



TUNYO

東洋HRV準雙曲面減速電機選型手冊
TUNYO HRV Hypoid Motor Hand Book

TUNYO INTELLIGENT DEVICE CO.,LTD

TUNYO
The Power Of Dream

品質成就領先
技術服務社會

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*本公司產品因不斷改進，尺寸如有變動恕不另行通知，詳情請聯系本公司。
* Our company's products always develop in time, if there are some changes about size, we will not inform you again. So please contact us.

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

產品型式 Type



HRV+YH
一體式減速電機



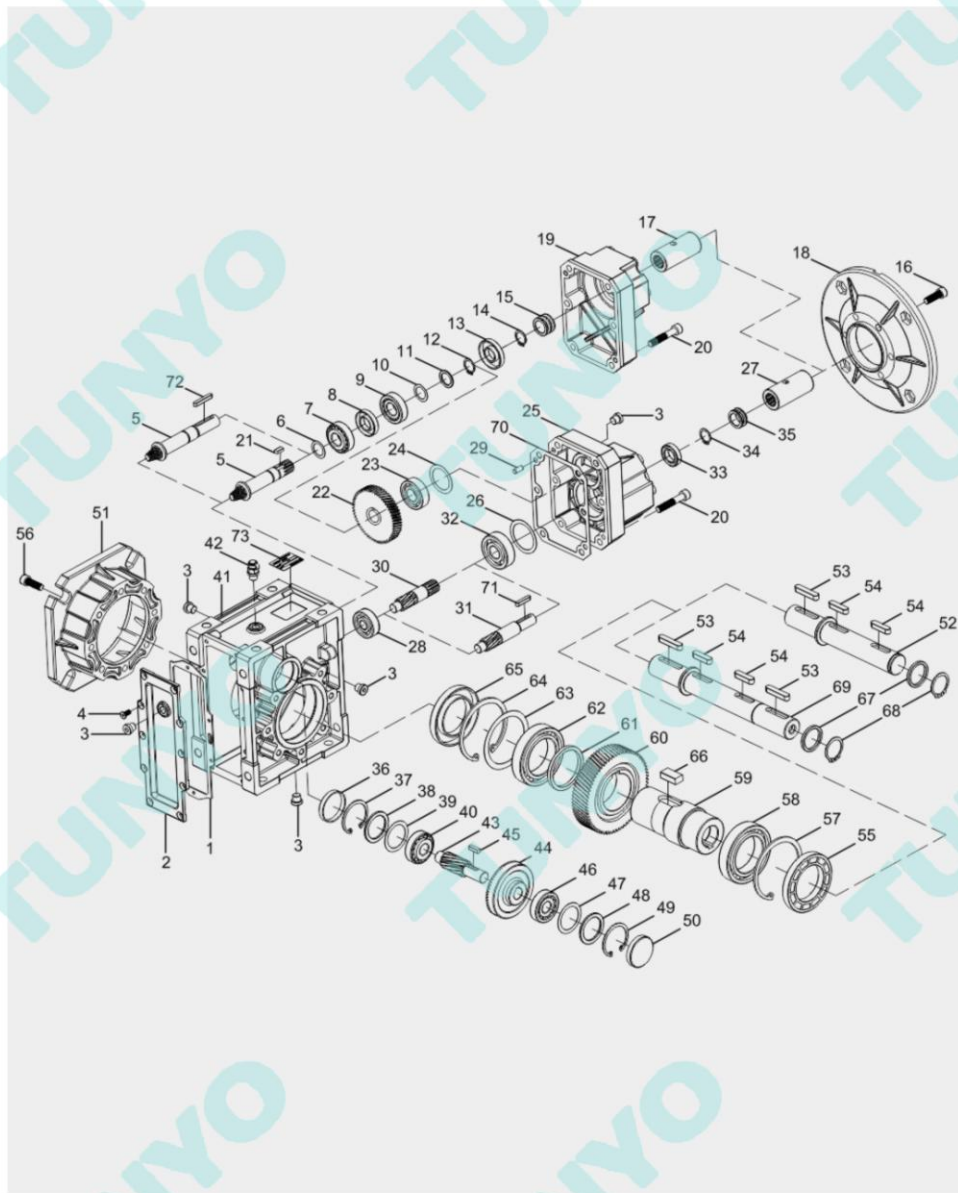
HRV+EC
分體式減速電機



HRV+ST
無刷、步進、伺服減速機

R系列HRV準雙曲面減速電機
R Series HRV Hypoid Gear Motor

結構分解圖 Structure Diagram



R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

結構分解圖 Structure Diagram

1	橡胶垫 / Rubber gasket	38	垫圈 / Washer
2	齿轮箱盖板 / Gearcase cover	39	调整垫片 / Shim ring
3	油塞 / Oil plug	40	轴承 / Bearing
4	内六角沉头螺钉 / Hexagon sunk screw	41	齿轮箱体 / Gearcase
5	主动齿轮轴 / Pinion shaft	42	透气阀 / Breather valve
6	调整垫片 / Shim ring	43	主动齿轮轴 / Pinion shaft
7	轴承 / Bearing	44	从动齿轮 / Gear
8	油封 / Oil seal	45	键 / Key
9	轴承 / Bearing	46	轴承 / Bearing
10	调整垫片 / Shim ring	47	调整垫片 / Shim ring
11	垫圈 / Washer	48	垫圈 / Washer
12	轴用挡圈 / Shaft-circlip	49	孔用挡圈 / Hole-circlip
13	油封 / Oil seal	50	油封盖 / Closing cap
14	轴用挡圈 / Shaft-circlip	51	输出法兰 / Output flange
15	橡胶套 / Rubber boot	52	单向输出轴 / Single output shaft
16	内六角螺钉 / Inner hex screw	53	键 / Key
17	输入轴 / Input shaft	54	键 / Key
18	输入法兰 / Input flange	55	油封 / Oil seal
19	两级输入箱盖 / 2 stage input box cover	56	内六角螺钉 / Inner hex screw
20	内六角螺钉 / Inner hex screw	57	孔用挡圈 / Hole-circlip
21	键 / Key	58	轴承 / Bearing
22	从动齿轮 / Gear	59	输出轴 / Hollow shaft
23	轴承 / Bearing	60	从动齿轮 / Gear
24	调整垫片 / Shim ring	61	垫圈 / Washer
25	三级输入箱盖 / 3 stage input box cover	62	轴承 / Bearing
26	调整垫片 / Shim ring	63	调整垫片 / Shim ring
27	输入轴 / Input shaft	64	孔用挡圈 / Hole-circlip
28	轴承 / Bearing	65	油封 / Oil seal
29	圆柱销 / Stifte	66	键 / Key
30	主动齿轮 / Pinion	67	垫圈 / Washer
31	主动齿轮轴 / Pinion shaft	68	轴用挡圈 / Shaft-circlip
32	轴承 / Bearing	69	输出双向轴 / Double output shaft
33	油封 / Oil sea	70	密封纸垫 / Housing gasket
34	轴用挡圈 / Shaft-circlip	71	键 / Key
35	橡胶套 / Rubber boot	72	键 / Key
36	油封盖 / Closing cap	73	铭牌 / Nameplate
37	孔用挡圈 / Hole-circlip		

設計特徵 Design Features

产品概述 / Summarize

HRV系列高效型准双曲面齿轮减速机是我公司新一代实用性产品,融合了国内外先进技术,在保证安装尺寸与NMRV系列蜗轮蜗杆减速机兼容的前提下,通过借鉴SEW齿轮减速机结构采用全齿轮副传动,提高了传动效率,解决了当前蜗轮蜗杆减速机传动效率低,使用寿命短等问题,在工业发展中更起到了节能降耗,绿色环保的作用。

HRV series high efficiency hypoid gearbox is a new generation of product developed by our company. Fuses the advanced technology both at home and abroad. The mounting dimension of HRV the same with NMRV Series worm gearbox. Adopt gear transmission used for reference SEW helical gearbox structure to improve transmission efficiency, solved NMRV worm gearbox transmission efficiency low, service life short and etc. questions. In industrial developing HRV the role of saving energy and reducing consumption, green environmental protection.

