motor Model	减速器型号 Gearhead type	速比 Gear Ratio	L尺寸 Dimension
Z5BLD400-36GU	5GU□K(B)	3~200	65.5
Z5BLD400-48GU			
Z5BLD400-72GU			

● 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

● 导线型 Lead wiring Type

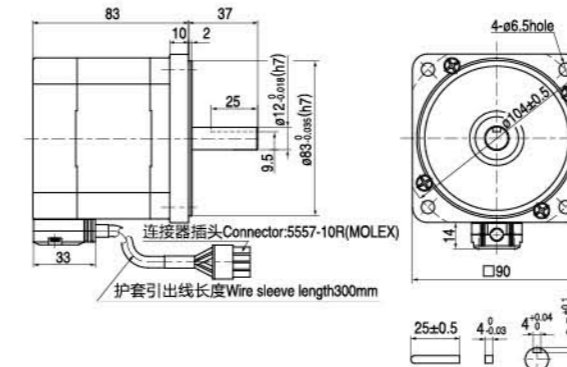
重量 Weight: 电动机 Motor: 2.2kg 减速器 Gearhead 1.5kg



● 圆轴型的转轴部分 Shaft Section of Round Shaft Type

除重量及轴部外，电动机外形与齿轴型相同

Excluding weight and the shaft section Motor shape are the same as those of the pinion shaft



● 接线插孔对应信号说明

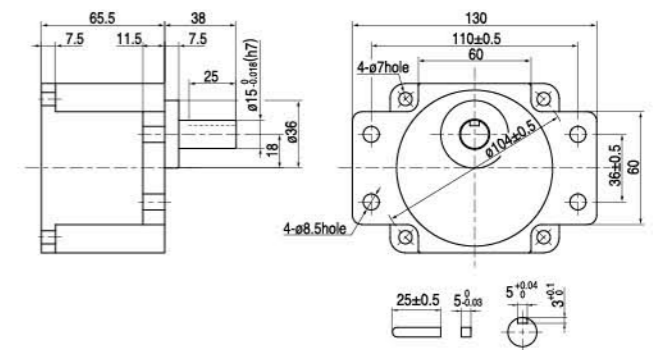
Wire plughole corresponding signal explanation

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

● 凸缘安装型减速器 Flange Mounting Reducer

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

重量 Weight: 1.5kg

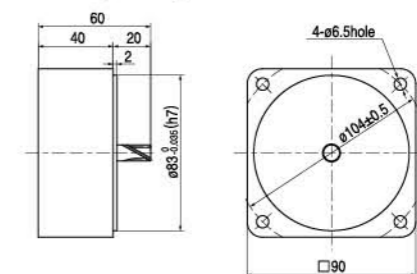


● 中间减速器 Mid-gearbox

可安装在GU齿轮轴型上

Can be connected to GU pinion Shaft type 5GU10XK

重量 Weight: 0.65kg



高压无刷直流减速电机 HIGH VOLTAGE BLDC GEAR MOTOR

10W

□60mm



电机性能参数 Motor performance parameters

型号 Model	电压 Voltage V	频率 Frequency HZ	额定功率 Rated Power W	额定电流 Rated Current A	额定转速 Rated Speed RPM	额定力矩 Rated Torque N.m	防护等级 Grade Protection IP
Z2BLD10-220GN	220~230	50/60	10	0.20	3000	0.03	65
	100~120	50/60	10	0.45	3000	0.03	65

- 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。
- Motor voltage, power and speed will be customized according to his request under the allowed circumstance of adoptable dimension.

种类 Type

● 电动机 MOTOR

机壳类型 Type	型号 Model	
	齿轮轴型 Pinion Shaft	圆轴型 Round Shaft
导线型 Lead Wire Type	Z2BLD10-220GN	Z2BLD10-220A
	Z2BLD10-110GN	Z2BLD10-110A

● 平行轴减速器(另售) PARALLEL SHAFT GEARHEAD (SOLD SEPARATELY)

减速器种类 Gearhead Type	减速器型号 Gearhead Model	减速比 Gear Ratio
长寿命·低噪音 Long Life · Low Noise	2GN□K	3、3.6、5、6、7.5、9、12.5、15、18、25、30、36、50、60、75、90、100、120、150、180、200
	2GN10XK(中间减速器 Mid-gearbox)	

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

装有减速器时的容许转矩 Allowable torque when being with gearhead

- 减速器·中间减速器另售
- 减速器型号的□中为减速比的数值。
- 色表示与电动机同一方向运转，其他则为相反方向。
- 转速是以电动机的额定转速为基准除以减速比而算出来的数值。实际转速将随负载大小变化而比所示数值减少2%~20%左右。
- 希望以大于下表的减速比进行进一步减速时，可在电动机与减速器之间安装减速比为10的中间减速器。这时的容许转矩为3N·m
- Gearhead and mid-gearbox can be sold separately.
- Enter the gear ratio in the box (□) within the model name.
- Indicates the same rotating direction of the motor while the others rotate in the opposite direction.

- The speed is calculated by dividing the motor's synchronous speed by the gear ratio. The actual speed is 2%~20% less than the displayed value, depending on the size of the load.
- To reduce the speed beyond the gear ratio in the table, attach a mid-gearbox (gear ratio: 10) between the gearhead and motor. In that case, the permissible torque is 3N·m.

容许力矩单位 Allowance Torque Unit: 上段 Upside (N.m) / 下段 Belowside (kgf.cm)

减速比 Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	200
输出轴转速 r/min Out put shaft speed	1000	833	600	500	400	333	240	200	167	120	100	83	60	50	40	33	30	25	20	17	15
GN允许力矩 N.m Allowance Torque	0.08	0.09	0.13	0.15	0.19	0.23	0.32	0.39	0.46	0.58	0.7	0.84	1.05	1.26	1.58	1.89	2.1	2.52	3.0	3.0	3.0
GN允许力矩 kgf.cm Allowance Torque	0.79	0.95	1.32	1.58	1.97	2.37	3.29	3.95	4.74	5.93	7.11	8.54	10.72	12.86	16.08	19.29	21.44	25.73	30.6	30.6	30.6

● 容许悬挂负载·容许轴向负载 Permissible Overhung load and thrust load

电动机(圆轴型) → 42页 Motor (Round Shaft) → P42
 减速器 → 42页 Gearhead → P42

● 减速器的容许负载惯性量 J Permissible load inertia J for gearhead

→ 42页 → P42

● 接线插孔对应信号说明 Wire plughole corresponding signal explanation

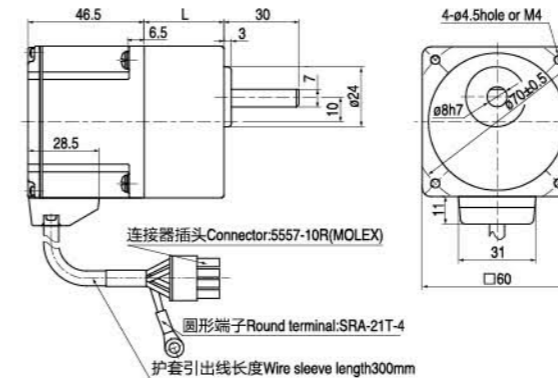
plughole signal	1 U	2 W	3 Hv	4 Hu
plughole signal	5 V	6 GND	7 Hw	8 Vcc

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.

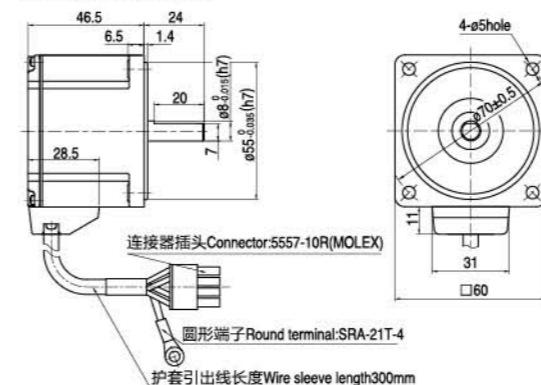
● 导线型 Lead wiring Type

重量 Weight: 电动机 Motor: 0.6kg 减速器 Gearhead 0.4kg



● 圆轴型的转轴部分 Shaft Section of Round Shaft Type

除重量及轴部外，电动机外形与齿轴型相同
 Excluding weight and the shaft section Motor shape are the same as those of the pinion shaft

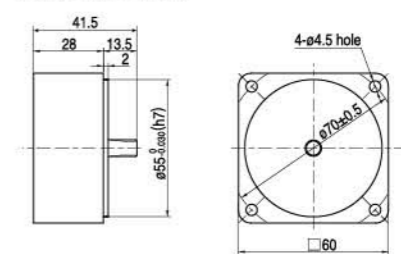


电动机型号 Motor Model	减速器型号 Gearhead type	速比 Gear Ratio	L尺寸 Dimension
Z2BLD10-220GN	2GN□K	3~18	32
Z2BLD10-110GN		25~200	41

- 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

● 中间减速器 Mid-gearbox

可安装在GN齿轮轴型上
 Can be connected to GN pinion Shaft type 2GN10XK
 重量 Weight: 0.24kg



高压无刷直流减速电机 HIGH VOLTAGE BLDC GEAR MOTOR

15W

□60mm



电机性能参数 Motor performance parameters

型号 Model	电压 Voltage V	频率 Frequency HZ	额定功率 Rated Power W	额定电流 Rated Current A	额定转速 Rated Speed RPM	额定力矩 Rated Torque N.m	防护等级 Grade Protection IP
Z2BLD15-220GN	220~230	50/60	15	0.35	3000	0.047	65
	100~120	50/60	15	0.65	3000	0.047	65

- 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。
- Motor voltage, power and speed will be customized according to his request under the allowed circumstance of adoptable dimension.

种类 Type

电动机 MOTOR

机型 Type	型号 Model	
	齿轮轴型 Pinion Shaft	圆轴型 Round Shaft
导线型 Lead Wire Type	Z2BLD15-220GN	Z2BLD15-220A
	Z2BLD15-110GN	Z2BLD15-110A

平行轴减速器(另售) PARALLEL SHAFT GEARHEAD (SOLD SEPARATELY)

减速器种类 Gearhead Type	减速器型号 Gearhead Model	减速比 Gear Ratio
长寿命·低噪音 Long Life · Low Noise	2GN□K	3、3.6、5、6、7.5、9、12.5、15、18、25、30、36、50、60、75、90、100、120、150、180、200
		2GN10XK(中间减速器 Mid-gearbox)

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

装有减速器时的容许转矩 Allowable torque when being with gearhead

- 减速器·中间减速器另售
- 减速器型号的□中为减速比的数值。
- 色表示与电动机同一方向运转，其他则为相反方向。
- 转速是以电动机的额定转速为基准除以减速比而算出来的数值。实际转速将随负载大小变化而比所示数值减少2%~20%左右。
- 希望以大于下表的减速比进行进一步减速时，可在电动机与减速器之间安装减速比为10的中间减速器。这时的容许转矩为3N·m
- Gearhead and mid-gearbox can be sold separately.
- Enter the gear ratio in the box (□) within the model name.
- Indicates the same rotating direction of the motor while the others rotate in the opposite direction.

- The speed is calculated by dividing the motor's synchronous speed by the gear ratio. The actual speed is 2%~20% less than the displayed value, depending on the size of the load.
- To reduce the speed beyond the gear ratio in the table, attach a mid-gearbox (gear ratio: 10) between the gearhead and motor. In that case, the permissible torque is 3N·m.

