



格乐传动
GELE TRANSMISSION



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格乐智造 传动未来
GELE MANUFACTURING DRIVE THE FUTURE

浙江格乐传动科技有限公司
ZHEJIANG GELE TRANSMISSION TECHNOLOGY CO.,LTD.

安全 / 共赢 / 创新服务

SAFETY/DOUBLE-WIN/INNOVATION

- 安全**
- **正直、诚信、责任、使命，尊重他人并且乐于助人**，是我们倡导的人的安全。
 - 在我们所提供的传动装置专业制造中，**真诚与客户沟通**，产品方面，从品质、运输和最终使用上，我们均确保安全，**在承诺、结果和质量方面值得客户信赖。**
 - 以人为本，我们强调，**快乐工作以及自我价值的实现**，人人平等，价值共享，致力于提升员工工作的安全感和对公司的归属感。
 - 注重健康、环保和节能，**尊重自然和履行社会责任**，做合格的社会企业公民。

- 共赢**
- 人力资源是企业的第一生产力，**以人为本**，企业是员工实现自我价值的平台。
 - 个人的发展源于企业的发展，企业的发展依托于每个员工的卓越贡献，企业和员工是**命运共同体，价值共同体，利益共同体**，共同承担，共同发展。
 - 我们的市场价值在于我们所带给客户的价值，我们通过传动装置专业制造服务，**帮助和推动客户成功，与客户共存，并实现多方共赢。**
 - 企业是这个社会的有机组成部分，企业的进步和发展依托行业以及整个社会的进步和发展，依托社会，贡献社会，回报社会，我们与社会以及自然共存共赢。

- 创新服务**
- **服务**是格乐传动的核心竞争优势所在，服务意识，将贯穿格乐的整个体系。
 - 从服务模式以及服务内容等多层面的不断**颠覆和创新**，是格乐发展的源动力。
 - **创新服务，是格乐的长期使命**，是格乐立足于行业的目标，并藉此推动行业的发展和进步。
以市场和客户为导向，创新服务，缔造价值，是格乐的竞争核心。



传动装置专业制造商
Professional manufacturer of transmission device

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浙江格乐传动科技有限公司是一家集研发，制造，销售服务于一体的专业生产企业。本公司目前主要生产 RV 系列蜗轮蜗杆减速机和 UDL 系列无极变速器。产品广泛应用于食品，包装，啤酒饮品，化工，制药等各种工业领域。

凭借快速的交货能力，强劲的技术支持，优质的售后服务，以及先进的生产设备和检测设备，产品畅销全国各地，出口东南亚，中东等诸多国家，并享有一定的美誉度。

本着“开拓创新，质量第一，信誉为本”的宗旨，格乐传动欢迎国内外客户真诚合作，共创美好明天。

ZHEJIANG GELE TRANSMISSION TECHNOLOGY CO., LTD. is a professional manufacturer integrated research, manufacture and sales service. Currently we mainly produce worm gearboxes and UDL speed variators. Our products are widely used for foodstuffs, packing, beverage, chemicals, pharmacy and all kinds of industrial field.

With fast delivery time, strong technical support, superior after-sales service, advanced producing facility and testing equipments, our products sell well with a good reputation both at home and abroad. We have already exported our reducers to customers from Southeast Asia and the Middle East.

Our aim is to develop and innovate on the basis of high quality, and create a good reputation for reducers. Gele Transmission warmly welcome customers both at home and abroad to contact us for cooperation and create a bright future.



WORKSHOP
生产车间

每一道工序,要求精益求精。
Pursuit of excellence in each process



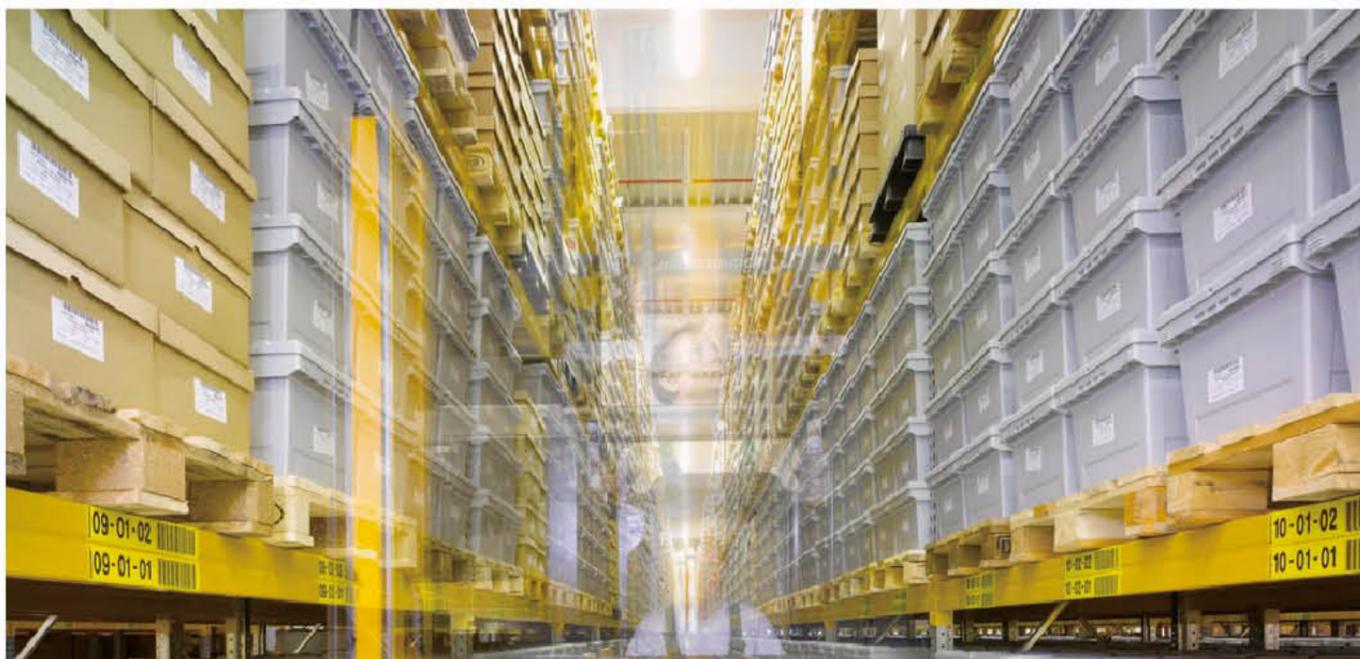
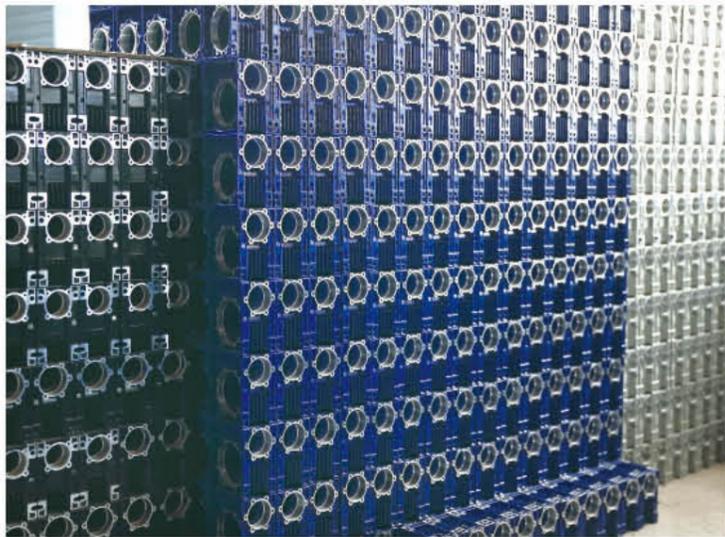
TEST CENTER

检测中心

每一件产品, 皆是用心之作。
Each product worked with full concentration.

TEST CENTER

检测中心



WAREHOUSE

产品仓库

井然有序 蓄势待发
We are Always Prepared and Ready to Produce





> CUSTOMER SERVICE

客户服务

专业的服务态度 / 快捷的物流系统

Professional service attitude / Efficient logistics system



贴心服务 让您无后顾之忧

格乐为完善客户服务质量，精心打造一支专业贴心的售后服务团队。耐心听取客户诉求并及时作出响应是每个格乐人的职责。灵活调度和迅速解决问题是我们与客户密切合作的基础。不断改善产品体系和服务流程，并超出客户期望是我们的服务宗旨。

CONSIDERATE SERVICE MAKE YOU CAREFREE AND RELAXED

To perfecting customer service quality, Gele built a professional and thoughtful after-sales service team. Be patient to listen to customer's demands and quick response is our duty. Flexible scheduling and prompt settlement is the basis on which we closely cooperate with customers. Continuously improvement on product system and service process, also exceeding expectation is our service aim.

产品概述 / PRODUCTS OVERVIEW

GMRV SERIES
GMRV系列

应用领域: 自动流水线

产品特点

- GMRV系列蜗轮蜗杆减速机具有以下一些主要特点：
1. 优质铝合金铸造，重量轻，不生锈；
 2. 输出扭矩大；
 3. 传动平稳，噪音小，适合在恶劣环境中长期连续工作；
 4. 散热效率高；
 5. 美观耐用，体积小；
 6. 可适应全方位安装。

主要材料

1. 外壳：铝合金（机座：025 - 090），铸铁（机座：110 - 150）；
2. 蜗杆：20Cr，渗碳淬火，齿面硬度56 - 62HRC，精磨后保持渗碳层厚度0.3 - 0.5mm；
3. 蜗轮：耐磨锡青铜。

表面涂装

- 铝合金外壳：
1. 先抛丸处理，再经特种防腐处理，保持银白金属感，并耐汽油、二甲苯等有机溶剂的腐蚀；
 2. 磷化处理后，再喷RAL5010蓝色或银白色涂料。
- 铸铁外壳：先涂红色防锈漆，后喷涂RAL5010蓝色或银白色涂料。

PRODUCTS CHARACTERISTICS

- GMRV series worm gear units is a new-generation of product developed by our company on the basis of perfecting WJ series products with a compromise of advanced technology both at home and abroad. Its main features are as follows;
1. Made of high-quality aluminum alloy, light weight and non-rusting.
 2. Large output torque.
 3. Smooth in running and low in noise, can work long time in dreadful conditions.
 4. High in radiating efficiency.
 5. Good-looking in appearance, durable in service life and small in volume.
 6. Suitable for omnibearing installation.

MAIN MATERIALS

1. Housing: die-cast aluminum alloy(frame size 025 to 090);cast iron(frame size:110 to 150);
2. Worm: 20Cr, carbonize&quencher heat treatment make the hardness of gear's surface up to 56-62HRC,retain carburization layer's thickness between 0.3 and 0.5mm after precise grinding.
3. Worm wheel: wearable stannum bronze alloy.

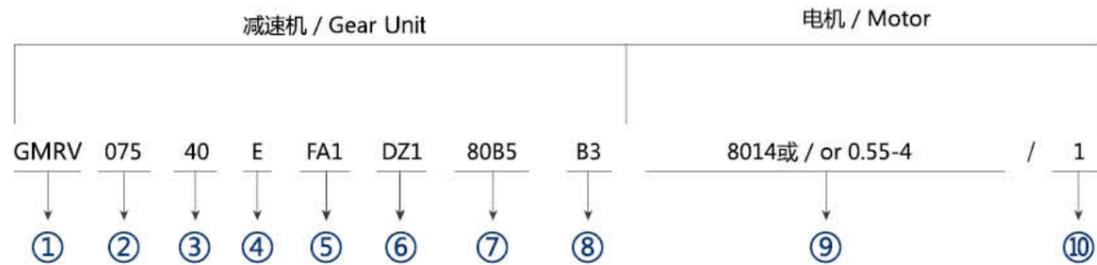
SURFACE PAINTING

- Aluminum alloy housing:
1. Shot blasting and special antiseptic treatment on the aluminum alloy surface.
 2. After phosphating, paint with RAL5010 blue or silvery white paint.

Cast iron housing: First paint with red antirust paint, then paint white RAL5010 blue or silvery white paint.

型号说明 / MODEL ILLUMINATE

GMRV/GRV蜗轮蜗杆减速机与减速机
WORM GEARED MOTORS AND WORM GEAR UNITS



NO	说明	Comments
1	型号代码： 1. GMRV孔输入带输入法兰 2. GRV轴输入不带输入法兰	Model code 1. GMRV:Hole input with flange 2. GRV:Shaft input without flange
2	蜗轮蜗杆减速机中心距（规格）	Central distance of worm gear units(spec)
3	减速机速比 (i=5,7.5,10,15,20,25,30,40,50,60,80,100)	Speed ratio of reducer r(i=5,7.5;10;15;20;25;30;40;50;60;80;100)
4	1. 无代号表示不带蜗杆同向输出轴 2. E: 带蜗杆同向输出轴	1. No mark means single extension worm shaft 2. E: Double extension worm shaft
5	1. 无代号表示不带输出法兰 2. FA,FB,FC,FD,FE(1/2):输出法兰号和位置	1. No mark means without output flange 2. FA,FB,FC,FD,FE(1/2):output Flange and position
6	1. 无代号表示孔输出 2. SS (1/2): 单向输出轴和位置 3. DS: 双向输出轴	1. No mark means hole output 2. SS (1/2):Single output shaft and position 3.DS:Double output shaft
7	输入法兰规格型式（不带电机时）	Normalized from of input flange(without motor)
8	安装方位代号	Installation position code
9	1. 无代号表示不带电机 2. 电机型号或功率，极数	1. No mark means without motor 2. Model motors(poles of power)
10	电机接线盒位置，默认位置1可以不写	Position diagram for motor terminal box default position 1 not to write out is ok

选型相关参数 / RELEVANT PARAMETER

功率 P

$$P_1 = P_2 / \eta \text{ (kw)}$$

$$P_{1n} \geq P_1 \cdot fs \text{ (kw)}$$

P₁ 输入功率
P₂ 输出功率
P_{1n} 输入电机额定功率
fs 使用系数
η 传动效率

在GMRV蜗轮蜗杆减速机选型表中，这个功率P_{1n}是指在输入转速为n₁并且对应的使用系数fs=1时，减速机的安全输入功率，单位kw。
传动效率η值是减速机经过足够长时间的跑合后计算得到的。跑合后在动转过程中，表面温度下降并最终稳定。需要特别强调的是样本中给定的额定转矩值M_{2n}应该考虑到传动效率η的关系。

Power P

$$P_1 = P_2 / \eta \text{ (kw)}$$

$$P_{1n} \geq P_1 \cdot fs \text{ (kw)}$$

P₁ Input power
P₂ Output power
P_{1n} Rated input motor power
fs Service factor
η Transmission efficiency

The parameter can be found in the GMRV gear-box rating charts and represents the kw that can be safely transmitted to the gearbox, based on input speed n₁ and service factor fs=1.
Values of η are calculated for gearboxes after a sufficiently long running-in period. After the running-in period, the surface temperature in operation drops down and finally stabilized. It may be worth high lighting that values of rated torque M_{2n} given in the catalogue take the transmission efficiency η into consideration.

转速 n

n₁ 减速机输入转速
n₂ 减速机输出转速
若是减速机外部传动装置驱动，为了优化工作条件和提高使用寿命，建议使用1400r/min或更低转速。

ROTATION SPEED n

n₁ Gear units input speed
n₂ Gear units output speed
If driven by the external gearing, 1400r/min or lower rotation speed is suggested so as to optimize the working conditions and prolong the service life.

传动比 i

$$i = n_1 / n_2$$

TRANSMISSION RATIO i

$$i = n_1 / n_2$$

扭矩 M

$$M_2 = 9550 \cdot P_1 \cdot \eta / n_2 \text{ (Nm)}$$

$$M_{2n} \geq M_2 \cdot fs \text{ (Nm)}$$

M₂ 输出扭矩
M_{2n} 额定输出扭矩
P₁ 输入功率
η 传动效率
fs 使用系数

TORQUE M

$$M_2 = 9550 \cdot P_1 \cdot \eta / n_2 \text{ (Nm)}$$

$$M_{2n} \geq M_2 \cdot fs \text{ (Nm)}$$

M₂ Output torque
M_{2n} Rated output trque
P₁ Input power
η Transmission efficiency
fs Service factor

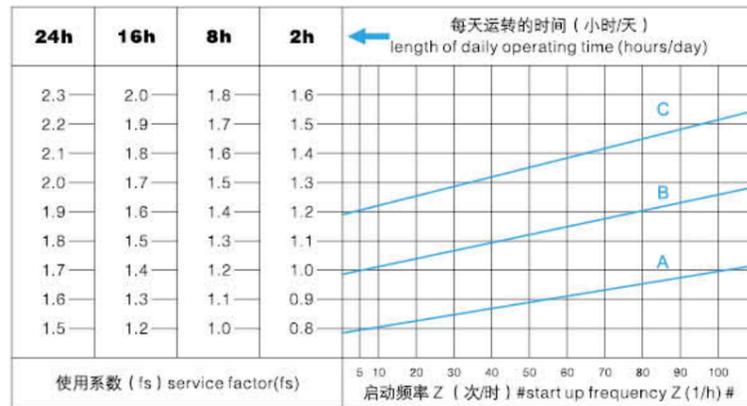
选型相关参数 / RELEVANT PARAMETER

使用系数 fs

减速机上的从动机构的受驱动效果是用使用系数fs这个系数来衡量的。该使用系数根据每天的运转时间和启动频率Z而定的。三种负载分类取决于惯性加速系数，在下图中可读取实际应用的使用系数，按这图表选取的使用系数必须小于或者等于性能参数表中提供的使用系数。

SERVICE FACTOR fs

The effect of the driven machine on the gear unit is taken into account to a sufficient level of accuracy using the service factor fs. The service factor is determined according to the daily operating time and the starting frequency Z. Three load classifications are considered depending on the mass acceleration factor. You can read off the service factor applicable to your application in following figure. The service factor selected using this diagram must be less than or equal to the service factor as given in the performance parameter table.



启动频率Z: 周期包括所有启动, 制动的次数以及变速电机高低速变化时的次数。
Starting frequency Z: The cycles include all starting and braking procedures as well as change overs from low to high speed.

负载类型

- 负载性质:
A 均匀冲击负载, 允许惯性加速系数 $fa \leq 0.3$
B 中等冲击负载, 允许惯性加速系数 $fa \leq 3$
C 重冲击负载, 允许惯性加速系数 $fa \leq 10$

LOAD CLASSIFICATIONS

- Type of load:
A Uniform, permitted mass acceleration factor $fa \leq 0.3$
B Moderate shock load, permitted mass acceleration factor $fa \leq 3$
C Heavy shock load, permitted mass acceleration factor $fa \leq 10$

负载类型:

轻负载的螺杆输送机, 风扇, 装配线, 输送带, 小型搅拌机, 电梯, 清洗机器, 过滤器, 控制驱动。
卷扬机, 木工机器进料器, 货物起重机, 平衡器, 绞螺纹机器, 中型搅拌机, 重型输送带, 绞盘, 滑动闸门, 刮料机, 包装机械, 混凝土搅拌机, 行车驱动装置, 铣床, 齿轮泵。
大型搅拌机, 剪床, 压机, 离心机, 旋转支撑装置, 重型绞盘和起重机, 磨床, 石材打磨机, 翻斗机, 钻床, 冲床, 凸轴压机, 帮床, 机床转盘, 翻桶装置, 振荡装置, 破碎机。

Load Classifications:
Screw feeders for light materials, fans, assembly lines, conveyor belts for light materials, small mixers, lifts, cleaning machines, fillers, control machines. Winding devices, woodworking machine feeders, goods lifts, balancers, threading machines, medium mixers, conveyor belts for heavy materials, winches, sliding doors, fertilizer scrapers, packing machines, concrete mixers, crane mechanisms, milling cutters, folding machines, gear pumps.
Mixers for heavy materials, shears, presses centrifuges, rotating supports, winches and lifts for heavy materials, grinding lathes, stone mills, bucket elevators, drilling machines, hammer mills, compresses, folding machines, turntables, tumbling barrels, vibrators, shredders

选型相关参数 / RELEVANT PARAMETER

惯性加速系数

惯性加速系数计算如下:

$$fa = Jc / Jm$$

fa 惯性加速系数
Jc 所有外部传动惯量 (kgm²)
Jm 驱动电机的传动惯量 (kgm²)
如果惯性加速系数 $fa > 10$, 请与我们技术部联系。

受环境温度影响, 使用系数fs 仍须按以下调整:

1. 环境温度 30~40°C: $fs \times (1.1 \sim 1.2)$
2. 环境温度 40~50°C: $fs \times (1.3 \sim 1.4)$
3. 环境温度 50~60°C: $fs \times (1.5 \sim 1.6)$
4. 环境温度 > 60°C, 请与我们技术服务人员联系。

为了保持减速机的使用寿命, 从产品样本中所选择的使用系数fs 应等于或略高于计算出的使用系数fs。

径向载荷 Fr

在决定影响径向载荷时, 安装在轴端上的传动件类型必须考虑在内, 不同类型的传动对应不同的传动附加系数 fz, 列表如下:

传动件 Transmission element	传动附加系数 fz Transmission element factor fz	注释 Comments
齿轮 Gears	1.00	≥ 17 齿 teeth
	1.15	< 17 齿 teeth
链轮 Chain sprockets	1.00	≥ 20 齿 teeth
	1.25	< 20 齿 teeth
	1.40	< 13 齿 teeth
V带轮 Narrow V-belt pulleys	1.75	有预紧力作用 Influence of the tensile force
平带轮 Flat belt pulleys	2.50	有预紧力作用 Influence of the tensile force
齿带轮 Toothed belt pulleys	2.50	有预紧力作用 Influence of the tensile force

作用在轴上的径向载荷按如下公式计算:

$$Fr = \frac{M \cdot 2000 \cdot fz}{d_o} \quad (N)$$

Fr 作用在轴上的载荷 (N)
M 作用在轴上的扭矩 (Nm)
d_o 安装在轴上传动件的平均直径 (mm)
fz 传动附加系数

The overhung loads exerted on the motor or gear shaft is then calculated as follows.

$$Fr = \frac{M \cdot 2000 \cdot fz}{d_o} \quad (N)$$

Fr Resulting radial load (N)
M Torque on the shaft (Nm)
d_o Mean diameter of the mounted transmission element in (mm)
fz Transmission element factor

MASS ACCELERATION FACTOR

The mass acceleration factor is calculated as follows:

$$fa = Jc / Jm$$

fa Mass acceleration factor
Jc All external mass moments of inertia (kgm²)
Jm Mass moment of inertia on the motor end (kgm²)
If mass acceleration factors $fa > 10$, please call our Technical Service.

Service factor fs should be adjusted as follows:

1. ambient temperature is 30~40°C: $fs \times (1.1 \sim 1.2)$
2. ambient temperature is 40~50°C: $fs \times (1.3 \sim 1.4)$
3. ambient temperature is 50~60°C: $fs \times (1.5 \sim 1.6)$
4. ambient temperature is > 60°C, please call our Technical Service.

To keep the service-life of gear units, the use factor fs selected from the catalogue must be equal or slightly higher than the calculated use factor fs

RADIAL LOADS Fr

When determining the resulting radial loads, the type of transmission elements, mounted on the shaft end must be considered. Various transmission elements are corresponding with following transmission element factors fz.

选型相关参数 / RELEVANT PARAMETER

当径向负荷不作用在轴中点时，按以下公式计算有效负荷：

$$F \times L \leq \frac{Fr_2 \cdot a}{(b+x)} \text{ (N)}$$

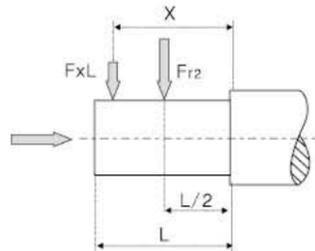
Fr₂ 依据下面表格给出中底脚安装式齿轮减速器的许可径向载荷 (X=L/2) (N)
a,b 齿轮减速器径向换算常量(mm)
X 轴肩到实际作用点的距离(mm)
a,b,Fr₂ 的数值在下面表格给出：

The allowed radial load force on the shaft is calculated with the following formula:

$$F \times L \leq \frac{Fr_2 \cdot a}{(b+x)} \text{ (N)}$$

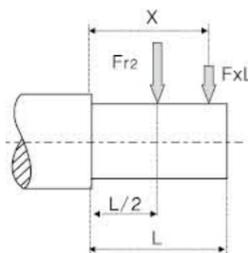
Fr₂ Permitted overhung load(x=L/2)for foot-mounted gear units according to the selection tables in (N)
a,b Gear unit constant for overhung load conversion(mm)
X Distance from the shaft shoulder to the force application point in(mm)
The values of a, b Fr₂ are given in the following tables:

输出轴径向载荷 / Output shafts radial loads



GMRV	025	030	040	050	063	075	090	110	130	150
a	50	65	84	101	120	131	162	176	188	215
b	38	50	64	76	95	101	122	136	148	174
Fr ₂ max	1350	1830	3490	4840	6270	7380	8180	12000	13500	18000

输入轴径向载荷 / Input shafts radial loads



GMRV	030	040	050	063	075	090	110	130	150
a	86	106	129	159	192	227	266	314	350
b	76	94.5	114	139	167	202	236	274	310
Fr ₂ max	210	350	490	700	980	1270	1700	2100	2800

选型相关参数 / RELEVANT PARAMETER

选型表注释 / SELECTION TABLES COMMENTS

P _{in} (kw)	n ₂ (r/min)	i	M _{2n} (Nm)	M ₂ (Nm)	f _s
P _{in}	输入电机额定功率 (kw);			P _{in}	Rated power driving motor (kw)
n ₂	输出转速(r/min);			n ₂	Output speed (r/min)
M _{2n}	额定输出扭矩(Nm);			M _{2n}	Rated output torque(Nm)
M ₂ max	最大允许输出扭矩 (Nm);			M ₂ max	Permissible output torque(Nm)
i	减速机速比;			i	Gear unit ratio
f _s	使用系数;			f _s	Service factor
	减速机型号;				Gear unit type
	电机型号;				Motor type

选型举例 / SELECTION EXAMPLE

减速电机

例：被驱动设备所需功率0.5KW, n₁ = 1400r/min, 均匀冲击负载，启动频率20次/小时，24小时连续运行，环境温度32℃，输出转速n₂ = 93.3r/min, 减速电机要求B3安装方位，则：

$$i = \frac{n_1}{n_2} = \frac{1400}{93.3} = 15$$

查P19页啮合参数表，估算当i=15时，η_d = 0.82
查图调整使用系数得f_s = 1.53 × 1.12 = 1.714
P_{in} ≥ P₂ / η_d · f_s = 0.5 / 0.82 × 1.714 = 1.045(kw)
查GMRV系列性能参数表可确定减速电机型号为：
GMRV075-15-B3-1.1-4
输出扭矩M₂计算：

$$M_2 = \frac{9550 \cdot P_2}{n_2} = \frac{9550 \times 0.5}{93.3} = 51.18 \text{ (Nm)}$$

$$M_{2n} = 95 \geq M_2 \cdot f_s = 51.18 \times 1.714 = 87.72 \text{ (Nm)}$$

减速机

例：被驱动设备所需扭矩为300Nm，工作8小时连续运行，均匀冲击负载，启动频率5次/小时，环境温度30℃，即可选用系数f_s = 1.2 × 1.1 = 1.32，减速机输入转速n₁ = 900r/min, 输出转速n₂ = 22.5 r/min.

$$M_{2n} \geq M_2 \cdot f_s = 300 \times 1.32 = 396 \text{ (Nm)}$$

$$i = \frac{n_1}{n_2} = \frac{900}{22.5} = 40$$

查GMRV系列性能参数表可确定减速机型号为：
GMRV090-40

GEAR MOTOR

Example: The input power of driver machine is 0.5kw, n₁ = 1400r/min, uniform, start up frequency 20(1/h), continuous running for 24 hours, the ambient temperature is 32℃, n₂ = 93.3r/min, B3 mounted so:

$$i = \frac{n_1}{n_2} = \frac{1400}{93.3} = 15$$

Check mesh table on P19, estimate when the i = 15, η_d = 0.82
Check and adjust the service factor, will get f_s = 1.53 × 1.12 = 1.714
P_{in} ≥ P₂ / η_d · f_s = 0.5 / 0.82 × 1.714 = 1.045(kw)
Choose type:
GMRV075-15-B3-1.1-4

$$M_2 = \frac{9550 \cdot P_2}{n_2} = \frac{9550 \times 0.5}{93.3} = 51.18 \text{ (Nm)}$$

$$M_{2n} = 95 \geq M_2 \cdot f_s = 51.18 \times 1.714 = 87.72 \text{ (Nm)}$$

GEAR UNITS

Example: Required torque 300Nm on driven machine, continuous running for 8 hours, uniform load, the ambient temperature is 30℃, then choose the service factor f_s = 1.2 × 1.1 = 1.32, n₁ = 900r/min, n₂ = 22.5r/min.

$$M_{2n} \geq M_2 \cdot f_s = 300 \times 1.32 = 396 \text{ (Nm)}$$

$$i = \frac{n_1}{n_2} = \frac{900}{22.5} = 40$$

Choose type:
GMRV090-40

选型相关参数 / RELEVANT PARAMETER

效率与自锁特性 / EFFICIENCY & IRREVERSIBILITY CHARACTER

效率是减速机一个重要参数，效率 η 的值取决于下列参数：1.蜗轮蜗杆的螺旋角；2.输入转速；3.蜗轮蜗杆的磨合时间；4.油品、油封和轴承的性能。在第21页上的啮合参数表列出了动态效率 ($\eta_1 = 1400$) 及静态效率参数。请注意：这些参数是指减速机磨合后性能稳定的计算值。另外，样本中规定的扭矩 M_{2m} 也是减速机磨合性能稳定的计算值。上述的实际值可能会有上下偏差。

Efficiency is an important parameter of reducer, Efficiency η depends on the following parameters: 1. helix angle of gearing; 2. driving speed; 3. running-in of gearing; 4. The performance of oil, oil seal and bearing. The mesh data table on page 21 shows dynamic efficiency ($\eta_1 = 1400$) and static efficiency values. Remember that these values are only achieved after the unit has been run in. Torque values M_{2m} indicated in the catalogue are calculated by considering the steady-state performance of the gearboxes. The actual values mentioned above may have deflection.