结构特点 / Products characteristics

1. 采用准双曲面齿轮传动, 传动比大;
2. 输出扭矩大, 传动效率高, 节能环保;
3. 优质铝合金铸造, 重量轻, 不生锈;
4. 传动平稳, 噪音小, 适合在恶劣环境中长期连续工作;
5. 美观耐用, 体积小;
6. 可适应全方位安装, 应用广泛, 使用方便;
7. HRV系列减速机安装尺寸与NMRV系列蜗轮蜗杆减速机完全兼容(HRV050与NMRV050部分尺寸不同);
8. 模块化组合, 可多种形式组合, 满足各种传动条件的需求。

1. Driven by hypoid gear , has big ratios.
2. Large in output torque , high efficiency , energy saving and environmental protection.
3. Made of high-quality aluminum alloy , light in weight and non-rusting.
4. Smooth in running and low in noise , can work long time in dreadful conditions.
5. Good-looking in appearance , durable in service life and small in volume.
6. Suitable for all round installation , wide application and easy of use.
7. The mounting dimension of HRV series are compatible with NMRV series worm gear unit(A part of NMRV050 dimensions are different from HRV 050)
8. Modular and multi-structure can meet the demands of various conditions.

設計特徵 Design Features

優勢對比 / Comparative advantage

1. 高效節能、綠色環保 / High efficiency & energy-saving

準雙曲面齒輪的啮合摩擦小，傳動效率高達90%以上，與蝸輪蝸杆減速機相比效率提高10%~40%。

The hypoid gear has low friction, efficiency is as high as 92%, compared with the worm gearbox, the efficiency improved about 10%-40%.

型號 Type	傳動比 Ratios[i]	輸入轉速 Input speed[n1]	效率 Efficiency[η]
HRV075	30.24	1400	90%
NMRV075	30	1400	60%

2. 强度高、壽命長 / High strength & long life

準雙曲面齒輪採用優質合金材料，經表面硬化處理，採用高精度磨齒機加工成形，屬硬齒面齒輪，輸出扭矩大，齒輪強度與壽命遠遠高於蝸輪蝸杆減速機。

The hypoid gear made of high quality alloy, treated by surface hardening, and produced by high-precision grinding machine, the output torque, gear strength and life are much better than worm gearbox.

主要材料 / Main materials

1. 外殼：鋁合金（機座：050-090）；
灰鑄鐵（機座：110）；
2. 齒輪：20CrMnTi，碳氮共滲，齒面硬度58-62HRC，精磨後保持滲碳層厚度0.3-0.6mm；

1. Housing: die-cast aluminum alloy (frame size: 050 to 090);
grey cast iron (frame size: 110);
2. Gear wheel: 20CrMnTi, carbonization & nitriding treatment make the hardness of gear's surface up to 58-62 HRC, retain carburized layer's thickness between 0.3 and 0.6mm after accurate grinding.

表面塗裝 / Surface painting

鋁合金外殼：

1. 先拋丸處理，再經過特種防腐處理，保持銀白金屬感，並耐汽油，二甲苯等有機溶劑的腐蝕；
2. 磷化處理後，再噴RAL7035銀灰色塗料或RAL5010藍色塗料。

Aluminum alloy housing：

1. Shot blasting and special antiseptic treatment on the aluminum alloy surface.
2. After phosphating, spray the paint RAL7035 in grey or RAL5010 in blue.

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor



電機型號說明 General Information

YH	71	2	4	-	750	-	GW
電機種類	機座號	鐵芯代號	極數		功率		其他
YH:準雙曲面一體電機	63 71 80 90S 90L 112M 132S	1 2 3 4	2 4 6		120W ~ 5500W		M:剎車 GW:高溫 FS:防水 L/R:進線位置 G1-G4:接線盒位置

減速機型號說明 General Information

2	HRV	063	-	50	-	80M	-	SS
減速機系列代號		機座號		減速比		輸入法蘭代號		其他
2:2級傳動 3:3級傳動	準雙曲面減速機	050 063 075 090 110		1:7.5 ~ 300		63 ~ 132S		SS:單軸輸出 DS:雙軸輸出 HS:軸輸入 TA:扭力臂 C:防塵蓋 FA/FB/FC/FD: 輸出法蘭 E:減速機尾出軸

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

選型相關參數 Relevant Parameter

功率 P

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

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

P_1 輸入功率 P_2 輸出功率
 P_{1n} 輸入電機額定功率 fs 服務係數
 η 傳動效率

HRV系列減速機的效率是根據傳動級數確定，2級傳動效率 η 為92%，3級傳動效率 η 為90%。

POWER P

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

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

P_1 Input power P_2 Output power
 P_{1n} Rated input motor power fs Service factor
 η Transmission efficiency

The efficiency of HRV gear units varies with the number of gear stages, which is 92% for 2-stage, 90% for 3-stage.

轉速 n / Rotation speed n

n_1 減速機輸入轉速
 n_2 減速機輸出轉速

n_1 Gear units input speed
 n_2 Gear units output speed

若是齒輪箱外部傳動裝置驅動，為了優化工作條件和提高使用壽命，建議使用1400r/min或更低轉速。允許輸入較高的輸入轉速，但在這種情況下，額定扭矩 M_2 會下降。

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. Higher input rotation speed is permitted, but in this situation, the rated torque M_2 will be reduced.

傳動比 i / Transmission ratio i

$$i = n_1 / n_2$$

傳動比通常為小數，在選型表中保留兩位小數。
 Usually transmission ratio is decimal fraction with 2 radix point tagged in selection tables.

扭矩 M / Torque m

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

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

M_2 輸出扭矩
 M_{2n} 額定輸出扭矩
 P_1 輸入功率
 η 傳動效率
 fs 服務係數

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

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

M_2 Output torque
 M_{2n} Rated output torque
 P_1 Input power
 η Transmission efficiency
 fs Service factor

選型相關參數 Relevant Parameter

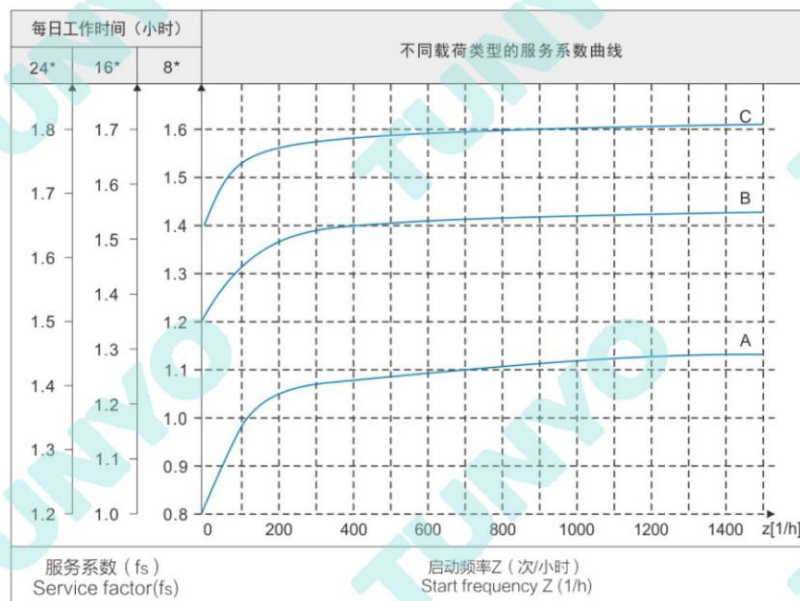
服務係數 f_s / Service factor f_s

使用減速機時，應考慮一定的服務係數 f_s ，它是根據每天的運轉時間和啟停頻率 Z 確定的。

根據慣性加速係數確定三種負載類型，在下圖中可以讀取實際應用使用的係數，按下圖選取的服務係數必須小於或等於從性能參數表中提供的服務係數。

The effect of the driven machine on the gear unit is taken into account to a sufficient level of accuracy using the service factor f_s . 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.