容许力矩单位 Allowance Torque Unit: 上段 Upside (N.m) / 下段 Belowside (kgf.cm)

减速比 Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	200
输出轴转速 r/min Out put shaft speed	1000	833	600	500	400	333	240	200	167	120	100	83	60	50	40	33	30	25	20	17	15
GN允许力矩 N.m Allowance Torque	0.12	0.14	0.19	0.23	0.29	0.35	0.48	0.58	0.7	0.87	1.05	1.25	1.58	1.89	2.36	2.84	3.0	3.0	3.0	3.0	3.0
GN允许力矩 kgf.cm Allowance Torque	1.18	1.42	1.97	2.37	2.96	3.55	4.93	5.92	7.1	8.89	10.67	12.8	16.08	19.29	24.12	28.94	30.6	30.6	30.6	30.6	30.6

容许悬挂负载·容许轴向负载

Permissible Overhung load and thrust load

电动机(圆轴型)→42页 Motor (Round Shaft) →P42
 减速器→42页 Gearhead →P42

减速器的容许负载惯性量 J

Permissible load inertia J for gearhead

→42页→P42

接线插孔对应信号说明

Wire plughole corresponding signal explanation

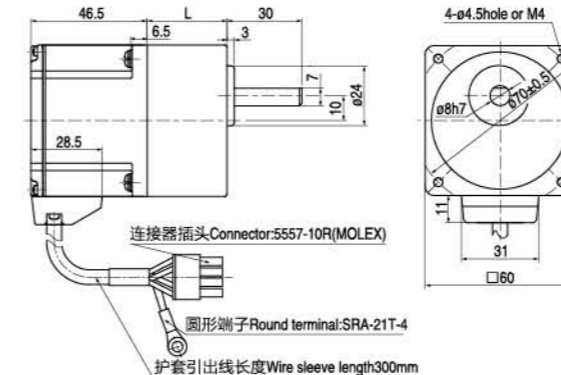
plughole signal	1	2	3	4
plughole signal	U	W	Hv	Hu
plughole signal	5	6	7	8
plughole signal	V	GND	Hw	Vcc

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.

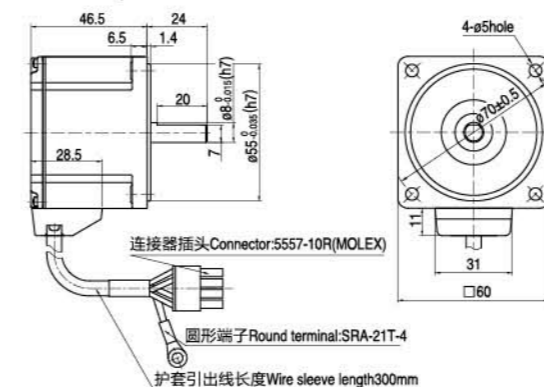
导线型 Lead wiring Type

重量 Weight: 电动机 Motor: 0.6kg 减速器 Gearhead 0.4kg



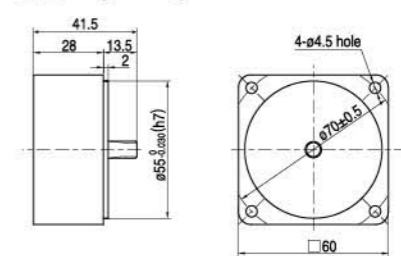
圆轴型的转轴部分 Shaft Section of Round Shaft Type

除重量及轴部外，电动机外形与齿轴型相同
 Excluding weight and the shaft section Motor shape are the same as those of the pinion shaft



中间减速器 Mid-gearbox

可安装在GN齿轴轴型上
 Can be connected to GN pinion Shaft type 2GN10XK
 重量 Weight: 0.65kg



高压无刷直流减速电机 HIGH VOLTAGE BLDC GEAR MOTOR

25W

□80mm



电机性能参数 Motor performance parameters

型号Model	电压 Voltage V	频率 Frequency HZ	额定功率 Rated Power W	额定电流 Rated Current A	额定转速 Rated Speed RPM	额定力矩 Rated Torque N.m	防护等级 Grade Protection IP
Z4BLD25-220GN	220~230	50/60	25	0.35	3000	0.08	65
	100~120	50/60	25	0.65	3000	0.08	65

- 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。
- Motor voltage, power and speed will be customized according to his request under the allowed circumstance of adoptable dimension.

种类 Type

电动机 MOTOR

机壳 Type	型号 Model	
	齿轮轴型 Pinion Shaft	圆轴型 Round Shaft
导线型 Lead Wire Type	Z4BLD25-220GN	Z4BLD25-220A
	Z4BLD25-110GN	Z4BLD25-110A

平行轴减速器(另售) PARALLEL SHAFT GEARHEAD (SOLD SEPARATELY)

减速器种类 Gearhead Type	减速器型号 Gearhead Model	减速比 Gear Ratio
长寿命·低噪音 Long Life · Low Noise	4GN□K	3、3.6、5、6、7.5、9、12.5、15、18、25、30、36、50、60、75、90、100、120、150、180、200
		4GN10XK (中间减速器 Mid-gearbox)

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

装有减速器时的容许转矩 Allowable torque when being with gearhead

- 减速器·中间减速器另售
- 减速器型号的□中为减速比的数值。
- 色表示与电动机同一方向运转，其他则为相反方向。
- 转速是以电动机的额定转速为基准除以减速比而算出来的数值。实际转速将随负载大小变化而比所示数值减少2%~20%左右。
- 希望以大于下表的减速比进行进一步减速时，可在电动机与减速器之间安装减速比为10的中间减速器。这时的容许转矩为8N·m
- Gearhead and mid-gearbox can be sold separately.
- Enter the gear ratio in the box (□) within the model name.
- Indicates the same rotating direction of the motor while the others rotate in the opposite direction.

- The speed is calculated by dividing the motor's synchronous speed by the gear ratio. The actual speed is 2%~20% less than the displayed value, depending on the size of the load.
- To reduce the speed beyond the gear ratio in the table, attach a Mid-gearbox (gear ratio: 10) between the gearhead and motor. In that case, the permissible torque is 8N·m.

容许力矩单位 Allowance Torque Unit: 上段 Upside (N.m) / 下段 Belowside (kgf.cm)

减速比 Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	200
输出轴转速 r/min Out put shaft speed	1000	833	600	500	400	333	240	200	167	120	100	83	60	50	40	33	30	25	20	17	15
GN允许力矩 N.m Allowance Torque	0.19	0.23	0.32	0.39	0.48	0.58	0.81	0.97	1.16	1.45	1.74	2.09	2.63	3.15	3.94	4.73	5.25	6.3	7.88	8.0	8.0
GN允许力矩 kgf.cm Allowance Torque	1.97	2.37	3.29	3.95	4.93	5.92	8.22	9.87	11.84	14.82	17.78	21.34	26.8	32.16	40.2	48.24	53.6	64.32	80.4	81.6	81.6

容许悬挂负载·容许轴向负载

Permissible Overhung load and thrust load

电动机(圆轴型)→42页 Motor (Round Shaft)→P42
 减速器→42页 Gearhead→P42

减速器的容许负载惯性J

Permissible load inertia J for gearhead

→42页→P42

接线插孔对应信号说明

Wire plughole corresponding signal explanation

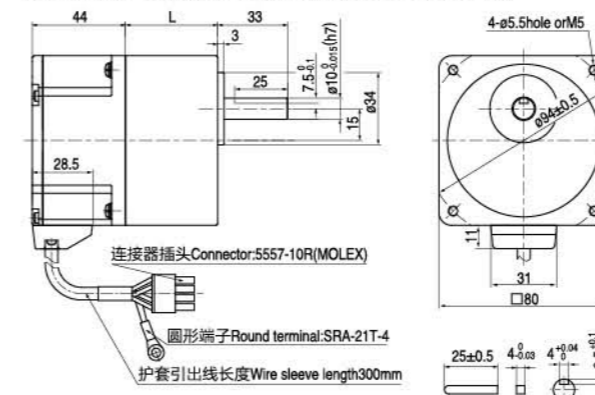
plughole signal	1	2	3	4
plughole signal	U	W	Hv	Hu
plughole signal	5	6	7	8
plughole signal	V	GND	Hw	Vcc

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.

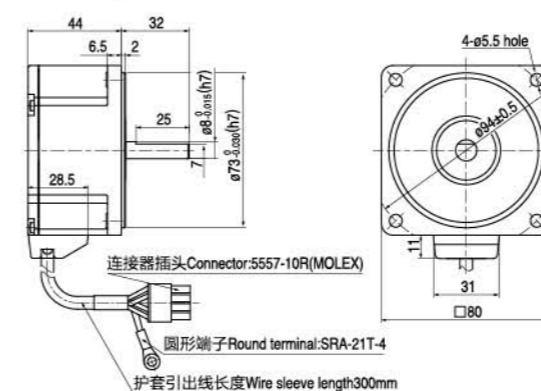
导线型 Lead wiring Type

重量 Weight: 电动机 Motor: 1.0kg 减速器 Gearhead 0.8kg



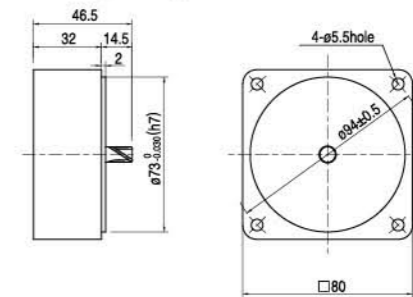
圆轴型的转轴部分 Shaft Section of Round Shaft Type

除重量及轴部外，电动机外形与齿轴型相同
 Excluding weight and the shaft section Motor shape are the same as those of the pinion shaft



中间减速器 Mid-gearbox

可安装在GN齿轴轴型上
 Can be connected to GN pinion Shaft type 4GN10XK
 重量 Weight: 0.41kg



高压无刷直流减速电机 HIGH VOLTAGE BLDC GEAR MOTOR

40W

□80mm



电机性能参数 Motor performance parameters

型号Model	电压 Voltage V	频率 Frequency HZ	额定功率 Rated Power W	额定电流 Rated Current A	额定转速 Rated Speed RPM	额定力矩 Rated Torque N.m	防护等级 Grade Protection IP
Z4BLD40-220GN	220~230	50/60	40	0.55	3000	0.127	65
	100~120	50/60	40	1.00	3000	0.127	65

- 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。
- Motor voltage, power and speed will be customized according to his request under the allowed circumstance of adoptable dimension.

种类 Type

● 电动机 MOTOR

机壳 Type	型号 Model	
	齿轮轴型 Pinion Shaft	圆轴型 Round Shaft
导线型 Lead Wire Type	Z4BLD40-220GN	Z4BLD40-220A
	Z4BLD40-110GN	Z4BLD40-110A

● 平行轴减速器(另售) PARALLEL SHAFT GEARHEAD (SOLD SEPARATELY)

减速器种类 Gearhead Type	减速器型号 Gearhead Model	减速比 Gear Ratio
长寿命·低噪音 Long Life · Low Noise	4GN□K	3、3.6、5、6、7.5、9、12.5、15、18、25、30、36、50、60、75、90、100、120、150、180、200
		4GN10XK (中间减速器 Mid-gearbox)

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

装有减速器时的容许转矩

Allowable torque when being with gearhead

- 减速器·中间减速器另售
- 减速器型号的□中为减速比的数值。
- 色表示与电动机同一方向运转，其他则为相反方向。
- 转速是以电动机的额定转速为基准除以减速比而算出来的数值。实际转速将随负载大小变化而比所示数值减少2%~20%左右。
- 希望以大于下表的减速比进行进一步减速时，可在电动机与减速器之间安装减速比为10的中间减速器。这时的容许转矩为8N·m
- Gearhead and mid-gearbox can be sold separately.
- Enter the gear ratio in the box (□) within the model name.
- Indicates the same rotating direction of the motor while the others rotate in the opposite direction.

- The speed is calculated by dividing the motor's synchronous speed by the gear ratio. The actual speed is 2%~20% less than the displayed value, depending on the size of the load.
- To reduce the speed beyond the gear ratio in the table, attach a mid-gearbox (gear ratio: 10) between the gearhead and motor. In that case, the permissible torque is 8N·m.