动态自锁

动态自锁是指当马达输入轴突然停止时，输出轴能同步停止。此条件要求动态效率 $\eta_d < 0.5$ (参见第21页表格)

DYNAMIC IRREVERSIBILITY

Dynamic irreversibility is achieved when the output shaft stops instantly when drive is no longer transmitted through the worm shaft. This condition requires a dynamic efficiency of $\eta_d < 0.5$ (see table on page 21).

静态自锁

静态自锁是指当减速机处于静止状态时，输出轴上的负载不能把蜗轮推动。此条件要求静态效率 $\eta_s < 0.5$ (参见第21页表格)

STATIC IRREVERSIBILITY

Static irreversibility is achieved when the gear reducer at a standstill, the application of load to the output shaft can't drive the worm shaft. This condition requires a static efficiency of $\eta_s < 0.5$ (see table on page 21)

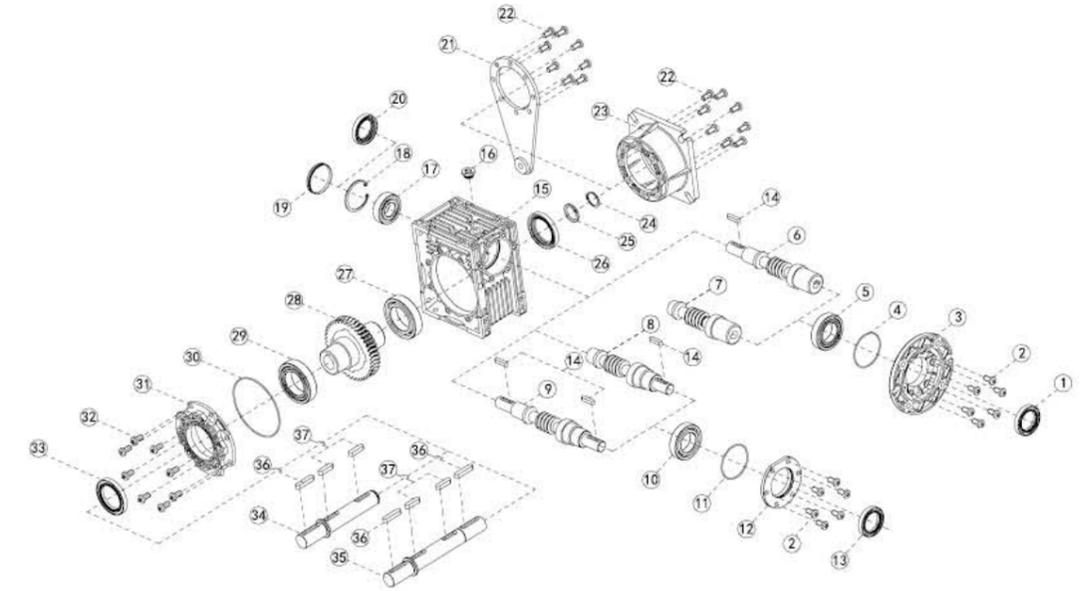
η_d	>0.6	0.5~0.6	0.4~0.5	<0.4
动态自锁效果	动态不自锁	动态自锁很低	动态自锁良好	动态自锁
dynamic irreversibility	dynamic reversibility	low dynamic reversibility	good dynamic irreversibility	dynamic irreversibility

η_s	>0.55	0.5~0.55	<0.5
静态自锁效果	静态不自锁	静态自锁很低	静态自锁
static irreversibility	static reversibility	low static reversibility	static irreversibility

上述表格中所有参数只是供大概参考，振动和冲击也会影响减速机的自锁功能。事实上要保证完全自锁是不可能的，我们建议需要时安装外部的安全制动的装置。对于一个组合减速机自锁条件时，必须考虑单减速机的自锁功能效率，因为整体自锁功能是： $\eta_{tot} = \eta_1 \times \eta_2$ 。

The table shows approximate irreversibility classes. Vibrations and shocks can affect a gear reducer's irreversibility. As it is virtually impossible to provide and guarantee total non reversing, we recommend the use of an external brake with sufficient capability to prevent vibrations induced starting, where these circumstances are required. For the irreversibility conditions of a combined geared unit one must consider that the efficiency of the group is given by the product of the efficiencies of each single reducer: $\eta_{tot} = \eta_1 \times \eta_2$.

GMRV 结构分解图 / GMRV EXPLODED VIEW

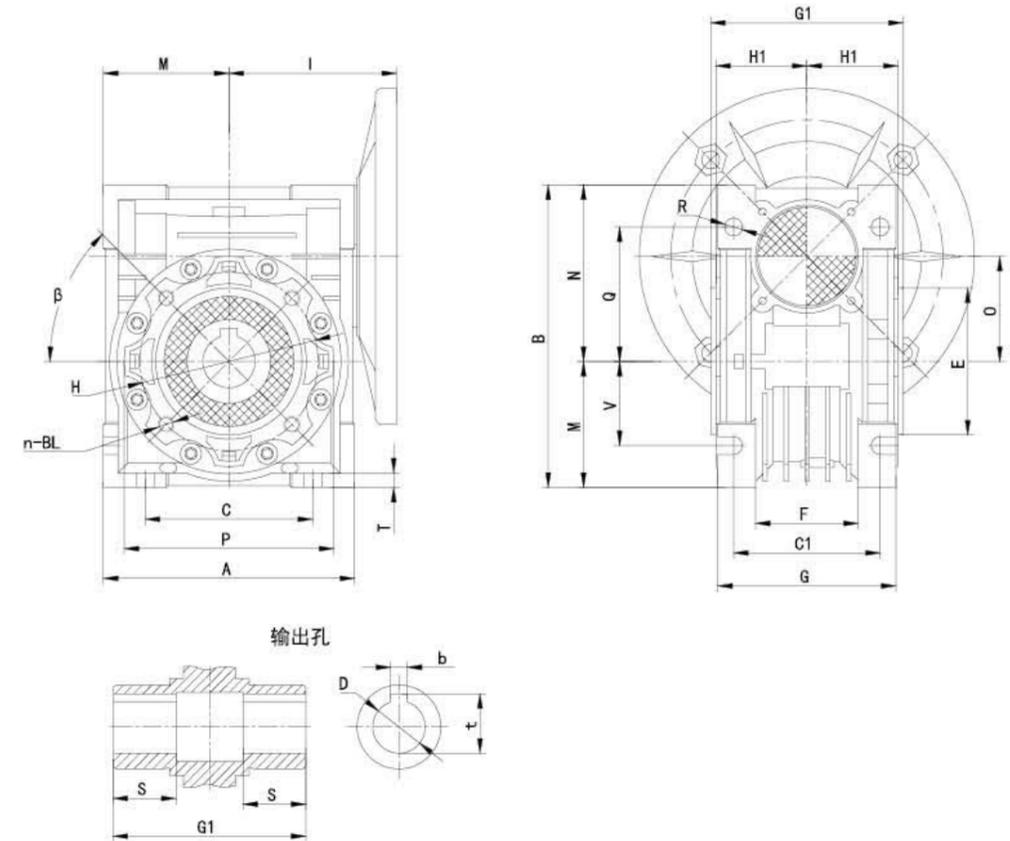


1 油封	11 O型圈	21 扭力臂	31 输出端盖
2 内六角圆柱头螺栓	12 输入端盖	22 内六角圆柱头螺栓	32 内六角圆柱头螺栓
3 输入法兰	13 油封	23 输出法兰	33 油封
4 O型圈	14 平键	24 轴用弹性挡圈	34 单向输出轴
5 轴承	15 箱体	25 垫圈	35 双向输出轴
6 孔输入轴输入蜗杆	16 油塞	26 油封	36 平键
7 孔输入蜗杆	17 轴承	27 轴承	37 平键
8 轴输入蜗杆	18 孔用弹性挡圈	28 蜗轮	
9 双轴输入蜗杆	19 盖子	29 轴承	
10 轴承	20 油封	30 O型圈	
1 Oil seal	11 O-ring	21 Torque arm	31 Output cover
2 Hexagon socket head cap screw	12 Input cover	22 Hexagon socket head cap screw	32 Hexagon socket head cap screw
3 Flange PAM	13 Oil seal	23 Output flange	33 Oil seal
4 O-ring	14 Key	24 Circlip for shaft	34 Single output shaft
5 Bearing	15 Housing	25 Washer	35 Double output shaft
6 Hole input and shaft input worm	16 Oil plug	26 Oil seal	36 Key
7 Hole input worm	17 Bearing	27 Bearing	37 Key
8 Shaft input worm	18 Circlip for hole	28 Worm wheel	
9 Double shaft input worm	19 Cover	29 Bearing	
10 Bearing	20 Oil seal	30 O-ring	

GMRV 产品介绍 / GMRV PRODUCT INTRODUCTION



GMRV 尺寸 / GMRV DIMENSION

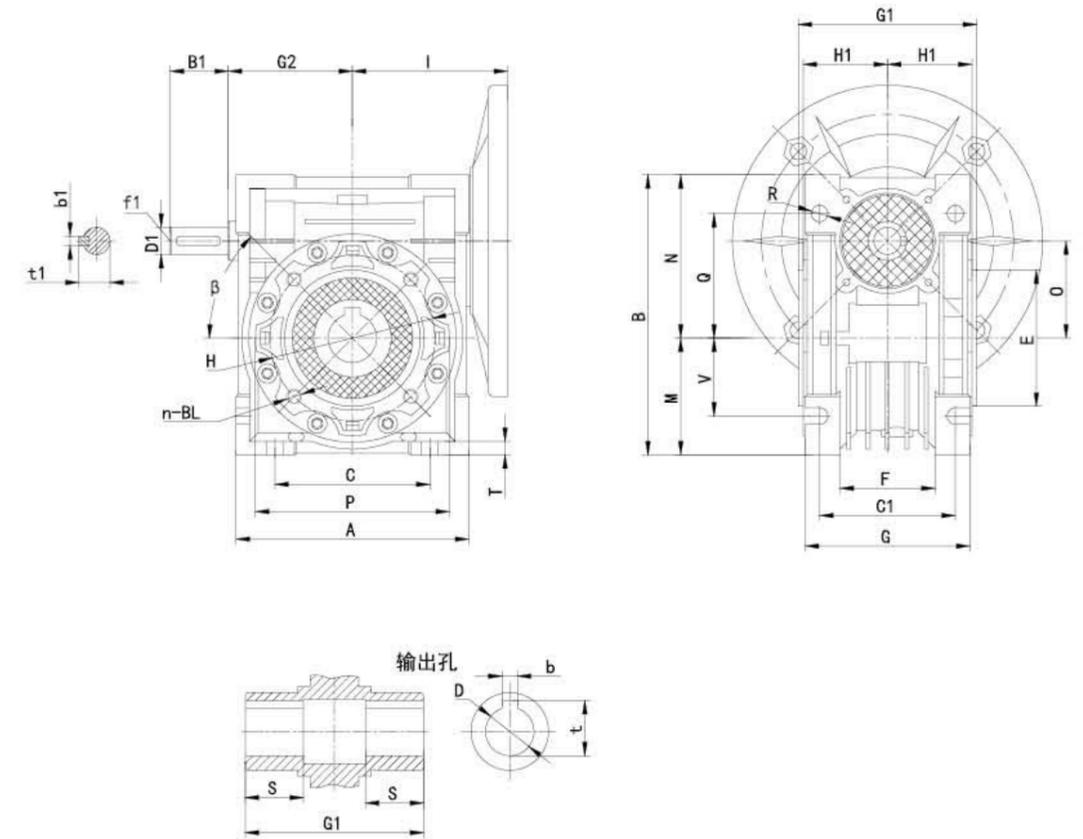


GMRV	A	B	C	C1	D (H8)	E (h8)	F	G	G1	H	H1	I	M	N	O	P	Q	R	S	T	BL	β	b	t	V
030	80	97	54	44	14	55	32	56	63	65	29	55	40	57	30	75	44	6.5	21	5.5	M6X10 (n=4)	0°	5	16.3	27
040	100	121.5	70	60	18 (19)	60	43	71	78	75	36.5	70	50	71.5	40	87	55	6.5	26	6.5	M6X10 (n=4)	45°	6	20.8 (21.8)	35
050	120	144	80	70	25 (24)	70	49	85	92	85	43.5	80	60	84	50	100	64	8.5	30	7	M8X12 (n=4)	45°	8	28.3 (27.3)	40
063	144	174	100	85	25 (28)	80	67	103	112	95	53	95	72	102	63	110	80	8.5	36	8	M8X12 (n=8)	45°	8	28.3 (31.3)	50
075	172	205	120	90	28 (35)	95	72	112	120	115	57	112.5	86	119	75	140	93	11	40	10	M8X14 (n=8)	45°	8 (10)	31.3 (38.3)	60
090	206	238	140	100	35 (38)	110	74	130	140	130	67	129.5	103	135	90	160	102	13	45	11	M10X16 (n=8)	45°	10	38.3 (41.3)	70
110	255	295	170	115	42	130	-	144	155	165	74	160	127.5	167.5	110	200	125	14	50	14	M10X18 (n=8)	45°	12	45.3	85
130	293	335	200	120	45	180	-	155	170	215	81	179	146.5	187.5	130	250	140	16	60	15	M12X20 (n=8)	45°	14	48.8	100
150	340	400	240	145	50	180	-	185	200	215	96	210	170	230	150	250	180	18	72.5	18	M12X22 (n=8)	45°	14	53.8	120

GMRV-E 产品介绍 / GMRV-E PRODUCT INTRODUCTION



GMRV-E 尺寸 / GMRV-E DIMENSION

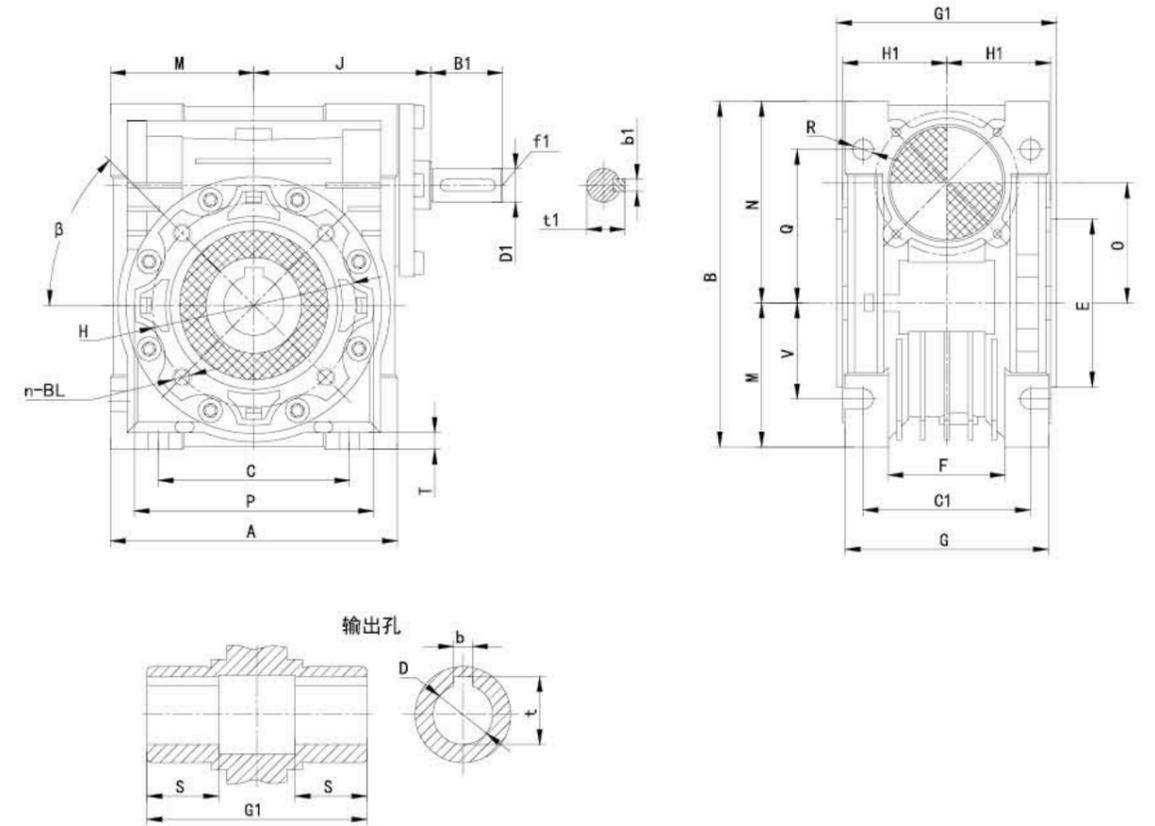


GMRV-E	A	B	B1	C	C1	D (H8)	D1 (j6)	E (h8)	F	G	G1	G2	H	H1	I	M	N	O	P	Q	R	S	T	BL	β	b	b1	t	t1	f1	V
030	80	97	20	54	44	14	9	55	32	56	63	45	65	29	55	40	57	30	75	44	6.5	21	5.5	M6X10 (n=4)	0°	5	3	16.3	10.2	-	27
040	100	121.5	23	70	60	18 (19)	11	60	43	71	78	53	75	36.5	70	50	71.5	40	87	55	6.5	26	6.5	M6X10 (n=4)	45°	6	4	20.8 (21.8)	12.5	-	35
050	120	144	30	80	70	25 (24)	14	70	49	85	92	64	85	43.5	80	60	84	50	100	64	8.5	30	7	MBX12 (n=4)	45°	8	5	28.3 (27.3)	16	M6	40
063	144	174	40	100	85	25 (28)	19	80	67	103	112	75	95	53	95	72	102	63	110	80	8.5	36	8	MBX12 (n=8)	45°	8	6	28.3 (31.3)	21.5	M6	50
075	172	205	50	120	90	28 (35)	24	95	72	112	120	90	115	57	112.5	86	119	75	140	93	11	40	10	MBX14 (n=8)	45°	8 (10)	8	31.3 (38.3)	27	M8	60
090	206	238	50	140	100	35 (38)	24	110	74	130	140	108	130	67	129.5	103	135	90	160	102	13	45	11	M10X16 (n=8)	45°	10	8	38.3 (41.3)	27	M8	70
110	255	295	60	170	115	42	28	130	-	144	155	135	165	74	160	127.5	167.5	110	200	125	14	50	14	M10X18 (n=8)	45°	12	8	45.3	31	M10	85
130	293	335	80	200	120	45	30	180	-	155	170	155	215	81	179	146.5	187.5	130	250	140	16	60	15	M12X20 (n=8)	45°	14	8	48.8	33	M10	100
150	340	400	80	240	145	50	35	180	-	185	200	175	215	96	210	170	230	150	250	180	18	72.5	18	M12X22 (n=8)	45°	14	10	53.8	38	M12	120

GRV 产品介绍 / GRV PRODUCT INTRODUCTION



GRV 尺寸 / GRV DIMENSION

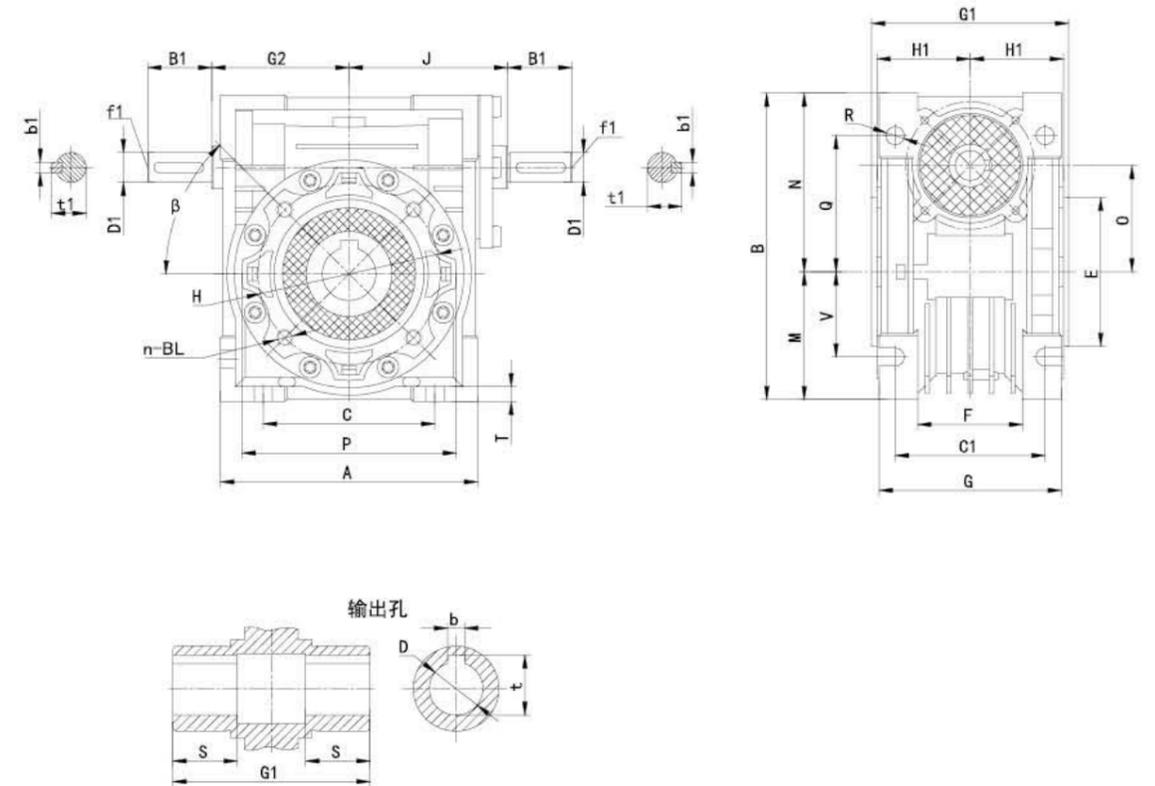


GRV	A	B	B1	C	C1	D (H8)	D1 (H8)	E (H8)	F	G	G1	H	H1	J	M	N	O	P	Q	R	S	T	BL	β	b	b1	t	t1	f1	V
030	80	97	20	54	44	14	9	55	32	56	63	65	29	51	40	57	30	75	44	6.5	21	5.5	M6X10 (n=4)	0°	5	3	16.3	10.2	-	27
040	100	121.5	23	70	60	18 (19)	11	60	43	71	78	75	36.5	60	50	71.5	40	87	55	6.5	26	6.5	M6X10 (n=4)	45°	6	4	20.8 (21.8)	12.5	-	35
050	120	144	30	80	70	25 (24)	14	70	49	85	92	85	43.5	74	60	84	50	100	64	8.5	30	7	MBX12 (n=4)	45°	8	5	28.3 (27.3)	16	M6	40
063	144	174	40	100	85	25 (28)	19	80	67	103	112	95	53	90	72	102	63	110	80	8.5	36	8	MBX12 (n=8)	45°	8	6	28.3 (31.3)	21.5	M6	50
075	172	205	50	120	90	28 (35)	24	95	72	112	120	115	57	105	86	119	75	140	93	11	40	10	MBX14 (n=8)	45°	8 (10)	8	31.3 (38.3)	27	MB	60
090	206	238	50	140	100	35 (38)	24	110	74	130	140	130	67	125	103	135	90	160	102	13	45	11	M10X16 (n=8)	45°	10	8	38.3 (41.3)	27	MB	70
110	255	295	60	170	115	42	28	130	-	144	155	165	74	142	127.5	167.5	110	200	125	14	50	14	M10X18 (n=8)	45°	12	8	45.3	31	M10	85
130	293	335	80	200	120	45	30	180	-	155	170	215	81	162	146.5	187.5	130	250	140	16	60	15	M12X20 (n=8)	45°	14	8	48.8	33	M10	100
150	340	400	80	240	145	50	35	180	-	185	200	215	96	195	170	230	150	250	180	18	72.5	18	M12X22 (n=8)	45°	14	10	53.8	38	M12	120

