

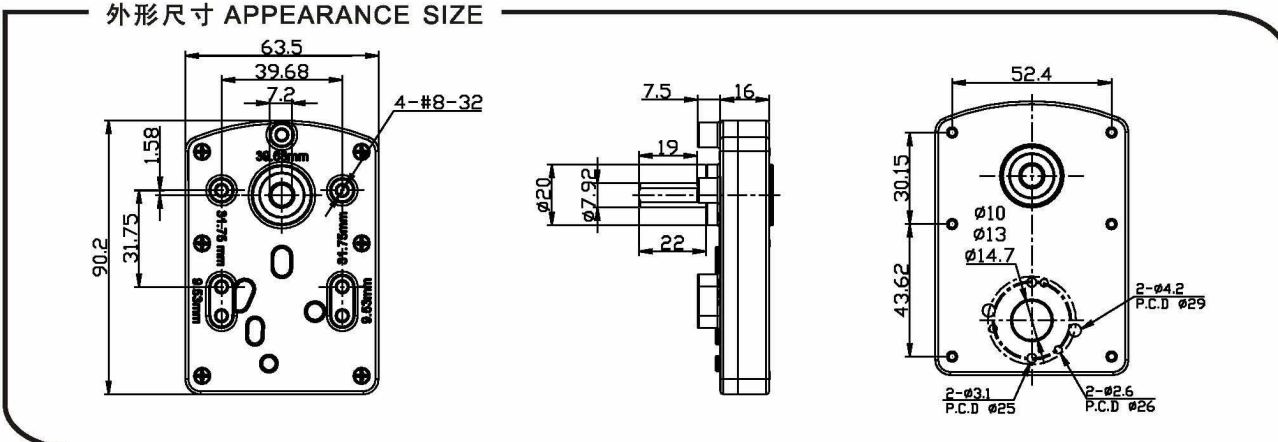
ZF 变速箱系列 Series Gearbox (63.5mmX90.2mmXH23.5mm)



- Note:** 1、外壳材料: 锌合金 Housing material: zinc alloy
 2、齿轮间隙, 在空载时: $\leq 2^\circ$ Backlash at no-load: $\leq 2^\circ$
 3、输出轴轴承: 滑动轴承 Bearing at output: Sleeve bearings
 4、输出轴的径向间隙: $\leq 0.05\text{mm}$ Radial play of shaft: $\leq 0.05\text{mm}$
 5、输出轴轴向间隙: $\leq 0.5\text{mm}$ Thrust play shaft: $\leq 0.5\text{mm}$
 6、齿轮箱可以适用于528, 545, 555, 775, ZY45, YJ61 马达。
 The gear box can apply to 528, 545, 555, 775, ZY45, YJ61 motors.
 7、如果电机在低转速、高速比的组合下, 负载力矩高于150kgf.cm, 会损坏齿轮箱齿轮。

When the motors using at low speed, high gear ratio will cause gear motor torque more than 150kgf.cm. At this torque the gears will be broken easily. Be noted.

外形尺寸 APPEARANCE SIZE



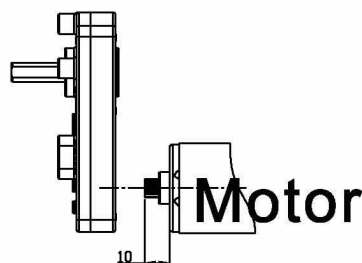
说明 PINION SPECIFICATIONS

型号 Model	0.5	0.4
牙数 No. of teeth	13	12
压力角 Pressure angle	20°	
螺旋角 Helix angle		15° left
孔径 Hole diameter	$\phi 3.16$, $\phi 1.98$, $\phi 2.5$ (D)	
减速比 Reduction ratio	36, 66, 94	129, 139, 155, 196, 219, 277, 322, 392, 456, 555, 833