容许力矩单位 Allowance Torque Unit: 上段 Upside (N.m) / 下段 Belowside (kgf.cm)

减速比 Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	200
输出轴转速 r/min Out put shaft speed	1000	833	600	500	400	333	240	200	167	120	100	83	60	50	40	33	30	25	20	17	15
GN允许力矩 N.m Allowance Torque	0.31	0.37	0.52	0.62	0.77	0.93	1.29	1.55	1.86	2.32	2.79	3.35	4.2	5.04	6.3	7.56	8.0	8.0	8.0	8.0	8.0
GN允许力矩 kgf.cm Allowance Torque	3.16	3.79	5.26	6.31	7.89	9.47	13.16	15.79	18.94	23.71	28.46	34.15	42.88	51.45	64.32	77.18	81.6	81.6	81.6	81.6	81.6

● 容许悬挂负载·容许轴向负载

Permissible Overhung load and thrust load

电动机(圆轴型) → 42页 Motor (Round Shaft) → P42
 减速器 → 42页 Gearhead → P42

● 减速器的容许负载惯性量 J

Permissible load inertia J for gearhead

→ 42页 → P42

● 接线插孔对应信号说明

Wire plughole corresponding signal explanation

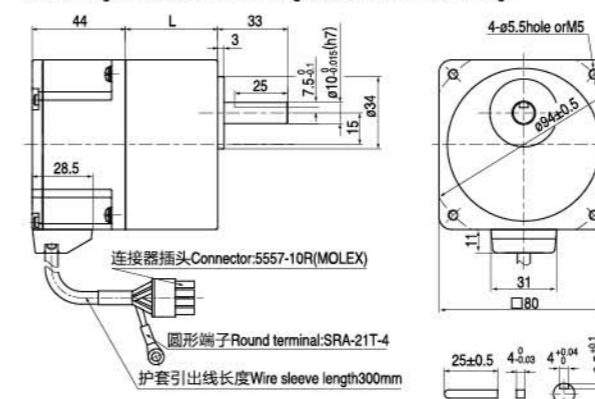
plughole signal	1	2	3	4
plughole signal	U	W	Hv	Hu
plughole signal	5	6	7	8
plughole signal	V	GND	Hw	Vcc

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.

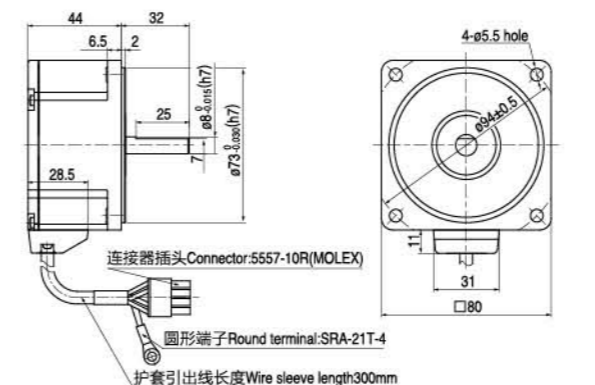
● 导线型 Lead wiring Type

重量 Weight: 电动机 Motor: 1.0kg 减速器 Gearhead 0.8kg



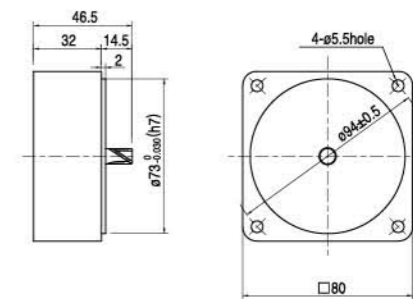
● 圆轴型的转轴部分 Shaft Section of Round Shaft Type

除重量及轴部外，电动机外形与齿轴型相同
 Excluding weight and the shaft section Motor shape are the same as those of the pinion shaft



● 中间减速器 Mid-gearbox

可安装在GN齿轴轴型上
 Can be connected to GN pinion Shaft type 4GN10XK
 重量 Weight: 0.41kg



高压无刷直流减速电机 HIGH VOLTAGE BLDC GEAR MOTOR

40W

□90mm



电机性能参数 Motor performance parameters

型号Model	电压 Voltage V	频率 Frequency HZ	额定功率 Rated Power W	额定电流 Rated Current A	额定转速 Rated Speed RPM	额定力矩 Rated Torque N.m	防护等级 Grade Protection IP
Z5BLD40-220GN	220~230	50/60	40	0.40	3000	0.127	65
	100~120	50/60	40	0.80	3000	0.127	65

- 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。
- Motor voltage, power and speed will be customized according to his request under the allowed circumstance of adoptable dimension.

种类 Type

● 电动机 MOTOR

机型 Type	型号 Model	
	齿轮轴型 Pinion Shaft	圆轴型 Round Shaft
导线型 Lead Wire Type	Z5BLD40-220GN	Z5BLD40-220A1
	Z5BLD40-110GN	Z5BLD40-110A1

● 平行轴减速器(另售) PARALLEL SHAFT GEARHEAD (SOLD SEPARATELY)

减速器种类 Gearhead Type	减速器型号 Gearhead Model	减速比 Gear Ratio
长寿命·低噪音 Long Life · Low Noise	5GN□K	3、3.6、5、6、7.5、9、12.5、15、18、25、30、36、50、60、75、90、100、120、150、180、200
	5GN10XK (中间减速器 Mid-gearbox)	

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

装有减速器时的容许转矩 Allowable torque when being with gearhead

- 减速器·中间减速器另售
- 减速器型号的□中为减速比的数值。
- 色表示与电动机同一方向运转，其他则为相反方向。
- 转速是以电动机的额定转速为基准除以减速比而算出来的数值。实际转速将随负载大小变化而比所示数值减少2%~20%左右。
- 希望以大于下表的减速比进行进一步减速时，可在电动机与减速器之间安装减速比为10的中间减速器。这时的容许转矩为30N·m
- Gearhead and mid-gearbox can be sold separately.
- Enter the gear ratio in the box (□) within the model name.
- Indicates the same rotating direction of the motor while the others rotate in the opposite direction.

- The speed is calculated by dividing the motor's synchronous speed by the gear ratio. The actual speed is 2%~20% less than the displayed value, depending on the size of the load.
- To reduce the speed beyond the gear ratio in the table, attach a mid-gearbox (gear ratio: 10) between the gearhead and motor. In that case, the permissible torque is 30N·m.

容许力矩单位 Allowance Torque Unit: 上段 Upside (N.m) / 下段 Belowside (kgf.cm)

减速比 Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	200
输出轴转速 r/min Out put shaft speed	1000	833	600	500	400	333	240	200	167	120	100	83	60	50	40	33	30	25	20	16	15
GN允许力矩 N.m Allowance Torque	0.31	0.37	0.52	0.62	0.77	0.93	1.29	1.55	1.86	2.32	2.79	3.35	4.2	5.04	6.3	7.56	8.4	10.0	10.0	10.0	10.0
GN允许力矩 kgf.cm Allowance Torque	3.16	3.79	5.26	6.31	7.89	9.47	13.16	15.79	18.94	23.71	28.46	34.15	42.88	51.45	64.32	77.18	85.76	102	102	102	102

● 容许悬挂负载·容许轴向负载

Permissible Overhung load and thrust load

电动机(圆轴型)→42页 Motor (Round Shaft) →P42
 减速器→42页 Gearhead →P42

● 减速器的容许负载惯性量 J

Permissible load inertia J for gearhead

→42页→P42

● 接线插孔对应信号说明

Wire plughole corresponding signal explanation

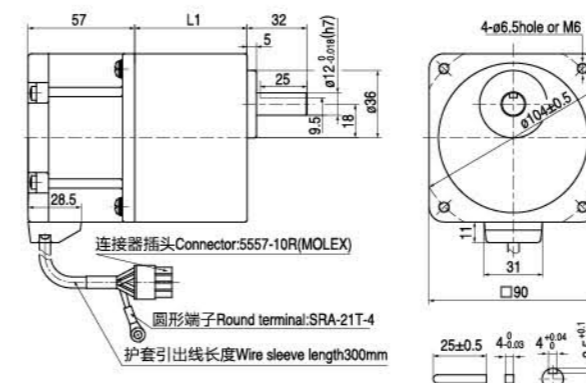
plughole signal	1	2	3	4
plughole signal	U	W	Hv	Hu
plughole signal	5	6	7	8
plughole signal	V	GND	Hw	Vcc

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.

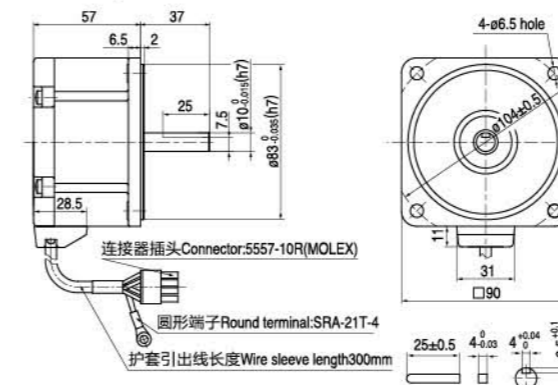
● 导线型 Lead wiring Type

重量 Weight: 电动机 Motor: 1.2kg 减速器 Gearhead 1.5kg



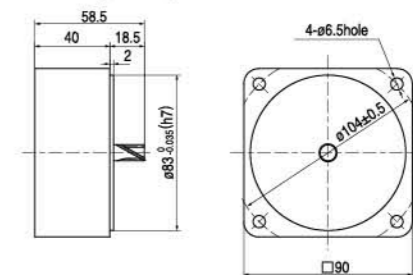
● 圆轴型的转轴部分 Shaft Section of Round Shaft Type

除重量及轴部外，电动机外形与齿轴型相同
 Excluding weight and the shaft section Motor shape are the same as those of the pinion shaft



● 中间减速器 Mid-gearbox

可安装在GN齿轴轴型上
 Can be connected to GN pinion Shaft type 5GN10XK
 重量 Weight: 0.6kg



高压无刷直流减速电机 HIGH VOLTAGE BLDC GEAR MOTOR

60W

□90mm



电机性能参数 Motor performance parameters

型号 Model	电压 Voltage V	频率 Frequency HZ	额定功率 Rated Power W	额定电流 Rated Current A	额定转速 Rated Speed RPM	额定力矩 Rated Torque N.m	防护等级 Grade Protection IP
Z5BLD60-220GU	220~230	50/60	60	0.60	3000	0.191	65
	100~120	50/60	60	1.20	3000	0.191	65

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

种类 Type

电动机 MOTOR

机壳类型 Type	型号 Model	
	齿轮轴型 Pinion Shaft	圆轴型 Round Shaft
导线型 Lead Wire Type	Z5BLD60-220GU	Z5BLD60-220A1
	Z5BLD60-110GU	Z5BLD60-110A1

平行轴减速器(另售) PARALLEL SHAFT GEARHEAD (SOLD SEPARATELY)

减速器种类 Gearhead Type	减速器型号 Gearhead Model	减速比 Gear Ratio
长寿命·低噪音 Long Life · Low Noise	5GU□K(B)	3、3.6、5、6、7.5、9、12.5、15、18、25、30、36、50、60、75、90、100、120、150、180、200
		5GU10XK(中间减速器 Mid-gearbox)

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

装有减速器时的容许转矩

Allowable torque when being with gearhead

- 减速器·中间减速器另售
- 减速器型号的□中为减速比的数值。
- 色表示与电动机同一方向运转，其他则为相反方向。
- 转速是以电动机的额定转速为基准除以减速比而算出来的数值。实际转速将随负载大小变化而比所示数值减少2%~20%左右。
- 希望以大于下表的减速比进行进一步减速时，可在电动机与减速器之间安装减速比为10的中间减速器。这时的容许转矩为20N·m
- Gearhead and mid-gearbox can be sold separately.
- Enter the gear ratio in the box (□) within the model name.
- Indicates the same rotating direction of the motor while the others rotate in the opposite direction.
- The speed is calculated by dividing the motor's synchronous speed by the gear ratio. The actual speed is 2%~20% less than the displayed value, depending on the size of the load.
- To reduce the speed beyond the gear ratio in the table, attach a mid-gearbox (gear ratio: 10) between the gearhead and motor. In that case, the permissible torque is 20N·m.