GRV-E 产品介绍 / GRV-E PRODUCT INTRODUCTION

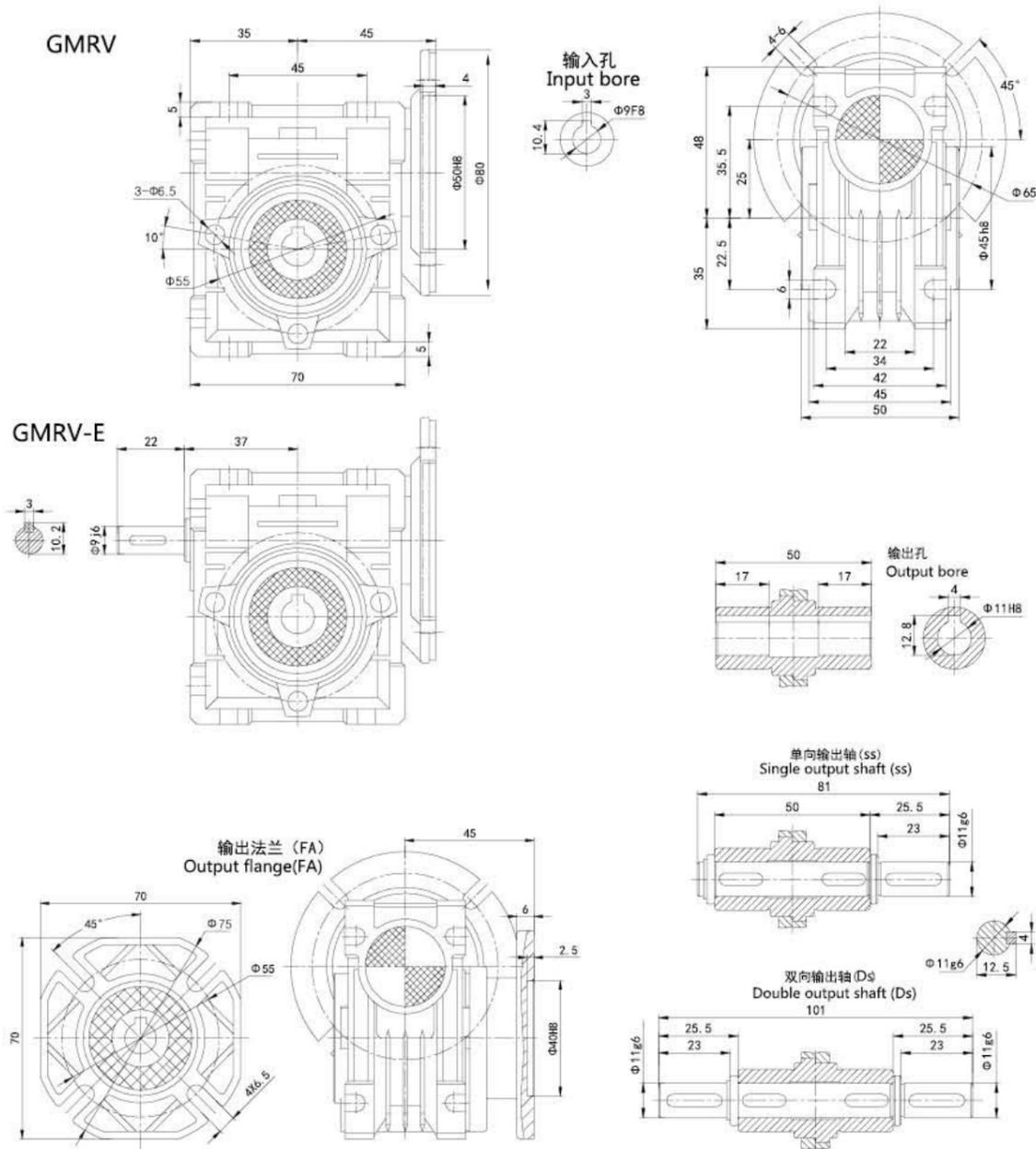


GRV-E尺寸 / GRV-E DIMENSION



GRV-E	A	B	B1	C	C1	D (H)	D1 (H)	E (h)	F	G	G1	G2	H	H1	J	M	N	O	P	Q	R	S	T	BL	β	b	b1	t	t1	f1	V
030	80	97	20	54	44	14	9	55	32	56	63	45	65	29	51	40	57	30	75	44	6.5	21	5.5	M6X10 (n=4)	0°	5	3	16.3	10.2	-	27
040	100	121.5	23	70	60	18 (19)	11	60	43	71	78	53	75	36.5	60	50	71.5	40	87	55	6.5	26	6.5	M6X10 (n=4)	45°	6	4	20.8 (21.8)	12.5	-	35
050	120	144	30	80	70	25 (24)	14	70	49	85	92	64	85	43.5	74	60	84	50	100	64	8.5	30	7	M8X12 (n=4)	45°	8	5	28.3 (27.3)	16	M6	40
063	144	174	40	100	85	25 (28)	19	80	67	103	112	75	95	53	90	72	102	63	110	80	8.5	36	8	M8X12 (n=8)	45°	8	6	28.3 (31.3)	21.5	M6	50
075	172	205	50	120	90	28 (35)	24	95	72	112	120	90	115	57	105	86	119	75	140	93	11	40	10	M8X14 (n=8)	45°	8 (10)	8	31.3 (38.3)	27	M8	60
090	206	238	50	140	100	35 (38)	24	110	74	130	140	108	130	67	125	103	135	90	160	102	13	45	11	M10X16 (n=8)	45°	10	8	38.3 (41.3)	27	M8	70
110	255	295	60	170	115	42	28	130	-	144	155	135	165	74	142	127.5	167.5	110	200	125	14	50	14	M10X18 (n=8)	45°	12	8	45.3	31	M10	85
130	293	335	80	200	120	45	30	180	-	155	170	155	215	81	162	146.5	187.5	130	250	140	16	60	15	M12X20 (n=8)	45°	14	8	48.8	33	M10	100
150	340	400	80	240	145	50	35	180	-	185	200	175	215	96	195	170	230	150	250	180	18	72.5	18	M12X22 (n=8)	45°	14	10	53.8	38	M12	120

GMRV025小机型 / GMRV025 SMALL MODEL



减速机选型表 / GEAR UNIT SELECTION TABLES

GMRV...IEC...性能参数 / PERFORMANCE PARAMETER

P_{in} (kw)	n_2 (r/min)	i	M_{Tn} (Nm)	F_{Tn} (N)	f_s				
0.06	280	5	1.8	439	6.2	GMRV025 56B14	5614		
	186.7	7.5	2.6	503	4.2				
	140	10	3.4	553	3.5				
	93.3	15	4.9	633	2.5				
	70	20	6.2	697	1.9				
	46.7	30	8.3	798	1.6				
	35	40	10	878	1.2				
	28	50	12	946	0.9				
	23.3	60	14	1006	0.7				
	186.7	7.5	2.6	683	7.0			GMRV030 56B5/B14	5614
	140	10	3.4	752	5.4				
	93.3	15	4.7	861	3.9				
	70	20	6	948	3.1				
	56	25	7	1021	3.1				
46.7	30	8	1085	2.5					
35	40	9.7	1194	1.9					
0.09	280	5	2.0	399	3.9	GMRV025 56B14	5612		
	280	10	2.6	439	3.4				
	186.7	15	3.8	503	2.4				
	140	20	4.9	553	1.8				
	93.3	30	6.7	633	1.3				
	70	40	8.5	697	1.1				
	56	50	10	751	0.9				
	186.7	7.5	3.9	503	2.8	GMRV025 56B14	5624		
	140	10	5.1	553	2.4				
	93.3	15	7.3	633	1.6				
	70	20	9.3	697	1.3				
	46.7	30	13	798	1.0				
	35	40	16	878	0.8				
	373.3	7.5	2.0	542	6.5			GMRV030 56B5/B14	5612
280	10	2.6	597	5.0					
186.7	15	3.7	683	3.5					
140	20	4.7	752	2.5					
112	25	5.5	810	2.9					
93.3	30	6.4	861	2.3					
70	40	8.0	948	1.8					
56	50	9.4	1021	1.4					
46.7	60	10	1085	1.1					
35	80	13	1194	0.9					

减速机选型表 / GEAR UNIT SELECTION TABLES

P_{in} (kw)	n_2 (r/min)	i	M_{2m} (Nm)	F_{12} (N)	f_s						
0.09	186.7	7.5	3.9	683	4.7	GMRV030	56B5/B14	5624			
	140	10	5.0	752	3.6						
	93.3	15	7.0	861	2.6						
	70	20	8.8	948	2.0						
	56	25	10	1021	2.1						
	46.7	30	12	1085	1.7						
	35	40	14	1194	1.2						
	28	50	17	1286	1.0						
	23.3	60	18	1367	0.9						
	28	50	19	2475	2.1						
0.12	23.3	60	21	2630	1.7	GMRV040	56B5	5624			
	17.5	80	25	2895	1.3						
	14	100	29	3118	1.0						
	373.3	7.5	2.7	399	3.0				GMRV025	56B14	5622
	280	10	3.5	439	2.6						
	186.7	15	5.1	503	1.8						
	140	20	6.5	553	1.4						
	93.3	30	9.0	633	1.0						
	70	40	11	697	0.8						
	186.7	7.5	5.2	683	3.5						
140	10	6.6	752	2.7							
93.3	15	9.3	861	1.9							
70	20	12	948	1.5							
0.18	56	25	14	1021	1.6	GMRV030	63B5/B14	6314			
	46.7	30	16	1085	1.3						
	35	40	19	1194	0.9						
	28	50	22	1286	0.8						
	46.7	30	17	2087	2.7						
	35	40	21	2298	1.9						
	28	50	25	2475	1.6						
	23.3	60	28	2630	1.3						
	17.5	80	33	2895	1.0						
	14	100	38	3118	0.8						
0.25	23.3	60	29	3610	2.3	GMRV040	63B5/B14	6314			
	17.5	80	35	3973	1.9						
	14	100	39	4280	1.4						
	373.3	7.5	4.0	542	3.2				GMRV030	63B5/B14	6312
	280	10	5.2	597	2.5						
	186.7	15	7.4	683	1.8						
	140	20	9.5	752	1.3						
	112	25	11	810	1.4						
	93.3	30	13	861	1.2						
	70	40	16	948	0.9						
186.7	7.5	7.7	683	2.3							
140	10	10	752	1.8							
93.3	15	14	861	1.3							
0.32	70	20	18	948	1.0	GMRV030	63B5/B14	6324			
	56	25	20	1021	1.0						
	46.7	30	24	1085	0.8						

减速机选型表 / GEAR UNIT SELECTION TABLES

P_{in} (kw)	n_2 (r/min)	i	M_{2m} (Nm)	F_{12} (N)	f_s						
0.18	93.3	30	14	1657	2.5	GMRV040	63B5/B14	6312			
	70	40	17	1824	1.8						
	56	50	21	1964	1.4						
	70	20	19	1824	2.1						
	56	25	23	1964	1.7						
	46.7	30	25	2087	1.8						
	35	40	32	2298	1.3						
	28	50	37	2475	1.0						
	23.3	60	42	2630	0.9						
	45	20	28	2113	1.6						
0.25	36	25	34	2276	1.3	GMRV040	71B5/B14	7116			
	30	30	38	2419	1.3						
	22.5	40	47	2662	1.0						
	46.7	60	24	2865	2.1						
	35	80	30	3153	1.5						
	28	100	34	3397	1.2						
	35	40	33	3153	2.3						
	28	50	39	3397	1.9						
	23.3	60	43	3610	1.6						
	17.5	80	52	3973	1.2						
0.32	14	100	59	4280	0.9	GMRV050	63B5	6324			
	18	50	56	3936	1.4						
	15	60	63	4183	1.1						
	11.3	80	75	4604	0.9						
	15	60	66	5467	2.1						
	11.3	80	79	6018	1.6						
	9	100	90	6270	1.4						
	373.3	7.5	5.6	542	2.3				GMRV030	63B5/B14	6322
	280	10	7.2	597	1.8						
	186.7	15	10	683	1.3						
140	20	13	752	0.9							
112	25	15	810	1.0							
93.3	30	18	861	0.8							
186.7	7.5	11	1315	3.6							
140	10	14	1447	2.8							
93.3	15	20	1657	2.0							
70	20	26	1824	1.5							
0.45	56	25	32	1964	1.2	GMRV040	71B5/B14	7114			
	46.7	30	35	2087	1.3						
	35	40	44	2298	0.9						
	120	7.5	17	1524	2.6						
	90	10	22	1677	2.0						
	60	15	31	1920	1.4						
	45	20	39	2113	1.1						
	36	25	48	2276	0.9						
	30	30	53	2419	0.9						
	0.63	30	30	53	2419				0.9	GMRV040	71B5/B14

减速机选型表 / GEAR UNIT SELECTION TABLES

P_{in} (kw)	n_2 (r/min)	i	M_{2n} (Nm)	F_{2a} (N)	f_s			
0.25	35	80	42	3153	1.1	GMRV050	63B5/B14	6322
	28	100	48	3397	0.8			
	70	20	27	2503	2.7	GMRV050	71B5/B14	7114
	56	25	32	2696	2.2			
	46.7	30	36	2865	2.3			
	35	40	46	3153	1.7			
	28	50	54	3397	1.4			
	23.3	60	60	3610	1.1			
	17.5	80	72	3973	0.9			
	45	20	40	2900	1.9	GMRV050	71B5/B14	7126
	36	25	48	3124	1.5			
	30	30	54	3320	1.7			
	22.5	40	67	3654	1.2			
	18	50	78	3936	1.0			
	15	60	88	4183	0.8			
	28	50	55	4440	2.4			
	23.3	60	63	4719	2.0	GMRV063	71B5/B14	7114
	17.5	80	76	5193	1.6			
	14	100	87	5595	1.4			
	18	50	81	5145	1.8			
15	60	92	5467	1.5				
11.3	80	110	6018	1.2	GMRV063	71B5/B14	7126	
9	100	125	6270	1.0				
17.5	80	80	6130	2.4				
14	100	94	6603	1.9	GMRV075	71B5	7114	
11.3	80	117	7103	1.7				
9	100	133	7380	1.4	GMRV075	71B5	7126	
0.37	373.3	7.5	8.3	1044	3.4	GMRV040	71B5/B14	7112
	280	10	11	1149	2.6			
	186.7	15	16	1315	1.9			
	140	20	20	1447	1.4			
	112	25	25	1559	1.1			
	186.7	7.5	16	1315	2.5	GMRV040	71B5/B14	7124
	140	10	21	1447	1.9			
	93.3	15	30	1657	1.3			
	70	20	39	1824	1.0			
	56	25	47	1964	0.8			
	46.7	30	52	2087	0.9	GMRV050	71B5/B14	7112
	112	25	25	2140	2.0			
	93.3	30	29	2274	2.2			
	70	40	37	2503	1.6			
	56	50	44	2696	1.2			
	46.7	60	50	2865	1.0			
	35	80	62	3153	0.7			
	140	10	21	1987	3.4	GMRV050	71B5/B14	7124
	93.3	15	31	2274	2.4			
	70	20	39	2503	1.9			

减速机选型表 / GEAR UNIT SELECTION TABLES

P_{in} (kw)	n_2 (r/min)	i	M_{2n} (Nm)	F_{2a} (N)	f_s			
0.37	56	25	47	2696	1.5	GMRV050	71B5/B14	7124
	46.7	30	54	2865	1.6			
	35	40	68	3153	1.1			
	28	50	80	3397	0.9			
	23.3	60	89	3610	0.8			
	120	7.5	25	2091	3.4	GMRV050	80B5/B14	8016
	90	10	33	2302	2.6			
	60	15	47	2635	1.8			
	45	20	59	2900	1.3			
	36	25	72	3124	1.0			
	30	30	80	3320	1.1			
	35	40	70	4122	2.1			
	28	50	82	4440	1.6	GMRV063	71B5/B14	7124
	23.3	60	94	4719	1.4			
	17.5	80	113	5193	1.1			
	14	100	129	5595	0.9			
	45	20	60	3791	2.4			
	36	25	73	4084	1.9	GMRV063	80B5/B14	8016
	30	30	82	4339	2.1			
	22.5	40	102	4776	1.6			
18	50	120	5145	1.2				
15	60	137	5467	1.0				
23.3	60	97	5569	2.1	GMRV075	71B5	7124	
17.5	80	119	6130	1.6				
14	100	139	6603	1.3				
18	50	124	6073	1.8				
15	60	141	6453	1.5				
11.3	80	173	7103	1.2	GMRV075	80B5/B14	8016	
9	100	196	7380	1.0				
11.3	80	185	7859	1.7				
9	100	212	8180	1.3	GMRV090	80B5/B14	8016	
0.55	373.3	7.5	12	1044	2.3	GMRV040	71B5/B14	7122
	280	10	16	1149	1.8			
	186.7	15	24	1315	1.3			
	140	20	30	1447	1.0			
	112	25	37	1559	0.8			
	140	20	31	1987	1.7	GMRV050	71B5/B14	7122
	112	25	38	2140	1.4			
	93.3	30	43	2274	1.5			
	70	40	55	2503	1.1			
	56	50	65	2696	0.8			
	46.7	60	74	2865	0.7	GMRV050	80B5/B14	8014
	186.7	7.5	24	1805	2.9			
	140	10	32	1987	2.3			
	93.3	15	46	2274	1.6			
	70	20	59	2503	1.2			
	56	25	70	2696	1.0			
	46.7	30	80	2865	1.1			

减速机选型表 / GEAR UNIT SELECTION TABLES

P_{in} (kw)	n_2 (r/min)	i	M_{2a} (Nm)	F_{12} (N)	f_s			
0.55	120	7.5	37	2091	2.3	GMRV050	80B5/B14	8026
	90	10	48	2302	1.7			
	60	15	69	2635	1.2			
	45	20	88	2900	0.9			
	70	40	56	3272	1.9			
	56	50	68	3524	1.5	GMRV063	71B5/B14	7122
	46.7	60	78	3745	1.2			
	35	80	96	4122	0.9			
	28	100	111	4440	0.7			
	70	20	60	3272	2.2			
	56	25	72	3524	1.8	GMRV063	80B5/B14	8014
	46.7	30	82	3745	1.9			
	35	40	104	4122	1.4			
	28	50	122	4440	1.1			
	23.3	60	140	4719	0.9			
	60	15	70	3444	2.2	GMRV063	80B5/B14	8026
	45	20	90	3791	1.6			
	36	25	108	4084	1.3			
	30	30	123	4339	1.4			
	22.5	40	152	4776	1.1			
	35	80	99	4865	1.3	GMRV075	71B5	7122
	28	100	116	5241	1.0			
	35	40	108	4865	2.0			
	28	50	128	5241	1.6			
	23.3	60	144	5569	1.4			
	17.5	80	177	6130	1.1	GMRV075	80B5/B14	8014
	14	100	206	6603	0.9			
	30	30	124	5122	2.1			
	22.5	40	156	5637	1.5			
	18	50	184	6073	1.2			
	15	60	210	6453	1.0	GMRV090	80B5/B14	8014
	17.5	80	189	6783	1.5			
	14	100	221	7306	1.2			
	18	50	196	6719	2.0			
	15	60	224	7140	1.6			
	11.3	80	275	7859	1.1	GMRV090	80B5/B14	8026
9	100	315	8180	0.9				
17.5	80	201	8571	2.6				
14	100	236	9232	2.0				
11.3	80	294	9931	1.9				
9	100	344	10320	1.5	GMRV110	80B5	8014	
					GMRV110	80B5	8026	

减速机选型表 / GEAR UNIT SELECTION TABLES

P_{in} (kw)	n_2 (r/min)	i	M_{2a} (Nm)	F_{12} (N)	f_s			
0.75	373.3	7.5	17	1433	3.0	GMRV050	80B5/B14	8012
	280	10	22	1577	2.4			
	186.7	15	31	1805	1.7			
	140	20	41	1987	1.3			
	112	25	49	2140	1.0			
	93.3	30	56	2274	1.1	GMRV050	80B5/B14	8024
	280	5	23	1577	2.7			
	186.7	7.5	33	1805	2.1			
	140	10	43	1987	1.7			
	93.3	15	62	2274	1.2			
	70	20	80	2503	0.9	GMRV063	80B5/B14	8012
	140	20	43	2597	2.3			
	112	25	52	2797	1.8			
	93.3	30	60	2973	2.0			
	70	40	77	3272	1.4			
	56	50	92	3524	1.1	GMRV063	80B5/B14	8024
	46.7	60	106	3745	0.9			
	93.3	15	63	2973	2.2			
	70	20	82	3272	1.6			
	56	25	98	3524	1.3			
	46.7	30	112	3745	1.4	GMRV063	80B5/B14	90S6
	35	40	141	4122	1.0			
	120	7.5	51	2734	2.9			
	90	10	67	3009	2.3			
	60	15	96	3444	1.6			
	45	20	123	3791	1.2	GMRV075	80B5/B14	8012
	36	25	147	4084	0.9			
	30	30	167	4339	1.0			
	46.7	60	107	4421	1.3			
	35	80	135	4865	1.0			
	28	100	159	5241	0.8	GMRV075	80B5/B14	8024
	56	25	101	4160	2.0			
	46.7	30	117	4421	2.0			
	35	40	147	4865	1.5			
	28	50	174	5241	1.2			
	23.3	60	196	5569	1.0	GMRV075	90B5/B14	90S6
60	15	97	4065	2.4				
45	20	124	4474	1.9				
36	25	149	4820	1.4				
30	30	170	5122	1.5				
22.5	40	213	5637	1.1	GMRV090	80B5/B14	8012	
35	80	143	5383	1.6				
28	100	169	5799	1.2				
28	50	182	5799	1.9				
23.3	60	209	6163	1.5				
17.5	80	258	6783	1.1	GMRV090	80B5/B14	8024	
14	100	302	7306	0.9				

减速机选型表 / GEAR UNIT SELECTION TABLES

P_{in} (kw)	n_2 (r/min)	i	M_{2m} (Nm)	F_{2t} (N)	f_s			
0.75	30	30	179	5667	2.6	GMRV090	90B5/B14	90S6
	22.5	40	226	6238	1.8			
	18	50	267	6719	1.5			
	15	60	306	7140	1.1			
	17.5	80	274	8571	1.9	GMRV110	80B5	8024
	14	100	322	9232	1.5			
	15	80	325	9023	2.1	GMRV110	90B5	90S6
	11.3	80	401	9931	1.4			
	9	100	470	10320	1.1			
	11.3	80	401	12989	2.1	GMRV130	90B5	90S6
9	100	470	13500	1.7				
1.1	373.3	7.5	25	1433	2.1	GMRV050	80B5/B14	8022
	280	10	33	1577	1.7			
	186.7	15	48	1805	1.2			
	140	20	62	1987	0.9			
	186.7	15	46	2359	2.1			
	140	20	60	2597	1.6	GMRV063	80B5/B14	8022
	112	25	72	2797	1.2			
	93.3	30	82	2973	1.4			
	70	40	104	3272	1.0			
	120	7.5	75	2734	2.0			
	90	10	98	3009	1.6	GMRV063	90B5/B14	90L6
	60	15	140	3444	1.1			
	45	20	180	3791	0.8			
	186.7	7.5	50	2359	2.6			
	140	10	65	2597	2.0			
	93.3	15	92	2973	1.5	GMRV063	90B5/B14	90S4
	70	20	120	3272	1.1			
	56	25	144	3524	0.9			
	46.7	30	164	3745	1.0			
	112	25	77	3302	2.0			
	93.3	30	89	3509	1.9	GMRV075	80B5/B14	8022
	70	40	114	3862	1.4			
	56	50	137	4160	1.1			
	46.7	60	158	4421	0.9			
	90	10	98	3551	2.3			
	60	15	142	4065	1.7	GMRV075	90B5/B14	90L6
	45	20	182	4474	1.3			
	36	25	219	4820	1.0			
	30	30	249	5122	1.0			

减速机选型表 / GEAR UNIT SELECTION TABLES

P_{in} (kw)	n_2 (r/min)	i	M_{2m} (Nm)	F_{2t} (N)	f_s			
1.1	93.3	15	95	3509	2.1	GMRV075	90B5/B14	90S4
	70	20	122	3862	1.7			
	56	25	148	4160	1.3			
	46.7	30	171	4421	1.3			
	35	40	216	4865	1.0			
	35	80	210	5383	1.1	GMRV090	80B5/B14	8022
	28	100	248	5799	0.8			
	36	25	228	5333	1.6			
	30	30	263	5667	1.8			
	22.5	40	331	6238	1.2			
	18	50	391	6719	1.0	GMRV090	90B5/B14	90L6
	15	60	448	7140	0.8			
	35	40	222	5383	1.6			
	28	50	266	5799	1.3			
	23.3	60	306	6163	1.0			
	22.5	40	345	7882	2.3	GMRV110	90B5	90L6
	18	50	414	8491	1.8			
	15	60	476	9023	1.4			
	11.3	80	588	9931	1.0			
	28	50	278	7328	2.4			
23.3	60	324	7787	1.9	GMRV110	90B5	90S4	
17.5	80	402	8571	1.3				
14	100	473	9232	1.0				
11.3	80	588	12989	1.5				
9	100	689	13500	1.1				
17.5	80	408	11210	2.1	GMRV130	90B5	90S4	
14	100	480	12076	1.5				
1.5	373.3	7.5	34	1433	1.5	GMRV050	80B5/B14	8032
	280	10	45	1577	1.2			
	186.7	15	65	1805	0.9			
	186.7	7.5	68	2359	1.9			
	140	10	88	2597	1.5			
	93.3	15	126	2973	1.1	GMRV063	90B5/B14	90L4
	70	20	164	3272	0.8			
	373.3	7.5	35	1873	2.7			
	280	10	45	2061	2.2			
	186.7	15	66	2359	1.6			
	140	20	86	2597	1.2	GMRV063	90B5/B14	90S2
	112	25	105	2797	0.9			
	93.3	30	120	2973	1.0			
	120	7.5	103	3227	2.1			
	90	10	134	3551	1.7			
	60	15	193	4065	1.2	GMRV075	100B5/B14	100L6
	56	50	187	4160	1.3			
	46.7	60	215	4421	1.1			
	140	10	89	3065	2.2			
	93.3	15	129	3509	1.6			
70	20	166	3862	1.3	GMRV075	90B5/B14	90L4	
56	25	202	4160	1.0				

减速机选型表 / GEAR UNIT SELECTION TABLES

P_m (kw)	n_2 (r/min)	i	M_{2m} (Nm)	F_{12} (N)	f_s			
1.5	46.7	30	233	4421	1.0	GMRV075	90B5/B14 90L4	
	280	10	45	2433	3.2	GMRV075	90B5/B14 90S2	
	186.7	15	66	2785	2.3			
	140	20	86	3065	1.9			
	112	25	105	3302	1.4			
	93.3	30	121	3509	1.4			
	70	40	156	3862	1.1			
	90	10	137	3929	2.7	GMRV090	100B5/B14 100L6	
	60	15	198	4498	2.1			
	45	20	258	4951	1.5			
	36	25	310	5333	1.2			
	30	30	358	5667	1.3			
	70	20	170	4273	2.1			
	56	25	207	4603	1.6	GMRV090	90B5/B14 90L4	
	46.7	30	239	4891	1.7			
	35	40	303	5383	1.2			
	28	50	363	5799	0.9			
	23.3	60	417	6163	0.8			
	56	50	197	4603	1.3			
	46.7	60	227	4891	1.1	GMRV090	90B5/B14 90S2	
	45	20	264	6256	2.7			
	36	25	322	6739	2.4			
	30	30	363	7161	2.3			
	22.5	40	471	7882	1.7			
	18	50	565	8491	1.3			
	15	60	649	9023	1.1	GMRV110	100B5 100L6	
	35	40	315	6803	2.2			
	28	50	379	7328	1.7			
	23.3	60	442	7787	1.4			
	17.5	80	548	8571	0.9			
46.7	60	236	6181	2.0				
35	80	299	6803	1.3	GMRV110	90B5 90S2		
28	100	358	7328	1.0				
22.5	40	471	10309	2.3				
18	50	565	11105	1.9				
15	60	659	11801	1.4				
11.3	80	802	12989	1.1				
17.5	80	557	11210	1.5	GMRV130	100B5 100L6		
14	100	655	12076	1.1				
373.3	7.5	51	1873	1.8				
280	10	66	2061	1.5			GMRV063	90B5/B14 90L2
186.7	15	97	2359	1.1				
186.7	7.5	99	2785	1.9				
140	10	131	3065	1.5	GMRV075	100B5/B14 100L1-4		
93.3	15	189	3509	1.1				
373.3	7.5	50	2210	2.6				
280	10	66	2433	2.2	GMRV075	90B5/B14 90L2		
186.7	15	97	2785	1.5				
140	20	126	3065	1.3				

减速机选型表 / GEAR UNIT SELECTION TABLES

P_m (kw)	n_2 (r/min)	i	M_{2m} (Nm)	F_{12} (N)	f_s		
2.2	112	25	154	3302	1.0	GMRV075	100B5/B14 90L2
	93.3	30	178	3509	1.0		
	186.7	7.5	100	3081	2.9		
	140	10	132	3391	2.3	GMRV090	100B5/B14 100L1-4
	93.3	15	191	3882	1.9		
	70	20	249	4273	1.4		
	56	25	304	4603	1.1		
	46.7	30	351	4891	1.2		
	120	7.5	154	3570	2.2		
	90	10	201	3929	1.8	GMRV090	112B5/B14 112M6
	60	15	291	4498	1.4		
	45	20	378	4951	1.0		
	140	20	129	3391	2.0		
	112	25	159	3653	1.6		
	93.3	30	185	3882	1.7		
	70	40	237	4273	1.2	GMRV090	90B5/B14 90L2
	56	50	289	4603	0.9		
	70	20	255	5399	2.5		
	56	25	311	5816	2.2		
	46.7	30	356	6181	2.0		
	35	40	462	6803	1.5		
	28	50	555	7328	1.2	GMRV110	100B5 100L1-4
	23.3	60	648	7787	1.0		
	90	10	203	4965	3.5		
	60	15	294	5684	2.6		
	45	20	388	6256	1.9		
	36	25	473	6739	1.6		
	30	30	532	7161	1.6	GMRV110	112B5 112M6
	112	25	161	4616	3.1		
	93.3	30	187	4905	3.0		
70	40	243	5399	2.2			
56	50	296	5816	1.7			
46.7	60	347	6181	1.4			
35	40	468	8897	2.2	GMRV110	90B5 90L2	
28	50	563	9584	1.7			
23.3	60	657	10185	1.4			
17.5	80	816	11210	1.0			
36	25	473	8814	2.2			
30	30	539	9366	2.2			
22.5	40	691	10309	1.6	GMRV130	112B5 112M6	
18	50	829	11105	1.3			
15	60	966	11801	1.0			
35	80	444	8897	1.3			
28	100	525	9584	1.0			
28	50	570	13103	2.5			
23.3	60	657	13924	1.9	GMRV130	100B5 90L2	
17.5	80	816	15325	1.4			
14	100	960	16508	1.0			
14	100	960	16508	1.0			