★ 电机运行湿度为20%~85% Operating relative humidity 20%~85%RH

★ 电机运行温度范围-10℃~+60℃ Operating temperature range -10℃~+60℃

电机安装 MOTOR INSTALLATION



齿轮箱规格 GEARBOXES SPECIFICATIONS

减速比 Reduction ratio	额定扭矩 Rated torque	最大可承受扭矩 Max breaking torque	效率 Efficiency	级数 Number of stages	转向(与电机的转向) Direction (Relationship with motor)
36	30kgf. cm	90kgf. cm	73%	3	Different
66	30kgf. cm	90kgf. cm	73%	3	Different
94	30kgf. cm	90kgf. cm	73%	3	Different
129	40kgf. cm	120kgf. cm	65%	4	Same
139	40kgf. cm	120kgf. cm	65%	4	Same
155	40kgf. cm	120kgf. cm	65%	4	Same
196	40kgf. cm	120kgf. cm	65%	4	Same
219	40kgf. cm	120kgf. cm	65%	4	Same
277	50kgf. cm	150kgf. cm	59%	5	Different
322	50kgf. cm	150kgf. cm	59%	5	Different
392	50kgf. cm	150kgf. cm	59%	5	Different
456	50kgf. cm	150kgf. cm	59%	5	Different
555	50kgf. cm	150kgf. cm	59%	5	Different
833	50kgf. cm	150kgf. cm	59%	5	Different



ZF-38 直流减速电机 DC GEAR MOTOR Series

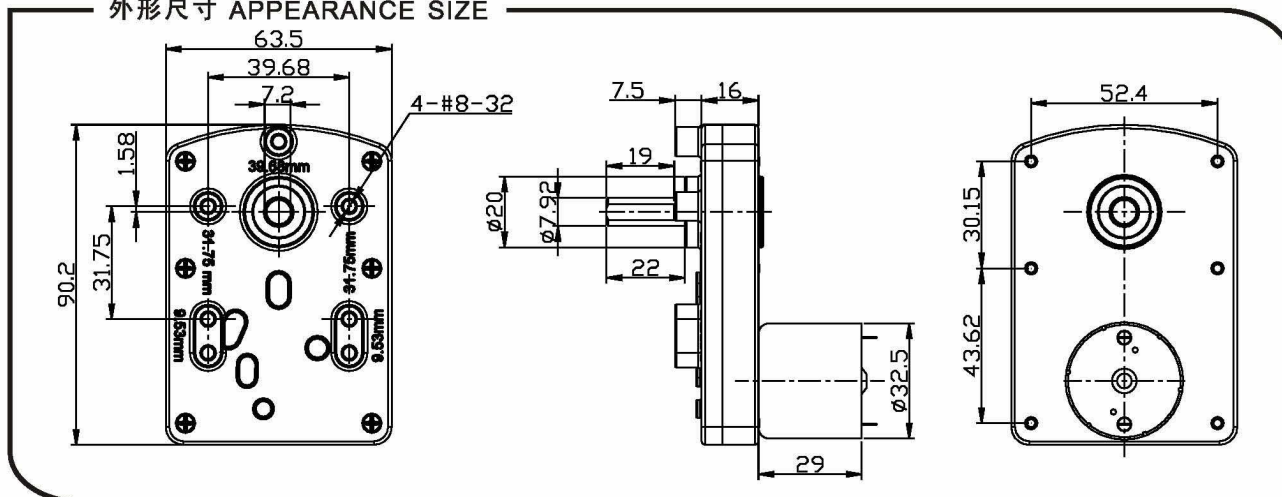
电压/Main voltage: 6VDC、9VDC、12VDC、24VDC

用途/Typical applications: 焊接设备、垃圾处理器、咖啡机、印刷机、稳压机、碎纸机、输卡机、中央空调阀门、办公设备、家用设备、执行器
Welding machine, Garbage disposers, Coffee machine, Mimeograph, Manostat, Paper shredder, Card conveyors, Central air-conditioning valve, Office equipment, Household appliances, Automatic actuator.

重量/Weight: 350~400g/pcs(approx)

包装外形尺寸/Packing details: CTN size: 55X35XH18cm 24pcs/CTN G.W.11kgs

外形尺寸 APPEARANCE SIZE



齿轮箱数据 Gearbox data

减速箱级数 Number of stages	3 减速比 Stages reduction	4 减速比 Stages reduction	5 减速比 Stages reduction
减速比 Reduction ratio	36、66、 94	129、139、155、196、219、277	232、392、456、555、833
最大运转力矩 Max. Running torque	30kgf.cm	40kgf.cm	50kgf. cm
最大破坏力矩 Max. Gear breking torque	90kgf.cm	120kgf.cm	150kgf.cm
最高齿轮效率 Max. Gearing efficiency	73%	65%	59%
其它减速比请致电或邮件给我司技术部 Other reduction ratio please telephone or e-mail to our engineering department.			