容许力矩单位 Allowance Torque Unit: 上段 Upside (N.m) / 下段 Belowside (kgf.cm)

减速比 Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	200
输出轴转速 r/min Out put shaft speed	1000	833	600	500	400	333	240	200	167	120	100	83	60	50	40	33	30	25	20	17	15
GU允许力矩 N.m Allowance Torque	0.46	0.37	0.77	0.93	1.16	1.39	1.74	2.09	2.51	3.15	3.78	4.54	6.3	7.56	9.45	10.14	11.27	13.52	16.9	20	20
GU允许力矩 kgf.cm Allowance Torque	4.74	5.68	7.89	9.47	11.84	14.21	17.78	21.34	25.61	32.16	38.59	46.31	64.32	77.18	96.47	103.5	115	138	172.5	204	204

容许悬挂负载·容许轴向负载

Permissible Overhung load and thrust load

电动机(圆轴型)→42页 Motor (Round Shaft) →P42

减速器→42页 Gearhead →P42

减速器的容许负载惯性惯量J

Permissible load inertia J for gearhead

→42页→P42

外形图(单位 mm) Dimensions(Unit mm)

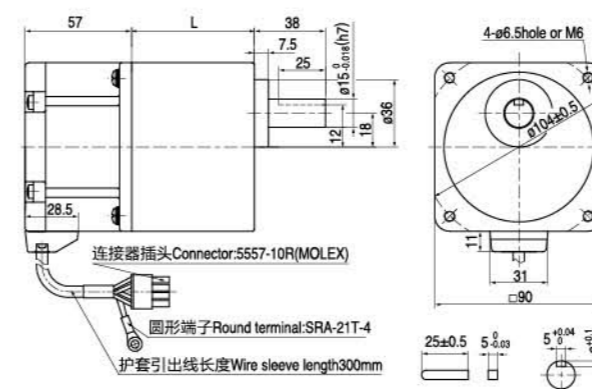
减速器附有安装用螺丝 Mounting screws are included with gearhead.

电动机型号 Motor Model	减速器型号 Gearhead type	速比 Gear Ratio	L尺寸 Dimension
Z5BLD60-220GU	5GU□K(B)	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

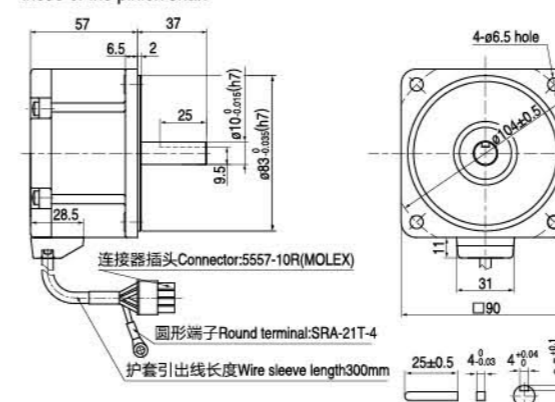
导线型 Lead wiring Type

重量 Weight: 电动机 Motor: 1.4kg 减速器 Gearhead 1.5kg



圆轴型的转轴部分 Shaft Section of Round Shaft Type

除重量及轴部外，电动机外形与齿轴型相同 Excluding weight and the shaft section Motor shape are the same as those of the pinion shaft



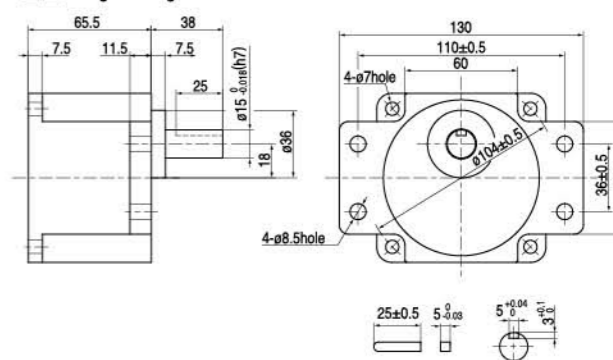
接线插孔对应信号说明

Wire plughole corresponding signal explanation

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

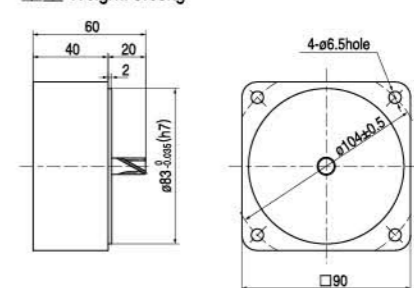
凸缘安装型减速器 Flange Mounting Reducer

可安装在GU齿轮轴型上 Can be Mounted on GU Type gear shaft 5GU□K 重量 Weight: 1.5kg



中间减速器 Mid-gearbox

可安装在GU齿轮轴型上 Can be connected to GU pinion Shaft type 5GU10XK 重量 Weight: 0.65kg



高压无刷直流减速电机 HIGH VOLTAGE BLDC GEAR MOTOR

90W

□90mm



电机性能参数 Motor performance parameters

型号 Model	电压 Voltage V	频率 Frequency HZ	额定功率 Rated Power W	额定电流 Rated Current A	额定转速 Rated Speed RPM	额定力矩 Rated Torque N.m	防护等级 Grade Protection IP
Z5BLD90-220GU	220~230	50/60	90	0.90	3000	0.286	65
	100~120	50/60	90	1.80	3000	0.286	65

- 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。
- Motor voltage, power and speed will be customized according to his request under the allowed circumstance of adoptable dimension.

种类 Type

电动机 MOTOR

机型 Type	型号 Model	
	齿轮轴型 Pinion Shaft	圆轴型 Round Shaft
导线型 Lead Wire Type	Z5BLD90-220GU	Z5BLD90-220A1
	Z5BLD90-110GU	Z5BLD90-110A1

平行轴减速器(另售) PARALLEL SHAFT GEARHEAD (SOLD SEPARATELY)

减速器种类 Gearhead Type	减速器型号 Gearhead Model	减速比 Gear Ratio
长寿命·低噪音 Long Life · Low Noise	5GU□K(B)	3、3.6、5、6、7.5、9、12.5、15、18、25、30、36、50、60、75、90、100、120、150、180、200
		5GU10XK (中间减速器 Mid-gearbox)

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

装有减速器时的容许转矩 Allowable torque when being with gearhead

- 减速器·中间减速器另售
- 减速器型号的□中为减速比的数值。
- 色表示与电动机同一方向运转，其他则为相反方向。
- 转速是以电动机的额定转速为基准除以减速比而算出来的数值。实际转速将随负载大小变化而比所示数值减少2%~20%左右。
- 希望以大于下表的减速比进行进一步减速时，可在电动机与减速器之间安装减速比为10的中间减速器。这时的容许转矩为20N·m
- Gearhead and mid-gearbox can be sold separately.
- Enter the gear ratio in the box (□) within the model name.
- Indicates the same rotating direction of the motor while the others rotate in the opposite direction.
- The speed is calculated by dividing the motor's synchronous speed by the gear ratio. The actual speed is 2%~20% less than the displayed value, depending on the size of the load.
- To reduce the speed beyond the gear ratio in the table, attach a mid-gearbox (gear ratio: 10) between the gearhead and motor. In that case, the permissible torque is 20N·m.

容许力矩单位 Allowance Torque Unit: 上段 Upside (N.m) / 下段 Belowside (kgf.cm)

减速比 Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	200
输出轴转速 r/min Out put shaft speed	1000	833	600	500	400	333	240	200	167	120	100	83	60	50	40	33	30	25	20	17	15
GU允许力矩 N.m Allowance Torque	0.7	0.84	1.16	1.39	1.74	2.09	2.61	3.14	3.76	4.73	5.67	6.81	9.45	11.35	14.18	15.21	16.9	20	20	20	20
GU允许力矩 kgf.cm Allowance Torque	7.1	8.52	11.84	14.2	17.76	21.31	26.68	32.01	38.41	48.24	57.88	69.46	96.47	115.8	144.7	155.2	172.5	204	204	204	204

容许悬挂负载·容许轴向负载 Permissible Overhung load and thrust load

电动机(圆轴型)→42页 Motor (Round Shaft) →P42
 减速器→42页 Gearhead →P42

减速器的容许负载惯性惯量J Permissible load inertia J for gearhead

→42页→P42

外形图(单位 mm) Dimensions(Unit mm)

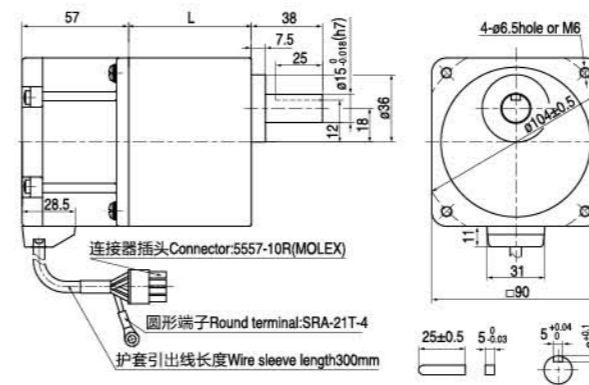
减速器附有安装用螺丝 Mounting screws are included with gearhead.

电动机型号 Motor Model	减速箱型号 Gearhead type	速比 Gear Ratio	L尺寸 Dimension
Z5BLD90-220GU	5GU□K(B)	3~200	65.5
Z5BLD90-100GU			

- 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

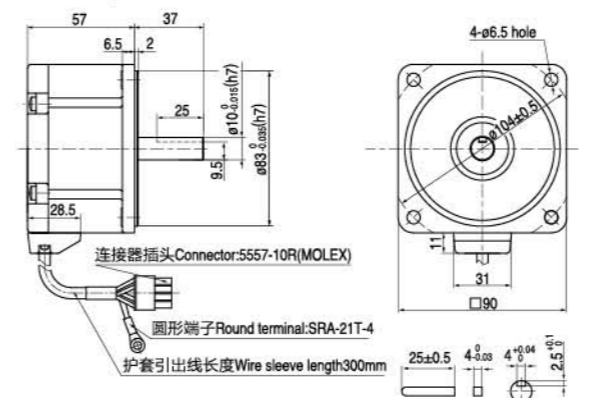
导线型 Lead wiring Type

重量 Weight: 电动机 Motor: 0.6kg 减速器 Gearhead 0.4kg



圆轴型的转轴部分 Shaft Section of Round Shaft Type

除重量及轴部外，电动机外形与齿轴型相同 Excluding weight and the shaft section Motor shape are the same as those of the pinion shaft