减速机选型表 / GEAR UNIT SELECTION TABLES

P_{in} (kw)	n_2 (r/min)	i	M_{2n} (Nm)	F_{12} (Nm)	f_s		
3.0	373.3	7.5	68	2210	1.9	GMRV075 100B5/B14	100L2
	280	10	90	2433	1.6		
	186.7	7.5	135	2785	1.4	GMRV075 100B5/B14	100L2-4
	140	10	178	3065	1.1		
	93.3	15	258	3509	0.8		
	373.3	7.5	70	2446	3.0		
	280	10	92	2692	2.6	GMRV090 100B5/B14	100L2
	186.7	7.5	137	3081	2.1		
	140	10	180	3391	1.7	GMRV090 100B5/B14	100L2-4
	93.3	15	261	3882	1.4		
	70	20	340	4273	1.0		
	56	25	414	4603	0.8		
	46.7	30	479	4891	0.9		
	93.3	15	264	4905	2.5		
	70	20	348	5399	1.9		
	56	25	425	5816	1.6		
	46.7	30	485	6181	1.5	GMRV110 100B5	100L2-4
	35	40	630	6803	1.1		
	28	50	757	7328	0.9		
	120	7.5	210	4511	3.1		
	90	10	277	4965	2.6		
	60	15	401	5684	1.9		
	45	20	528	6256	1.4		
	56	25	430	7607	2.2		
	46.7	30	491	8084	2.1	GMRV130 100B5	100L2-4
	35	40	638	8897	1.6		
	28	50	767	9584	1.3		
	23.3	60	896	10185	1.0		
17.5	80	1113	11210	0.8			
90	10	277	6494	3.5			
60	15	406	7434	2.6			
45	20	528	8182	2.0			
36	25	645	8814	1.6	GMRV130 132B5	132S6	
30	30	735	9366	1.6			
22.5	40	942	10309	1.2			
28	50	778	13103	1.8			
23.3	60	896	13924	1.4			
17.5	80	1113	15325	1.0			
14.0	100	1310	16508	0.8			
17.5	80	1113	15325	1.0			GMRV150 100B5
14.0	100	1310	16508	0.8			
4.0	373.3	7.5	91	2210	1.4	GMRV075 112B5/B14	112M2
	280	10	120	2433	1.2		
	186.7	7.5	180	2785	1.0	GMRV075 112B5/B14	112M4
	140	10	237	3065	0.8		
	373.3	7.5	93	2446	2.3	GMRV090 112B5/B14	112M2
	280	10	123	2692	1.9		
	186.7	7.5	182	3081	1.6	GMRV090 112B5	112M4
	140	10	240	3391	1.3		
	93.3	15	348	3882	1.0		
	70	20	453	4273	0.8		

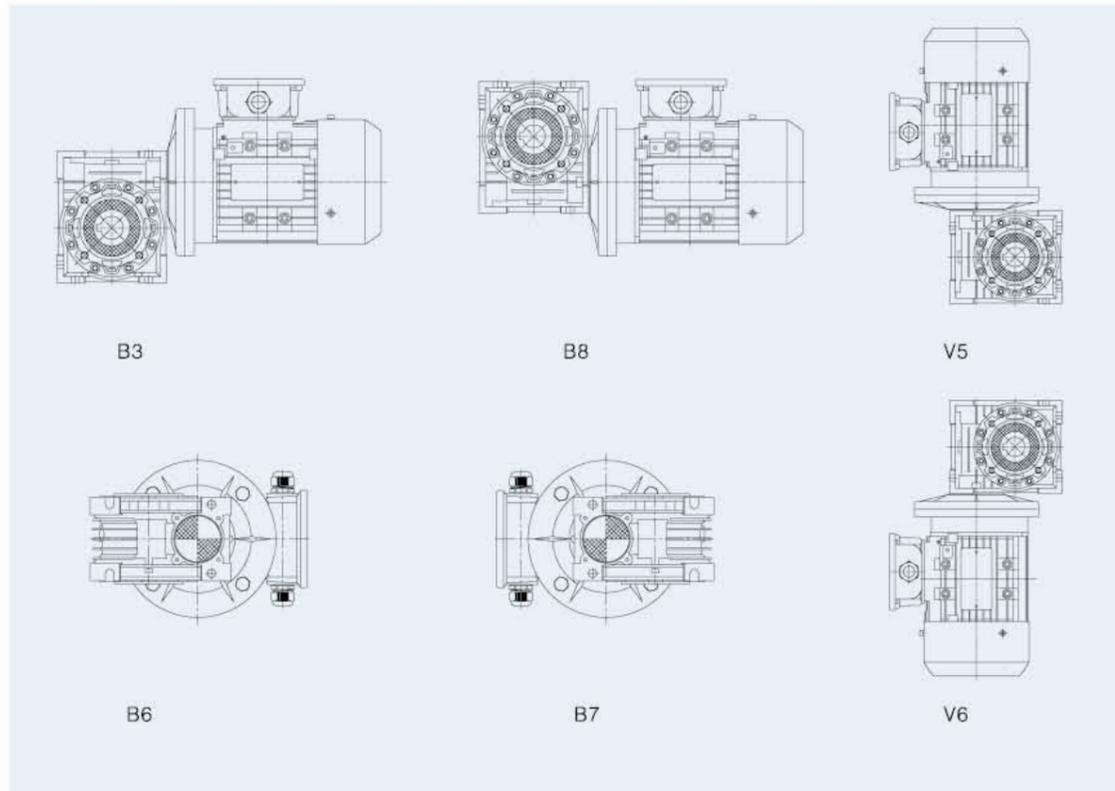
减速机选型表 / GEAR UNIT SELECTION TABLES

P_{in} (kw)	n_2 (r/min)	i	M_{2n} (Nm)	F_{12} (N)	f_s		
4.0	140	10	240	4285	2.5	GMRV110 112B5	112M4
	93.3	15	352	4905	1.9		
	70	20	464	5399	1.4		
	56	25	566	5816	1.2		
	46.7	30	647	6181	1.1	GMRV110 132B5	132M1-6
	120	7.5	280	4511	2.3		
	90	10	369	4965	1.9		
	60	15	535	5684	1.4		
	56	25	573	7607	1.6	GMRV130 112B5	112M4
	46.7	30	655	8084	1.6		
	35	40	851	8897	1.2		
	28	50	1023	9584	1.0		
	23.3	60	1195	10185	0.8	GMRV130 132B5	132M1-6
	120	7.5	283	5901	3.1		
	90	10	369	6494	2.6		
	60	15	541	7434	2.0		
	45	20	705	8182	1.5	GMRV150 112B5	112M4
	36	25	860	8814	1.2		
	28	50	1037	13103	1.4		
	23.3	60	1195	13924	1.1		
17.5	80	1484	15325	0.8	GMRV110 132B5	132S4	
186.7	7.5	250	3893	2.2			
140	10	330	4285	1.8			
93.3	15	484	4905	1.4			
70	20	638	5399	1.0			
140	10	334	5605	2.5			
93.3	15	490	6416	1.9			
70	20	638	7062	1.4			
56	25	788	7607	1.2			
46.7	30	900	8084	1.2			
35	40	1171	8897	0.9			
70	20	645	9654	2.0			
56	25	788	10400	1.5			
46.7	30	934	11051	1.3			
35.0	40	1171	12163	1.3			
28.0	50	1426	13103	1.0			
23.3	60	1643	13924	0.8			
7.5	186.7	7.5	341	3893	1.6	GMRV110 132B5	132M4
	140	10	450	4285	1.3		
	93.3	15	660	4905	1.0		
	186.7	7.5	345	5092	2.2		
	140	10	455	5605	1.8	GMRV130 132B5	132M4
	93.3	15	668	6416	1.4		
	70	20	870	7062	1.0		
	56	25	1074	7607	0.9		
	46.7	30	1228	8084	0.8	GMRV150 132B5	132M4
	35	40	1596	8897	0.7		
	70	20	880	9654	1.5		
	56	25	1074	10400	1.1		

P_{1n} (kw)	n_2 (r/min)	i	M_{2n} (Nm)	F_{12} (N)	f_s		
7.5	46.7	30	1274	11051	0.9	GMRV150	132B5
	35	40	1596	12163	1.0		
11	186.7	7.5	512	6962	2.3	GMRV150	160B5
	140	10	675	7663	1.8		
	93.3	15	990	8771	1.3		
	70.0	20	1291	9654	1.0		
	56.0	25	1576	10400	0.8		
15	186.7	7.5	698	6962	1.7	GMRV150	160L4
	140	10	921	7663	1.3		
	93.3	15	1351	8771	0.9		
	70.0	20	1760	9654	0.7		

减速机安装方位 / GEAR BOX INSTALLATION POSITION

GMRV与电机安装方位 / GMRV AND MOTOR MOUNTING POSITION



注: 如在订货时无特别说明, 将按B3安装方式供货。
Remarks: unless specified otherwise, the standard position are B3.

GMRV 配件系列 / GMRV ACCESSORIES SERIES

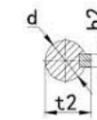
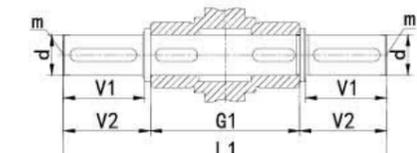
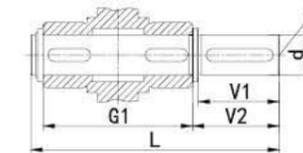
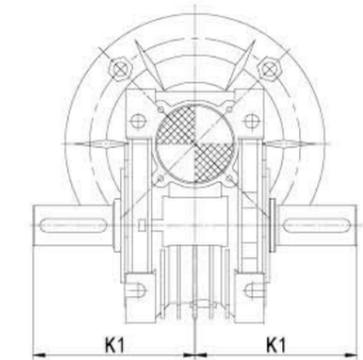
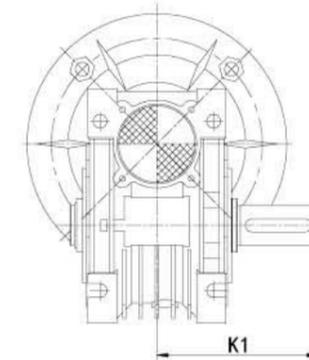
输出轴尺寸 / OUTPUT SHAFT DIMENSION



单向输出轴 (SS)



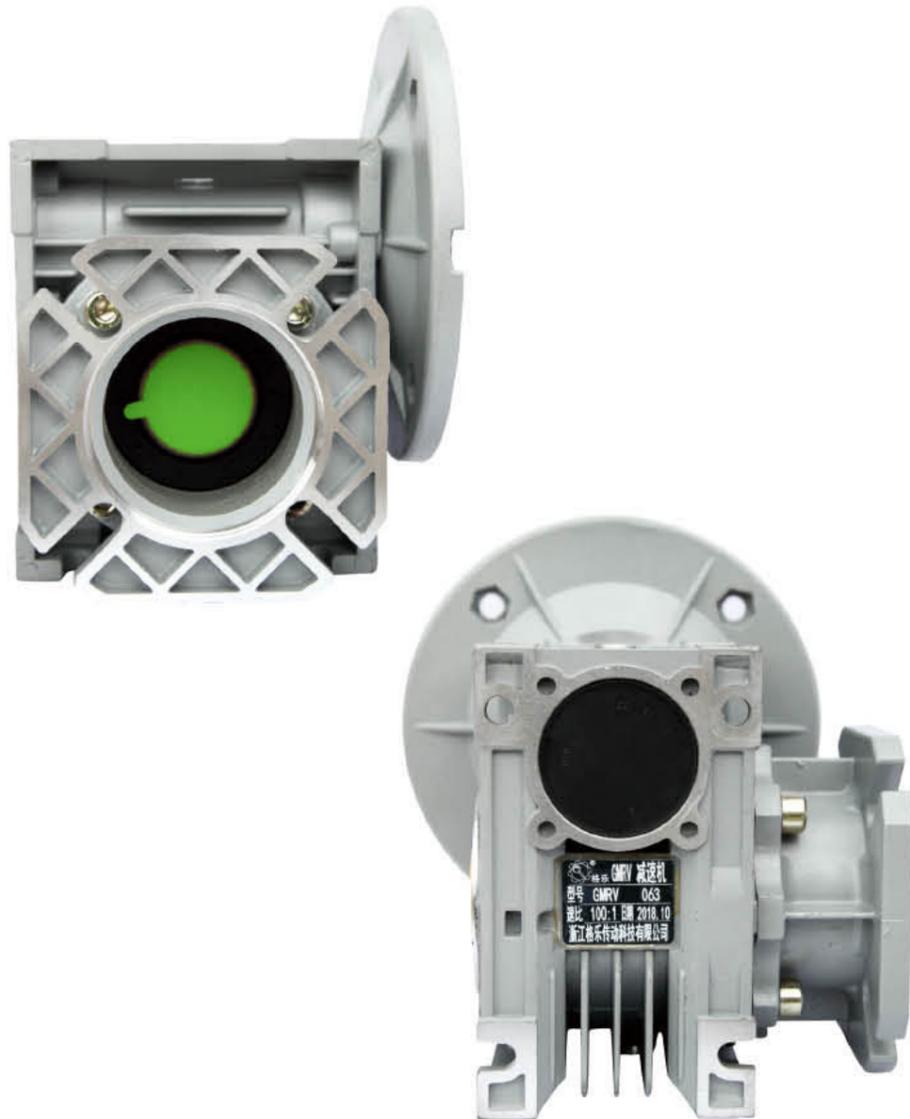
双向输出轴 (DS)



GMRV	G1	K1	L	L1	b2	t2	d(h6)	m	V1	V2
030	63	64	102	128	5	16	14	M6	30	32.5
040	78	82	128	164	6	20.5	18	M6	40	43
050	92	99.5	153	199	8	28	25	M10	50	53.5
063	112	109.5	173	219	8	28	25	M10	50	53.5
075	120	123.5	192	247	8	31	28	M10	60	63.5
090	140	154.5	234	309	10	38	35	M12	80	84.5
110	155	162	249	324	12	45	42	M16	80	84.5
130	170	170	265	340	14	48.5	45	M16	80	85
150	200	187	297	374	14	53.5	50	M16	82	87

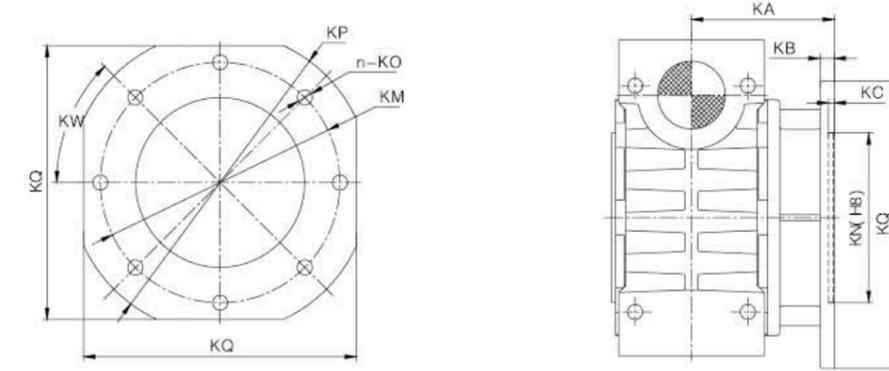
GMRV 配件系列 / GMRV ACCESSORIES SERIES

输出法兰 (F) 尺寸 / OUTPUT FLANGE DIMENSIONS (F)



GMRV 配件系列 / GMRV ACCESSORIES SERIES

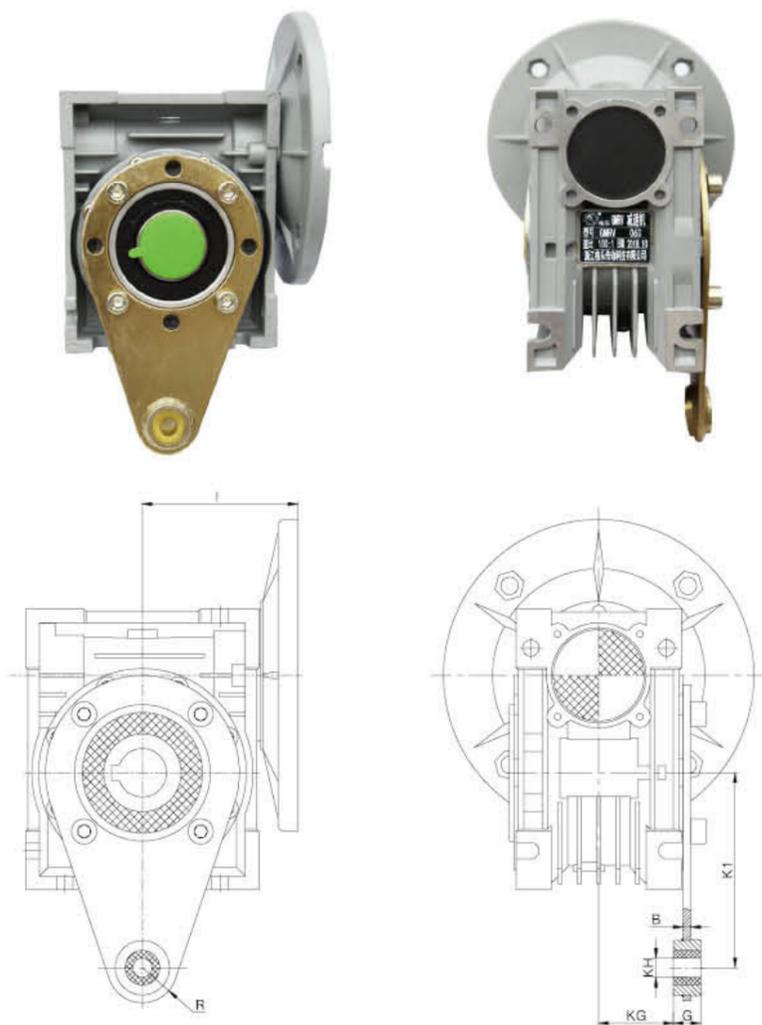
输出法兰 (F) 尺寸 / OUTPUT FLANGE DIMENSIONS (F)



GMRV	030	040	050	063	075	090	110	130	150	
FA	KA	54.5	67	90	82	111	111	139	152	155
	KB	6	7	9	10	13	13	15	15	15
	KC	4	4	5	6	6	6	6	6	6
	KN	50	60	70	115	130	152	170	180	180
	KM	68	75	85	150	165	175	230	255	255
	KO	6.5(n=4)	9(n=4)	11(n=4)	11(n=4)	14(n=4)	14(n=4)	14(n=8)	16(n=8)	16(n=8)
	KP	80	110	125	180	200	210	280	320	320
	KQ	70	95	110	142	170	200	260	290	290
	KW	45°	45°	45°	45°	45°	45°	45°	45°	22.5°
	KA	-	97	120	112	-	122	-	-	-
FB	KB	-	7	9	10	-	18	-	-	-
	KC	-	4	5	6	-	6	-	-	-
	KN	-	60	70	115	-	180	-	-	-
	KM	-	75	85	150	-	215	-	-	-
	KO	-	9(n=4)	11(n=4)	11(n=4)	-	14(n=4)	-	-	-
	KP	-	110	125	180	-	250	-	-	-
	KQ	-	95	110	142	-	-	-	-	-
	KW	-	45°	45°	45°	-	45°	-	-	-
	KA	-	80	89	98	-	110	-	-	-
	KB	-	9	10	10	-	17	-	-	-
FC	KC	-	5	5	5	-	6	-	-	-
	KN	-	95	110	130	-	130	-	-	-
	KM	-	115	130	165	-	165	-	-	-
	KO	-	9.5(n=4)	9.5(n=4)	11(n=4)	-	11(n=4)	-	-	-
	KP	-	140	160	200	-	200	-	-	-
	KW	-	45°	45°	45°	-	45°	-	-	-
	KA	-	58	72	107	-	151	-	-	-
	KB	-	12	14.5	10	-	13	-	-	-
	KC	-	5	5	5	-	6	-	-	-
	KN	-	80	95	130	-	152	-	-	-
FD	KM	-	100	115	165	-	175	-	-	-
	KO	-	9(n=4)	11(n=4)	11(n=4)	-	14(n=4)	-	-	-
	KP	-	120	140	200	-	210	-	-	-
	KW	-	45°	45°	45°	-	45°	-	-	-
	KA	-	-	-	80.5	-	-	-	-	-
	KB	-	-	-	16.5	-	-	-	-	-
	KC	-	-	-	5	-	-	-	-	-
	KN	-	-	-	110	-	-	-	-	-
	KM	-	-	-	130	-	-	-	-	-
	KO	-	-	-	11(n=4)	-	-	-	-	-
FE	KP	-	-	-	160	-	-	-	-	-
	KW	-	-	-	45°	-	-	-	-	-

GMRV 配件系列 / GMRV ACCESSORIES SERIES

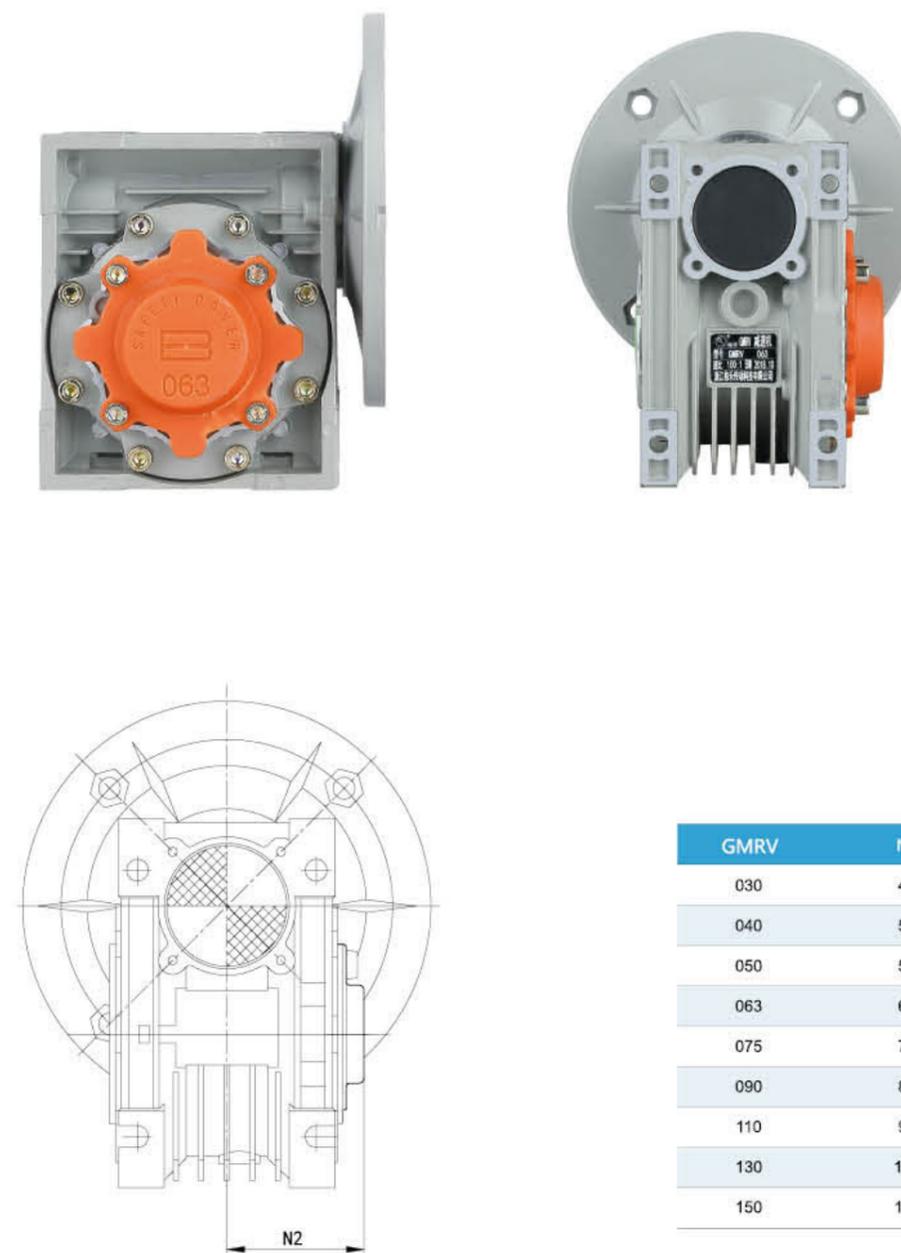
扭力臂 (A) 尺寸 / TORQUE ARM (A) DIMENSION



GMRV	B	I	K1	G	KG	KH	R
025	4	45	70	14	17.5	8	15
030	4	55	85	14	24	8	15
040	4	70	100	14	31.5	10	18
050	4	80	100	14	38.5	10	18
063	6	95	150	14	49	10	18
075	6	112.5	200	25	47.5	20	30
090	6	129.5	200	25	57.5	20	30
110	6	160	250	30	62	25	35
130	6	179	250	30	69	25	35
150	8	210	250	30	84	25	35

GMRV 配件系列 / GMRV ACCESSORIES SERIES

防尘盖尺寸 / PLASTIC COVER DIMENSION



GMRV	N2
030	42
040	50
050	58
063	69
075	74
090	85
110	94
130	102
150	117

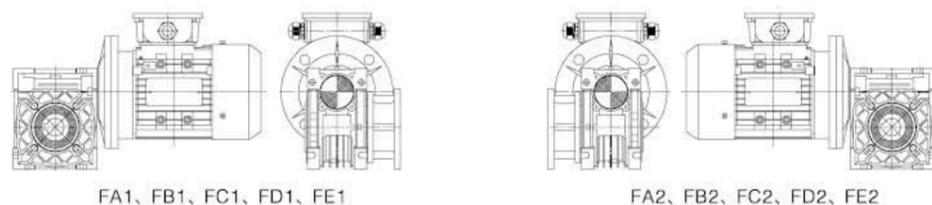
配件安装方位 / ACCESSORIES INSTALLATION POSITION

输出轴位置 / OUTPUT SHAFT POSITION



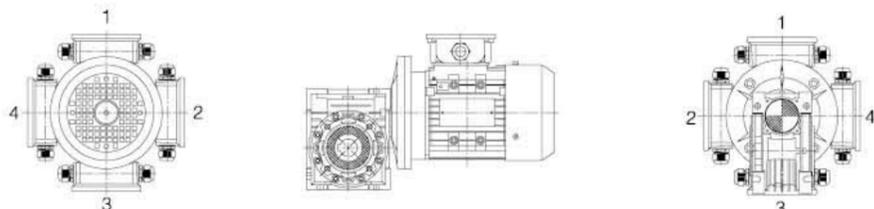
注：如没有特别说明，将按照如图DZ1和B3安装方面的组合样式供货。
Unless specified otherwise, the reduction unit is supplied with the shaft in pso. SS1 referred to position B3.

输出法兰位置 / OUTPUT FLANGE POSITION



注：如没有特别说明，将按照如图F...1和B3安装方面的组合样式供货。
Unless specified otherwise, the reduction unit is supplied with the shaft in pso. f...1 referred to position B3.

电机接线盒位置 / MOTOR TERMINAL BOX POSITION



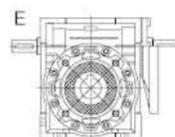
注：如对电机接线盒位置有特别要求，订购时须参考上图的要求指定接线盒方位，否则接线盒方位将按安装方位图表中的方位提供。
In the case of special requirements, when ordering, specify the position of terminal box as shown in the diagram.

扭力臂(A)位置 / TORQUE ARM (A) POSITION



注：如没有特别说明，将按照如图A1和B3安装方面的组合样式供货。
Unless specified otherwise, the reduction unit is supplied with torque arm in pso. A1 referred to position B3.