- 啟動頻率 Z ：周期包括所有啟動、制動次數以及變速電機高低速變化時的次數。
- starting frequency Z : The cycles include all starting and braking procedures as well as change overs from low to high speed.

選型相關參數 Relevant Parameter

負載類型 / Load classifications

負載性質:

- A. 均勻沖擊負載, 允許慣性加速系數 $F_a \leq 0.2$
- B. 中等沖擊負載, 允許慣性加速系數 $F_a \leq 3$
- C. 重沖擊負載, 允許慣性加速系數 $F_a \leq 10$

Type of load:

- A. Uniform ,permitted mass acceleration factor $F_a \leq 0.2$
- B. Moderate shock load,permitted mass acceleration factor $F_a \leq 3$
- C. Heavy shock load,permitted mass acceleration factor $F_a \leq 10$

輕負載的螺桿輸送, 風扇, 裝備線, 輸送帶, 小型攪拌器, 電梯, 清洗機器, 過濾器, 控制驅動。

卷揚機, 木工機器進料器, 貨物起重機, 平衡器, 絞螺紋機器, 中型攪拌器, 重型輸送帶, 絞盤, 滑動閘門, 刮料機, 包裝機械, 混凝土攪拌機, 行車驅動裝置, 銑床, 齒輪泵。

大型攪拌器, 剪床, 壓機, 离心机, 旋轉支撐裝置, 重型絞盤和起重機, 磨床, 石材打磨機, 翻斗機, 鑽床, 沖床, 凸軸壓機, 摺床, 機床轉盤, 翻桶裝置, 震蕩裝置, 破碎機。

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, fertilize 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, cam presses, folding machines, turntables, tumbling barrels, vibrators, shredders.

慣性加速系數 / Mass acceleration factor

慣性加速系數計算如下:

$$F_a = J_c / J_m$$

F_a 慣性加速系數

J_c 所有外部傳動慣量 (kgm^2)

J_m 驅動電機的傳動慣量 (kgm^2)

如果慣性加速系數 $F_a > 10$, 請與我們技術部聯繫。

The mass acceleration factor is calculated as follows:

$$F_a = J_c / J_m$$

F_a Mass acceleration factor

J_c All external mass moments of inertia (kgm^2)

J_m Mass moment of inertia on the motor end (kgm^2)

If mass acceleration factors $f_a > 10$, please call our Technical Service.

為了保持減速機的使用壽命, 從產品樣本中所選擇的服務系數 f_s 應等於或略高於計算出的服務系數 f_s 。

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

舉例 / Example :

慣性加速系數2.5 (負載類型B), 運行時間14小時/天, (按16小時/天查圖) 和每小時200次起停, 查圖得服務系數 $f_s = 1.48$ 。根據性能參數表所選擇的使用系數 $f_s \geq 1.48$

Mass acceleration factor 2.5 (load classification B), 14 hours/day operating time (read off at 16h/d) and 200 cycles/hour result in a service factor $f_s = 1.48$.

choose the service factor $f_s \geq 1.48$ according to the parameter sheet.

選型相關參數 Relevant Parameter

徑向載荷和軸向載荷 / Overhung loads and axial forces

在決定影響徑向載荷時，安裝在軸端上的傳動件類型必須考慮在內。不同類型的傳動對應不同的傳動附加係數 f_z ，列表如下：

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 f_z :

傳動件 Transmission element	傳動附加係數 f_z Transmission element factor f_z	注釋 Comments
齒輪 Gears	1.15	<17齒 teeth
鏈輪 Chain sprockets	1.25	<20齒 teeth
	1.40	<13齒 teeth
V帶輪 Narrow V-belt pulleys	1.75	有預緊力作用 Influence of the tensile force
平帶輪 Flat belt pulleys	2.50	有預緊力作用 Influence of the tensile force
齒帶輪 Toothed belt pulleys	2.50	有預緊力作用 Influence of the tensile force

作用在電機和齒輪軸上的徑向載荷按如下公式計算：

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

$$F_r = \frac{M \cdot 2000 \cdot f_z}{d_o} \text{ (N)}$$

F_r 作用在軸上的載荷[N] Resulting radial load [N]

M 作用在軸上的扭矩[Nm] Torque on the shafts [Nm]

d_o 安裝在軸上傳動件的平均直徑[mm] Mean diameter of the mounted transmission element in [mm]

f_z 傳動附加係數 Transmission element factor

許用徑向載荷時根據軸承額定使用壽命 L_{10h} 來估算的（根據ISO0281）。對於特殊的運行條件，許用徑向載荷時根據修正使用壽命 L_{na} 來確定。

The basis for determining the permitted radial loads is the computation of the rated service life L_{10h} of the bearings (according to ISO0281) For special operating conditions , the permitted radial loads can be determined with regard service life L_{na} .

當作用點偏離出軸中點時，許用徑向載荷須按以下公式來計算，取在X點的許可數值 F_xL （根據軸承的使用壽命）

The permitted radial loads given in the selection tables must be calculated using the following formula in the event of force application not in the center of the shaft end. The smaller of the two values F_xL (according to bearing service life)

根據軸承的使用壽命公式 / according to bearing service life :

$$F_xL = F_{r(1,2)} \cdot \frac{a}{b+x} \text{ [N]}$$

F_{r1}, F_{r2} =性能參數表中的許用徑向載荷（ $x=L/2$ ）[N]

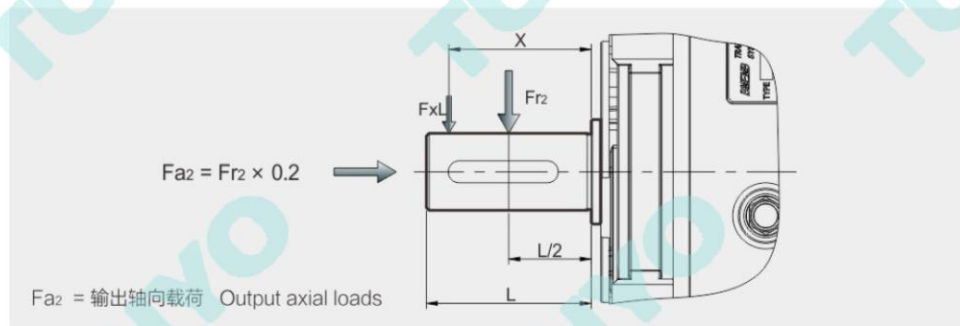
Permitted overhung load ($x=L/2$) for footmounted gear units according to the selection tables in [N]

X =從軸肩到受力點的距離[mm] Distance from the shaft shoulder to the force application point in [mm]

a, b =減速機徑向轉化常數[mm] Gear unit constant for overhung load conversion [mm]

選型相關參數 Relevant Parameter

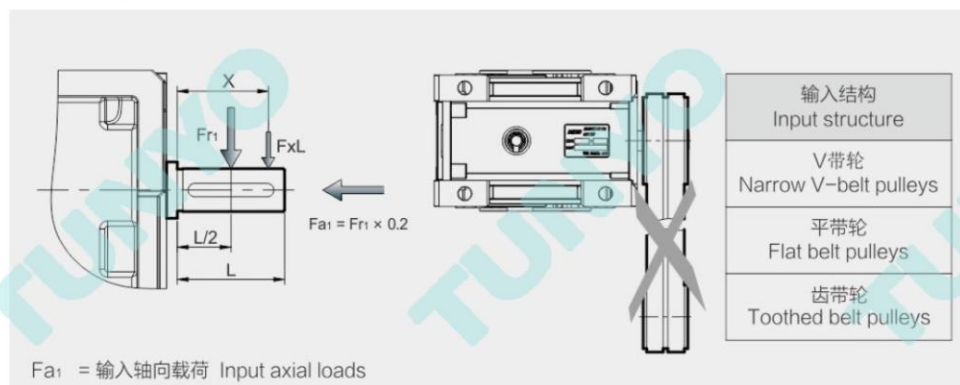
● 輸出軸徑向載荷 / Output shafts radial loads



HRV 減速機徑向轉化常數 Gear unit constants for overhung load conversion:

	2HRV050	3HRV050	2HRV063	3HRV063	2HRV075	3HRV075	2HRV090	3HRV090	2HRV110	3HRV110
a	104	104	118	118	131	131	159	159	174	174
b	78	78	93	93	101	101	119	119	134	134

● 輸入軸徑向載荷 / Input shafts radial loads



右示圖的輸入不被允許使用 (包括三級輸入)。

It is forbidden to use the input on the right chart (including 3 stage input).