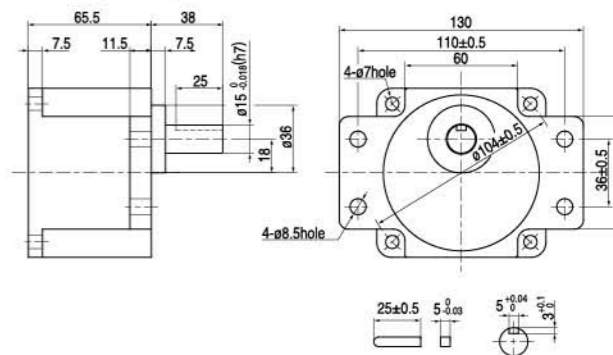


接线插孔对应信号说明 Wire plughole corresponding signal explanation

plughole signal	1	2	3	4
plughole signal	U	W	Hv	Hu
plughole signal	V	GND	Hw	Vcc

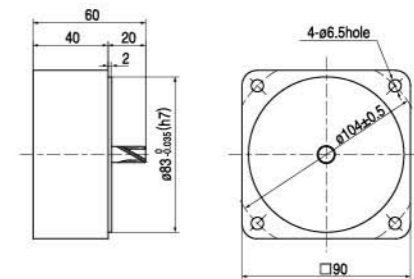
凸缘安装型减速器 Flange Mounting Reducer

可安装在GU齿轴轴型上 Can be Mounted on GU Type gear shaft 5GU□K
 重量 Weight: 1.5kg



中间减速器 Mid-gearbox

可安装在GU齿轴轴型上 Can be connected to GU pinion Shaft type 5GU10XK
 重量 Weight: 0.65kg



DC BRUSHLESS GEAR MOTOR

型号的阅读方法 PRODUCT CODE

● 低压无刷直流电动机 BRUSHLESS DC MOTOR

Z **62** **BLDP** **24** **60** - **30S**

① ② ③ ④ ⑤ ⑥

①	宁波中大力德传动设备有限公司标识 ZD MOTOR 电机外径尺寸 Motor outline dimension 22: 电机外径outer diameter ϕ 22mm 32: 电机外径outer diameter ϕ 32mm 42: 电机外径outer diameter ϕ 42mm 52: 电机外径outer diameter ϕ 52mm 62: 电机外径outer diameter ϕ 62mm
②	电机型式: Motor type BLDP: 无刷直流电机, 配行星减速器式 BLDP Motor matched with planetary gearbox 电机使用额定电压 Rated voltage for the motor using 12: 12V 24: 24V 48: 48V
③	电机输出额定功率 Rated output power for the motor 40: 40W 60: 60W 90: 90W
④	电机输出额定转速 Rated output speed for the motor 20S: 2000RPM 30S: 3000RPM

● 行星齿轮箱 Planet Gearhead

62 **PM** **8**

① ② ③

①	齿轮箱外径尺寸 Gearbox Size 22: 外径outer diameter Φ 22mm 32: 外径outer diameter Φ 32mm 42: 外径outer diameter Φ 42mm 52: 外径outer diameter Φ 52mm 62: 外径outer diameter Φ 62mm
②	行星齿轮箱 (Planet Gearhead) PM: 传动型行星 (金属) Transmission planetary (metal) PK: 传动型行星 (塑料) Transmission planetary (plastic)
③	减速比 Ratio 8: 减速比1: 8



直流无刷行星减速电机 BLDC PLANETARY GEAR MOTOR

10W ø22mm



电机性能参数 Motor performance parameters

型号Model	电压 Voltage V	额定功率 Rated Power W	额定电流 Rated Current A	额定转速 Rated Speed RPM	额定力矩 Rated Torque N.m	防护等级 Grade Protection IP
Z22BLDP2410-60S	24	10	0.7	6000	0.016	32
Z22BLDP2415-60S	24	15	1.0	6000	0.024	32

- 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。
- Motor voltage, power and speed will be customized according to his request under the allowed circumstance of adoptable dimension.

装有减速器时的容许转矩

Allowable torque when being with gearhead

- 减速器与电动机转向一致。
- 转速是以电动机的额定转速为基准除以减速比而算出来的数值。实际转速将随负载大小变化而比所示数值减少2%~20%左右。
- Output direction is same as motor.
- The speed is calculated by dividing the motor's synchronous speed by the gear ratio. The actual speed is 2%~20% less than the displayed value, depending on the size of the load.

容许力矩 Allowance Torque (Z22BLDP2410-60S/Z22PMXX):

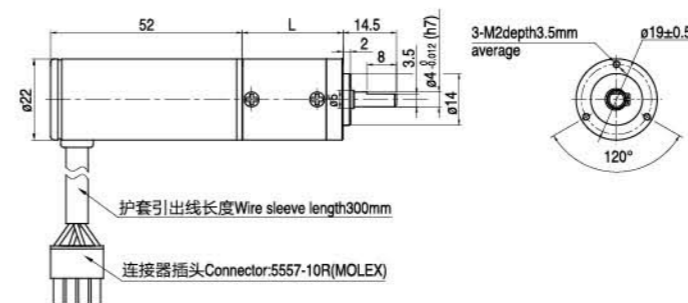
减速比Gear Ratio	3.7	5.18	6.75	13.87	19.16	24.97	26.83	34.96	45.56	50.65	70.9	92.4	99.2	129.3	139	168.6	181.1	236	307.5
输出轴转速r/min Out put shaft speed	1622	1158	889	432	313	240	224	172	132	118	85	65	60	46	43	36	33	12.5	9.8
允许力矩 Allowance Torque N.m	0.08	0.11	0.15	0.27	0.37	0.48	0.52	0.68	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
减速级数 Reduction stages	1	1	1	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3

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.

● 导线型 Lead wiring Type

重量 Weight: 电动机 Motor 0.6kg 减速器 Gearhead 0.4kg

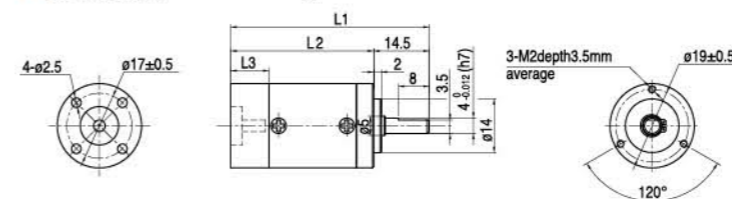


● 接线插孔对应信号说明

Wire plughole corresponding signal explanation

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

● 减速器外形图 Gearbox drawings



减速级数Reduction stages	减速比 Gear Ratio	L
一级 One stages	3.7,5.18,6.75	24
二级 Two stages	13.87,19.16,24.97,26.83,34.96,45.56	32.3
三级 Three stages	50.65,70.9,92.4,99.2,129.3,139,181.1,168.58,236,307.5	40.6

技术资料 Technical Data

传动级数 Transmission stage	一级传动 Stage 1 transmission	二级传动 Stage 2 transmission	三级传动 Stage 3 transmission
传动效率 Transmission efficiency	90%	81%	73%
最大径向负载 Max radial load	80N	80N	80N
最大轴向负载 Max axial load	30N	30N	30N
瞬间承受扭矩 Instant beared torque	3倍于额定扭矩 Three times of the rated torque		
工作温度 Operating temperature	-10℃~+80℃		
润滑方式 Lubrication type	终身润滑 Lifetime lubrication		
安装方式 Mounting type	任意安装 Any		
推荐输入转速 Recommend input speed	3000RPM		
输入与输出 Input and output	同向 Same direction		
齿轮箱长度L1 / Gearbox length	48.5mm	56.8mm	65.1mm
箱体长度L2 / Length of gearbox housing	34mm	42.3mm	50.6mm
后盖长度L3 / End-cover length	10mm		

第一级行星轮材料 Stage 1 planetary material	一级传动 Stage 1 transmission	二级传动 Stage 2 transmission	三级传动 Stage 3 transmission
传动扭矩 Transmission torque	塑料 Plastic POM	0.2N.M	0.8N.M
	金属 Metal 40Cr	0.6N.M	0.8N.M
噪声 Noise	塑料 Plastic POM	45dB(A)	
	金属 Metal 40Cr	60dB(A)	

直流无刷行星减速电机 BLDC PLANETARY GEAR MOTOR

15W

ø32mm



电机性能参数 Motor performance parameters

型号 Model	电压 Voltage V	额定功率 Rated Power W	额定电流 Rated Current A	额定转速 Rated Speed RPM	额定力矩 Rated Torque N.m	防护等级 Grade Protection IP
Z32BLDP2415-30S	24	15	0.9	3000	0.047	32
Z32BLDP2425-30S	24	25	1.4	3000	0.08	32

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

装有减速器时的容许转矩

Allowable torque when being with gearhead

- 减速器与电动机转向一致。
- 转速是以电动机的额定转速为基准除以减速比而算出来的数值。实际转速将随负载大小变化而比所示数值减少2%~20%左右。
- Output direction is same as motor.
- The speed is calculated by dividing the motor's synchronous speed by the gear ratio. The actual speed is 2%~20% less than the displayed value, depending on the size of the load.

容许力矩 Allowance Torque (Z32BLDP2415-30S/32PMXX):

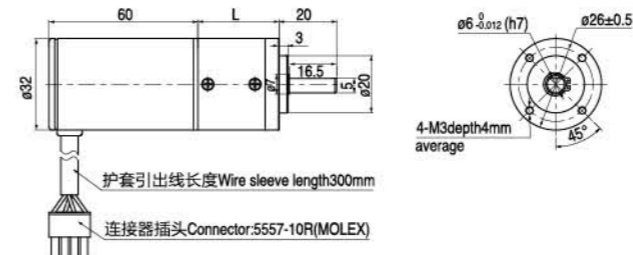
减速比 Gear Ratio	3.7	5.18	6.75	13.87	19.16	24.97	26.83	34.96	45.56	50.65	70.9	92.4	99.2	129.3	139	168.6	181.1	236	307.5
输出轴转速 r/min Out put shaft speed	811	579	444	216	157	120	112	86	66	59	42	32	30	23	21.5	18	16.5	12.5	9.8
允许力矩 Allowance Torque N.m	0.16	0.22	0.29	0.54	0.74	0.97	1.04	1.35	1.76	1.77	2.47	3.22	3.46	4.00	4.00	4.00	4.00	4.00	4.00
减速级数 Reduction stages	1	1	1	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3

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.

导线型 Lead wiring Type

重量 Weight: 电动机 Motor 0.6kg 减速器 Gearhead 0.4kg

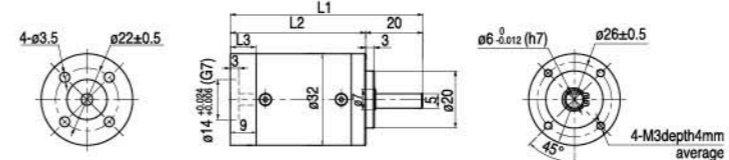


接线插孔对应信号说明

Wire plughole correspond-ing signal explanation

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

减速器外形图 Gearbox drawings



减速级数 Reduction stages	减速比 Gear Ratio	L
一级 One stage	3.7, 5.18, 6.75	28.5
二级 Two stages	13.87, 19.16, 24.97, 26.83, 34.96, 45.56	38.3
三级 Three stages	50.65, 70.9, 92.4, 99.2, 129.3, 139, 181.1, 168.58, 236, 307.5	48.1

技术资料 Technical Data

传动级数 Transmission stage	一级传动 Stage 1 transmission	二级传动 Stage 2 transmission	三级传动 Stage 3 transmission
传动效率 Transmission efficiency	90%	81%	73%
最大径向负载 Max radial load	80N	115N	80N
最大轴向负载 Max axial load	30N	40N	30N
瞬间承受扭矩 Instant beared torque	3倍于额定扭矩 Three times of the rated torque		
工作温度 Operating temperature	-10℃~+40℃		
润滑方式 Lubrication type	终身润滑 Lifetime lubrication		
安装方式 Mounting type	任意安装 Any		
推荐输入转速 Recommend input speed	3000RPM		
输入与输出 Input and output	同向 Same direction		
齿轮箱长度 L1 / Gearbox length	57.5mm	67.3mm	77.1mm
箱体长度 L2 / Length of gearbox housing	37.5mm	47.3mm	57.1mm
后盖长度 L3 / End-cover length	9mm/0mm	9mm/0mm	9mm/0mm

第一级行星轮材料 Stage 1 planetary material	一级传动 Stage 1 transmission	二级传动 Stage 2 transmission	三级传动 Stage 3 transmission
传动扭矩 Transmission torque	塑料 Plastic POM	1.5N.M	4.0N.M
	金属 Metal 40Cr	2.25N.M	4.0N.M
噪声 Noise	塑料 Plastic POM	45dB(A)	
	金属 Metal 40Cr	60dB(A)	

直流无刷行星减速电机 BLDC PLANETARY GEAR MOTOR

25W ø42mm



电机性能参数 Motor performance parameters

型号 Model	电压 Voltage V	额定功率 Rated Power W	额定电流 Rated Current A	额定转速 Rated Speed RPM	额定力矩 Rated Torque N.m	防护等级 Grade Protection IP
Z42BLDP2430-30S	24	30	1.75	3000	0.09	32
Z42BLDP2435-30S	24	35	2.0	3000	0.11	32

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

装有减速器时的容许转矩

Allowable torque when being with gearhead

- 减速器与电动机转向一致。
- 转速是以电动机的额定转速为基准除以减速比而算出来的数值。实际转速将随负载大小变化而比所示数值减少2%~20%左右。
- Output direction is same as motor.
- The speed is calculated by dividing the motor's synchronous speed by the gear ratio. The actual speed is 2%~20% less than the displayed value, depending on the size of the load.