输出轴 (E) OUTPUT SHAFT (E) POSITION



 **UDL SERIES**
UDL系列
应用领域：酒水饮料自动化生产

产品概述 / PRODUCTS OVERVIEW

UDL系列无级变速器的设计，融合了国内外的先进技术，产品具有以下特点：

1. 调整精度高：达0.5 - 1转。
2. 变速范围大，输出速比可在1：1.4至1：7之间任意变化。
3. 强度高，寿命长。
4. 调速方便。
5. 可连续工作运转，且可正反方向运转，运转平稳，性能稳定，噪音低。
6. 全密封，对环境要求低。
7. 机构紧凑，体积小。
8. 采取优质铝合金压铸成型，外形美观，重量轻，永不生锈。
9. 适应性好。UDL系列无级变速器可与各种减速机组合，实现低速无级变速。

UDL系列无级变速器可广泛应用于食品、包装、化工、制药、塑料、造纸、机床、交通以及各种需调速的自动生产线、输送线、装配流水线，是您机器上理想的伙伴。

The design of UDL series stepless speed variator compromises the advanced technology both at home and abroad. The products include the following main characteristics:

1. High speed-regulating precision: 0.5-1 rotation
2. High speed-changing range: The speed ratio ranges from 1:1.4 to 1:7 freely.
3. High in strength and long in service life.
4. Convenient to regulate the speed.
5. Continuous in running, front-to-back in running direction, smooth in driving, stable in performance and low in noise.
6. Full in sealing and suitable for any environment.
7. Compact in structure and small in volume
8. Made of high-quality aluminium alloy diecast into forming, good-looking in appearance, light in weight and it never gets rusty
9. Good in adaptation: UDL series stepless speed variators can be combined with all kinds of speed reducers, as to achieve low stepless speed-changing.

UDL series stepless speed variators are widely used for foodstuffs, packing, chemicals, pharmacy, plastics, paper-making, machine-tools, communications, and all kinds of automatic lines, pipelines and assembly lines which need speed-regulating. It is a good companion for production.

型号说明 / MODEL ILLUMINATE

无级变速器 STEPLESS SPEED VARIATOR

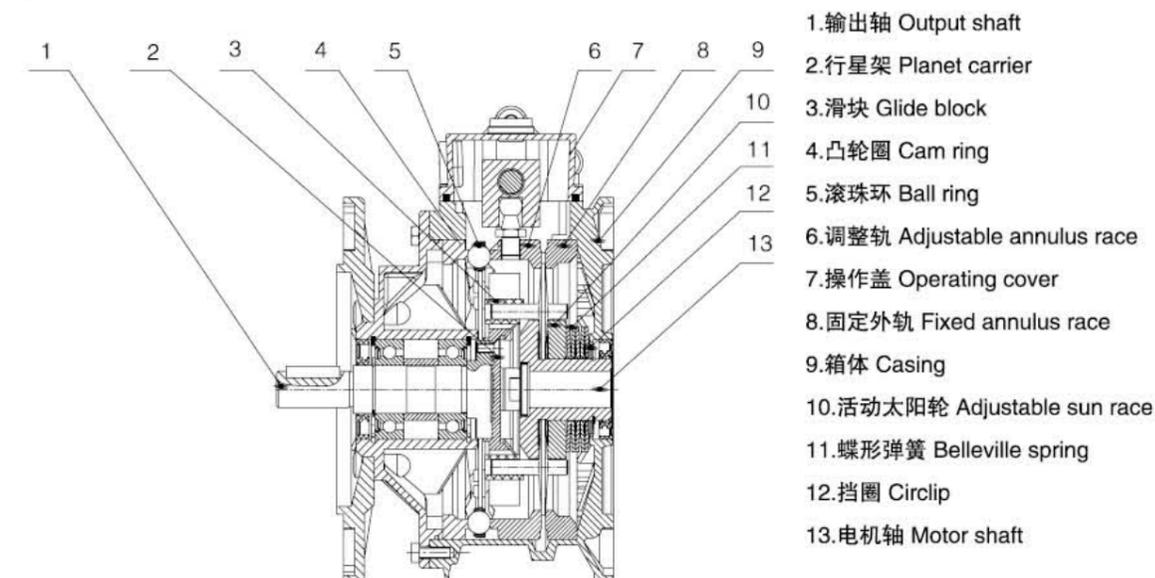


NO	说明	Comments
1	无级变速器代号	Code of stepless speed variator
2	L: 铝合金机壳 不标注时为铸铁机壳	L: Aluminium alloy casing No mark means cast iron casing
3	无级变速器机座号	frame NO. of stepless speed variator
4	B3: 底脚安装机型 B5: 法兰安装机型	B3: Foot-mounted model B5: Flange-mounted model
5	电机功率	Motor power
6	电机接线盒位置, 默认位置1可以不写	Position diagram for motor terminal box default position 1 not to write out is ok

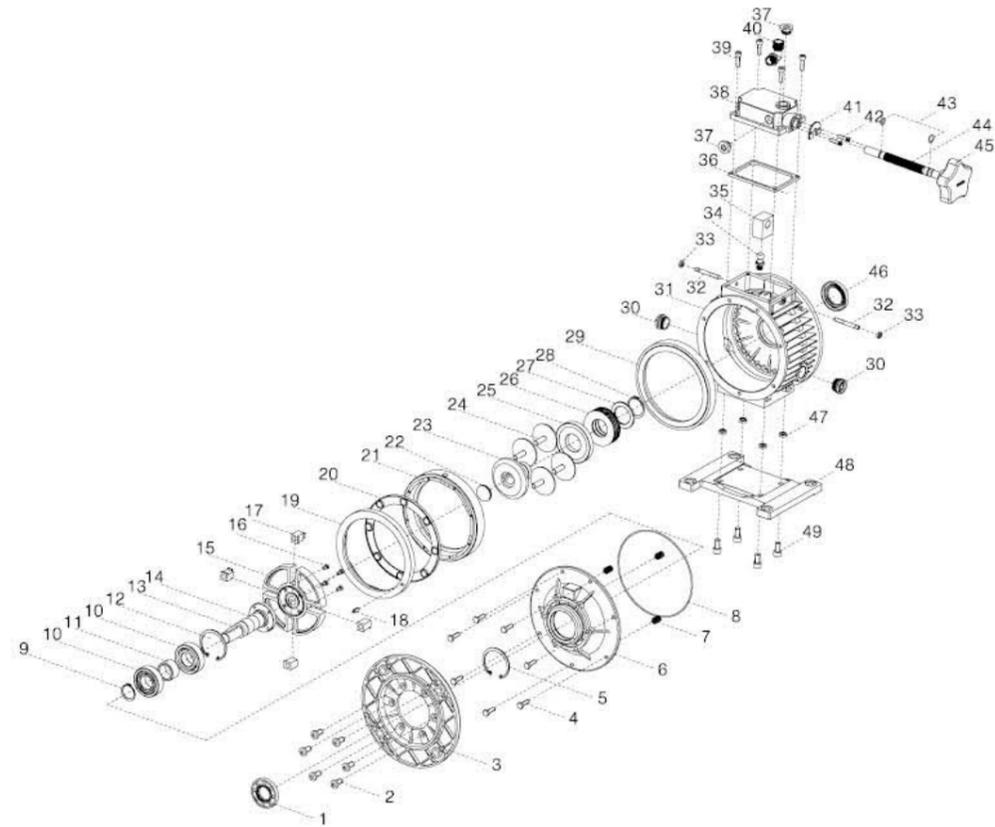
订单时请说明是否带电机，一般按不带电机供应。

Unless specified otherwise, the variators are supplied without motors.

结构 STRUCTURE



UDL结构分解图 / UDL EXPLODED VIEW

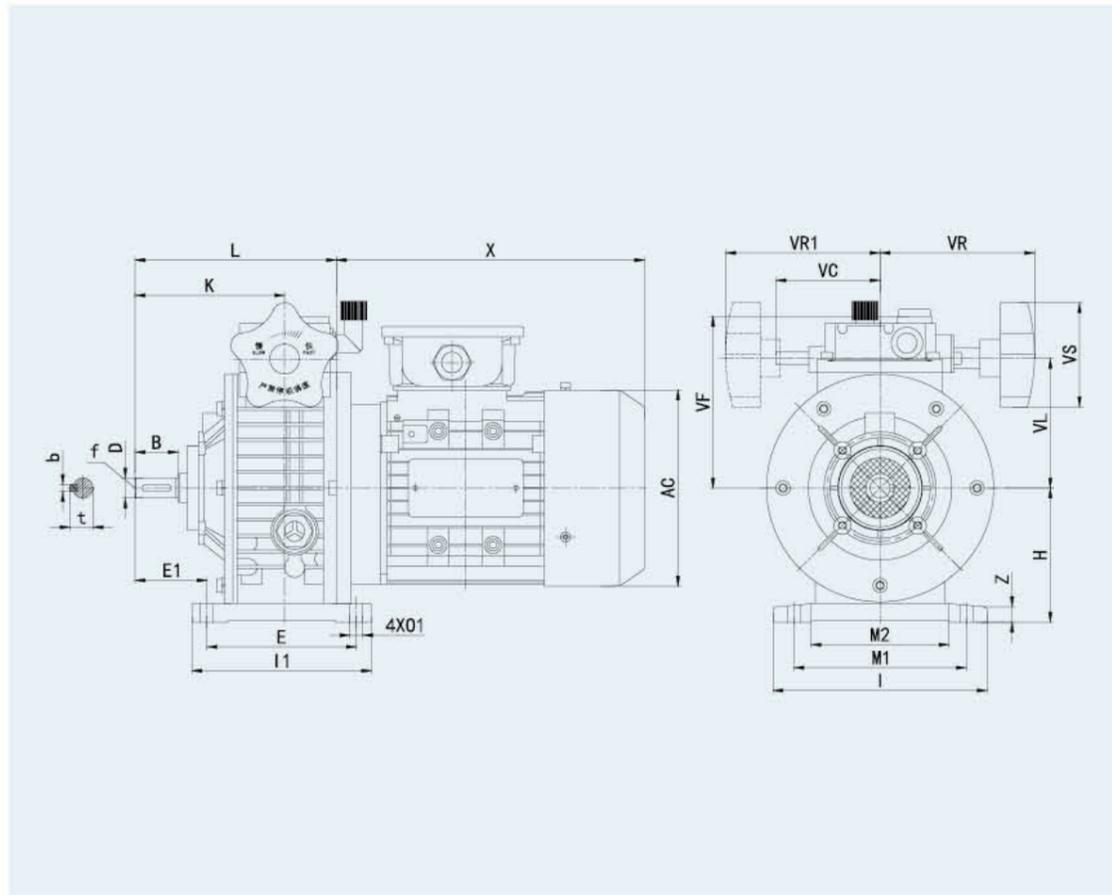


1	油封 (Oil seal)	11	轴承隔套 Bearing spacer	21	调整轨 Adjustable annulus race	31	箱体 Case	41	挡板 Locating piece
2	六角圆柱头螺栓 Hexagon socket head cap bolt	12	孔用挡圈 Circlip for hole	22	黑盖 Black cover	32	螺栓 (Bolt)	42	螺钉 (Screws)
3	输出法兰 (Output flanges)	13	平键 Key	23	固定太阳轮 Fixed sun race	33	螺母 (Nut)	43	O型橡胶密封圈 (O-ring)
4	外六角圆柱头螺栓 Hexagon bolt	14	输出轴 (Output shaft)	24	行星锥盘 (Planet cone-disk)	34	球头螺丝 Ball head screw	44	调节杆 Regulating screw rod
5	孔用挡圈 Circlip for hole	15	行星架 Planet	25	活动太阳轮 Adjustable sun race	35	操作块 Regulating block	45	手轮 Handwheel
6	输出端盖 (Output cover)	16	螺钉 (Screws)	26	蝶形弹簧 Belleville spring	36	橡胶垫片 Rubber gasket	46	油封 (Oil seal)
7	弹簧 (Spring)	17	滑块 Guide block	27	挡圈 Circlip	37	油塞 (Oil plug)	47	螺母 (Nut)
8	O型圈 (O-ring)	18	圆柱销 Straight pin	28	轴用挡圈 Circlip for shaft	38	操作盖 (Operating cover)	48	底脚 Feet
9	轴用挡圈 Circlip for shaft	19	凸轮圈 Cam ring	29	固定外轨 Fixed annulus race	39	内六角圆柱头螺栓 Hexagon socket head cap bolt	49	内六角圆柱头螺栓 Hexagon socket head cap bolt
10	轴承 (bearing)	20	滚珠环 (Ball ring)	30	油镜 Oil level plug	40	弯管 Bent pipe		

UDL-B3产品介绍 / UDL-B3 PRODUCT INTRODUCTION



UDL-B3尺寸 / UDL - B3 DIMENSION



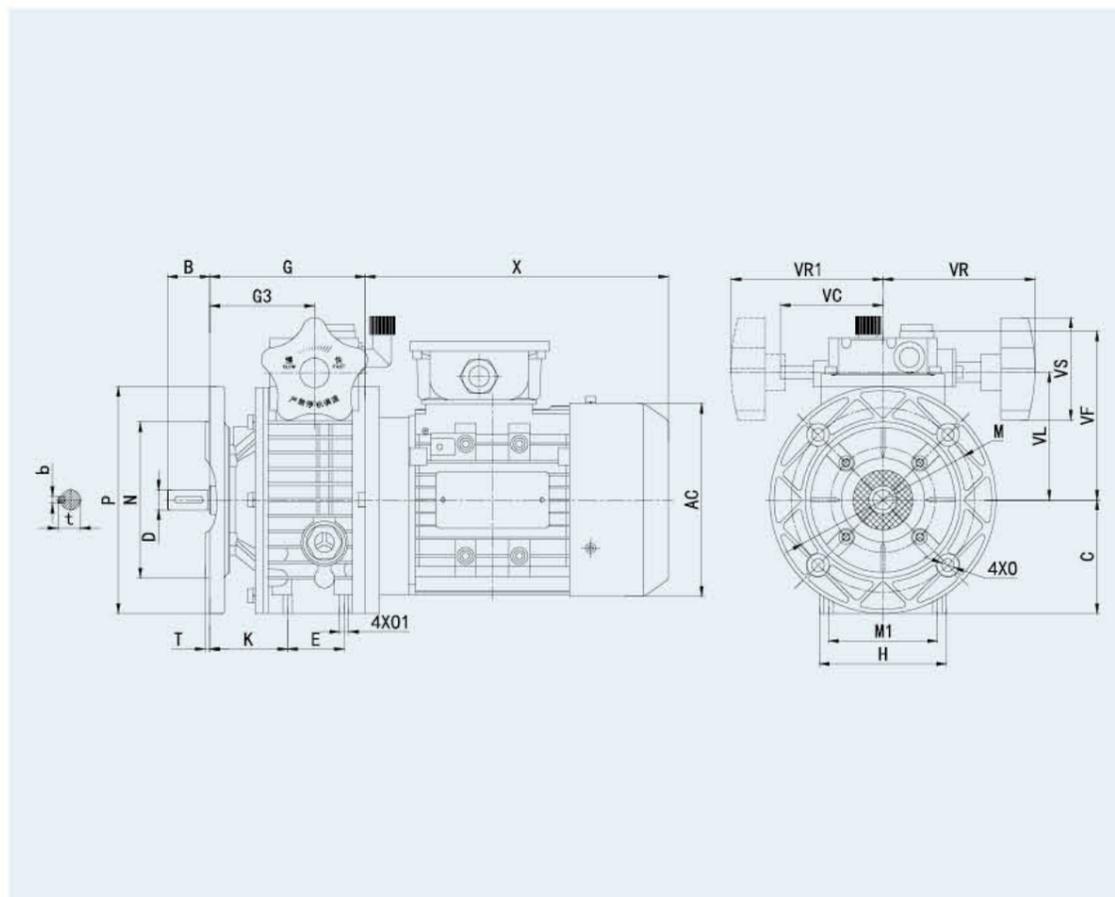
UDL-B3型尺寸表 / UDL - B3 dimension chart

TYPE	B	D (j6)	E	E1	H	I	I1	K	L	M1	M2	Ø1	VC	VF	VL	VR	VR1	VS	b	t	X	AC	Z
UDL002B3-0.18	23	11	105	80	80	145	120	87.5	135.5	110	71			111	78	110	110		4	12.5	194	120	
UDL005B3-0.25	30	14	104	93	93	149	125	104	140	120	96	9	71	123	90	110	110	85	5	16	215	136	10
UDL005B3-0.37																							
UDL010B3-0.55	40	19	125	113	113	190		125.5	179	160	135	11	79	140	107	120	120		6	21.5	247	155	15
UDL010B3-0.75							150																
UD020B3-1.1	50	24	140	123	123	241		165	238	180	143	12	-	144	122	150	-			27	260	175	18
UD020B3-1.5																					285		
UD030B3-2.2	60	28	230	150	150	300	270	191	268	245	190	14	-	188	150	160	-	110		31	323	195	25
UD030B3-3.0																							
UD030B3-4.0																						341	219
UD050B3-5.5	70	38	250	200	200	365	290	201	319	315	245	18	-		192	194	-			41	395	258	30
UD050B3-7.5																						433	

UDL-B5产品介绍 / UDL - B5 PRODUCT INTRODUCTION



UDL-B5尺寸 / UDL - B5 DIMESION



UDL-B5型尺寸表 / UDL - B5 dimension chart

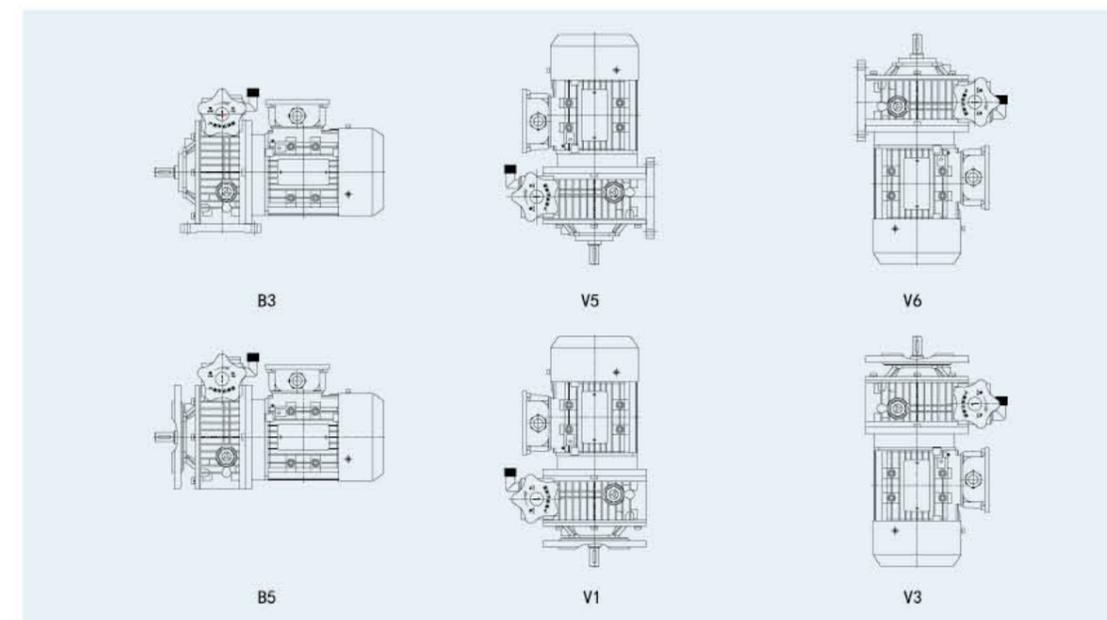
TYPE	B	C	D(φ)	E	G	G3	H	M	M1	O	O1	P	T	K	VC	VF	VL	VR	VR1	b	t	X	AC
UDL002B5-0.18	23	70	11	50	112.5	64.5	72	115	60	9	M6	140	3.5	46	71	111	78	110	110	4	12.5	194	120
UDL005B5-0.25	30	80	14	40	110	74	90	130	77	9	M8	160		53	71	123	90	110	110	5	16	215	136
UDL010B5-0.37														60	79	140	107	120	120	6	21.5	247	155
UDL010B5-0.55	40	100	19	58	139	85.5	98	165	84	11	M8	200	3.5	-	-	144	122	150	-	8	27	260	175
UDL010B5-0.75																					31	285	195
UD020B5-1.1	50	109	24	-	188	115	241	165	-	11	-	200	4	-	-	188	150	160	-	8	31	323	195
UD020B5-1.5																					31	341	219
UD030B5-2.2	60	130	28	-	208	131	270	215	-	15	-	250	4	-	-	188	150	160	-	8	31	341	219
UD030B5-3.0																					31	395	258
UD030B5-4.0	70	200	38	-	244	131	-	265	-	19	-	300	5	-	-	-	192	194	-	10	41	433	258
UD050B5-5.5																					41	433	258
UD050B5-7.5																							

性能参数 / PERFORMANCE PARAMTER

UDL系列无级变速器性能参数
Performance table for UDL series speed variator ($n_1=1400r/min$)

电机功率 Motor power	型号 Model	i	n_2 [r/min]	M_2 (Nm)
0.18KW	UDL002	1.6-8.2	880-170	1.5-3
0.25KW	UDL005	1.4-7	1000-200	2.2-6
0.37KW	UDL005	1.4-7	1000-200	3-6
0.55KW	UDL010	1.4-7	1000-200	4-8
0.75KW	UDL010	1.4-7	1000-200	6-12
1.1KW	UD020	1.4-7	1000-200	9-18
1.5KW	UD020	1.4-7	1000-200	12-24
2.2KW	UD030S	1.4-7	1000-200	18-36
3.0KW	UD030L	1.4-7	1000-200	24-48
4.0KW	UD030L	1.4-7	1000-200	32-64
5.5KW	UD050S	1.4-7	1000-200	45-90
7.5KW	UD050L	1.4-7	1000-200	59-118

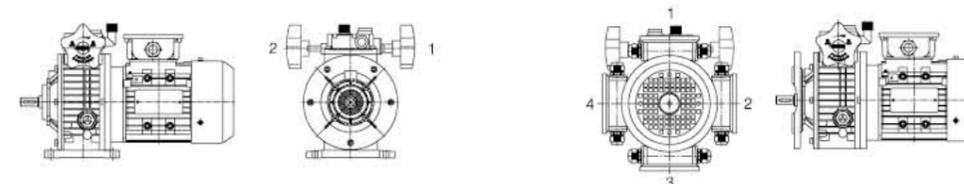
UDL与GMRV安装方位 / UDL AND GMRV INSTALLATION POSITION



附件位置 / THE ACCESSORY POSITION

手轮位置 POSITION OF HAND WHEEL

电机接线盒位置 MOTOR TERMINAL BOX POSITION



注:如没有特别说明,手轮将按照如图1位和B3安装方位的组合方式提供。
Note: Unless specified otherwise, variators are supplied with handwheels in pos. 1 referred to position B3.

产品概述 / PRODUCTS OVERVIEW

前置斜齿轮减速机 (PC) /PRESTAGE HELICAL GEARED UNITS(PC)

PC前置斜齿轮减速机是一种模块形式结构的产品，它可以与任何一种带有PAM输入法兰孔输入的减速机组合，各种不同的法兰和输出轴可以参照第21页。前置减速装置与马达组合以B14方式输出。该装置不能单独使用，只能与减速机配套使用。

The PC construction is modular and therefore it can be as a separate unit mounted on any type of fitted geared motor(PAM), the various possibilities of flange/output shafts can be found on page 21. Fitting the pre-stage helical module on the main reduction unit is easily done as for any motor of type B14. The prestage unit cannot be used by itself, but only coupled with another reducer unit.

材料 MATERIALS

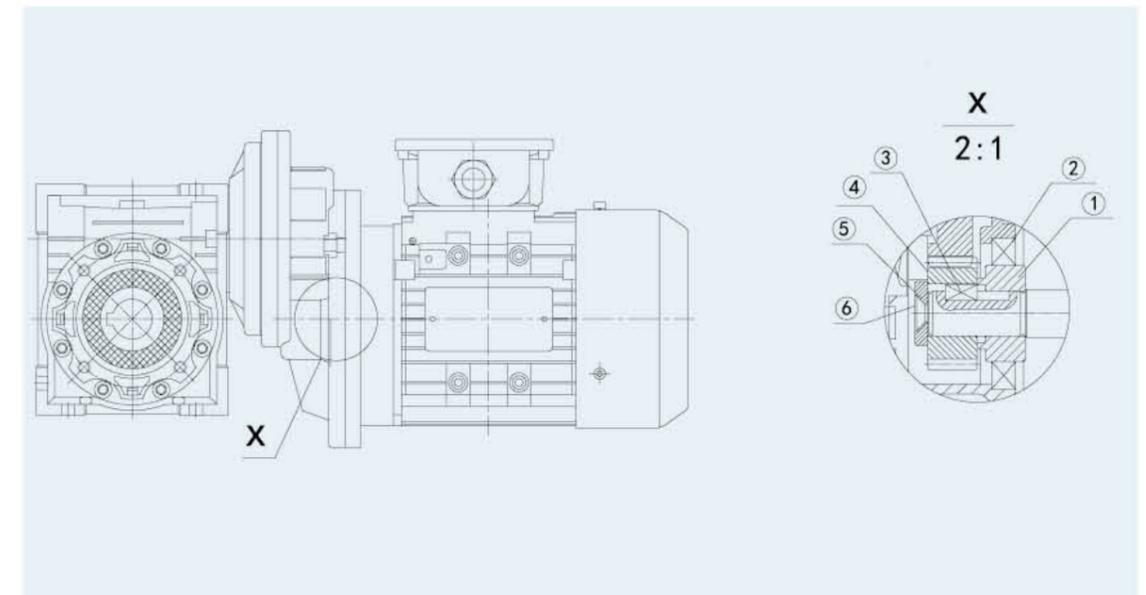
铝合金外壳；齿轮：40Cr，基于渐开线精密制造。

Case in aluminium alloy. Gears:40Cr, machined accurately ground on the involute.

PC SERIES

PC系列

应用领域: 冶金矿山



产品概述 / PRODUCTS OVERVIEW

与电机连接 COUPLING TO ELECTRIC MOTOR

当PC小齿轮安装在电机轴上时，需要注意下列几点：

- 彻底清洁好马达驱动轴；
- 取出马达驱动轴上的平键；
- 按下图所示，把轴套1套在驱动轴上，为了更容易安装，可以把轴套加热至大约70 - 80°C；
- 再把新的平键3装在驱动轴键槽上；
- 参照c的方法，把小齿轮4套在驱动轴上；
- 放上垫片5拧紧螺栓6；
- 拿走油封上的橡皮盖，这一步骤需要小心因为PC已经加注了润滑油；
- 装上油封2和其余的马达部件，小心不要弄坏油封；

注意：要达到低噪音和小振动的运行效果，建议选用质量较好的马达。

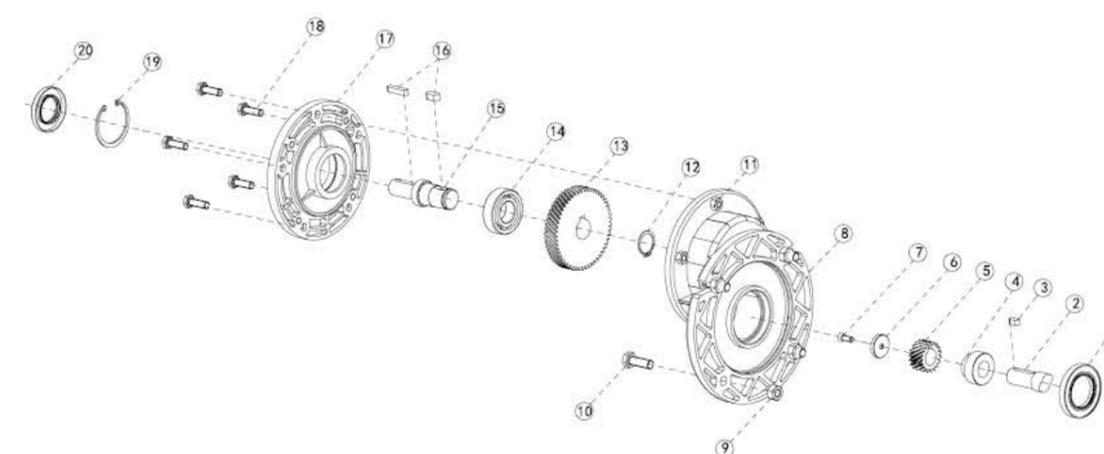
COUPLING TO ELECTRIC MOTOR

correctly fitting the pinion on the electric motor shaft requires you keep to the following instructions ;

- Thoroughly clean the electric motor shaft;
- Remove the motor key from its seat;
- Fit the bush 1 to the drive shaft as shown in the diagram to make this easier, you can heat the bush to approximately 70/80°C ;
- Fit the new key3 provided in place of the one removed beforehand;
- Fit the pinion 4 taking the same precautions as described in point c;
- Fit the washer 5 and tighten with the screw6;
- Remove the rubber cap mounted on the seat of the oil seal, taking care since the prestage unit is already complete with lubricant;
- Fit the oil seal 2 and then the motor assembly, taking care not to damage the lip of the oil seal.