马达参数 Motor data

马达型号 Motor Model	电 压 Rated Volt. V	空 载 No load		负 载 Load torque				堵 转 Stall torque	
		电 流 Current	转 速 Speed	电 流 Current	转 速 Speed	扭 矩 Torque	输出功率 Output power	扭 矩 Torque	电 流 Current
		mA	r/min	mA	r/min	gf. cm	W	gf. cm	MA
ZF-38123400	12	≤40	3400	≤180	2500	40	1.0	160	720
ZF-38124500	12	≤60	4500	≤350	3300	60	2.0	210	1400
ZF-38126000	12	≤70	6000	≤720	4500	80	3.6	300	2800
ZF-38243000	24	≤15	3000	≤80	2200	40	0.9	140	320
ZF-38244500	24	≤25	4500	≤180	3300	60	2.0	210	730
ZF-38246700	24	≤45	6700	≤360	4500	80	3.6	300	1400

· 这张表格只列出部分电机参数，想了解更多具体参数请参照93页。

· This table lists some motors parameters, otheers please refer to specific parameters of Page 93.

· 马达和齿轮箱装配成减速电机后输出扭矩 = 马达扭矩X减速比X齿轮效率;输出转速 = 马达转速 / 减速比。

· After connecting motor and gearbox which is named gearmotor the output torque: motor torque X reduction ratio X gearing efficiency; output speed: motor speed/reduction ratio.



ZF-545 直流减速电机 DC GEAR MOTOR Series

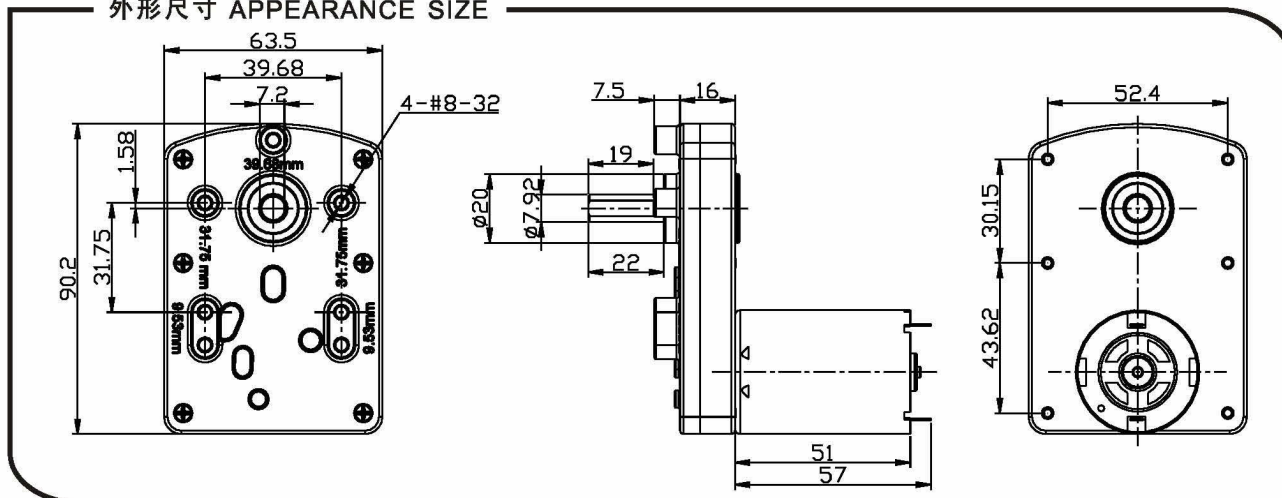
电压/Main voltage: 6VDC、9VDC、12VDC、24VDC

用途/Typical applications: 焊接设备、垃圾处理器、咖啡机、印刷机、稳压机、碎纸机、输卡机、中央空调阀门、办公设备、家用设备、执行器
Welding machine, Garbage disposers, Coffee machine, Mimeograph, Manostat, Paper shredder, Card conveyors, Central air-conditioning valve, Office equipment, Household appliances, Automatic actuator.