容许力矩 Allowance Torque (Z42BLDP2430-30S/42PMXX):

减速比 Gear Ratio	3.65	5.36	6.55	8.63	13.3	19.6	23.9	28.7	31.5	35.1	42.9	46.2	56.5	48.6	71.4	87.3
输出轴转速 r/min Out put shaft speed	822	560	444	347	225	153	125	105	95	83	70	65	53	62	42	34
允许力矩 Allowance Torque N.m	0.26	0.38	0.47	0.62	0.86	1.26	1.54	1.85	2.03	2.26	2.77	2.98	3.64	2.82	4.15	5.07
减速级数 Reduction stages	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3

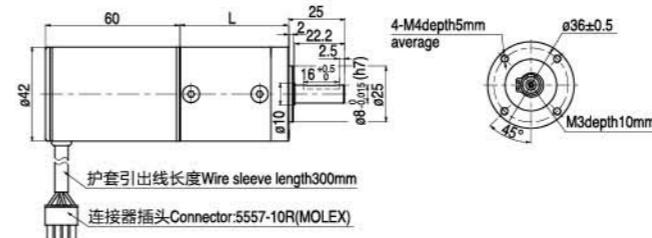
减速比 Gear Ratio	104.8	114.9	128.1	154	156.6	168.8	188.2	206.3	247.9	271.8	281	303	370.2	399.2	488.8
输出轴转速 r/min Out put shaft speed	29	26	23	19.5	19	18	16	14.5	12	11.0	10.5	10	8	7.5	6
允许力矩 Allowance Torque N.m	6.09	6.68	7.44	8.95	9.10	9.81	10.93	12.0	14.4	15.00	15.00	15.00	15.00	15.00	15.00
减速级数 Reduction stages	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

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.

导线型 Lead wiring Type

重量 Weight: 电动机 Motor 0.6kg 减速器 Gearhead 0.4kg



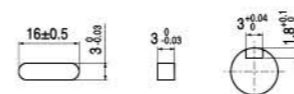
接线插孔对应信号说明

Wire plughole correspond-ing signal explanation

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

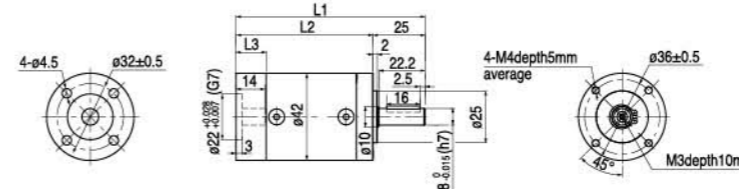
键-键槽 (减速器附件)

Key-keyway (The key is included with the gearhead)



减速级数 Reduction stages	减速比 Gear Ratio	L
一级 One stage	3.65, 5.36, 6.55, 8.63	38.6
二级 Two stages	13.3, 19.5, 23.9, 31.5, 28.7, 35.1, 46.2, 42.9, 56.5	51.4
三级 Three stages	48.6, 71.4, 87.3, 104.8, 114.9, 128.1, 154, 156.6, 168.8, 188.2, 206.3, 247.9, 271.8, 281, 303, 370.2, 399.2, 488.6	64.2

减速器外形图 Gearbox drawings



技术资料 Technical Data

传动级数 Transmission stage	一级传动 Stage 1 transmission	二级传动 Stage 2 transmission	三级传动 Stage 3 transmission
传动效率 Transmission efficiency	90%	81%	73%
最大径向负载 Max radial load	160N	230N	300N
最大轴向负载 Max axial load	50N	80N	110N
瞬间承受扭矩 Instant beared torque	3倍于额定扭矩 Three times of the rated torque		
工作温度 Operating temperature	-10°C ~ +80°C		
润滑方式 Lubrication type	终身润滑 Lifetime lubrication		
安装方式 Mounting type	任意安装 Any		
推荐输入转速 Recommend input speed	3000RPM		
输入与输出 Input and output	同向 Same direction		
齿轮箱长度 L1 / Gearbox length	78.1mm	90.9mm	103.7mm
箱体长度 L2 / Length of gearbox housing	53.1mm	65.9mm	78.7mm
后盖长度 L3 / End-cover length	14.5mm		

第一级行星轮材料 Stage 1 planetary material	一级传动 Stage 1 transmission	二级传动 Stage 2 transmission	三级传动 Stage 3 transmission
传动扭矩 Transmission torque	塑料 Plastic POM	0.7N.M	2.5~6N.M
	金属 Metal 40Cr	3N.M	7.5N.M
噪声 Noise	塑料 Plastic POM	45dB(A)	
	金属 Metal 40Cr	60dB(A)	

直流无刷行星减速电机 BLDC PLANETARY GEAR MOTOR

40W ø52mm



电机性能参数 Motor performance parameters

型号 Model	电压 Voltage V	额定功率 Rated Power W	额定电流 Rated Current A	额定转速 Rated Speed RPM	额定力矩 Rated Torque N.m	防护等级 Grade Protection IP
Z52BLDP2440-30S	24	40	2.5	3000	0.127	32
Z52BLDP2450-30S	24	50	3.0	3000	0.159	32

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

装有减速器时的容许转矩

Allowable torque when being with gearhead

- 减速器与电动机转向一致。
- 转速是以电动机的额定转速为基准除以减速比而算出来的数值。实际转速将随负载大小变化而比所示数值减少2%~20%左右。
- Output direction is same as motor.
- The speed is calculated by dividing the motor's synchronous speed by the gear ratio. The actual speed is 2%~20% less than the displayed value, depending on the size of the load.

容许力矩 Allowance Torque (Z52BLDP2440-30S/52PMXX):

减速比 Gear Ratio	3.65	5.36	6.55	8.63	13.3	19.6	23.9	28.7	31.5	35.1	42.9	46.2	56.5	48.6	71.4	87.3
输出轴转速 r/min Out put shaft speed	822	560	444	347	225	153	125	105	95	83	70	65	53	62	42	34
允许力矩 Allowance Torque N.m	0.42	0.61	0.75	1.00	1.37	2.02	2.47	2.96	3.25	3.62	4.42	4.77	5.83	4.52	6.64	8.11
减速级数 Reduction stages	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3

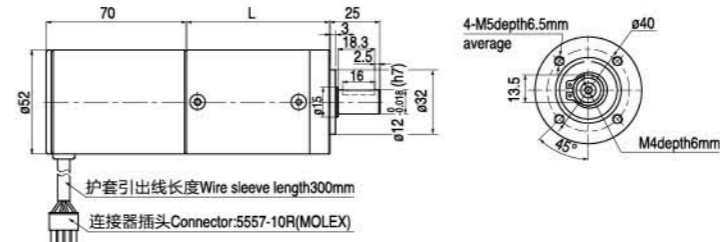
减速比 Gear Ratio	104.8	114.9	128.1	154	156.6	168.8	188.2	206.3	247.9	271.8	281	303	370.2	399.2	488.8
输出轴转速 r/min Out put shaft speed	29	26	23	19.5	19	18	16	14.5	12	11.0	10.5	10	8	7.5	6
允许力矩 Allowance Torque N.m	9.74	10.68	11.91	14.31	14.56	15.70	17.50	19.81	23.04	25.00	25.00	25.00	25.00	25.00	25.00
减速级数 Reduction stages	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

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.

导线型 Lead wiring Type

重量 Weight: 电动机 Motor 0.6kg 减速器 Gearhead 0.4kg



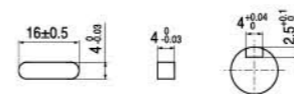
接线插孔对应信号说明

Wire plughole correspond-ing signal explanation

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

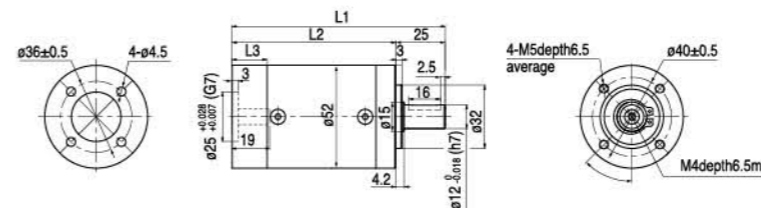
键-键槽 (减速器附件)

Key-keyway (The key is included with the gearhead)



减速级数 Reduction stages	减速比 Gear Ratio	L
一级 One stage	3.65,5.36,6.55,8.63	48.7
二级 Two stages	13.3,19.5,23.9,31.5,28.7,35.1,46.2,42.9,56.5	65.1
三级 Three stages	48.6,71.4,87.3,104.8,114.9,128.1,154,156.6,168.8,188.2,206.3,247.9,271.8,281,303,370.2,399.2,488.6	81.5

减速器外形图 Gearbox drawings



技术资料 Technical Data

传动级数 Transmission stage	一级传动 Stage 1 transmission	二级传动 Stage 2 transmission	三级传动 Stage 3 transmission
传动效率 Transmission efficiency	90%	81%	73%
最大径向负载 Max radial load	200N	320N	450N
最大轴向负载 Max axial load	60N	100N	150N
瞬间承受扭矩 Instant beared torque	3倍于额定扭矩 Three times of the rated torque		
工作温度 Operating temperature	-10°C~+80°C		
润滑方式 Lubrication type	终身润滑 Lifetime lubrication		
安装方式 Mounting type	任意安装 Any		
推荐输入转速 Recommend input speed	3000RPM		
输入与输出 Input and output	同向 Same direction		
齿轮箱长度L1 / Gearbox length	91.4mm	107.8mm	124.2mm
箱体长度L2 / Length of gearbox housing	66.4mm	82.8mm	99.2mm
后盖长度L3 / End-cover length	17.7mm		

第一级行星轮材料 Stage 1 planetary material	一级传动 Stage 1 transmission	二级传动 Stage 2 transmission	三级传动 Stage 3 transmission
传动扭矩 Transmission torque	塑料 Plastic POM	1.2N.M	25N.M
	金属 Metal 40Cr	4N.M	25N.M
噪声 Noise	塑料 Plastic POM	45dB(A)	
	金属 Metal 40Cr	60dB(A)	

直流无刷行星减速电机 BLDC PLANETARY GEAR MOTOR

60W ø62mm



电机性能参数 Motor performance parameters

型号 Model	电压 Voltage V	额定功率 Rated Power W	额定电流 Rated Current A	额定转速 Rated Speed RPM	额定转矩 Rated Torque N.m	防护等级 Grade Protection IP
Z62BLDP2460-30S	24	60	3.5	3000	0.191	32
Z62BLDP2470-30S	24	70	4.2	3000	0.223	32

- 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。
- Motor voltage, power and speed will be customized according to his request under the allowed circumstance of adoptable dimension.