N.B. For correct operation, with no vibration or noise, it is recommended to use good quality motors

PC结构分解图 / PC EXPLODED VIEW

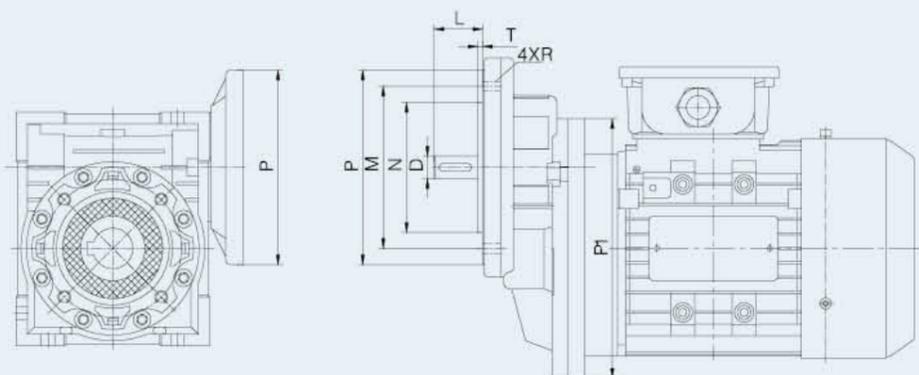


1	油封 (Oilseal)	6	垫片 (Shim)	11	六角螺母 (Hexagon nuts)	16	平键 Key
2	电机轴 Motor shaft	7	螺栓 (Bolt)	12	轴用弹性挡圈 (Circlip for shaft)	17	输出端盖 (Output cover)
3	平键 (Parallelkey)	8	前置齿轮箱体 (Pre-stage unit case)	13	大齿轮 (Gear)	18	螺栓 (Bolt)
4	轴套 Bushing	9	六角螺母 (Hexagon nuts)	14	轴承 (Bearing)	19	孔用弹性挡圈 (Circlip for hole)
5	小齿轮 (Small pinion)	10	螺栓 (Bolt)	15	输出轴 Output shaft	20	油封 (Oilseal)

产品介绍 / PRODUCT INTRODUCTION



PC接口尺寸 / PC DIMENSION



TYPE	D(k6)	N(j6)	M	i	P	P1	R	T	L
PC063	11(14)	70	85	2.93	105	140(63B5)	M6	3	23
PC071	14(19)	80	100	2.94	120	160(71B5)	M6		30
PC080	19(24\28)	110	130	3	160	200(80B5)	M8		40
PC090	24(19\28)	110	130	2.45	160	200(90B5)	M8		50

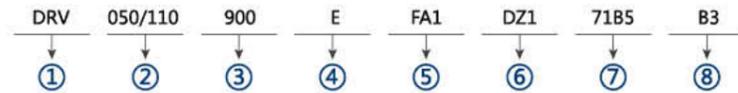


COMBINATION SERIES
组合系列

应用领域: 自动化生产领域

型号说明 / MODEL ILLUMINATE

DRV双蜗轮蜗杆减速机 / COMBINATION WORM GEAR UNITS



NO	说明	Comments
1	型号代码: DRV双联蜗轮蜗杆减速机	Model code: DRV double worm gear units
2	蜗轮蜗杆减速机中心距(规格)	Central distance of worm gear units (spec)
3	减速机速比	Speed ratio of reducer
4	1. 无代号表示不带蜗杆同向输出轴 2. 带蜗杆同向输出轴	1. No mark means single extension worm shaft 2. E: Double extension worm shaft
5	1. 无代号表示不带输出法兰 2. FA, FB, FC, FD, FE (1/2): 输出法兰代号和位置	1. No mark means without output flange 2. FA, FB, FC, FD, FE (1/2): output Flange and position
6	1. 无代号表示孔输出 2. SS (1/2): 单向输出轴和位置 3. DS: 双向输出轴	1. No mark means hole output 2. SS (1/2): Single output shaft and position 3. DS: Double output shaft
7	输入法兰规格型式	Normalized form of input flange
8	安装方位代号	Installation position code

DRV产品介绍 / DRV PRODUCT INTRODUCTION

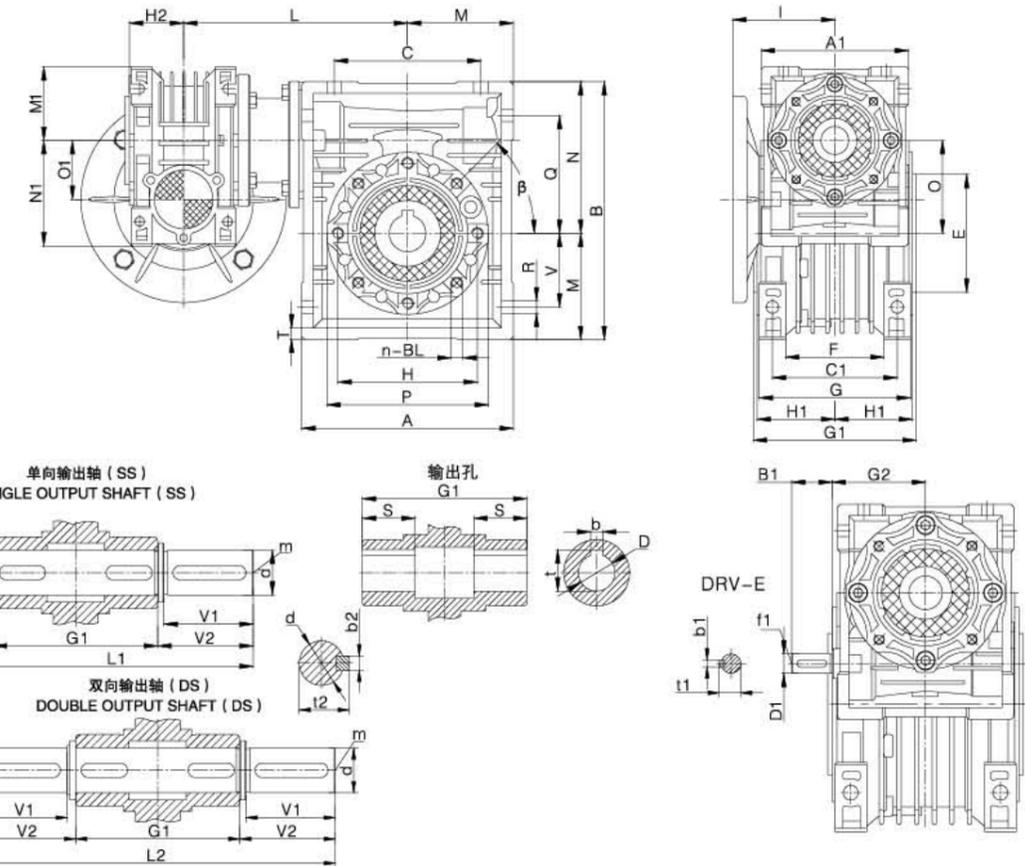


不带电机
without motor



带电机
with motor

DRV尺寸 / DRV DIMENSION



DRV	A	A1	B	B1	C	C1	D(H7)	D1(6)	E(h8)	F	G	G1	G2	H	H1	H2	L	L1	L2	M	M1	N	N1	O	O1
025-030	80	70	97	-	54	44	14	-	55	32	56	63	-	65	29	22.5	100	102	128	40	35	57	48	30	25
025-040	100	70	121.5	-	70	60	18(19)	-	60	43	71	78	-	75	36.5	22.5	115	128	164	50	35	71.5	48	40	25
030-040	100	80	121.5	20	70	60	18(19)	9	60	43	71	78	51	75	36.5	29	120	128	164	50	40	71.5	57	40	30
030-050	120	80	144	20	80	70	25(24)	9	70	49	85	92	51	85	43.5	29	130	153	199	60	40	84	57	50	30
030-063	144	80	174	20	100	85	25(28)	9	80	67	103	112	51	95	53.0	29	145	173	219	72	40	102	57	63	30
040-075	172	100	205	23	120	90	28(35)	11	95	72	112	120	60	115	57.0	36.5	165	192	247	86	50	119	71.5	75	40
040-090	206	100	238	23	140	100	35(38)	11	110	74	130	140	60	130	67.0	36.5	182	234	309	103	50	135	71.5	90	40
050-110	255	120	295	30	170	115	42	14	130	-	144	155	74	165	74.0	43.5	225	249	324	127.5	60	187.5	84	110	50
063-130	293	144	335	40	200	120	45	19	180	-	155	170	90	215	81.0	53	245	265	340	146.5	72	187.5	102	130	63
063-150	340	144	400	40	240	145	50	19	180	-	185	200	90	215	96	53	275	297	374	170	72	230	102	150	63

DRV	P	Q	R	S	T	BL	β	b	b1	b2	t	t1	t2	d(h6)	f1	m	V	V1	V2
025-030	75	44	6.5	21	5.5	M6 x 10 (n=4)	0°	5	-	5	16.3	-	16	14	-	M6	27	30	32.5
025-040	87	55	6.5	26	6.5	M6 x 10 (n=4)	45°	6	-	6	20.8(21.8)	-	20.5	18	-	M6	35	40	43
030-040	87	55	6.5	26	6.5	M6 x 10 (n=4)	45°	6(6)	3	6	20.8(21.8)	10.2	20.5	18	-	M6	35	40	43
030-050	100	64	8.5	30	7	M8 x 12 (n=4)	45°	8(8)	3	8	28.3(27.3)	10.2	28	25	-	M10	40	50	53.5
030-063	110	80	8.5	36	8	M8 x 12 (n=8)	45°	8(8)	3	8	28.3(31.3)	10.2	28	25	-	M10	50	50	53.5
040-075	140	93	11	40	10	M8 x 14 (n=8)	45°	8(10)	4	8	31.3(38.3)	12.5	31	28	-	M10	60	60	63.5
040-090	160	102	13	45	11	M10 x 16 (n=8)	45°	10	4	10	38.3(41.3)	12.5	38	35	-	M12	70	80	84.5
050-110	200	125	14	50	14	M10 x 18 (n=8)	45°	12	5	12	45.3	16.0	45	42	M6	M16	85	80	84.5
063-130	250	140	16	60	15	M12 x 20 (n=8)	45°	14	6	14	48.3	21.5	48.5	45	M6	M16	100	80	85
063-150	250	180	18	72	18	M12 x 22 (n=8)	45°	14	6	14	53.8	21.5	53.5	50	M6	M16	120	82	87

GMRV+GMRV/GRV+GMRV 组合方式 / POSSIBLE COMBINATIONS

	i	n ₂	IEC motor	i ₁	i ₂		i	n ₂	IEC motor	i ₁	i ₂				
DRV 025/030	100	14	56	10	10	DRV 040/075	300	4.7	56 63 71	10	30				
	150	9.3		10	15		400	3.5		10	40				
	200	7		10	20		500	2.8		10	50				
	250	5.6		10	25		600	2.3		20	30				
	300	4.7		10	30		750	1.9		25	30				
	400	3.5		20	20		900	1.6		30	30				
	500	2.8		20	25		1200	1.2		30	40				
	600	2.3		20	30		1500	0.93		50	30				
	750	1.9		30	25		1800	0.78		60	30				
	900	1.6		30	30		2400	0.58		60	40				
	1200	1.2		40	30		3000	0.47		60	50				
	1500	0.93		50	30		4000	0.35		50	80				
	1800	0.78		60	30		5000	0.28		50	100				
	2400	0.58		60	40		300	4.7		7.5	40				
	3000	0.47		60	50		400	3.5		10	40				
DRV 025/040	300	4.7	56	10	30	DRV 040/090	500	2.8	56 63 71	10	50				
	400	3.5		10	40		600	2.3		15	40				
	500	2.8		20	25		750	1.9		15	50				
	600	2.3		20	30		900	1.6		15	60				
	750	1.9		30	25		1200	1.2		30	40				
	900	1.6		30	30		1500	0.93		30	50				
	1200	1.2		40	30		1800	0.78		30	60				
	1500	0.93		50	30		2400	0.58		60	40				
	1800	0.78		60	30		3000	0.47		60	50				
	2400	0.58		60	40		4000	0.35		50	80				
	3000	0.47		60	50		5000	0.28		50	100				
	4000	0.35		50	80		300	4.7		10	30				
	5000	0.28		50	100		400	3.5		10	40				
	DRV 030/040	300		4.7	56		10	30		DRV 050/110	500	2.8	63 71 80	10	50
		400		3.5			10	40			600	2.3		15	40
500		2.8	20	25		750	1.9	25	30						
600		2.3	20	30		900	1.6	30	30						
750		1.9	25	30		1200	1.2	30	40						
900		1.6	30	30		1500	0.93	50	30						
1200		1.2	30	40		1800	0.78	60	30						
1500		0.93	50	30		2400	0.58	60	40						
1800		0.78	60	30		3000	0.47	60	50						
2400		0.58	60	40		4000	0.35	50	80						
3200		0.44	80	40		5000	0.28	50	100						
4000		0.35	50	80		300	4.7	10	30						
5000		0.28	50	100		400	3.5	10	40						
DRV 030/050		300	4.7	56 63		10	30	DRV 063/130	500		2.8	71 80 90		10	50
		400	3.5			10	40		600		2.3			15	40
	500	2.8	10		50	750	1.9		25	30					
	600	2.3	20		30	900	1.6		30	30					
	750	1.9	25		30	1200	1.2		30	40					
	900	1.6	30		30	1500	0.93		50	30					
	1200	1.2	30		40	1800	0.78		60	30					
	1500	0.93	50		30	2400	0.58		60	40					
	1800	0.78	60		30	3000	0.47		60	50					
	2400	0.58	60		40	4000	0.35		50	80					
	3000	0.47	60		50	5000	0.28		50	100					
	4000	0.35	50		80	150	9.3		10	15					
	4800	0.29	60		80	200	7.1		10	20					
	DRV 030/063	300	4.7		56 63	7.5	40		DRV 063/150	250	5.6		71 80 90	10	25
		400	3.5			10	40			300	4.7			10	30
500		2.8	10	50		400	3.5	10		40					
600		2.3	15	40		500	2.8	10		50					
750		1.9	15	50		600	2.3	15		40					
900		1.6	15	60		750	1.9	25		30					
1200		1.2	30	40		900	1.6	30		30					
1500		0.93	30	50		1200	1.2	30		40					
1800		0.78	30	60		1800	0.78	60		30					
2400		0.58	60	40		2400	0.58	60		40					
3000		0.47	60	50		3000	0.47	60		50					
4000		0.35	50	80		4000	0.35	50		80					
5000		0.28	50	100		5000	0.28	50		100					

注：用户有特殊要求时，可根据实际需要选择025、030、040、050、063、075、090、110、130、150作为组合单元另行组合。
 Remark: Users can choose 025,030,040,050,063,075,090,110,130,150 as combination unit to make different combinations according to the special needs.

减速机选型表 / GEAR UNIT SELECTION TABLES
DRV性能参数 PERFORMANCE PARAMETERS

P _{in} (kw)	n ₂ (r/min)	i	M _{2m} (Nm)	F ₁₂ (N)	f _s									
0.09	28.0	100	18	1286	1.6	DRV025/030	5612							
	18.7	150	25	1472	1.1									
	14.0	200	31	1620	0.9									
	14.0	100	37	1620	0.8									
	9.3	150	50	1830	0.6									
	7.0	200	61	1830	0.5									
	5.6	250	68	1830	0.5									
	4.7	300	77	1830	0.4									
	3.5	400	106	1830	0.3									
	2.8	500	117	1830	0.3									
	0.12	2.3	600	135	1830	0.2	DRV025/030	5624						
		1.9	750	149	1830	0.2								
		1.6	900	167	1830	0.2								
		1.2	1200	201	1830	0.1								
		0.9	1500	231	1830	0.1								
		0.8	1800	264	1830	0.1								
		0.6	2400	311	1830	0.1								
		0.5	3000	347	1830	0.1								
		9.3	300	43	3490	1.6			DRV025/040	5612				
		7.0	400	52	3490	1.2								
5.6		500	71	3490	0.8									
4.7		300	82	3490	0.8									
3.5		400	103	4840	1.2	DRV030/040	5624							
2.8		500	120	4840	1.0									
2.3		600	146	4840	0.9									
1.9		750	158	4840	0.8									
1.6		900	177	4840	0.7									
1.6		900	188	6270	1.0			DRV030/050			5624			
1.2		1200	222	6270	0.9									
0.9		1500	259	6270	0.7									
0.9	1500	305	7380	1.1	DRV030/063				5624					
0.8	1800	331	7380	1.0										
0.6	2400	400	7380	0.7		DRV040/075	5624							
0.5	3000	494	8180	0.9										
0.4	4000	589	8180	0.8						DRV040/090		5624		
4.7	300	112	4840	1.2									DRV030/050	6314
3.5	400	138	4840	0.9										
2.8	500	160	4840	0.7										
2.8	500	168	6270	1.3				DRV030/063			6314			
2.3	600	199	6270	1.1										
1.9	750	217	6270	0.9										
1.6	900	279	7380	1.2	DRV040/075				6314					
1.2	1200	344	7380	0.9										
0.8	1800	470	8180	0.9		DRV040/090	6314							
0.6	2400	593	8180	0.9										
0.5	3000	731	10320	1.2						DRV050/110		6314		
0.4	4000	884	10320	1.0										
0.3	5000	1023	10320	0.8										

减速机选型表 / GEAR UNIT SELECTION TABLES

DRV性能参数 PERFORMANCE PARAMETERS

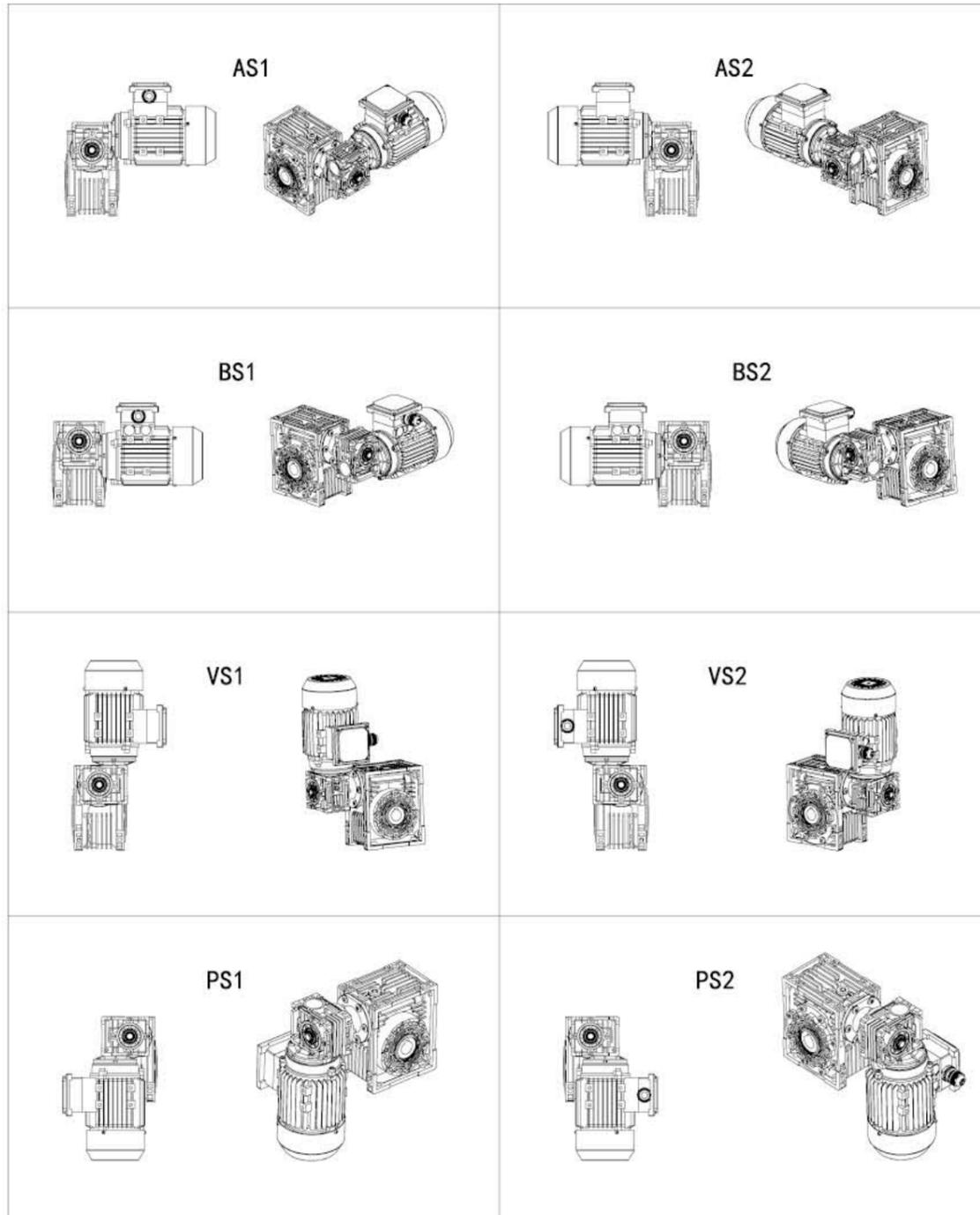
P_{in} (kw)	n_2 (r/min)	i	M_{2n} (Nm)	F_{r2} (N)	f_s					
0.18	3.5	400	216	6270	1.0	DRV030/063	6324			
	2.8	500	252	6270	0.8					
	2.3	600	336	7380	1.1					
	1.9	750	371	7380	0.9					
	0.25	1.6	900	419	7380	0.8	DRV040/075	6324		
		1.2	1200	544	8180	1.0				
		0.9	1500	647	8180	0.8				
		0.8	1800	727	10320	1.5				
0.37		0.6	2400	948	10320	1.1	DRV040/090	6324		
		7.0	400	150	6270	1.4				
		5.6	500	175	6270	1.2				
		3.5	400	321	7380	1.1				
	0.55	2.8	500	375	7380	0.8	DRV050/110	6322		
		2.3	600	488	8180	1.2				
		1.9	750	553	8180	0.9				
		1.6	900	612	8180	0.8				
		0.75	1.2	1200	776	10320	1.3	DRV040/075	7114	
			0.9	1500	924	10320	1.2			
			0.8	1800	1010	10320	1.1			
			0.6	2400	1358	13500	1.0			
			1.1	0.5	3000	1626	13500	0.8	DRV040/090	7114
				0.4	4000	1910	13500	0.6		
				0.3	5000	2132	13500	0.5		
				0.8	1800	1199	18000	1.8		
1.5				0.6	2400	1446	18000	1.8	DRV063/130	7114
				0.5	3000	1713	18000	1.4		
				0.4	4000	2026	18000	0.9		
				0.3	5000	2251	18000	0.7		
	2.2			9.3	300	182	6270	1.3	DRV063/150	7114
				7.0	400	222	6270	1.0		
				4.7	300	383	7380	1.0		
				3.5	400	474	7380	0.7		
		3.7		4.7	300	406	8180	1.5	DRV030/063	7112
				3.5	400	505	8180	1.2		
				2.8	500	593	8180	0.9		
				2.3	600	722	8180	0.8		
			5.5	1.9	750	837	10320	1.3	DRV040/075	7124
				1.6	900	928	10320	1.2		
				1.2	1200	1148	10320	0.8		
				0.9	1500	1444	13500	1.1		
7.5				0.8	1800	1586	13500	0.9	DRV040/090	7124
				0.8	1800	1775	18000	1.2		
				0.6	2400	2141	18000	1.2		
				0.5	3000	2535	18000	0.9		
	11			9.3	300	305	8180	2.0	DRV050/110	7124
				7.0	400	375	8180	1.5		
				5.6	500	441	8180	1.2		
				4.7	300	615	10320	2.0		
		15		3.5	400	810	10320	1.4	DRV040/090	7122
				2.8	500	938	10320	1.1		
				2.3	600	1096	10320	1.0		
				1.9	750	1244	10320	0.9		
			22	9.3	300	305	8180	2.0	DRV050/110	8014
				7.0	400	375	8180	1.5		
				5.6	500	441	8180	1.2		
				4.7	300	615	10320	2.0		

减速机选型表 / GEAR UNIT SELECTION TABLES

DRV性能参数 PERFORMANCE PARAMETERS

P_{in} (kw)	n_2 (r/min)	i	M_{2n} (Nm)	F_{r2} (N)	f_s					
0.55	2.8	500	957	13500	1.6	DRV063/130	8014			
	1.9	750	1382	13500	1.2					
	1.2	1200	2057	13500	0.8					
	0.75	0.8	1800	2638	18000	0.8	DRV063/150	8014		
		0.6	2400	3182	18000	0.6				
		9.3	300	424	10320	2.8				
1.1		7.0	400	553	10320	2.1	DRV050/110	8012		
		5.6	500	640	10320	1.6				
		4.7	300	838	10320	1.5				
	1.5	3.5	400	1105	10320	1.1	DRV050/110	8024		
		2.8	500	1305	13500	1.1				
		2.3	600	1557	13500	1.0				
		2.2	1.9	750	1772	13500	0.9	DRV063/130	8024	
			1.6	900	2014	13500	0.8			
			2.8	500	1291	18000	1.8			
			3.7	2.3	600	1529	18000	1.7	DRV063/150	8024
				1.9	750	1783	18000	1.3		
				1.6	900	2215	18000	0.9		
5.5				1.2	1200	2680	18000	1	DRV063/130	90S4
				9.3	300	621	10320	1.9		
				7.0	400	810	10320	1.4		
	7.5			5.6	500	936	10320	1.1	DRV050/110	8022
				4.7	300	1274	13500	1.3		
				3.5	400	1621	13500	1.0		
		11		2.8	500	1913	13500	0.8	DRV063/130	90S4
				9.3	150	753	18000	3.1		
				7	200	966	18000	2.4		
			15	5.6	500	1175	18000	1.7	DRV063/150	90S4
				4.7	300	1364	18000	1.7		
				3.5	400	1619	18000	1.6		
22				2.8	500	1893	18000	1.2	DRV063/130	90S2
				2.3	600	2242	18000	1.2		
				1.9	750	2616	18000	0.9		
	37			9.3	300	878	13500	1.9	DRV063/130	90L4
				7.0	400	1105	13500	1.4		
				5.6	500	1305	13500	1.1		
		55		4.7	300	1737	13500	1.0	DRV063/130	90L4
				3.5	400	2210	13500	0.7		
				9.3	150	1026	18000	2.3		
			75	7	200	1317	18000	1.8	DRV063/150	90L4
				5.6	250	1602	18000	1.3		
				4.7	300	1860	18000	1.3		
110				3.5	400	2208	18000	1.2	DRV063/150	90L4
				2.8	500	2582	18000	0.9		
				2.3	600	3057	18000	0.9		

DRV组合带电机安装方位
DRV COMBINED WITH MOTOR MOUNTING POSITION



第一级和第二级减速机按上图方式组合，如在订货时没有特别说明，将按照AS2组合方式供货；
第二级减速机实际安装方式参照51页的安装方位图。

The position of the 1st reducer with respect to the 2nd reducer depends on the versions. Unless specified when ordering, combination reducers are supplied in version AS2;
The specified mounting position refers to the 2nd reducer, see page 51 for the possible mounting position.