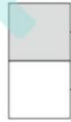
HRV 減速機徑向轉化常數 Gear unit constants for overhung load conversion:

	2HRV050	3HRV050	2HRV063	3HRV063	2HRV075	3HRV075	2HRV090	3HRV090	2HRV110	3HRV110
a	51.5	56	90	56	73	70	81	70	101	87
b	40	44.5	43	44.5	53	55	61	55	76	67

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

選型相關參數 Relevant Parameter

选型表注释 / Selection tables comments



表示电机与减速机的组合是可行的

表示电机与减速机的组合是不可行的

- * 表示速比可除尽
- P_{1n} 电机额定功率 [kW]
- n_2 输出转速 [r/min]
- M_{2n} 输出扭矩 [Nm]
- M_{2max} 最大允许输出扭矩 [Nm]
- F_{r2} 输出轴径向载荷 [N]
- i 减速机公称传动比

- i_a 减速机实际传动比
- f_s 服务系数
-  减速电机型号
-  减速机型号
-  电机型号



Combination with the motor in the header row is possible

Combination with the motor in the header row is not possible

- * Finite gear unit reduction ratio
- P_{1n} Rated power driving motor [kW]
- n_2 Output speed [r/min]
- M_{2n} Output torque [Nm]
- M_{2max} Max. permissible output torque [Nm]
- F_{r2} Permissible overhung load output side [N]
- i Gear unit nominal ratio

- i_a Gear unit actual ratio
- f_s Service factor
-  Geared motor type
-  Gear unit type
-  Motor type

選型相關參數 Relevant Parameter

● 选型举例 / Selection example

減速电机 / Gear motor

例：被驱动设备所需要功率0.25kW，工作8小时/天，中等冲击，启动频率100次/小时，输出转速 $n_2=35r/min$ ，減速机要求B3安装，则：

$$i = \frac{n_1}{n_2} = \frac{1400}{35} = 40$$

查服务系数图表即可选服务系数 $f_s=1.3$

$$P_{in} \geq P_1 \cdot f_s = \frac{P_2}{\eta} \cdot f_s = \frac{0.25}{0.94} \times 1.3 = 0.345 \text{ (kW)}$$

查HRV系列性能参数表可确定減速机型号为：
2HRV 050 / 40.09 / 71B5 / 0.37-4P / B3

Example : Required power 0.25kW on driven machine , work for 8 h/day , moderate shock load , start up frequency 100 (1/h) , $n_2=35r/min$, B3 mounted , So :

$$i = \frac{n_1}{n_2} = \frac{1400}{35} = 40$$

Check the service factor table , choose $f_s=1.3$

$$P_{in} \geq P_1 \cdot f_s = \frac{P_2}{\eta} \cdot f_s = \frac{0.25}{0.94} \times 1.3 = 0.345 \text{ (kW)}$$

Choose type:
2HRV 050 / 40.09 / 71B5 / 0.37-4P / B3

減速机 / Gear units

例：被驱动设备所需扭矩为200Nm，工作8小时，均匀冲击负载，启动频率400次/小时，減速机要求FA1法兰安装，減速机要求输入转速 $n_1=900r/min$ ，输出转速 $n_2=6r/min$ ，查性能参数表可知，只选能三级传动形式。

查服务系数表即可选服务系数 $f_s=1$

Example:Required torque 200Nm on driven machine,work 8 h/day,uniform load,Start up frequency 400(1/h) FA1 mounted, $n_1= 900 \text{ r/min}$, $n_2= 6 \text{ r/min}$, so the only selection is 3 stage after checked the table:

check the service factor table , choose $f_s=1$

$$i = \frac{n_1}{n_2} = \frac{900}{6} = 150$$

$$M_{2N} \geq M_2 \cdot f_s = 200 \times 1.05 = 210 \text{ (Nm)}$$

$$P_{in} \geq P_1 \cdot f_s = \frac{M_2 \cdot n_1}{9550 \cdot \eta \cdot i} \cdot f_s = \frac{210 \times 900}{9550 \times 0.92 \times 150} \times 1.05 = 0.151 \text{ (kW)}$$

查HRV系列性能参数表可确定減速型号为：
3HRV 075 / 151.20 / FA1

Choose type:
3HRV075 / 151.20 / FA1

選型相關參數 Relevant Parameter

● 选型举例分析 / Selection example analysis

例：某大型企业新增一条生产流水线，需采购40台减速电机，要求减速机输出功率0.8kW， $n_1 = 1400\text{r/min}$ ，均匀冲击负载，启动频率30次/小时，每天工作8小时，环境温度 32°C ，输出转速 $n_2 = 28\text{r/min}$ ，则：

方案一，采购传统的蜗轮减速机：

$$i = \frac{n_1}{n_2} = \frac{1400}{28} = 50$$

查看啮合参数表，估算 $i=50$ 时， $\eta_d \approx 0.68$
查看调整使用系数得 $f_s = 1.05 \times 1.12 = 1.176$

$$P_{in} \geq \frac{P_2}{\eta_d} \cdot f_s = \frac{0.8}{0.68} \times 1.176 = 1.384 \text{ (kW)}$$

输出扭矩 M_2 计算：

$$M_2 = 9550 \times \frac{P_2}{n_2} = 9550 \times \frac{0.8}{28} = 272.86 \text{ (Nm)}$$

$$M_{2n} = 379 \geq M_2 \cdot f_s = 272.86 \times 1.176 = 320.88 \text{ (Nm)}$$

查NMRV系列性能参数表可确定减速机型号为：

NMRV110/50/1.5-4P

则生产线减速机年耗电量为（按22天/月计算）：

$$P_{in} \times 8 \times 22 \times 12 \times 40 = 1.384 \times 8 \times 22 \times 12 \times 40 = 116920.32 \text{ (kW.h)}$$

按工业用电1.01元/kW.h计算，流水线一年的电费支出为：

$$116920.32 \times 1.01 = 118089.52 \text{ 元}$$

方案二，采购HRV高效型准双曲面齿轮减速机：

$$P_{in} \geq \frac{P_2}{\eta_d} \cdot f_s = \frac{0.8}{0.94} \times 1.0 = 0.85 \text{ (kW)}$$

输出扭矩 M_2 计算：

$$M_2 = 9550 \times \frac{P_2}{n_2} = 9550 \times \frac{0.8}{28} = 272.86 \text{ (Nm)}$$

$$M_{2n} = 340 \geq M_2 \cdot f_s = 272.86 \times 1.0 = 272.86 \text{ (Nm)}$$

查HRV系列性能参数表可确定减速机型号为：

2HRV075/48.18/90B5/90S4

则生产线减速机年耗电量为（按22天/月计算）：

$$P_{in} \times 8 \times 22 \times 12 \times 40 = 0.85 \times 8 \times 22 \times 12 \times 40 = 71808 \text{ (kW.h)}$$

按工业用电1.01元/kW.h计算，流水线一年的电费支出为：

$$71808 \times 1.01 = 72526.08 \text{ 元}$$

选择方案二可直接节省成本支出约4.6万元。

Example: A certain large enterprise added a production line, need to purchase 40 units of gear motors. Required the output power is 0.8kW, $n_1 = 1400\text{r/min}$, uniform load, start up frequency 30(1/h), continuous running for 8 hours, the ambient temperature is 32°C , $n_2 = 28\text{r/min}$. So