装有减速器时的容许转矩

Allowable torque when being with gearhead

- 减速器与电动机转向一致。
- 转速是以电动机的额定转速为基准除以减速比而算出来的数值。实际转速将随负载大小变化而比所示数值减少2%~20%左右。
- Output direction is same as motor.
- The speed is calculated by dividing the motor's synchronous speed by the gear ratio. The actual speed is 2%~20% less than the displayed value, depending on the size of the load.

容许力矩 Allowance Torque (Z62BLDP2460-30S/62PMXX):

减速比 Gear Ratio	3.65	5.36	6.55	8.63	13.3	19.6	23.9	28.7	31.5	35.1	42.9	46.2	56.5	48.6	71.4	87.3
输出轴转速 r/min Out put shaft speed	822	560	444	347	225	153	125	105	95	83	70	65	53	62	42	34
允许力矩 Allowance Torque N.m	0.63	0.92	1.12	1.48	2.06	3.03	3.70	4.44	4.87	5.43	6.64	7.15	8.74	6.78	9.96	12.17
减速级数 Reduction stages	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3

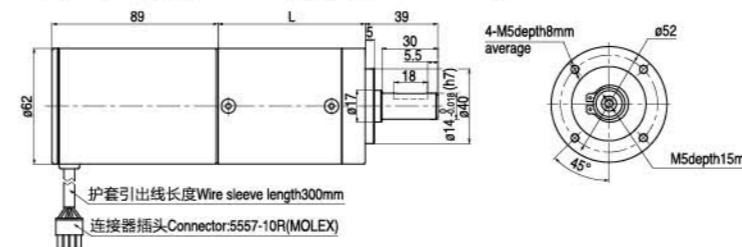
减速比 Gear Ratio	104.8	114.9	128.1	154	156.6	168.8	188.2	206.3	247.9	271.8	281	303	370.2	399.2	488.8	
输出轴转速 r/min Out put shaft speed	29	26	23	19.5	19	18	16	14.5	12	11.0	10.5	10	8	7.5	6	
允许力矩 Allowance Torque N.m	14.61	16.02	17.86	21.47	21.83	23.54	26.24	28.76	34.56	37.90	39.18	42.25	45	45	45	
减速级数 Reduction stages	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	

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.

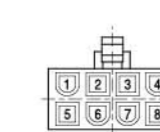
● 导线型 Lead wiring Type

重量 Weight: 电动机 Motor 0.6kg 减速器 Gearhead 0.4kg



● 接线插孔对应信号说明

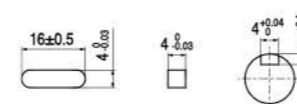
Wire plughole corresponding signal explanation



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

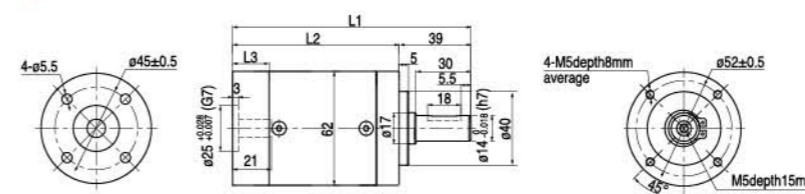
● 键-键槽 (减速器附件)

Key-keyway (The key is included with the gearhead)



减速级数 Reduction stages	减速比 Gear Ratio	L
一级 One stage	3.65, 5.36, 6.55, 8.63	53
二级 Two stages	13.3, 19.5, 23.9, 31.5, 28.7, 35.1, 46.2, 42.9, 56.5	70.9
三级 Three stages	48.6, 71.4, 87.3, 104.8, 114.9, 128.1, 154, 156.6, 168.8, 188.2, 206.3, 247.9, 271.8, 281, 303, 370.2, 399.2, 488.6	88.8

● 减速器外形图 Gearbox drawings



减速器技术资料 Technical Data

传动级数 Transmission stage	一级传动 Stage 1 transmission	二级传动 Stage 2 transmission	三级传动 Stage 3 transmission
传动效率 Transmission efficiency	90%	81%	73%
最大径向负载 Max radial load	240N	360N	520N
最大轴向负载 Max axial load	70N	100N	150N
瞬间承受扭矩 Instant beared torque	3倍于额定扭矩 Three times of the rated torque		
工作温度 Operating temperature	-10°C~+80°C		
润滑方式 Lubrication type	终身润滑 Lifetime lubrication		
安装方式 Mounting type	任意安装 Any		
推荐输入转速 Recommend input speed	3000RPM		
输入与输出 Input and output	同向 Same direction		
齿轮箱长度 L1 / Gearbox length	111.7mm	129.6mm	147.5mm
箱体长度 L2 / Length of gearbox housing	72.7mm	90.6mm	108.5mm
后盖长度 L3 / End-cover length		19.7mm	

第一级行星轮材料 Stage 1 planetary material	一级传动 Stage 1 transmission	二级传动 Stage 2 transmission	三级传动 Stage 3 transmission
传动扭矩 Transmission torque	塑料 Plastic POM	4.5N.M	15~25N.M
	金属 Metal 40Cr	8N.M	25N.M
噪声 Noise	塑料 Plastic POM	45dB(A)	
	金属 Metal 40Cr	60dB(A)	

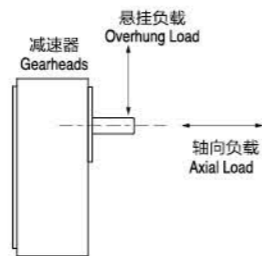
通用规格 COMMON SPECIFICATIONS

电动机的容许悬挂负载 · 容许轴向负载

Permissible Overhung Load and Permissible Axial Load of Motor

容许悬挂负载 Permissible Overhung Load

型号 Model		容许悬挂负载 Permissible Overhung Load N	
安装尺寸 Motor Frame Size (mm)	输出轴直径 Output Shaft Diameter φ (mm)	距轴端的距离 Distance from Shaft End	
		10mm	20mm
42	5	40	-
60	6	50	110
70	6	40	60
80	8	90	140
	10	110	120
90	10	140	200
	12	240	270
100	14	320	350



容许轴向负载 Permissible Axial Load

请尽量不要施加轴向负载。即使是不得已的情况下，请将轴向负载控制在电动机重量的一半以下。

Avoid axial loads as much as possible. If axial load is unavoidable, keep it to half or less of the motor weight.

减速器的容许悬挂负载 · 容许轴向负载

Permissible Overhung Load and Permissible Axial Load of Gearhead

型号 Model	减速比 Gear Ratio	最大容许转矩 Maximum Permissible Torque N.m	容许悬挂负载 Permissible Overhung Load N		容许悬挂负载 Permissible Overhung Load N
			距轴端10mm 10mm from Shaft End	距轴端20mm 20mm from Shaft End	
0GN□K	3~60	1.0	20	-	15
2GN□K	3~18	3.0	50	80	3.0
	25~200		120	180	
3GN□K	3~18	5.0	80	120	40
	25~200		150	250	
4GN□K	3~18	8.0	100	150	50
	25~200		200	300	
5GN□K	3~18	10	250	350	100
	25~200		300	450	
5GU□KB	3~9	20	400	500	150
	12.5~18		450	600	
5GU□K	25~200		500	700	
6GU□K	3~200	40	1100	1500	300

减速器的容许负载惯性量 J Permissible Load Inertia for Gearhead J

● 连接到减速器上的负载惯性量 (J) 较大的情况下，在频繁的间歇运转的起动瞬间（或以电磁制动及制动器进行急停时）会出现瞬时较大的转矩。该冲击负载过大会导致减速器及电动机损坏。

● 下面列出了电动机轴上的容许负载惯性量的值，使用时请控制在此数值下。三相电动机的容许负载惯性量是指从一旦停止运转后再进行反转时的数值。

● 请利用下面的公式计算减速器输出轴上的容许负载惯性量 (J)。

● 通过带电磁制动电动机、制动器及速度控制电动机的瞬时停止来运转容许负载惯性量时的使用寿命为200万次。

● When a high load inertia (J) is connected to a gearhead, high torque is exerted instantaneously on the gearhead when starting up in frequent, discontinuous operations (or when stopped by an electromagnetic brake, or when stopped instantaneously by a brake pack). Excessive impact loads can cause the gearhead or motor damage.

● The table below gives values for permissible load inertia on the motor shaft. Use the motor and gearhead within these parameters. The permissible inertial load value shown for three-phase motors is the value when reversing after a stop.

● The permissible load inertia (J) on the gearhead output shaft is calculated with the following equation.

● The life of the gearhead when operating at the permissible inertial load with instantaneous stops of the motors with electromagnetic brakes, brake packs or speed control motors is at least 2 million cycles.

减速器输出轴上的容许负载惯性量 Permissible Load Inertia for Gearhead Output Shaft

减速比1/3 ~ 1/50时 JG= JM × i²
减速比1/60以上时 JG= JM × 2500

Gear ratio 1/3~1/50 JG= JM × i²
Gear ratio 1/60 or higher JG= JM × 2500

JG: 减速器输出轴容许负载惯性量 J (×10⁻⁴kg.m²)

JM: 电动机轴容许负载惯性量 J (×10⁻⁴kg.m²)

i: 减速比 (例: 减速比1/3时 i=3)

JG: Permissible load inertia for gearhead output shaft J (×10⁻⁴kg.m²)

JM: Permissible load inertia at the motor shaft J (×10⁻⁴kg.m²)

i: Gear ratio (Example: i=3 means the gear ratio of 1/3)

电动机轴上的容许负载惯性量 Permissible Load Inertia at the Motor Shaft

电动机相数 No. of Phase	安装尺寸 Motor Frame Size mm	输出功率 Output Power	电动机轴上的容许负载惯性量 Permissible Load Inertia at the Motor Shaft		
			J (×10 ⁻⁴ kg.m ²)	GD ² (kg.m ²)	
单相 Single-phase	42	1W、3W	0.016	0.07	
		3W※、6W	0.062	0.25	
		6W※、15W	0.14	0.52	
	60	10W※、25W	0.31	1.2	
		20W※、40W	0.75	3	
		90	60W	1.1	4.6
			90W	1.1	4.6
			120W	1.1	4.6
		100	120W	2	8
	140W		2	8	
	180W		2	8	
	三相 Three-phase	60	6W	0.062	0.25
15W			0.14	0.25	
25W			0.31	1.2	
90		40W	0.75	3	
		60W	1.1	4.6	
		90W	1.1	4.6	
		120W	1.1	4.6	
		100	120W	2	8
			140W	2	8
180W			2	8	
直流 DC-Power		60	6W、10W、15W	0.062	0.25
			15W	0.14	0.52
	25W、40W		0.31	1.2	
	90	40W	0.75	3	
		60W	1.1	4.6	
		90W	1.1	4.6	
100	120W	1.1	4.6		
100	250W	2	8		

● ※是指转矩电动机的输出功率 ※ Output power for torque motors

减速器容许转矩的计算 The calculation for the permissible torque of gearhead

部分机型并未列在容许转矩表上，需要是可按以下公式计算。

Permissible torque for some products area omitted. in that case, use the equation below to calculate the permissible torque.