型号说明 / MODEL ILLUMINATE

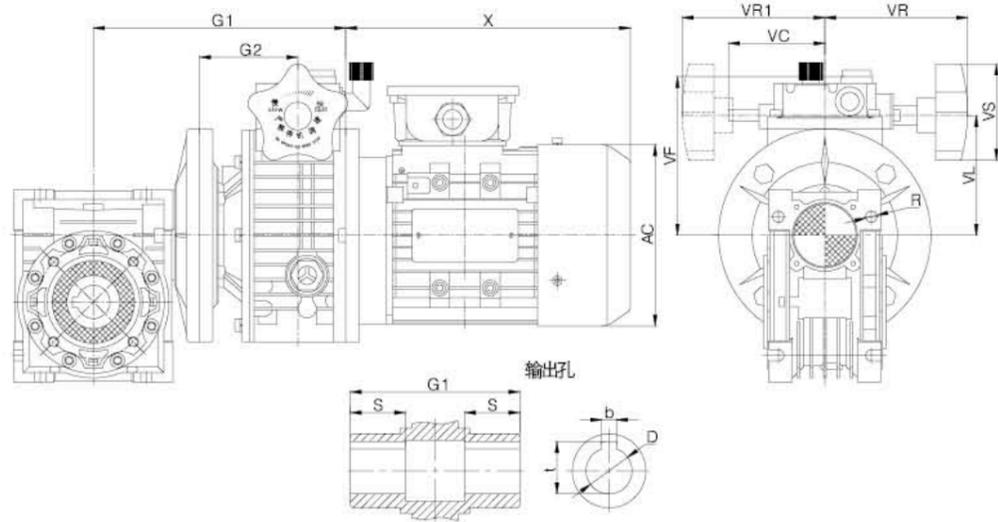
UDL-GMRV无级变速器与蜗轮蜗杆减速机组合 / COMBINATION OF STEPLESS SPEED VARIATOR AND WORM GEAR UNITS

	UD	L	010	-	GMRV	063	-	40	E	FA1	DZ1	B3	
	①	②	③		④	⑤		⑥	⑦	⑧	⑨	⑩	
NO	说明												Comments
1	无级变速器代号												Code of stepless speed variator
2	铝合金机壳，不标注时为铸铁机壳												Aluminium alloy housing, and no mark means cast iron casing
3	无级变速器机座号												Frame of stepless speed variator
4	蜗轮蜗杆减速机代码												Code of worm gear units
5	蜗轮蜗杆减速机中心距（规格）												Central distance of worm gear units(spec)
6	蜗轮蜗杆减速机速比												Speed ratio of worm gear units
7	1.无代号表示不带输出法兰 2.E：带蜗杆同向输出轴												1.No mark means single extension worm shaft 2.E:Double extension worm shaft
8	1.无代号表示不带输出法兰 2.FA、FB、FC、FD、FE（1/2）：输出法兰代号和位置												1.No mark means without output flange 2.FA、FB、FC、FD、FE（1/2）：Output flange and position
9	1.无代号表示孔输出 2.SS（1/2）：单向输出轴和位置 3.DS：双向输出轴												1.No mark means hole output 2.SS(1/2):Single output shaft and position 3.DS:Double output shaft
10	安装方位代号												Installation position code

UDL+GMRV产品介绍 / UDL+ GMRV DURING INTRODUCTION



UDL+GMRV 尺寸 / UDL+ GMRV DIMESION



型号 (model)	D(H8)	b	t	G1	G2	S	VF	VL	VR	VR1
UDL002-GMRV030	14	5	16.3	167.5	119.5	21	111	78	110	110
UDL002-GMRV040	18(19)	6	20.8(21.8)	182.5	134.5	26	111	78	110	110
UDL005-GMRV040				180	144		123	90	110	110
UDL002-GMRV050	25(24)	8	28.3(27.3)	192.5	144.5	30	111	78	110	110
UDL005-GMRV050				190	154		123	90	110	110
UDL005-GMRV063	25(28)	8	28.3(31.3)	205	169	36	123	90	110	110
UDL010-GMRV063				234	180.5		140	107	120	120
UDL005-GMRV075	28(35)	8(10)	31.3(38.3)	222.5	186.5	40	123	90	110	110
UDL010-GMRV075				251.5	198		140	107	120	120
UD020-GMRV075				300.5	227.5		144	122	150	-
UDL010-GMRV090	35(38)	10	38.3(41.3)	268.5	215	45	140	107	120	120
UD020-GMRV090				317.5	244.5		144	122	150	-
UDL010-GMRV110	42	12	45.3	299	245.5	50	140	107	120	120
UD020-GMRV110				348	275		144	122	150	-
UD030-GMRV110				368	291		188	150	160	-
UD020-GMRV130	45	14	48.8	368	295	60	144	122	150	-
UD030-GMRV130				388	311		188	150	160	-

注：1. GMRV 的其它尺寸请参考24页
2. UDL的其它尺寸请参考57, 59页
3. X, AC尺寸请参考94页

减速机选型表 / GEAR UNIT SELECTION TABLES

UDL.GMRV.(n₁=1400r/min) 性能参数 PERFORMANCE PARAMETER

P _{in} (kw)	n ₂ (r/min)	i	M _{2n} (Nm)				
0.18	117-22.5	12-61.5	9-18	UDL002-GMRV040	6324		
	88-17	16-82	12-23				
	58.7-11.3	24-123	17-32				
	44-8.5	32-164	22-40				
	35.2-6.8	40-205	27-47				
	29.3-5.7	48-246	30-51				
	22-4.3	64-328	37-62				
	17.6-3.4	80-410	43-60				
	22-4.3	64-328	38-63				
	17.6-3.4	80-410	44-73				
0.37	14.7-2.8	96-492	50-80	UDL002-GMRV050	6324		
	11-2.1	128-656	59-82				
	8.8-1.7	160-820	66-79				
	133-26.7	10.5-52.5	19-36			UDL005-GMRV050	7124
	100-20	14-70	25-47				
	66.7-13.3	21-105	36-65				
	50-10	28-140	46-82				
	40-8	35-175	55-97				
	33.3-6.7	42-210	61-107				
	25-5	56-280	76-124				
20-4	70-350	89-120					
25-5	56-280	79-134					
20-4	70-350	92-155					
0.55	16.7-3.3	84-420	104-173	UDL005-GMRV063	7124		
	12.5-2.5	112-560	125-173				
	10-2	140-700	139-150				
	133-26.7	10.5-52.5	26-49			UDL010-GMRV063	8014
	100-20	14-70	34-63				
	66.7-13.3	21-105	48-88				
	50-10	28-140	62-112				
	40-8	35-175	75-133				
	33.3-6.7	42-210	81-146				
	25-5	56-280	105-179				
20-4	70-350	123-207					
20-4	70-350	129-216					
16.7-3.3	84-420	146-242					
0.75	12.5-2.5	112-560	176-250	UDL010-GMRV075	8014		
	12.5-2.5	112-560	189-309				
	10-2	140-700	218-350				
	133-26.7	10.5-52.5	39-73			UDL010-GMRV090	8014
	100-20	14-70	51-94				
	66.7-13.3	21-105	72-132				
	50-10	28-140	92-168				
	40-8	35-175	112-199				
	33.3-6.7	42-210	126-219				
	25-5	56-280	156-232				
20-4	70-350	185-310					
20-4	70-350	192-320					
16.7-3.3	84-420	219-300					
0.18	133-26.7	10.5-52.5	26-49	UDL010-GMRV063	8024		
	100-20	14-70	34-63				
	66.7-13.3	21-105	48-88				
	50-10	28-140	62-112				
	40-8	35-175	75-133				
	33.3-6.7	42-210	81-146				
	25-5	56-280	105-179				
	20-4	70-350	123-207				
	20-4	70-350	129-216				
	16.7-3.3	84-420	146-242				
0.37	12.5-2.5	112-560	176-250	UDL010-GMRV075	8024		
	12.5-2.5	112-560	189-309				
	10-2	140-700	218-350				
	133-26.7	10.5-52.5	39-73			UDL010-GMRV090	8024
	100-20	14-70	51-94				
	66.7-13.3	21-105	72-132				
	50-10	28-140	92-168				
	40-8	35-175	112-199				
	33.3-6.7	42-210	126-219				
	25-5	56-280	156-232				
20-4	70-350	185-310					
20-4	70-350	192-320					
16.7-3.3	84-420	219-300					

减速机选型表 / GEAR UNIT SELECTION TABLES

 UDL..GMRV..(n₁=1400r/min) 性能参数 PERFORMANCE PARAMETER

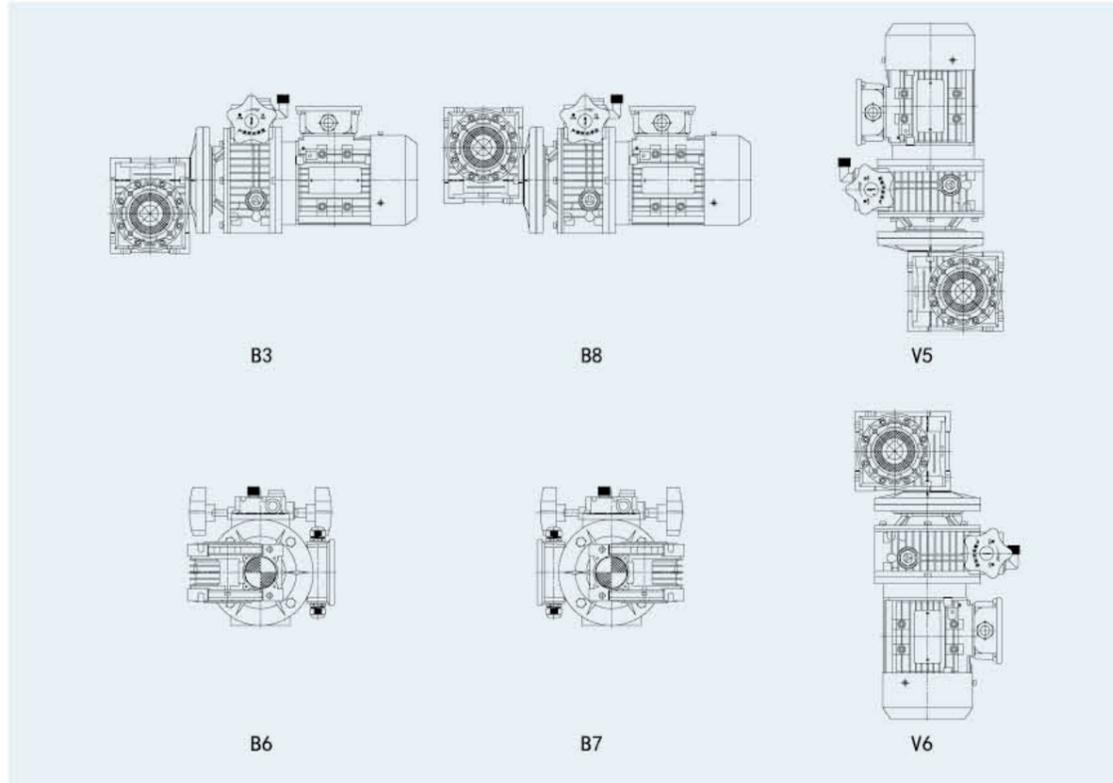
P _{in} (kw)	n ₂ (r/min)	i	M _{2n} (Nm)				
0.75	16.7~3.3	84~420	230~389	UDL010-GMRV090	8024		
	12.5~2.5	112~560	265~426				
	10~2	140~700	303~410				
	12.5~2.5	112~560	302~503				
1.1	10~2	140~700	348~575	UDL010-GMRV110	8024		
	133~26.7	10.5~52.5	59~111				
	100~20	14~70	77~144	UDL020-GMRV075	90S4		
	66.7~13.3	21~105	110~203				
	50~10	28~140	142~258				
	40~8	35~175	172~308				
	33.3~6.7	42~210	195~340				
	25~5	56~280	245~360				
	100~20	14~70	78~146				
	66.7~13.3	21~105	113~208				
	50~10	28~140	146~266				
	40~8	35~175	177~320				
	1.5	33.3~6.7	42~210	202~356	UDL020-GMRV090	90S4	
		25~5	56~280	256~442			
		20~4	70~350	304~517			
		20~4	70~350	320~550			
		16.7~3.3	84~420	368~625			
		12.5~2.5	112~560	455~754			
10~2		140~700	522~710	UDL020-GMRV110	90S4		
16.7~3.3		84~420	373~623				
12.5~2.5		112~560	460~749				
10~2		140~700	531~868				
133~26.7		10.5~52.5	78~148			UDL020-GMRV075	90L4
100~20		14~70	102~192				
66.7~13.3	21~105	147~270					
50~10	28~140	190~344					
40~8	35~175	229~330					
33.3~6.7	42~210	260~390					
25~5	56~280	327~360					
2.2	133~26.7	10.5~52.5	77~150	UDL020-GMRV090	90L4		
	100~20	14~70	104~195				
	66.7~13.3	21~105	150~277				
	50~10	28~140	194~355				
	40~8	35~175	236~427				
	33.3~6.7	42~210	270~474				
	25~5	56~280	341~589				
	20~4	70~350	406~560				
	20~4	70~350	426~733	UDL020-GMRV110	90L4		
	16.7~3.3	84~420	490~833				
	16.7~3.3	84~420	498~831				
	12.5~2.5	112~560	614~999				
	10~2	140~700	696~1100				
	133~26.7	10.5~52.5	120~226			UDL030-GMRV110	100L1-4
100~20	14~70	157~294					
66.7~13.3	21~105	228~418					

减速机选型表 / GEAR UNIT SELECTION TABLES

 UDL..GMRV..(n₁=1400r/min) 性能参数 PERFORMANCE PARAMETER

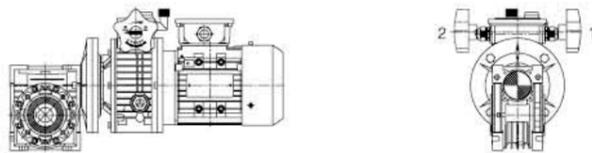
P _{in} (kw)	n ₂ (r/min)	i	M _{2n} (Nm)					
2.2	50~10	28~140	298~549	UDL030-GMRV110	100L1-4			
	40~8	35~175	364~664					
	33.3~6.7	42~210	413~717					
	25~5	56~280	533~931					
	3.0	25~5	56~280	542~932	UDL030-GMRV130	100L1-4		
		20~4	70~350	648~1097				
		16.7~3.3	84~420	746~1246				
		12.5~2.5	112~560	921~1499				
10~2		140~700	1040~169					
133~26.7		10.5~52.5	160~302	UDL030-GMRV110			100L2-4	
100~20		14~70	210~392					
66.7~13.3		21~105	304~558					
50~10	28~140	398~732						
40~8	35~175	485~885						
33.3~6.7	42~210	547~956						
4.0	25~5	56~280	711~1030	UDL030-GMRV130	100L2-4			
	133~26.7	10.5~52.5	160~301					
	100~20	14~70	211~395					
	66.7~13.3	21~105	307~563					
	50~10	28~140	402~733					
	40~8	35~175	490~885					
	33.3~6.7	42~210	562~973					
	25~5	56~280	720~1242					
	20~4	70~350	864~1463					
	1.5	133~26.7	10.5~52.5			213~402	UDL050-GMRV110	112M4
		100~20	14~70			279~523		
		66.7~13.3	21~105			405~744		
50~10		28~140	530~975					
40~8		35~175	647~1020					
2.2		133~26.7	10.5~52.5	214~401	UDL050-GMRV130	112M4		
		100~20	14~70	281~527				
		66.7~13.3	21~105	410~751				
		50~10	28~140	536~978				
		40~8	35~175	653~1180				
	33.3~6.7	42~210	749~1298					
	25~5	56~280	960~1650					

UDL与GMRV安装方位
UDL AND GMRV INSTALLATION POSITION



附件位置 / THE ACCESSORY POSITION

GMRV...UDL...手轮位置 POSITION OF HAND WHEEL



注:如没有特别说明,手轮将按照如图1位和B3安装方位的组合方式提供。
Unless specified otherwise, handwheel will be supplied in pos. 1 referred to position B3.

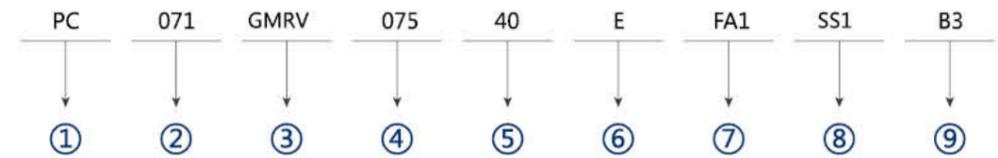
GMRV...UDL...电机接线盒位置 MOTOR TERMINAL BOX POSITION



注:如对电机接线盒位置有特别要求,订购时须参考上图的要求指定接线盒方位,否则接线盒方位将按安装方位图表中的方位提供。
In case of specific requirements, when ordering, pls specify the position of terminal box as shown in the diagram.

型号说明 / MODEL ILLUMINATE

PC-GMRV 前置齿轮蜗轮蜗杆减速机/WORM GEARS WITH PRE-STAGE HELICAL UNITS



NO	说明	Comments
1	前置斜齿轮减速代号	Helical Pre-stage unit
2	电机座号	Motor frame size
3	型号代码: 1.GMRV孔输入带输入法兰 2.GRV轴输入不带输入法兰	Model code 1.GMRV:Hole input with flange 2.GRV:Shaft input without flange
4	减速机中心距(规格)	Central distance of worm gear units(spec)
5	减速机速比 (i=5,7.5,10,15,20,25,30,40,50,60,80,100)	Speed ratio of reducer r(i=5,7.5;10;15;20;25;30;40;50;60;80;100)
6	1. 无代号表示不带蜗杆同向尾出轴 2. E:带蜗杆同向尾出轴	1. No mark means single extension worm shaft 2. E: Double extension worm shaft
7	1. 无代号表示不带输出法兰 2. FA,FB,FC,FD,FE(1/2):输出法兰号 and 位置	1. No mark means without output flange 2. FA,FB,FC,FD,FE(1/2):output Flange and position
8	1. 无代号表示孔输出 2. SS (1/2):单向输出轴和位置 3. DS:双向输出轴	1. No mark means hole output 2. SS (1/2):Single output shaft and position 3. DS:Double output shaft
9	安装方位代号	Installation position code

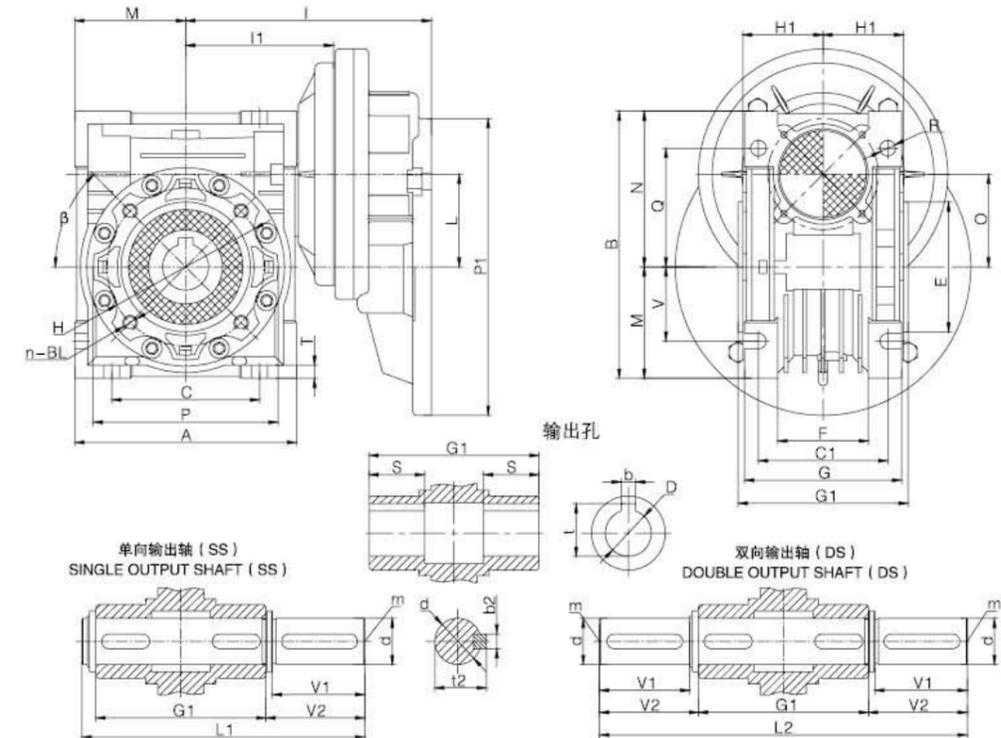
订单时请说明是否带电机,一般按不带电机供应。

Unless specified when ordering, otherwise gear units are supplied without motors.

PC+GMRV 产品介绍 / PC+GMRV INTRODUCTION



PC+GMRV尺寸 / PC+GMRV DIMENSION



PC-GMRV	A	B	C	C1	D(H7)	E(h8)	F	G	G1	H	H1	I	l1	L	L1	L2	M	N	O	P	P1	Q	R
063-040	100	121.5	70	60	18(19)	60	43	71	78	75	36.5	115	70	40	128	164	50	71.5	40	87	140	55	6.5
063-050	120	144	80	70	25(24)	70	49	85	92	85	43.5	125	80	40	153	199	60	84.0	50	100	140	64	8.5
063-063	144	174	100	85	25(28)	80	67	103	112	95	53.0	140	95	40	173	219	72	102	63	110	140	80	8.5
071-050	120	144	80	70	25(24)	70	49	85	92	85	43.5	133	80	48	153	199	60	84.0	50	100	160	64	8.5
071-063	144	174	100	85	25(28)	80	67	103	112	95	53.0	148	95	48	173	219	72	102	63	110	160	80	8.5
071-075	172	205	120	90	28(35)	95	72	112	120	115	57.0	165.5	112.5	48	192	247	86	119	75	140	160	93	11
071-090	206	238	140	100	35(38)	110	74	130	140	130	67.0	182.5	129.5	48	234	309	103	135	90	160	160	102	13
080-075	172	205	120	90	28(35)	95	72	112	120	115	57.0	182	112.5	62	192	247	86	119	75	140	200	93	11
080-090	206	238	140	100	35(38)	110	74	130	140	130	67.0	199	129.5	62	234	309	103	135	90	160	200	102	13
080(090)-110	255	295	170	115	42	130	/	144	155	165	74.0	229.5	160	62	249	324	127.5	167.5	110	200	200	125	14
080(090)-130	293	335	200	120	45	180	/	155	170	215	81.0	248.5	179	62	265	340	146.5	187.5	130	250	200	140	16

PC-GMRV	S	T	BL	β	b	b2	t	t2	d(h6)	m	v	V1	V2
063-040	26	6.5	M6X8(n=4)	45°	6(6)	6	20.8(21.8)	20.5	18	M6	35	40	43.0
063-050	30	7	M8X10(n=4)	45°	8(8)	8	28.3(27.3)	28.0	25	M10	40	50	53.5
063-063	36	8	M8X14(n=8)	45°	8(8)	8	28.3(31.3)	28.0	25	M10	50	50	53.5
071-050	30	7	M8X10(n=4)	45°	8(8)	8	28.3(27.3)	28.0	25	M10	40	50	53.5
071-063	36	8	M8X14(n=8)	45°	8(8)	8	28.3(31.3)	28.0	25	M10	50	50	53.5
071-075	40	10	M8X14(n=8)	45°	8(10)	8	31.3(38.3)	31.0	28	M10	60	60	63.5
071-090	45	11	M10X18(n=8)	45°	10(10)	10	38.3(41.3)	38.0	35	M12	70	80	84.5
080-075	40	10	M8X14(n=8)	45°	8(10)	8	31.3(38.3)	31.0	28	M10	60	60	63.5
080-090	45	11	M10X18(n=8)	45°	10(10)	10	38.3(41.3)	38.0	35	M12	70	80	84.5
080(090)-110	50	14	M10X18(n=8)	45°	12	12	45.3	48.5	42	M16	85	80	84.5
080(090)-130	60	15	M12X21(n=8)	45°	14	14	48.8	53.5	45	M16	100	80	85.0

PC-GMRV 组合 / PC- GMRV COMBINATIONS

	i	PC 063		PC 071		PC 080			PC 090		
		105/11 i=2.93	105/14 i=2.93	120/14 i=2.94	120/19 i=2.94	160/19 i=3	160/24 i=3	160/28 i=3	160/19 i=2.45	160/14 i=2.45	160/28 i=2.45
GMRV040	25										
	30										
	40										
	50										
	60										
	80										
	100										
GMRV050	25										
	30										
	40										
	50										
	100										
GMRV063	25										
	30										
	40										
	50										
	60										
	80										
	100										
GMRV075	25										
	30										
	40										
	50										
	60										
	80										
	100										
GMRV090	25										
	30										
	40										
	50										
	60										
	100										
GMRV110	25										
	30										
	40										
	50										
	100										
GMRV130	25										
	30										
	40										
	50										
	60										
	100										

减速机选型表 / GEAR UNIT SELECTION TABLES

PC...GMRV...(n₁=1400r/min) 性能参数 PERFORMANCE PARAMETER

P _{in} (kw)	n ₂ (r/min)	i	M _{2n} (Nm)	F ₁₂ (N)	f _s				
0.12	18.7	75	42	2833	1.2	PC050-GMRV040	6314		
	15.6	90	46	3011	1.2				
	11.7	120	57	3314	0.9				
	9.3	150	66	3490	0.7				
	7.8	180	74	3490	0.6	PC050-GMRV050	6314		
	9.3	150	68	4840	1.3				
	7.8	180	75	4840	1.1				
	5.8	240	88	4840	0.8				
	4.7	300	98	4840	0.7				
	5.8	240	92	6270	1.5				
4.7	300	103	6270	1.2	PC063-GMRV063	6314			
0.18	18.7	75	64	2833	0.8	PC063-GMRV040	6324		
	15.6	90	70	3011	0.8				
	11.7	120	85	3314	0.6				
	18.7	75	64	3889	1.4	PC063-GMRV050	6324		
	15.6	90	71	4132	1.5				
	11.7	120	87	4548	1.1				
	9.3	150	101	4840	0.9				
	7.8	180	113	4840	0.7				
	5.8	240	133	4840	0.6				
	9.3	150	103	6270	1.7	PC063-GMRV063	6324		
	7.8	180	117	6270	1.4				
	5.8	240	139	6270	1.0				
	4.7	300	155	6270	0.8				
	12.0	75	95	4506	1.2			PC071-GMRV050	7116
	10.0	90	105	4788	1.4				
	7.5	120	126	4840	1.0				
	12.0	75	97	5889	2.2	PC071-GMRV063	7116		
	10.0	90	107	6259	2.4				
7.5	120	131	6270	1.8					
6.0	150	152	6270	1.4					
5.0	180	168	6270	1.2					
3.8	240	197	6270	0.9					
3.0	300	218	6270	0.7	PC071-GMRV075	7116			
5.0	180	179	7380	1.7					
3.8	240	211	7380	1.2					
3.0	300	235	7380	1.0	0.25	PC071-GMRV050	7114		
18.7	75	88	3889	1.0					
15.6	90	98	4132	1.1					
11.7	120	121	4548	0.8		PC071-GMRV063	7114		
18.7	75	91	5083	1.8					
15.6	90	100	5401	2.0					
11.7	120	125	5945	1.5					
9.3	150	143	6270	1.2		PC071-GMRV063	7114		
7.8	180	163	6270	1.0					
5.8	240	192	6270	0.7					
4.7	300	215	6270	0.6					
12.0	75	135	5889	1.6	PC071-GMRV063			7126	
1.0	90	148	6259	1.8					