The first scheme, purchase traditional worm gearbox:

$$i = \frac{n_1}{n_2} = \frac{1400}{28} = 50$$

Check mesh table, estimate when the $i=50$, $\eta_d \approx 0.68$

Check and adjust the service factor, will get $f_s = 1.05 \times 1.12 = 1.176$

$$P_{in} \geq \frac{P_2}{\eta_d} \cdot f_s = \frac{0.8}{0.68} \times 1.176 = 1.384 \text{ (kW)}$$

Count output torque:

$$M_2 = 9550 \times \frac{P_2}{n_2} = 9550 \times \frac{0.8}{28} = 272.86 \text{ (Nm)}$$

$$M_{2n} = 379 \geq M_2 \cdot f_s = 272.86 \times 1.176 = 320.88 \text{ (Nm)}$$

Choose type:

NMRV110/50/1.5-4P

The power consumption on the production line is (22 days/per month):

$$P_{in} \times 8 \times 22 \times 12 \times 40 = 1.384 \times 8 \times 22 \times 12 \times 40 = 116920.32 \text{ (kW.h)}$$

The power price at 1.01yuan/kW.h, so the electric cost is 118089.52 per year

$$116920.32 \times 1.01 = 118089.52 \text{ yuan}$$

The second scheme,

purchase HRV high efficiency hypoid gear units:

$$P_{in} \geq \frac{P_2}{\eta_d} \cdot f_s = \frac{0.8}{0.94} \times 1.0 = 0.85 \text{ (kW)}$$

Count output torque:

$$M_2 = 9550 \times \frac{P_2}{n_2} = 9550 \times \frac{0.8}{28} = 272.86 \text{ (Nm)}$$

$$M_{2n} = 340 \geq M_2 \cdot f_s = 272.86 \times 1.0 = 272.86 \text{ (Nm)}$$

The gearbox size can be fixed from the HRV series character chart:

2HRV075/48.18/90B5/90S4

The power consumption on the production line is (22days/per month):

$$P_{in} \times 8 \times 22 \times 12 \times 40 = 0.85 \times 8 \times 22 \times 12 \times 40 = 71808 \text{ (kW.h)}$$

The power price at 1.01yuan/kW.h, so the electric cost is 72526.08 per year

$$71808 \times 1.01 = 72526.08 \text{ yuan}$$

Choosing the second scheme can reduce the cost at 46000 yuan.

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV減速機選型表 Gear Unit Selection Tables

HRV 050..減速機組合表 ($n_1 = 1400\text{r/min}$)

HRV 050..Possible geometrical combinations ($n_1 = 1400\text{r/min}$)

130Nm

減速機型號 Gear units	i 公稱 Nominal	i 實際 Actual	n_2 [r/min]	$M_{2\max}$ [Nm]	F_{r2} [N]	YH63	YH71	YH80	YH90
3級/Stage									
3HRV050	300	291.79	4.8	130	4100				
3HRV050	250	244.29	5.7	130	4100				
3HRV050	200	200.44	7.0	130	4100				
3HRV050	150	146.67	9.5	130	4000				
3HRV050	125	120.34	11.6	130	3770				
3HRV050	100	101.04	13.9	100	3560				
3HRV050	75	74.62	18.8	80	3220				
3HRV050	60	62.36	22	130	3030				
3HRV050	50	52.36	27	100	2860				
2級/Stage									
2HRV050	60	58.36	24	130	2960				
2HRV050	50	48.86	29	130	2790				
2HRV050	40	40.09	35	130	2610				
2HRV050	30	29.33	48	130	2350				
2HRV050	25	24.07	58	130	2200				
2HRV050	20	20.21	69	100	2080				
2HRV050	15	14.92	94	80	1880				
2HRV050	12.5	12.47	112	130	1770				
2HRV050	10	10.47	134	100	1670				
2HRV050	7.5	7.73	181	80	1510				

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV減速機選型表 Gear Unit Selection Tables

HRV 063..減速機組合表 ($n_1 = 1400\text{r/min}$)

HRV 063..Possible geometrical combinations ($n_1 = 1400\text{r/min}$)

200Nm

減速機型号 Gear units	i 公称 Nominal	i 实际 Actual	n_2 [r/min]	$M_{2\max}$ [Nm]	F_{t2} [N]	YH63	YH71	YH80	YH90
3级/Stage									
3HRV063	300	302.50	4.6	200	4800				
3HRV063	250	243.57	5.7	200	4800				
3HRV063	200	196.43	7.1	180	4800				
3HRV063	150	151.56	9.2	200	4650				
3HRV063	125	122.22	11.5	180	4330				
3HRV063	100	101.27	13.8	150	4070				
3HRV063	75	73.33	19.1	110	3650				
3HRV063	60	63.33	22	180	3480				
3HRV063	50	52.48	27	150	3270				
2级/Stage									
2HRV063	60	60.50	23	200	3430				
2HRV063	50	48.71	29	200	3190				
2HRV063	40	39.29	36	180	2970				
2HRV063	30	30.31	46	200	2720				
2HRV063	25	24.44	57	180	2530				
2HRV063	20	20.25	69	150	2380				
2HRV063	15	14.67	95	110	2130				
2HRV063	12.5	12.67	110	180	2030				
2HRV063	10	10.50	133	150	1910				
2HRV063	7.5	7.60	184	110	1710				

HRV減速機選型表 Gear Unit Selection Tables

HRV 075..減速機組合表 ($n_1 = 1400\text{r/min}$)

HRV 075..Possible geometrical combinations ($n_1 = 1400\text{r/min}$)

350Nm

減速機型號 Gear units	i 公稱 Nominal	i 實際 Actual	n_2 [r/min]	$M_{2\max}$ [Nm]	F_{t2} [N]	YH63	YH71	YH80	YH90	YH100	YH112
3級/Stage											
3HRV075	300	297.21	4.7	350	6500						
3HRV075	250	240.89	5.8	350	6500						
3HRV075	200	200.66	7.0	300	6500						
3HRV075	150	151.20	9.3	350	6500						
3HRV075	125	125.95	11.1	300	5980						
3HRV075	100	99.22	14.1	240	5520						
3HRV075	75	75.45	18.6	200	5040						
3HRV075	60	62.43	22	300	4730						
3HRV075	50	49.18	28	240	4370						
2級/Stage											
2HRV075	60	59.44	24	350	4660						
2HRV075	50	48.18	29	350	4340						
2HRV075	40	40.13	35	300	4080						
2HRV075	30	30.24	46	350	3720						
2HRV075	25	25.19	56	300	3500						
2HRV075	20	19.84	71	240	3230						
2HRV075	15	15.09	93	200	2950						
2HRV075	12.5	12.49	112	300	2770						
2HRV075	10	9.84	142	240	2550						
2HRV075	7.5	7.48	187	200	2330						

HRV減速機選型表 Gear Unit Selection Tables

HRV 090..減速機組合表 ($n_1 = 1400\text{r/min}$)

HRV 090..Possible geometrical combinations ($n_1 = 1400\text{r/min}$)

500Nm

減速機型號 Gear units	i 公稱 Nominal	i 實際 Actual	n_2 [r/min]	$M_{2\max}$ [Nm]	F_{r2} [N]	YH63	YH71	YH80	YH90	YH100	YH112
3級/Stage											
3HRV090	300	295.18	4.7	500	8300						
3HRV090	250	240.89	5.8	500	8300						
3HRV090	200	200.66	7.0	480	8300						
3HRV090	150	151.20	9.3	500	8050						
3HRV090	125	125.95	11.1	480	7580						
3HRV090	100	99.22	14.1	380	7000						
3HRV090	75	75.45	18.6	300	6390						
3HRV090	60	62.43	22	480	6000						
3HRV090	50	49.18	28	380	5540						
2級/Stage											
2HRV090	60	59.04	24	500	5890						
2HRV090	50	48.18	29	500	5500						
2HRV090	40	40.13	35	480	5170						
2HRV090	30	30.24	46	500	4710						
2HRV090	25	25.19	56	480	4430						
2HRV090	20	19.84	71	380	4090						
2HRV090	15	15.09	93	300	3730						
2HRV090	12.5	12.49	112	480	3510						
2HRV090	10	9.84	142	380	3240						
2HRV090	7.5	7.48	187	300	2950						