重量/Weight: 450~500g/pcs(approx)

包装外形尺寸/Packing details: CTN size: 55X35XH18cm 24pcs/CTN G.W.13kgs

外形尺寸 APPEARANCE SIZE



齿轮箱数据 Gearbox data

减速箱级数 Number of stages	3 减速比 Stages reduction	4 减速比 Stages reduction	5 减速比 Stages reduction
减速比 Reduction ratio	36、66、94	129、139、155、196、219、277	232、392、456、555、833
最大运转力矩 Max. Running torque	30kgf.cm	40kgf.cm	50kgf.cm
最大破坏力矩 Max. Gear breking torque	90kgf.cm	120kgf.cm	150kgf.cm
最高齿轮效率 Max. Gearing efficiency	73%	65%	59%
其它减速比请致电或邮件给我司技术部 Other reduction ratio please telephone or e-mail to our engineering department.			

马达参数 Motor data

马达型号 Motor Model	电 压 Rated Volt. V	空 载 No load		负 载 Load torque				堵 转 Stall torque	
		电 流 Current	转 速 Speed	电 流 Current	转 速 Speed	扭 矩 Torque	输出功率 Output power	扭 矩 Torque	电 流 Current
		mA	r/min	mA	r/min	gf. cm	W	gf. cm	MA
PF-545123000	12	≤110	3000	≤450	2200	100	2.2	400	1800
PF-545124500	12	≤220	4500	≤800	3300	150	4.9	600	3000
PF-545126000	12	≤350	6000	≤1500	4500	200	9.0	800	5500
PF-545243000	24	≤60	3000	≤230	2200	100	2.2	400	900
PF-545244500	24	≤110	4500	≤400	3300	150	4.9	600	1500
PF-545246000	24	≤150	6000	≤750	4500	200	9.0	800	3000

• 这张表格只列出部分电机参数，想了解更多具体参数请参照94页。

• This table lists some motors parameters, otheers please refer to specific parameters of Page 94.

• 马达和齿轮箱装配成减速电机后输出扭矩 = 马达扭矩X减速比X齿轮效率;输出转速 = 马达转速 / 减速比。

• After connecting motor and gearbox which is named gearmotor the output torque: motor torque X reduction ratio X gearing efficiency; output speed: motor speed/reduction ratio.



ZF-555 直流减速电机 DC GEAR MOTOR Series

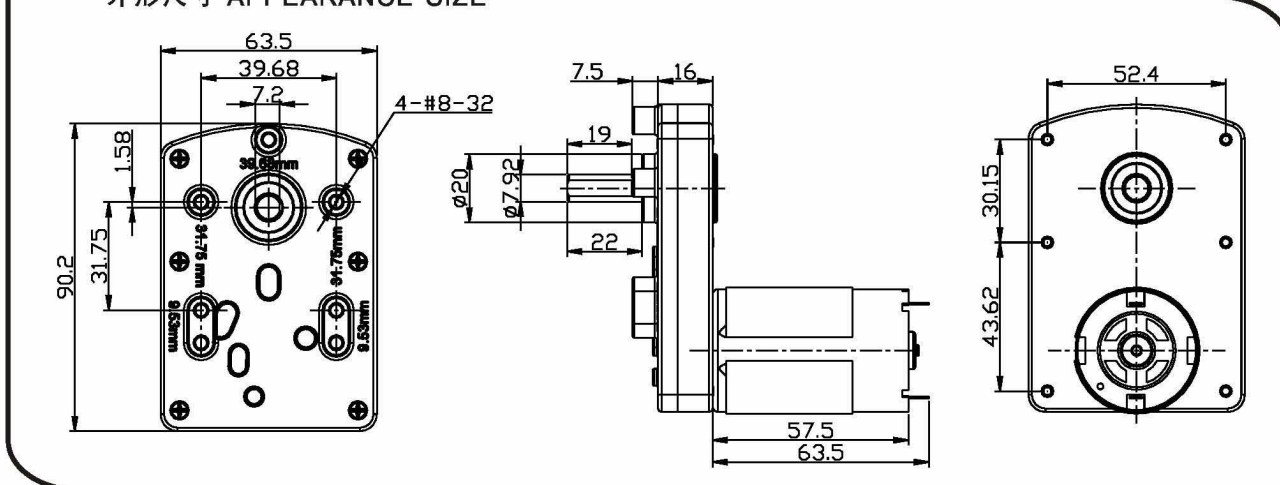
电压/Main voltage: 6VDC、9VDC、12VDC、24VDC

用途/Typical applications: 焊接设备、垃圾处理器、咖啡机、印刷机、稳压机、碎纸机、输卡机、中央空调阀门、办公设备、家用设备、执行器
Welding machine, Garbage disposers, Coffee machine, Mimeograph, Manostat, Paper shredder, Card conveyors, Central air-conditioning valve, Office equipment, Household appliances, Automatic actuator.