减速机选型表 / GEAR UNIT SELECTION TABLES

 PC...GMRV...(n₁=1400r/min) 性能参数 PERFORMANCE PARAMETER

P _{in} (kw)	n ₂ (r/min)	i	M _{2n} (Nm)	F ₁₂ (N)	fs				
0.25	7.5	120	181	6270	1.3	PC071-GMRV063	7126		
	6.0	150	211	6270	1.0				
	9.3	150	151	7380	1.7				
	PC071-GMRV075	7.8	180	172	7380	1.4	7114		
		5.8	240	201	7380	1.1			
		4.7	300	230	7380	0.9			
		12.0	75	139	6952	2.4			
		10.0	90	155	7380	2.5			
		7.5	120	191	7380	1.9			
	PC071-GMRV075	6.0	150	219	7380	1.5	7126		
		5.0	180	248	7380	1.2			
		5.0	180	263	8180	1.9			
		3.8	240	318	8180	1.4			
		3.0	300	358	8180	1.1			
		18.7	75	134	5083	1.2			
		PC071-GMRV090	15.6	90	148	5401		1.4	7126
			11.7	120	185	5945		1.0	
			9.3	150	212	6270		0.8	
PC071-GMRV063		18.7	75	138	6000	1.8		7124	
		15.6	90	154	6375	1.9			
		11.7	120	191	7017	1.5			
	9.3	150	223	7380	1.1				
	7.8	180	254	7380	0.9				
	12.0	75	206	6952	1.6				
	10.0	90	230	7380	1.7				
	7.5	120	283	7380	1.3				
	6.0	150	324	7380	1.0				
	7.8	180	268	8180	1.5				
	5.8	240	321	8180	1.1				
	4.7	300	371	8180	0.9				
0.37	6.0	150	347	8180	1.6	7124			
	5.0	180	389	8180	1.3				
	3.8	240	471	8180	1.0				
	3.8	240	509	10320	1.6				
	3.0	300	577	10320	1.3				
	18.7	75	205	6000	1.2		PC080-GMRV075	8016	
	15.6	90	230	6375	1.3				
	11.7	120	284	7017	1.0				
	PC080-GMRV075	9.3	150	332	7380		0.8	8016	
		12.0	75	306	6952		1.1		
		10.0	90	341	7380		1.1		
		15.6	90	240	7054		2.3		
11.7		120	297	7764	1.6				
9.3		150	355	8180	1.3				
7.8		180	398	8180	1.0				
10.0		90	357	8174	2.0				
7.5		120	441	8180	1.4				
6.0		150	516	8180	1.1				
5.0		180	578	8180	0.9				
0.55		18.7	75	205	6000	1.2	PC080-GMRV075		8014
	15.6	90	230	6375	1.3				
	11.7	120	284	7017	1.0				
	PC080-GMRV075	9.3	150	332	7380	0.8	8026		
		12.0	75	306	6952	1.1			
		10.0	90	341	7380	1.1			
		15.6	90	240	7054	2.3			
		11.7	120	297	7764	1.6			
		9.3	150	355	8180	1.3			
	PC080-GMRV090	7.8	180	398	8180	1.0	8014		
		10.0	90	357	8174	2.0			
		7.5	120	441	8180	1.4			
		6.0	150	516	8180	1.1			
		5.0	180	578	8180	0.9			
		7.5	120	441	8180	1.4			

减速机选型表 / GEAR UNIT SELECTION TABLES

 PC...GMRV...(n₁=1400r/min) 性能参数 PERFORMANCE PARAMETER

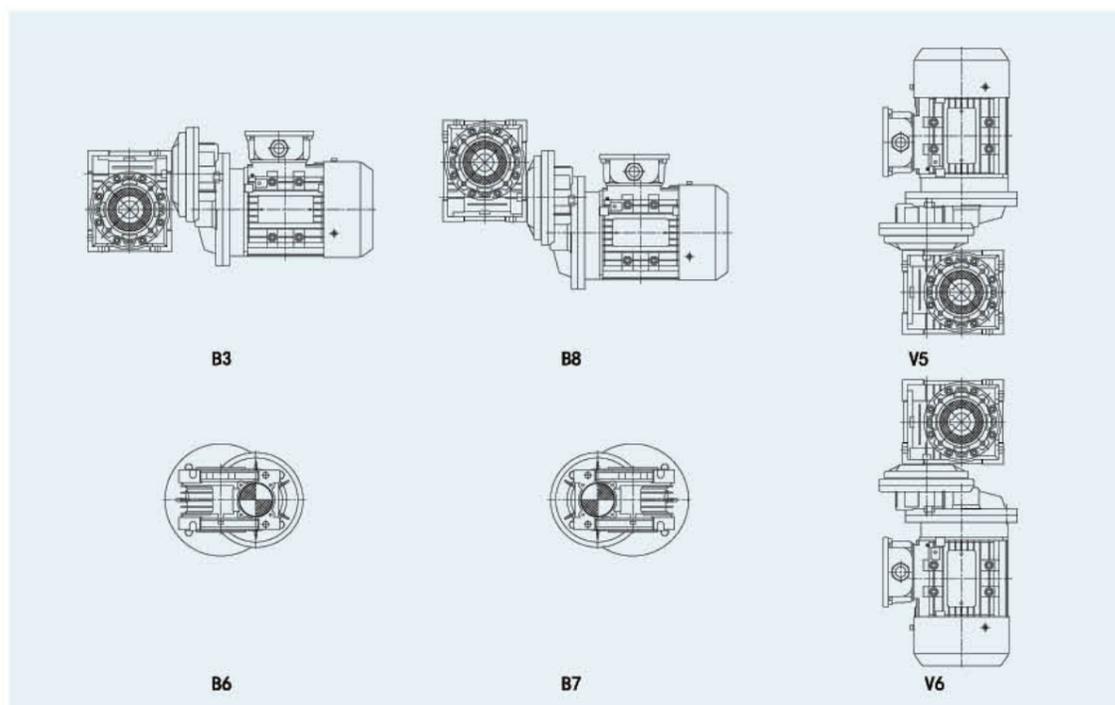
P _{in} (kw)	n ₂ (r/min)	i	M _{2n} (Nm)	F ₁₂ (N)	fs			
0.55	7.8	180	425	10320	1.8	PC080-GMRV110	8014	
	5.8	240	513	10320	1.3			
	4.7	300	597	10320	1.0			
	PC080-GMRV110	7.5	120	462	10320	2.6	8026	
		6.0	150	552	10320	2.0		
		5.0	180	620	10320	1.6		
		3.8	240	756	10320	1.1		
		3.8	240	756	13500	1.6		
		3.0	300	858	13500	1.3		
	0.75	18.7	75	280	6000	0.9	PC080-GMRV075	8024
		15.6	90	313	6375	1.0		
		15.6	90	327	7054	1.7		
PC080-GMRV090		11.7	120	405	7764	1.2	8024	
		9.3	150	483	8180	0.9		
		7.8	180	543	8180	0.7		
		11.7	120	430	9811	2.2		
		9.3	150	506	10320	1.7		
		7.8	180	580	10320	1.3		
PC080-GMRV110		5.8	240	700	10320	0.9	8024	
		12.4	73	393	9614	3.2		
		9.3	96.8	508	10320	2.3		
	7.4	121	607	10320	1.8			
	6.2	145.2	682	10320	1.5			
	4.6	193.6	832	10320	1.0			
	5.8	240	712	13500	1.4			
	4.7	300	813	13500	1.1			
	12.4	73	399	12575	4.4			
	9.3	96.8	508	13500	3.2			
	7.4	121	607	13500	2.6			
	6.2	145.2	682	13500	2.1			
4.6	193.6	832	13500	1.5				
1.1	3.7	242	944	13500	1.2	90S6		
	12.4	73	576	9614	2.2			
	9.3	96.8	746	10320	1.6			
	7.4	121	890	10320	1.2			
	6.2	145.2	1000	10320	1.0			
	19.3	73	392	8298	2.5			
	14.5	96.8	508	9133	1.8			
	11.6	121	599	9838	1.5			
	9.6	145.2	686	10320	1.1			
	7.2	193.6	828	10320	0.8			
	12.4	73	585	12575	3.0			
	9.3	96.8	746	13500	2.2			
7.4	121	890	13500	1.7				
6.2	145.2	1000	13500	1.4				
4.6	193.6	1220	13500	1.0				
19.3	73	398	10853	3.5				
14.5	96.8	508	11945	2.6				
11.6	121	608	12868	2.0				

减速机选型表 / GEAR UNIT SELECTION TABLES

PC...GMRV...(n₁=1400r/min) 性能参数 PERFORMANCE PARAMETER

P _{in} (kw)	n ₂ (r/min)	i	M ₂ (Nm)	F ₂ (N)	f _s		
1.1	9.6	145.2	686	13500	1.6	PC090-GMRV130	90S4
	7.2	193.6	843	13500	1.2		
	5.8	242	962	13500	0.9		
1.5	19.3	73	535	8298	1.9	PC090-GMRV110	90L4
	14.5	96.8	693	9133	1.3		
	11.6	121	817	9838	1.1		
	9.6	145.2	936	10320	0.8	PC090-GMRV130	90L4
	19.3	73	542	10853	2.6		
	14.5	96.8	693	11945	1.9		
	11.6	121	830	12868	1.5		
	9.6	145.2	936	13500	1.1		
	7.2	194	1149	13500	0.8		
2.2	38.6	73	398	6586	2.1	PC090-GMRV110	90L2
	28.9	96.8	516	7249	1.5		
	23.1	121	617	7809	1.2		
	38.6	73	409	8614	2.9	PC090-GMRV130	90L2
	28.9	96.8	545	9481	2.0		
	23.1	121	654	10213	1.6		
	19.3	145.2	752	10853	1.3		

PC与GMRV安装方位 / PC AND GMRV INSTALLATION POSITION



注：如没有特别说明，以B3为标准安装方式
Unless specified otherwise, the standard position are B3.

DIRECTIONS FOR USAGE

使用说明

使用限制 / INSTALLATION

GMRV系列安装使用与保养 / GMRV OPERATION & MAINTENANCE

UDL系列安装使用与保养 / UDL OPERATION & MAINTENANCE

润滑油 / LUBRICATION

订货须知 / NOTICE FOR ORDERING

标准电机外形参考尺寸 / STANDARD MOTOR OUTLINE DIMENSION

这本样本给出的参数基本上是按B3安装方位来编的，即第一级没有完全浸入油中。对于其他安装方位和输入转速，请参考下面表格中相应参数。当遇到下列应用情况时，如有必要请与我们技术服务人员联系。

- ① 在原有上提高转速时。
- ② 应用在惯性特别大的设备上时。
- ③ 应用在如升降机（需要自锁考虑）时。
- ④ 当减速机出现故障有可能会对操作者造成危害时。
- ⑤ 当减速机出现过度疲劳状态时。
- ⑥ 工作环境温度低于 - 5°C或高于40°C时。
- ⑦ 在化学腐蚀环境中使用时。
- ⑧ 在盐性环境中使用时。
- ⑨ 在辐射性高的环境中使用时。
- ⑩ 在环境气压不在正常大气压力下使用时。
- ⑪ 安装方位在这样本中没有提到时。

避免将减速机部分或整台浸入水里或其他液体中。
减速机承受的最大负载扭矩不能超过两倍于性能参数表中规定的正常扭矩（当使用参数 $f_s = 1$ 时）：这里最大负载扭矩是指能承受瞬间短暂适度的过载，它出现在过载启动、刹车、振动或其他动态操作环境中。

CRITICAL APPLICATIONS

The performance given in the catalogue correspond to mounting position B3 or similar, it means the first stage is not entirely immersed in oil. For other mounting positions and particular input speeds, refer to the tables that highlight different critical situations for each size of reduction unit. When face with the following applications, please contact our technical service if necessary.

- ① As a speed increasing.
- ② Applications with especially high inertia.
- ③ Use as a lifting winch. (Think about irreversibility)
- ④ Use in services that could be hazardous for people if the reduction unit fails.
- ⑤ Applications with high dynamic strain on the case of the reduction unit.
- ⑥ In places with temperature under -5°C or over 40°C.
- ⑦ Use in chemically aggressive environments.
- ⑧ Use in a salty environments.
- ⑨ Use in radioactive environments.
- ⑩ Use in environments pressures other than atmospheric pressure.
- ⑪ Mounting positions not envisaged in the catalogue.

Avoid applications where even partial immersion of the reduction unit is required.
The maximum torque that the gear reducer can support must not exceed two times the normal torque ($f_s = 1$) stated in the performance tables. Intended for momentary overloads due to starting at full load, braking, shocks or other causes, particularly those that are dynamic.

安装减速机时要注意以下一些事项：

- ① 减速机与机械设备装配之前，要检查减速机输出轴的旋转方向是否正确。
- ② 减速机与原动机、设备装配之前，应检查各轴径、孔径、键和键槽的偏差尺寸，避免装配过紧、过松影响减速机性能。
- ③ 减速机必须牢固地安装在机械设备上，避免有松动或振动。
- ④ 尽可能地避免减速机暴露在烈日阳光下和恶劣环境中。
- ⑤ 如果减速机存放时间长达4 - 6个月，应检查油封是否浸润在润滑油中，可能油封唇口会粘在轴上，甚至失去了弹性，由于适当的弹性是油封必须的工作条件，所以推荐更换油封。
- ⑥ 所有橡胶件和透气孔不能沾有油漆。
- ⑦ 与减速机的空心轴配合连接时，应在轴上配合部分涂上润滑油，以免卡死或氧化。
- ⑧ 使用时必须检查油位（如油位镜孔或打开油塞，小型号是没有的）
- ⑨ 使用新减速机时，不能满负载启动，应该逐步增大负载。
- ⑩ 使用各类电机直联型减速器时，若电机重量偏大，应设支撑装置。
- ⑪ 确保电机风扇附近有良好的通风环境，以免影响散热效果。
- ⑫ 减速机的标准工作环境温度是 - 5°C至40°C，如果不在这范围时，请与我们技术服务人员联系。

To install the reduction unit it is necessary to note the following recommendations:

- ① Check the correct rotation direction of the output shaft before fitting the reducer to the machine.
- ② Before mount with the prime mover and device, please check the reducer's every axial diameter, aperture, key and key slot, to be sure their dimension are not deviation, and avoid assembling too tight or too loose, unless it will influence the reducer's performance.
- ③ The mouting on the machine must be stable to avoid any vibration .
- ④ Whenever possible, protect the reduction unit against solar radiation and bad weather.
- ⑤ In the case of particularly lengthy periods of storage(4-6 months), if the oil seal is not immersed in the lubricant inside the unit, it is recommended to change it since the rubber could stick to the shaft or may even have lost the elasticity it needs to function properly.
- ⑥ Painting must definitely not go over rubber parts and the holes on the breather plugs, if any .
- ⑦ When connect with hollow or solid shaft, please grease the joint to avoid lock or oxidation.
- ⑧ Check the correct level of the lubricant through the indicator, if there is one.
- ⑨ Starting must take place gradually, without immediately applying the maxium load.
- ⑩ Supporting unit is required when using various of reducer matched with motor directiy and the good passage of the air from the fan side.
- ⑪ Ensure good heat dissipation by keeping good ventilation near the motor fan.
- ⑫ In the case of ambient temperatures < -5°C or > +40°C call the Technical Service.

- ① 轴伸形式全部为圆柱形，按《圆柱形轴伸》GB1569-1990选定，键联接按《普通平键》GB1095 - 2003选定。
- ② 联轴器与电动机连接时应使轴线保持同心，安装误差不应大于所用联轴器的允许误差值。
- ③ 输出轴装联轴器或带轮时，用轴端螺孔压入，或加热装备，严禁捶打！
- ④ 机械无级变速器不宜用于可能超负荷或堵转适用场合。
- ⑤ 调速应在运转进行，严禁停车转动调速手轮！
- ⑥ 操作盒下的两端调速限位螺钉已调整好，请勿再动！
- ⑦ 本机不宜工作在高于40°C的环境中，温升不得高于45°C。关于本机的温升请看下面的介绍：

变速器采用四极电机时，此时部件在跑合（空车运转）开始，温度高于正常工作环境温度约为40 - 50°C。跑合60 - 80小时后，温升逐渐下降，此后温度高于环境温度20°C，并保持稳定的温升，跑合时高的温升影响正常工作条件，但对部件的使用寿命并无有害影响。

- ⑧ 变速器采用润滑油油浴润滑。润滑油牌号为Ub-3x，使用前请检查油位。
- ⑨ 出厂前润滑油已加入，首次使用1000小时后应更换润滑油，以后每隔5000小时换一次油。
- ⑩ 变速器内润滑油应保持在油标的三分之二高度，用户应经常检查油位高度，严禁在润滑不良的情况下使用。操作盒上的透气螺母出厂时为防止搬运中漏油已旋紧，运转时需松开，严禁未松开使用！

- ① The shapes of shaft extension are all cylindrical. It is subject to GB1569-1990 Cylindrical shaft extension. The key joint refers to GB1095-2003 Ordinary flat key.
- ② The shaft lines should be kept concentric when the coupling is connected with a motor. The installation error should be no more than the tolerance value of coupling.
- ③ When the output shaft is installed with the coupling or belt wheel, they should be pressed into the screw hole on shaft end. Or assembled by heating. No hammering on it!
- ④ The mechanical stepless variator is not used in such an occasion where overload or running-blockage happen to occur.
- ⑤ Speed-regulation should be effected in running. Do not turn the hand wheel of speed-regulation when the machine stops!
- ⑥ The limit screws of speed-regulation on two ends under the operating box are well adjusted, Please don't touch them!
- ⑦ This set is not suited to work in the environment over 40°C, especially no more than 45°C when the temperature rises. In regard to its temperature rise please read the explanation as follows:

If a 4-pole motor is used for the speed variator, the temperature under running-in(empty running) is 40-50°C higher than that of normal working environment. After running-in up to 60-80hours, the temperature rise will go down gradually. From that time on, it is 20°C higher than of environment, and the temperature will keep on rising stably. The high temperature rise in running will affect normal permissive working condition, but it won't bring any bad effects to the service life of parts.

- ⑧ The liquid lubricating oil is used for the speed variator. Its trade mark is Ub-3x. Please check up the oil level before use.
- ⑨ The machine is filled with lubricating oil before leaving factory. When it starts to work up to 2000 hours for the first time, its lubricating oil should be replaced, changing the lubricating oil every 5000 hours later.
- ⑩ The lubricating oil level inside the speed variator should be kept at the height of two-third in the oil scale. Users should usually check the height of oil level. It is strictly prohibited to operate it when short of lubricating oil. The air screw nut on the operating box is screwed up for preventing from oil leakage in moving before leaving factory. It should be loosened when it starts to run. It is strictly forbidden to use it before loosening!

工作环境温度不在表中范围内，请与我们联系。

当工作环境温度低于 - 30°C或高于60°C时，要使用特殊材质的油封。
 当工作环境温度低于0°C时，必须考虑下列情况：

- ① 选用的电机必须在低温下能正常工作。
- ② 如果减速机箱体的材质是铸铁，在温度 - 15°C以下时，箱体可能会变得很脆，要注意尽量避免撞击。
- ③ 在开始使用阶段时，由于润滑油的粘度很高，可能会产生一些问题，所以刚开始启动时最好让它空载运转几分钟。减速机运转大约10.000小时后，应更换润滑油，换油频率按减速机实际运行情况和的工作环境条件而定。

- GMRV025、030、040、050、063、075、090规格的减速机在出厂时已加注了润滑油，可以按照样本中安装方位所提到的方位安装。V5或V6安装时，请与我们联系。
- 减速机GMRV110、130和150规格在出厂时已加注了矿物润滑油（SHELL Omala OIL 460）。
- 无级变速器在出厂时也加注了矿物润滑油（广研Ub-3x）。
- 减速机GMRV110、130和150规格的安装方位在下单时要说明，否则润滑油理按B3方位提供。
- GMRV系列的减速机，在特定的工作环境，需配排气阀（可选配件）。
- PC已加注了耐用的合成油润滑油（SHELL TEVELA OIL 320），因此能够安装任何方位。

In cases of ambient temperature not envisaged in the table, call our Technical Service.

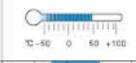
In the case of temperature under -30°C or over 60°C. It is necessary to use oil seals with special material. For operating ranges with temperatures under 0°C. It is necessary to consider the following.

- ① The motors need to be suitable for operation at the envisaged ambient temperature.
- ② Motor power needs to be adequate for exceeding the higher starting torque required. In the case of reduction units with a cast-iron case, pay attention to impact loads since cast iron may have problems of fragility at temperatures under-15°C.
- ③ During the early stages of service, problems of lubrication may arise due to the high level of viscosity taken on by the oil and so it is wise to have a few minutes of rotation under no load.

The oil needs to be changed after approximately 10.000 hours. This period depends on the type of service and the environment where the reduction unit works.

- The reduction units size NMRV025、030、040、050、063、075、090 are supplied complete with lubricant, and can therefore be mounted in any position envisaged in the catalogue. V5/V6 for which you should call our Technical Service to assess the conditions of use.
- The reduction units size 110 and 130 are supplied complete with lubricant, mineral oil, (SHELL TEVELA OIL 320)
- The variator speed are supplied complete with lubricant, mineral oil (GUANGYAN Ub-3x)
- For sizes 110 and 130 it is necessary to specify the position, otherwise the reduction units are supplied with the quantity of oil relating to pos. B3.
- GMRV series worm gearbox should mount breather plug (optional parts) under special working condition.
- PC is supplied complete with long-life lubricant, synthetic oil (SHELL TEVELA OIL 320), and can therefore be mounted in all the positions.

润滑油选用表 / LUBRICANTS OIL CHOSEN TABLE

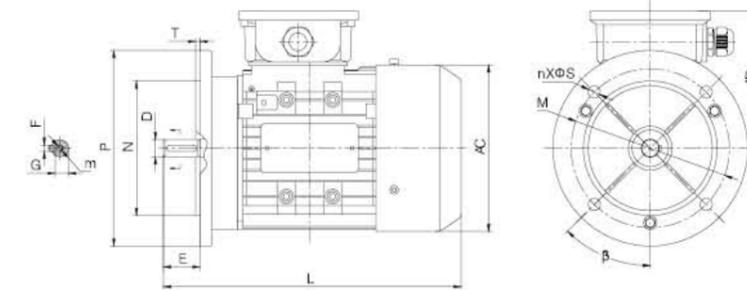
		ISO	SHELL	AGIP	ESSO	MOBIL	CASTROL	BP	广研	
GMRV025-090 PC063-090	-25 ~ +50	VG320	Tivela OIL S320	Telium VSF320	S220	Glygoyle 30	Alphasyn Pg320	Energol SG-XP320		合成油 Synthetic oil
GMRV110-150	-5 ~ +40	VG460	Omala OIL460	Blasia 460	Spartan Ep460	Mobilgear 634	Alpha MAX 460	Energol GR-XP460	CKE460	矿物油 Mineral oil
		VG220	Omala OIL220	Blasia 220	Spartan Ep220	Mobilgear 630	Alpha MAX 220	Energol GR-XP220		
UDL	-25 ~ +40	Vg32	A.T.F.DXRON	A.T.F.DXRON	A.T.F.DXRON	A.T.F.220	TQ.DXRONII	Autran DX	Ub-3x	矿物油 Mineral oil

型号	安装方位	安装方位			
		B3	B8	B6、B7	V5、V6
GMRV 025			0.02		
GMRV 030			0.042		
GMRV 040			0.081		
GMRV 050			0.153		
GMRV 063			0.30		
GMRV 075			0.58		
GMRV 090			1.02		
GMRV 110		3.02	2.25	2.55	3.02
GMRV 130		4.55	3.35	3.55	4.55
GMRV 150		7	5.1	5.4	5.4
PC063			0.05		
PC071			0.07		
PC080			0.15		
PC090			0.16		
型号	安装方位	安装方位			
		B3、B5	V3、V6	V1、V5	
UDL002		0.13		0.15	
UDL005		0.23		0.33	
UDL010		0.33	0.43	0.6	
UD020		0.8		1	
UD030S/L		1.2		1.2	

表格规定的加注量为参考值, 准确值的变化与传动比和安装方式有关。
 The fill quantity in the table is referenced, the exact value relating to the ratio and mounting positions.

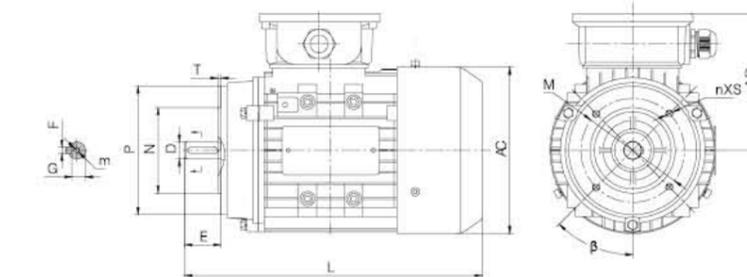
订货须知 / NOTICE FOR ORDERING

- ① 订货时请根据使用需要的转速范围, 输出转矩, 结构形式, 对照性能参数、尺寸表、安装和操作方位图, 合理选择机型, 写明型号标记(下单时是否带电机请说明, 一般按不带电机供应)。订货时选择的安装方位应与安装方法一致, 不然容易造成漏油, 影响使用寿命, 若安装方位特殊请另加说明。
 - ② 订货时请尽量选择本目录内的标准产品, 如有特殊要求或配用特殊电机请附加说明。
- ① Please refer to the sheet of performance parameter, GMRV series dimensions, Mounting and operation positions diagram, make reasonable choice of model, and write down model mark to your required revolution scope, output torque and structural form on ordering (when ordering, you should show whether the reducers are equipped with motors, otherwise reducers with motors).
 - ② Please make the best choice of standard products in this catalogue, and give an additional explanation for your special requirement and motors.



B5型机座安装型式 (B5 MOUNTING POSITION)

机座号 Frame	电机极数 Motor poles			外型尺寸 Outline dimensions					安装尺寸 Mounting dimensions					轴伸尺寸 Shaft extension dimensions				
	2P	4P	6P	AC	AD	L	P	N	T	M	S	β	E	F	D	G	m	
	电机功率 Motor power(KW)																	
56	0.08 0.12	0.08 0.09	0.09	113	96	199	120	80	3.0	100	7(n=4)	45°	20	3	9	7.2	M4X12	
63	0.18 0.25	0.12 0.18	0.09 0.12	120	102	217	140	95		115	10(n=4)		23	4	11	8.5		
71	0.37 0.55	0.25 0.37	0.18 0.25	136	109	245	160	110	3.5	130	12(n=4)	30	5	14	11	M5X12		
80	0.75 1.10	0.55 0.75	0.37 0.55	155	124	287	155	110		165	15(n=4)	40	6	19	15.5	M6X16		
90S	1.5	1.1	0.75	175	137	310	200	130	4.0	215	15(n=4)	45°	50	8	24	20	M8X19	
90L	2.2	1.5	1.1															335
100L	3	2.2	1.5	195	151	383	250	180	5.0	300	19(n=4)	45°	60	8	28	24	M10X22	
112M	4	4.0	2.2	219	169	401												250
132S	5.5 7.5	5.5	3.0	258	188	475	300	230	4.0	265	15(n=4)	45°	80	10	38	33	M12X28	
132M	7.5	5.5	3.0															513
160M	11 15	11	7.5	315	242	609	350	250	5.0	300	19(n=4)	45°	110	12	42	37	M16X36	
160L	18.5	15	11															653



B14型机座安装型式 (B14 MOUNTING POSITION)

机座号 Frame	电机极数 Motor poles			外型尺寸 Outline dimensions					安装尺寸 Mounting dimensions					轴伸尺寸 Shaft extension dimensions				
	2P	4P	6P	AC	AD	L	P	N	T	M	S	β	E	F	D	G	m	
	电机功率 Motor power(KW)																	
56	0.08 0.12	0.08 0.09	0.09	113	96	199	80	50	2.5	65	M5(n=4)	45°	20	3	9	7.2	M4X12	
63	0.18 0.25	0.12 0.18	0.09 0.12	120	102	217	90	60		75	M5(n=4)		23	4	11	8.5		
71	0.37 0.55	0.25 0.37	0.18 0.25	136	109	245	105	70	3.0	85	M6(n=4)	45°	30	5	14	11	M5X12	
80	0.75 1.10	0.55 0.75	0.37 0.55	155	124	287	120	80		100	M6(n=4)		40	6	19	15.5	M6X16	
90S	1.5	1.1	0.75	175	137	310	140	95	4.0	215	15(n=4)	45°	50	8	24	20	M8X19	
90L	2.2	1.5	1.1															335
100L	3	2.2	1.5	195	151	383	160	110	5.0	300	19(n=4)	45°	60	8	28	24	M10X22	
112M	4	4.0	2.2	219	169	401												250
132S	5.5 7.5	5.5	3.0	258	188	475	200	130	4.0	215	M10(n=4)	45°	80	10	38	33	M12X28	
132M	7.5	5.5	3.0															513
160M	11 15	11	7.5	315	242	609	250	180	5.0	300	19(n=4)	45°	110	12	42	37	M16X36	
160L	18.5	15	11															653