HRV減速機選型表 Gear Unit Selection Tables

HRV 110..減速機組合表 ($n_1 = 1400\text{r/min}$)

HRV 110..Possible geometrical combinations ($n_1 = 1400\text{r/min}$)

750Nm

減速機型號 Gear units	i 公稱 Nominal	i 實際 Actual	n_2 [r/min]	$M_{2\max}$ [Nm]	F_{r2} [N]	YH71	YH80	YH90	YH100	YH112	YH132
3級/Stage											
3HRV110	300	296.10	4.7	750	10000						
3HRV110	250	244.29	5.7	750	10000						
3HRV110	200	206.29	6.8	750	9920						
3HRV110	150	153.33	9.1	750	8980						
3HRV110	125	129.48	10.8	750	8490						
3HRV110	100	103.64	13.5	650	7880						
3HRV110	75	75.55	18.5	520	7090						
3HRV110	60	64.18	22	750	6720						
3HRV110	50	51.37	27	650	6240						
2級/Stage											
2HRV110	60	59.22	24	750	6540						
2HRV110	50	48.86	29	750	6130						
2HRV110	40	41.26	34	750	5800						
2HRV110	30	30.67	46	750	5250						
2HRV110	25	25.90	54	750	4960						
2HRV110	20	20.73	68	650	4610						
2HRV110	15	15.11	93	520	4150						
2HRV110	12.5	12.84	109	750	3930						
2HRV110	10	10.27	136	650	3650						
2HRV110	7.5	7.49	187	520	3280						

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV減速機選型表 Gear Unit Selection Tables

HRV+ST伺服減速機組合表($n_1=1500\text{r/min}$)

HRV+ST Servo gear unit possible geometrical combinations($n_1=1500\text{r/min}$)

HRV	ST	7.5	10	12.5	15	20	25	30	40	50	60	75	100	125	150	200	250	300
050	100W																	
	200W	●	●	●														
	400W																	
	500W																	
	750W																	
	1000W																	
	1500W																	
063	200W	●	●	●	●	●	●	●										
	400W	●	●	●														
	500W																	
	750W																	
	1000W																	
	1500W																	
075	400W	●	●	●	●	●	●	●										
	500W	●	●	●														
	750W	●	●	●														
	1000W																	
	1500W																	
	2000W																	
	3000W																	
	4000W																	
090	400W	●	●	●	●	●	●	●										
	500W	●	●	●	●	●	●	●										
	750W	●	●	●														
	1000W	●	●	●														
	1500W																	
	2000W																	
	3000W																	
	4000W																	
110	750W	●	●	●	●	●	●	●										
	1000W	●	●	●	●													
	1500W	●	●	●														
	2000W																	
	3000W																	
	4000W																	
	5000W																	

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV性能參數 Performance Parameter

HRV.. 性能參數 / Performance parameter

P _{in} [kW]	n ₂ [r/min]	M _{2max} [Nm]	i 公称 Nominal	i 实际 Actual	F _{r2} [N]	f _s			
0.12	4.8	215	300	291.79	4100	0.6	3HRV050	YH6314	3HRV050 63B5 6314
	5.7	180	250	244.29	4100	0.72			
	7.0	148	200	200.44	4100	0.88			
	9.5	108	150	146.67	4000	1.2			
	11.6	89	125	120.34	3770	1.5			
	13.9	74	100	101.04	3560	1.3			
	18.8	55	75	74.62	3220	1.5			
	22	46	60	62.36	3030	2.8			
	27	39	50	52.36	2860	2.6			
	24	44	60	58.36	2960	3.0	2HRV050	YH6314	2HRV050 63B5 6314
	29	37	50	48.86	2790	3.5			
	35	30	40	40.09	2610	4.3			
	48	22	30	29.33	2350	5.9			
	58	18.1	25	24.07	2200	7.2			
	69	15.2	20	20.21	2080	6.6			
	94	11.2	15	14.92	1880	7.1			
	112	9.4	12.5	12.47	1770	13.8			
	134	7.9	10	10.47	1670	12.7			
	181	5.8	7.5	7.73	1510	13.7			
	4.6	223	300	302.50	4800	0.9	3HRV063	YH6314	3HRV063 63B5 6314
	5.7	179	250	243.57	4800	1.1			
	7.1	145	200	196.43	4800	1.2			
	9.2	112	150	151.56	4650	1.8			
	11.5	90	125	122.22	4330	2.0			
	13.8	75	100	101.27	4070	2.0			
	19.1	54	75	73.33	3650	2.0			
	22	47	60	63.33	3480	3.9			
	27	39	50	52.48	3270	3.9			
	23	46	60	60.50	3420	4.4	2HRV063	YH6314	2HRV063 63B5 6314
	29	37	50	48.71	3190	5.5			
	36	30	40	39.29	2970	6.1			
	46	23	30	30.31	2720	8.8			
	4.7	219	300	297.21	6500	1.6	3HRV075	YH6314	3HRV075 63B5 6314
	5.8	177	250	240.89	6500	2.0			
	7.0	148	200	200.66	6500	2.0			
	9.3	111	150	151.20	6500	3.1			
	11.1	93	125	125.95	5980	3.2			
	14.1	73	100	99.22	5520	3.3			
	18.6	56	75	75.45	5040	3.6			

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV性能參數 Performance Parameter

P_{in} [kW]	n_2 [r/min]	M_{2max} [Nm]	i 公称 Nominal	i 实际 Actual	F_2 [N]	f_s			
0.12	4.7	217	300	295.18	8300	2.3	3HRV090	YH6314	3HRV090 63B5 6314
	5.8	177	250	240.89	8300	2.8			
	7.0	148	200	200.66	8300	3.2			
	9.3	111	150	151.20	8050	4.5			
0.18	9.6	161	300	291.79	4000	0.81	3HRV050	YH6312	3HRV050 63B5 6312
	11.5	135	250	244.29	3790	0.96			
	14.0	111	200	200.44	3550	1.2			
	19.1	81	150	146.67	3200	1.6			
	23	66	125	120.34	2990	2.0			
	28	56	100	101.04	2820	1.8			
	38	41	75	74.62	2550	1.9			
	45	34	60	62.36	2400	3.8			
	53	29	50	52.36	2270	3.5			
	11.6	133	125	120.34	3770	0.98	3HRV050	YH6324	3HRV050 63B5 6324
	13.9	112	100	101.04	3560	0.9			
	18.8	82	75	74.62	3220	0.97			
	22	69	60	62.36	3030	1.9			
	27	58	50	52.36	2860	1.7			
	24	66	60	58.36	2960	2.0	2HRV050	YH6324	2HRV050 63B5 6324
	29	55	50	48.86	2790	2.4			
	35	45	40	40.09	2610	2.9			
	48	33	30	29.33	2350	3.9			
	58	27	25	24.07	2200	4.8			
	69	23	20	20.21	2080	4.4			
	94	17.2	15	14.92	1880	4.7			
	14.4	107	60	62.36	3510	1.2	3HRV050	YH7116	3HRV050 71B5/B14 7116
	17.2	90	50	52.36	3310	1.1			
	15.4	103	60	58.36	3430	1.3	2HRV050	YH7116	2HRV050 71B5/B14 7116
	18.4	86	50	48.86	3240	1.5			
	22	70	40	40.09	3030	1.8			
	31	52	30	29.33	2730	2.5			
	37	42	25	24.07	2550	3.1			
	45	36	20	20.21	2410	2.8			
	60	26	15	14.92	2180	3.1			
	72	22	12.5	12.47	2050	5.9			
	86	18.4	10	10.47	1930	5.4			
	116	13.6	7.5	7.73	1750	5.9			
	9.3	167	300	302.50	4650	1.2	3HRV063	YH6312	3HRV063 63B5 6312
	11.5	135	250	243.57	4330	1.5			
	14.3	109	200	196.43	4030	1.7			
	18.5	84	150	151.56	3690	2.4			
	23	68	125	122.22	3440	2.7			