重量/Weight: 500~550g/pcs(approx)

包装外形尺寸/Packing details: CTN size: 55X35XH18cm 24pcs/CTN G.W.15kgs

外形尺寸 APPEARANCE SIZE



齿轮箱数据 Gearbox data

减速箱级数 Number of stages	3 减速比 Stages reduction	4 减速比 Stages reduction	5 减速比 Stages reduction
减速比 Reduction ratio	36、66、94	129、139、155、196、219、277	232、392、456、555、833
最大运转力矩 Max. Running torque	30kgf.cm	40kgf.cm	50kgf. cm
最大破坏力矩 Max. Gear breking torque	90kgf.cm	120kgf.cm	150kgf.cm
最高齿轮效率 Max. Gearing efficiency	73%	65%	59%
其它减速比请致电或邮件给我司技术部 Other reduction ratio please telephone or e-mail to our engineering department.			

马达参数 Motor data

马达型号 Motor Model	电 压 Rated Volt. V	空 载 No load		负 载 Load torque				堵 转 Stall torque	
		电 流 Current	转 速 Speed	电 流 Current	转 速 Speed	扭 矩 Torque	输出功率 Output power	扭 矩 Torque	电 流 Current
		mA	r/min	mA	r/min	gf. cm	W	gf. cm	MA
ZF-555123000	12	≤140	3000	≤800	2200	150	3.3	600	3000
ZF-555124500	12	≤220	4500	≤1200	3300	220	7.2	880	4800
ZF-555126000	12	≤350	6000	≤2000	4500	300	13.5	1200	6000
ZF-555243000	24	≤70	3000	≤400	2200	150	3.3	600	1600
ZF-555244500	24	≤110	4500	≤600	3300	220	7.2	880	3000
ZF-555246000	24	≤180	6000	≤1000	4500	300	13.5	1200	4000

• 这张表格只列出部分电机参数，想了解更多具体参数请参照95页。

• This table lists some motors parameters, otheers please refer to specific parameters of Page 95.

• 马达和齿轮箱装配成减速电机后输出扭矩 = 马达扭矩X减速比X齿轮效率;输出转速 = 马达转速 / 减速比。

• After connecting motor and gearbox which is named gearmotor the output torque: motor torque X reduction ratio X gearing efficiency; output speed: motor speed/reduction ratio.



ZF-775 直流减速电机 DC GEAR MOTOR Series

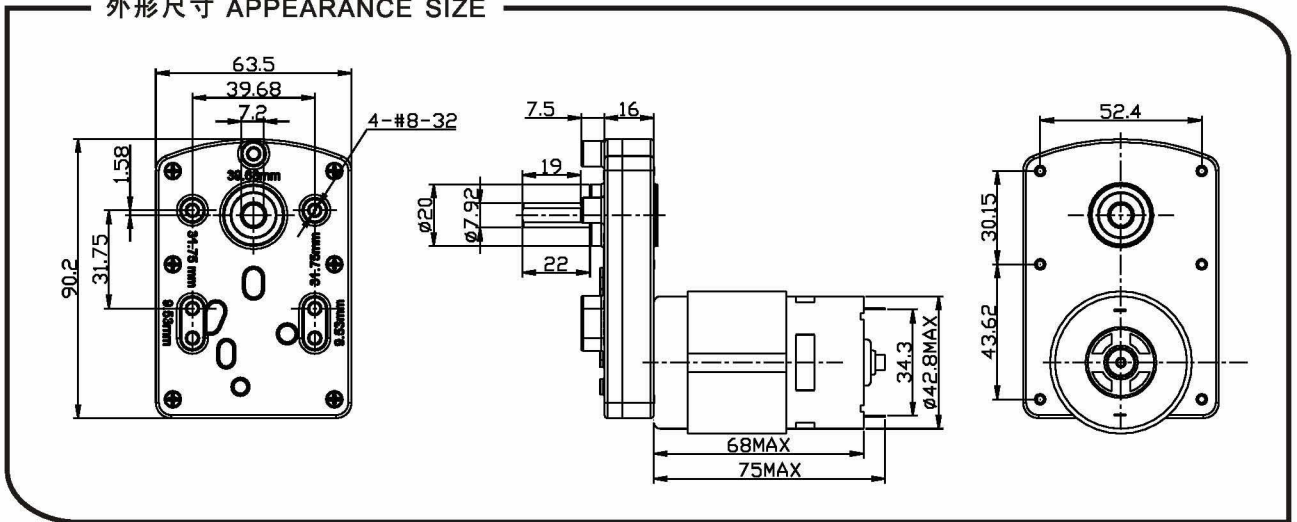
电压/Main voltage: 3VDC、6VDC、9VDC、12VDC、24VDC