容许转矩 Permissible Torque TG=TM × i × η

TG: 减速器容许转矩 Permissible Torque Gearhead TM: 电动机转矩 Motor Torque

i: 减速器减速比 Gear Ratio Gearhead η: 效率 Efficiency

减速器传动效率 Gearhead Efficiency

型号 Model	减速比 Gear Ratio																				
	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	200
0GN□K	2GN□K											73%			66%						
3GN□K	4GN□K	81%										73%			66%						
5GN□K											73%			66%							
5GU□KB(K)											81%			59%							
6GU□K											81%			66%							

控制器型号的阅读方法 PRODUCT CODE OF CONTROLLER

Z **BLD·CON** - **220** **A** **10** - **V1**

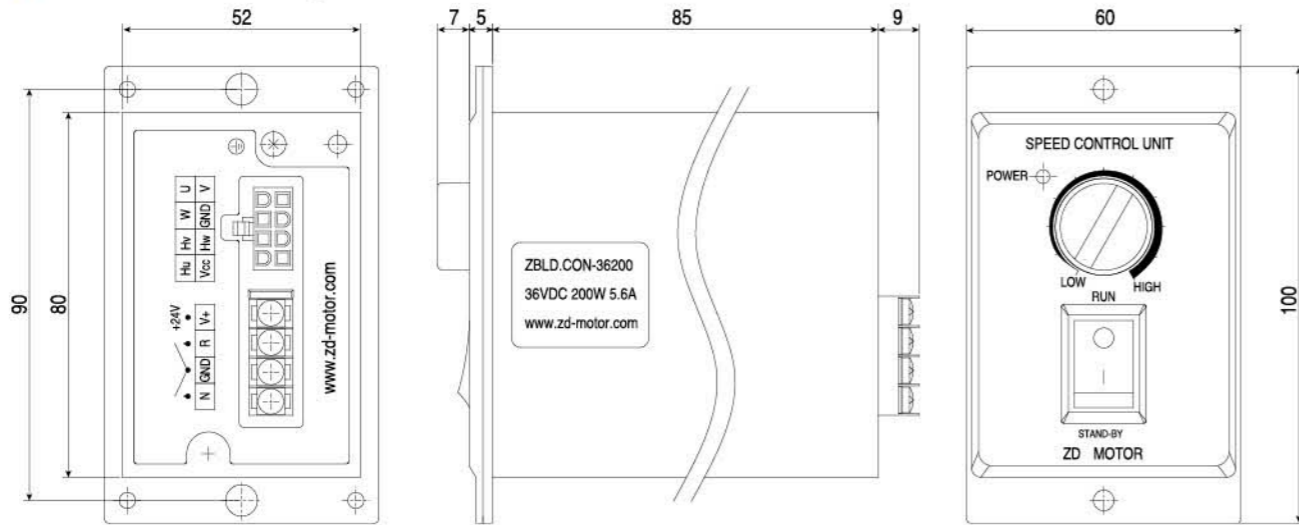
① ② ③ ④ ⑤ ⑥

① Z: ZD中大电机	⑥ V1: 驱动器特性 Feature of driver
② BLD.CON: 无刷直流驱动器 BLDC driver	注Note:
③ 电压: 220V Vol	V1: 驱动器具有一般过压、欠压、过流保护功能, 具有软启动、调速、正反转使用功能。V2: 驱动器增加其它功能
④ A: AC 无A时: DC DC: Without A	V1: Generally, driver has function of over voltage, under voltage and current protection. It can start softly, adjust speed and run in both CW and CCW. V2: Other functions.
⑤ 功率: 10W Power	

●说明:

- 如ZBLD.CON-48200表示中大电机生产的, 48VDC, 200W无刷直流驱动器
 - 此驱动器表示型号适用于光轴和齿轴电机
1. For example ZBLD.CON-48200 means driver of 48V, 200W.
2. This driver can be used for round shaft and gear shaft motor.

●控制器外形安装尺寸图 Drawing of controller



●接线插孔对应信号说明 Wire plughole corresponding signal explanation

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

●注意事项: Notes

- 此驱动器尺寸适用于本册样本上所有无刷电机
 - 安装驱动器时框架须与框内其它机器保持足够水平及垂直距离
 - 驱动器应置于散热性能好, 干扰小的地方
 - 驱动器周围温度应 $\leq 40^{\circ}\text{C}$ 5、驱动器防护等级IP00, 不得工作于有铁质等导体碎屑存在的场所, 以免导体碎屑进入造成内部短路
1. It's suitable for all bldc motor in this catalog.
2. Keep enough horizontal and vertical distance to other equipment.
3. You'd better locate the controller in place having nice heat dissipate and small interference.
4. Temperature $\leq 40^{\circ}\text{C}$, Ip class of driver is IP00, you can't use it in ambient with metal chipping.

选购配件 ACCESSORIES

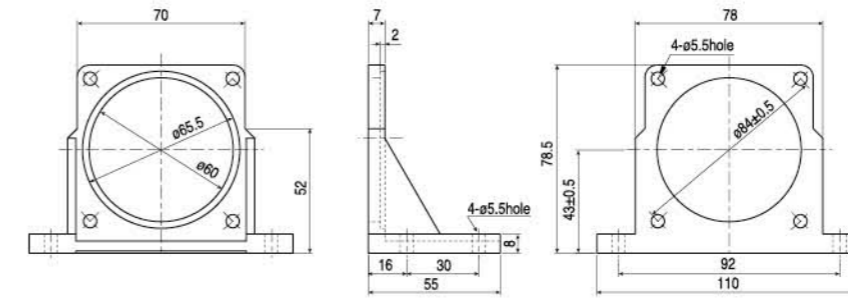
●电动机·减速器用安装底座 Motor/Gearhead Mounting Brackets

便于安装固定电动机、减速器的专用安装底座。为可对应大功率电动机、减速器的高强度型产品。安装底座上钻有螺孔, 请用减速器附属的螺丝来组合电动机与减速器。安装电动机单体时, 请另备安装用螺丝。

Eight kinds of mounting brackets for motors and gearheads are available. They are high-strength type, which can be used with high Power motors/gearheads. These brackets come with tapped. To mount the motor and gearhead, simply fasten with the screws provided to the gearhead. To mount the motor alone, mounting screws must be provided separately.

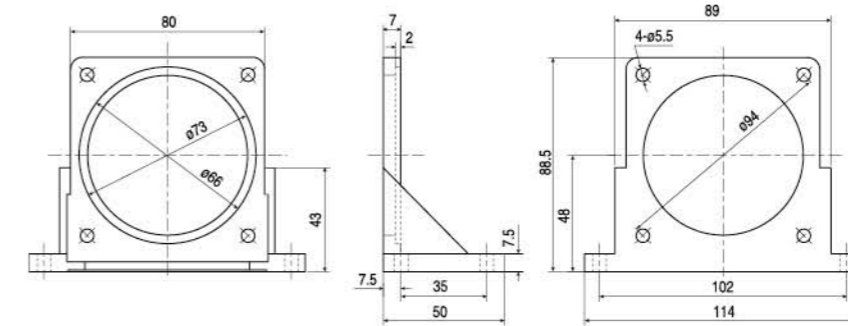
●安装尺寸70mm用 Motor Frame Size: 70mm

型号Model: ZD3M5 重量: 160g 材质Material: 铝合金Aluminum
适用产品Applicable Products: 3GN减速器3GN Gearhead
安装尺寸 $\square 70\text{mm}$ 电动机Motor with the frame size of $\square 70\text{mm}$



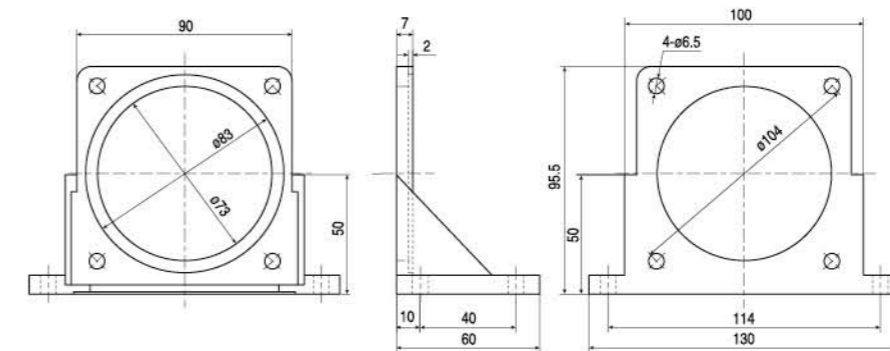
●安装尺寸80mm用 Motor Frame Size: 80mm

型号Model: ZD4M5 重量: 200g 材质Material: 铝合金Aluminum
适用产品Applicable Products: 4GN减速器4GN Gearhead
安装尺寸 $\square 80\text{mm}$ 电动机Motor with the frame size of $\square 80\text{mm}$



●安装尺寸90mm用 Motor Frame Size: 90mm

型号Model: ZD5M5 重量: 270g 材质Material: 铝合金Aluminum
适用产品Applicable Products: 5GN、5GU减速器5GN、5GU、Gearhead
安装尺寸 $\square 90\text{mm}$ 电动机Motor with the frame size of $\square 90\text{mm}$



各国电压表 COUNTRIES VOLTAGE

国名 Country	频率 Frequency	单相 1-Phase	三相 3-Phase	国名 Country	频率 Frequency	单相 1-Phase	三相 3-Phase
中国 China	50	220	220/380	日本 Japan	50/60	100/200	200
澳洲 Australia	50	240	240/415	科威特 Kuwait	50	100/200	200
奥地利 Austria	50	220	220/380	黎巴嫩 Lebanon	50	110/220	220/380
孟加拉 Bangladesh	50	230	230/400	马来西亚 Malaysia	50	115/240	240/415 400/440
比利时 Belgium	50	127/220	220/380	荷兰 Netherlands	50	110/220	220/230
巴西 Brazil	50	110/220	220/380	新西兰 New Zealand	50	230	230/400
	60	127					
缅甸 Burma	50	230	230/440	巴勒斯坦 Pakistan	50	230	220/380 230/400
高棉 Cambodia	50	120	220/380	沙乌地阿拉伯 Saudi-arabia	50	127/220	110/220
智利 Chile	50	220	220/380		60		127
阿根廷 Argentina	50	220	220/380	叙利亚 Syria	50	115/200	220/380
捷克 Czechoslovakia	50	120/220	220/380	新加坡 Singapore	50	115/230	230/240
							110/220
丹麦 Denmark	50	220	220/380	南非 South-africa	50	220/230	110/220 127
埃及 Egypt	50	220	220/380	西班牙 Spain	50	127/220	220/380
芬兰 Finland	50	220	220/380	瑞士 Switzerland	50	220	220/380
法国 France	50	115/127/220	220/380	泰国 Thailand	50	110/220	220/380
德国 Germany	50	110/220	220/380	土耳其 Turkey	50	127/220/230	220/380
希腊 Greece	50	220	220/380	英国 U.K.	50	240	240/415
香港 Hong kong	50	110/200/230	220/380	越南 Viet-Num	50	127/220	220/380
匈牙利 Hungary	50	220	220/380	加拿大 Canada	60	110/120	220/240/480
冰岛 Iceland	50	220	220/380	哥伦比亚 Colombia	60	110/220	220/380
印度 India	50	230	220/380	古巴 Cuba	60	115/120	240
			230/400				
印尼 Indonesia	50	127/220	220/380	厄瓜多尔 Ecuador	60	120/127	208/220
伊拉克 Iraq	50	220	220/380	韩国 Korea	60	100/200	200
以色列 Israel	50	230	230/400	秘鲁 Peru	60	110/220	220
意大利 Italy	50	127/220	220/380	菲律宾 Philippines	60	110/220	220/440
				美国 U.S.A.	60	120/240	240/480

CATALOGUE



Company Catalogue
中大企业宣传册



AC/DC Gear Motor Catalogue
交直流减速电动机产品宣传册



Small AC Gear Motor Catalogue
小型交流减速电机产品宣传册



Planetary Gearbox & Gear Motor Catalogue
行星减速器 / 行星齿轮减速电机产品宣传册



Sweeping Gear Motor Catalogue
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ZD LEADER TRANSMISSION EQUIPMENT CO., LTD.
慈溪市中大电机厂
ZD MOTOR FACTORY

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国内贸易服务:

地址: 浙江省慈溪市匡堰镇工业开发区
电话: 86-574-63531113 63531114 63531115
传真: 86-574-63534879
E-mail: china@zd-motor.com

US Sales Office:

ZD Motors USA
3283-H De La Cruz Blvd.
Santa Clara, CA 95054
Phone: (408) 980-8661
e-mail: sales@zd-motors-usa.com

www.zd-motors-usa.com