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV性能參數 Performance Parameter

P _{in} [kW]	n ₂ [r/min]	M _{2max} [Nm]	i 公称 Nominal	i 实际 Actual	F ₂ [N]	f _s					
0.18	28	56	100	101.27	3230	2.7	3HRV063	YH6312	3HRV063	63B5	6312
	38	41	75	73.33	2900	2.7					
	44	35	60	63.33	2760	5.1					
	53	29	50	52.48	2590	5.2					
	7.1	217	200	196.43	4800	0.83	3HRV063	YH6324	3HRV063	63B5	6324
	9.2	167	150	151.56	4650	1.2					
	11.5	135	125	122.22	4330	1.3					
	13.8	112	100	101.27	4070	1.3					
	19.1	81	75	73.33	3650	1.4					
	22	70	60	63.33	3480	2.6					
	27	58	50	52.48	3270	2.6					
	23	68	60	60.50	3430	2.9	2HRV062	YH6324	3HRV062	63B5	6324
	29	55	50	48.71	3190	3.6					
	36	44	40	39.29	2970	4.1					
	7.4	210	125	122.22	4800	0.86	3HRV063	YH7116	3HRV063	71B5/B14	7116
	8.9	174	100	101.27	4720	0.86					
	12.3	126	75	73.33	4230	0.87					
	14.2	109	60	63.33	4030	1.7					
	17.1	90	50	52.48	3790	1.7					
	14.9	106	60	60.50	3970	1.9	2HRV062	YH7116	2HRV063	71B5/B14	7116
	18.5	86	50	48.71	3690	2.3					
	23	69	40	39.29	3440	2.6					
	30	53	30	30.31	3150	3.8					
	37	43	25	24.44	2930	4.2					
	44	36	20	20.25	2760	4.2					
	61	26	15	14.67	2470	4.3					
	9.4	164	300	297.21	6320	2.1	3HRV075	YH6312	3HRV075	63B5	6312
	11.6	133	250	240.89	5890	2.6					
	14.0	111	200	200.66	5540	2.7					
	18.5	84	150	151.20	5040	4.2					
	4.7	328	300	297.21	6500	1.1	3HRV075	YH6324	3HRV075	63B5	6324
	5.8	266	250	240.89	6500	1.3					
	7.0	222	200	200.66	6500	1.4					
	9.3	167	150	151.20	6500	2.1					
	11.1	139	125	125.95	5980	2.2					
	14.1	110	100	99.22	5520	2.2					
	18.6	83	75	75.45	5040	2.4					
	3.7	414	250	240.89	6500	0.85	3HRV075	YH7116	3HRV075	71B5/B14	7116
	4.5	345	200	200.66	6500	0.87					
	6.0	260	150	151.20	6500	1.3					

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV性能參數 Performance Parameter

P_{in} [kW]	n_2 [r/min]	M_{2max} [Nm]	公称 Nominal	实际 Actual	F_2 [N]	f_s					
0.18	7.1	217	125	125.95	6500	1.4	3HRV075	YH7116	3HRV075	71B5/B14	7116
	9.1	171	100	99.22	6400	1.4					
	11.9	130	75	75.45	5840	1.5					
	14.4	107	60	62.43	5480	2.8					
	18.3	85	50	49.18	5060	2.8					
	15.1	107	60	59.44	5390	3.4	2HRV075	YH7116	2HRV075	71B5/B14	7116
	18.7	85	50	48.18	5030	4.1					
	22	71	40	40.13	4730	4.3					
	9.5	163	300	295.18	7990	3.1	3HRV090	YH6312	3HRV090	63B5	6312
	11.6	133	250	240.89	7470	3.8					
	14.0	111	200	200.66	7030	4.3					
	4.7	326	300	295.18	8300	1.5	3HRV090	YH6324	3HRV090	63B5	6324
	5.8	266	250	240.89	8300	1.9					
	7.0	222	200	200.66	8300	2.2					
	9.3	167	150	151.20	8050	3.0					
	11.1	139	125	125.95	7580	3.4					
	14.1	110	100	99.22	7000	3.5					
	18.6	83	75	75.45	6390	3.6					
	3.0	507	300	295.18	8300	1.0	3HRV090	YH7116	3HRV090	71B5/B14	7116
	3.7	414	250	240.89	8300	1.2					
	4.5	345	200	200.66	8300	1.4					
	6.0	260	150	151.20	8300	1.9					
	7.1	217	125	125.95	8300	2.2					
	9.1	171	100	99.22	8110	2.2					
	11.9	130	75	75.45	7400	2.3					
	14.4	107	60	62.43	6950	4.5					
	3.0	520	300	296.10	10000	1.5	3HRV110	YH7116	3HRV110	71B5/B14	7116
	3.7	420	250	244.29	10000	1.8					
	4.4	355	200	206.29	10000	2.1					
	5.9	264	150	153.33	10000	2.8					
	7.0	223	125	129.48	9840	3.4					
	8.7	178	100	103.64	9130	3.6					
	11.9	130	75	75.55	8220	4.0					
0.25	19.1	113	150	146.67	3200	1.2	3HRV050	YH6322	3HRV110	63B5	6322
	23	92	125	120.34	2990	1.4					
	28	78	100	101.04	2820	1.3					
	38	57	75	74.62	2550	1.4					
	45	48	60	62.36	2400	2.7					
	53	40	50	52.36	2270	2.5					

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV性能參數 Performance Parameter

P _{in} [kW]	n ₂ [r/min]	M _{2max} [Nm]	i 公称 Nominal	i 实际 Actual	F ₂ [N]	f _s					
0.25	22	96	60	62.36	3030	1.4	3HRV050	YH6334	3HRV050	71B5/B14	7114
	27	80	50	52.36	2860	1.2					
	24	92	60	58.36	2960	1.4	2HRV050	YH6334	2HRV050	71B5/B14	7114
	29	77	50	48.86	2790	1.7					
	35	63	40	40.09	2610	2.1					
	48	46	30	29.33	2350	2.8					
	58	38	25	24.07	2200	3.4					
	69	32	20	20.21	2080	3.2					
	94	23	15	14.92	1880	3.4					
	15.4	142	60	58.36	3430	0.9	2HRV050	YH7126	2HRV050	71B5/B14	7126
	18.4	119	50	48.86	3240	1.1					
	22	98	40	40.09	3030	1.3					
	31	72	30	29.33	2730	1.8					
	37	59	25	24.07	2550	2.2					
	45	49	20	20.21	2410	2.0					
	60	36	15	14.92	2180	2.2					
	72	30	12.5	12.47	2050	4.3					
	86	26	10	10.47	1930	3.9					
	116	19	7.5	7.73	1750	4.2					
	9.3	232	300	302.50	4650	0.86	3HRV063	YH6322	3HRV063	63B5	6322
	11.5	187	250	243.57	4330	1.1					
	14.3	151	200	196.43	4030	1.2					
	18.5	116	150	151.56	3690	1.7					
	23	94	125	122.22	3440	1.9					
	28	78	100	101.27	3230	1.9					
	38	56	75	73.33	2900	2.0					
	44	49	60	63.33	2760	3.7					
	53	40	50	52.48	2590	3.7					
	9.2	233	150	151.56	4650	0.86	3HRV063	YH6334	3HRV063	71B5/B14	7114
	11.5	188	125	122.22	4330	0.96					
	13.8	155	100	101.27	4070	0.97					
	19.1	113	75	73.33	3650	1.0					
	22	97	60	63.33	3480	1.9					
	27	81	50	52.48	3270	1.9	2HRV063	YH6334	2HRV063	71B5/B14	7114
	23	95	60	60.50	3430	2.1					
	29	76	50	48.71	3190	2.6					
	36	62	40	39.29	2970	2.9					
	46	48	30	30.31	2720	4.2	3HRV063	YH7126	3HRV063	71B5/B14	7126
	14.2	151	60	63.33	4030	1.2					
	17.1	125	50	52.48	3790	1.2					