用途/Typical applications: 焊接设备、垃圾处理器、咖啡机、印刷机、稳压机、碎纸机、输卡机、中央空调阀门、办公设备、家用设备、执行器
Welding machine, Garbage disposers, Coffee machine, Mimeograph, Manostat, Paper shredder, Card conveyors, Central air-conditioning valve, Office equipment, Household appliances, Automatic actuator.

重量/Weight: 650~700g/pcs(approx)

包装外形尺寸/Packing details: CTN size: 55X35XH18cm 24pcs/CTN G.W.18kgs

外形尺寸 APPEARANCE SIZE



齿轮箱数据 Gearbox data

减速箱级数 Number of stages	3 减速比 Stages reduction	4 减速比 Stages reduction	5 减速比 Stages reduction
减速比 Reduction ratio	36、66、94	129、139、155、196、219、277	232、392、456、555、833
最大运转力矩 Max. Running torque	30kgf.cm	40kgf.cm	50kgf.cm
最大破坏力矩 Max. Gear breking torque	90kgf.cm	120kgf.cm	150kgf.cm
最高齿轮效率 Max. Gearing efficiency	73%	65%	59%

其它减速比请致电或邮件给我司技术部 Other reduction ratio please telephone or e-mail to our engineering department.

马达参数 Motor data

马达型号 Motor Model	电 压 Rated Volt. V	空 载 No load		负 载 Load torque				堵 转 Stall torque	
		电 流 Current	转 速 Speed	电 流 Current	转 速 Speed	扭 矩 Torque	输出功率 Output power	扭 矩 Torque	电 流 Current
		mA	r/min	mA	r/min	gf. cm	W	gf. cm	A
ZF-775123000	12	≤420	3000	≤1300	2430	408	10.4	2484	6.7
ZF-775124500	12	≤750	4500	≤2100	3710	476	17.6	2714	10.4
ZF-775126000	12	≤1300	6000	≤3500	5195	478	25.5	3129	18.6
ZF-775243000	24	≤210	3000	≤600	2590	364	9.87	2050	3.2
ZF-775244500	24	≤480	4500	≤1300	3850	482	18.5	3335	5.3
ZF-775246000	24	≤630	6000	≤2100	5233	574	30.8	4565	12.1

- 马达和齿轮箱装配成减速电机后输出扭矩 = 马达扭矩X减速比X齿轮效率;输出转速 = 马达转速 / 减速比 .
- After connecting motor and gearbox which is named gearmotor the output torque: motor torque X reduction ratio X gearing efficiency; output speed: motor speed/reduction ratio .



ZF-45ZY 直流减速电机 DC GEAR MOTOR Series

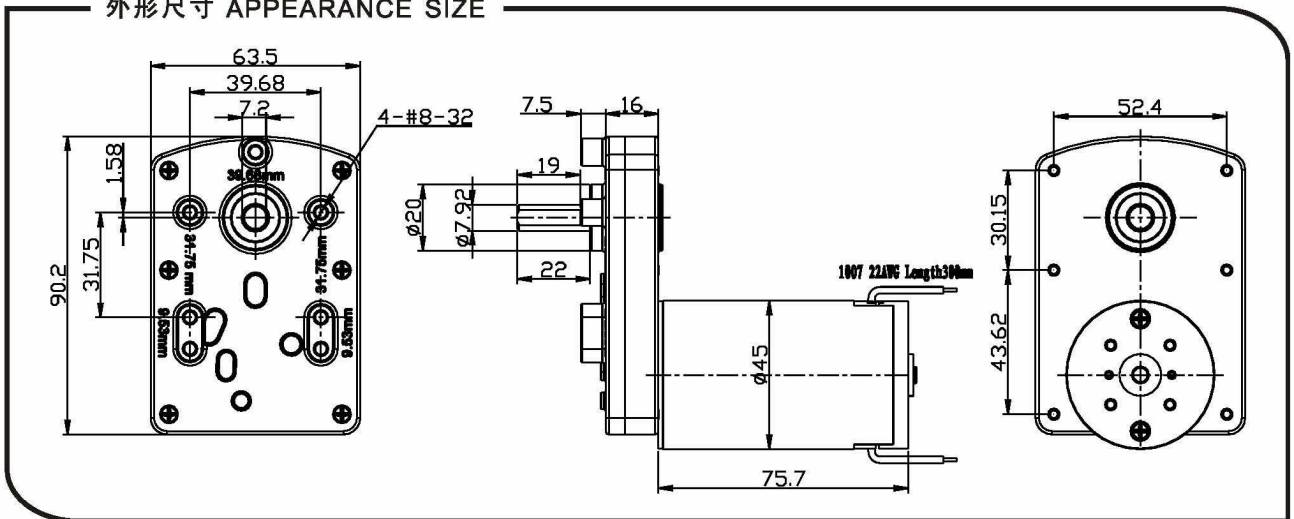
电压/Main voltage: 3VDC、6VDC、9VDC、12VDC、24VDC

用途/Typical applications: 焊接设备、垃圾处理器、咖啡机、印刷机、稳压机、碎纸机、输卡机、中央空调阀门、办公设备、家用设备、执行器
Welding machine, Garbage disposers, Coffee machine, Mimeograph, Manostat, Paper shredder, Card conveyors, Central air-conditioning valve, Office equipment, Household appliances, Automatic actuator.

重量/Weight: 650~700g/pcs(approx)

包装外形尺寸/Packing details: CTN size: 55X35XH18cm 24pcs/CTN G.W.18kgs

外形尺寸 APPEARANCE SIZE



齿轮箱数据 Gearbox data

减速箱级数 Number of stages	3 减速比 Stages reduction	4 减速比 Stages reduction	5 减速比 Stages reduction
减速比 Reduction ratio	36、66、94	129、139、155、196、219、277	232、392、456、555、833
最大运转力矩 Max. Running torque	30kgf.cm	40kgf.cm	50kgf.cm
最大破坏力矩 Max. Gear breking torque	90kgf.cm	120kgf.cm	150kgf.cm
最高齿轮效率 Max. Gearing efficiency	73%	65%	59%

其它减速比请致电或邮件给我司技术部 Other reduction ratio please telephone or e-mail to our engineering department.

马达参数 Motor data

马达型号 Motor Model	电 压 Rated Volt. V	空 载 No load		负 载 Load torque				堵 转 Stall torque	
		电 流 Current	转 速 Speed	电 流 Current	转 速 Speed	扭 矩 Torque	输出功率 Output power	扭 矩 Torque	电 流 Current
		mA	r/min	mA	r/min	gf. cm	W	gf. cm	A
ZF-45ZY123000	12	≤210	3000	≤1200	2430	390	9.5	2470	6.6
ZF-45ZY124500	12	≤440	4500	≤2050	3710	480	17.8	2706	10.2
ZF-45ZY126000	12	≤630	6000	≤4150	5240	610	31.9	4700	20.3
ZF-45ZY243000	24	≤120	3000	≤620	2590	380	9.84	2160	3.4
ZF-45ZY244500	24	≤270	4500	≤1340	3850	490	18.8	3233	5.5
ZF-45ZY246000	24	≤360	6000	≤2050	5120	650	33.2	4715	12.2

- 马达和齿轮箱装配成减速电机后输出扭矩 = 马达扭矩X减速比X齿轮效率;输出转速 = 马达转速 / 减速比 .
- After connecting motor and gearbox which is named gearmotor the output torque: motor torque X reduction ratio X gearing efficiency; output speed: motor speed/reduction ratio .