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV性能參數 Performance Parameter

P_{in} [kW]	n_2 [r/min]	M_{2max} [Nm]	i 公称 Nominal	i 实际 Actual	F_2 [N]	f_s					
0.25	14.9	148	60	60.50	3970	1.4	2HRV063	YH7126	2HRV063	71B5/B14	7126
	18.5	119	50	48.71	3690	1.7					
	23	96	40	39.29	3440	1.9					
	30	74	30	30.31	3150	2.7					
	37	60	25	24.44	2930	3.0					
	44	49	20	20.25	2760	3.0					
	61	36	15	14.67	2470	3.1	3HRV075	YH6322	3HRV075	63B5	6322
	9.4	228	300	297.21	6320	1.5					
	11.6	185	250	240.89	5890	1.9					
	14.0	154	200	200.66	5540	1.9					
	18.5	116	150	151.20	5040	3.0					
	22	97	125	125.95	4750	3.1					
	28	76	100	99.22	4380	3.2	3HRV075	YH6334	3HRV075	71B5/B14	7114
	37	58	75	75.45	4000	3.5					
	5.8	370	250	240.89	6500	0.95					
	7.0	308	200	200.66	6500	1.0					
	9.3	232	150	151.20	6500	1.5					
	11.1	193	125	125.95	5980	1.6					
	14.1	152	100	99.22	5520	1.6	2HRV075	YH6334	2HRV075	71B5/B14	7114
	18.6	116	75	75.45	5040	1.7					
	22	96	60	62.43	4730	3.1					
	28	75	50	49.18	4370	3.2					
	24	93	60	59.44	4660	3.8					
	29	76	50	48.18	4340	4.6					
	6.0	361	150	151.20	6500	0.97	3HRV075	YH7126	3HRV075	71B5/B14	7126
	7.1	301	125	125.95	6500	1.0					
	9.1	237	100	99.22	6400	1.0					
	11.9	180	75	75.45	5840	1.1					
	14.4	149	60	62.43	5480	2.0					
	18.3	117	50	49.18	5060	2.0					
	15.1	145	60	59.44	5390	2.4	2HRV075	YH7126	2HRV075	71B5/B14	7126
	18.7	118	50	48.18	5030	3.0					
	22	98	40	40.13	4730	3.1					
	9.5	227	300	295.18	7990	2.2					
	11.6	185	250	240.89	7470	2.7					
	14.0	154	200	200.66	7030	3.1					
	18.5	116	150	151.20	6390	4.3	3HRV090	YH6322	3HRV090	63B5	6322
	4.7	453	300	295.18	8300	1.1					
	5.8	370	250	240.89	8300	1.4					
	7.0	308	200	200.66	8300	1.6					

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV性能參數 Performance Parameter

P_{in} [kW]	n_2 [r/min]	M_{2max} [Nm]	i 公称 Nominal	i 实际 Actual	F_2 [N]	f_s			
0.25	9.3	232	150	151.20	8050	2.2	3HRV090 YH6334	3HRV090 71B5/B14	7114
	11.1	193	125	125.95	7580	2.5			
	14.1	152	100	99.22	7000	2.5			
	18.6	116	75	75.45	6390	2.6			
	22	96	60	62.43	6000	5.0			
	28	75	50	49.18	5540	5.0			
	3.0	705	300	295.18	8300	0.71	3HRV090 YH7126	3HRV090 71B5/B14	7126
	3.7	575	250	240.89	8300	0.9			
	4.5	479	200	200.66	8300	1.0			
	6.0	361	150	151.20	8300	1.4			
	7.1	301	125	125.95	8300	1.6			
	9.1	237	100	99.22	8110	1.6			
	11.9	180	75	75.45	7400	1.7	2HRV090 YH7126	2HRV090 71B5/B14	7126
	14.4	149	60	62.43	6950	3.2			
	18.3	117	50	49.18	6420	3.2			
	15.2	144	60	59.04	6820	3.5			
	18.7	118	50	48.18	6370	4.3			
	4.7	454	300	296.10	10000	1.7	3HRV110 YH6334	3HRV110 71B5/B14	7114
	5.7	375	250	244.29	10000	2.0			
	6.8	317	200	206.29	9920	2.4			
	9.1	235	150	153.33	8980	3.2			
	10.8	199	125	129.48	8490	3.8			
	13.5	159	100	103.64	7880	4.1			
	3.0	707	300	296.10	10000	1.1	3HRV110 YH7126	3HRV110 71B5/B14	7126
	3.7	583	250	244.29	10000	1.3			
	4.4	493	200	206.29	10000	1.5			
	5.9	366	150	153.33	10000	2.0			
	7.0	309	125	129.48	9840	2.4			
	8.7	247	100	103.64	9130	2.6			
0.37	11.9	180	75	75.55	8220	2.9	3HRV050 YH6332	3HRV050 71B5/B14	7112
	23	137	125	120.34	2990	0.95			
	28	115	100	101.04	2820	0.87			
	38	85	75	74.62	2550	0.94			
	45	71	60	62.36	2400	1.8			
	53	59	50	52.36	2270	1.7			
	24	136	60	58.36	2960	0.96	2HRV050 YH7124	2HRV050 71B5/B14	7124
	29	113	50	48.86	2790	1.1			
	35	93	40	40.09	2610	1.4			
	48	68	30	29.33	2350	1.9			
	58	56	25	24.07	2200	2.3			

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV性能參數 Performance Parameter

P_{1n} [kW]	n_2 [r/min]	M_{2max} [Nm]	i 公称 Nominal	i 实际 Actual	F_{r2} [N]	f_s						
0.37	69	47	20	20.21	2080	2.1	2HRV050	YH7124	2HRV050	71B5/B14	7124	
	94	35	15	14.92	1880	2.3						
	112	29	12.5	12.47	1770	4.5						
	134	24	10	10.47	1670	4.1						
	181	17.9	7.5	7.73	1510	4.5						
	22	145	40	40.09	3030	0.9	2HRV050	YH8016	2HRV050	80B5/B14	8016	
	31	106	30	29.33	2730	1.2						
	37	87	25	24.07	2550	1.5						
	45	73	20	20.21	2410	1.4						
	60	54	15	14.92	2180	1.5						
	72	45	12.5	12.47	2050	2.9						
	86	38	10	10.47	1930	2.6						
	116	28	7.5	7.73	1750	2.9	3HRV063	YH6332	3HRV063	71B5/B14	7112	
	18.5	172	150	151.56	3690	1.2						
	23	139	125	122.22	3440	1.3						
	28	115	100	101.27	3230	1.3						
	38	83	75	73.33	2900	1.3						
	44	72	60	63.33	2760	2.5						
	53	60	50	52.48	2590	2.5						
	22	144	60	63.33	3480	1.3	3HRV063	YH7124	3HRV063	71B5/B14	7124	
	27	119	50	52.48	3270	1.3						
	23	140	60	60.50	3430	1.4	2HRV063	YH7124	2HRV063	71B5/B14	7124	
	29	113	50	48.71	3190	1.8						
	36	91	40	39.29	2970	2.0						
	46	70	30	30.31	2720	2.8						
	57	57	25	24.44	2530	3.2						
	69	47	20	20.25	2380	3.2						
	95	34	15	14.67	2130	3.2						
	14.9	219	60	60.50	3970	0.92	2HRV063	YH8016	2HRV063	80B5/B14	8016	
	18.5	176	50	48.71	3690	1.1						
	23	142	40	39.29	3440	1.3						
	30	109	30	30.31	3150	1.8						
	37	88	25	24.44	2930	2.0						
	44	73	20	20.25	2760	2.1						
	61	53	15	14.67	2470	2.1						
	71	46	12.5	12.67	2360	3.9						
	86	38	10	10.50	2210	4.0						
	118	27	7.5	7.60	1990	4.0						
	9.4	338	300	297.21	6320	1.0	3HRV075	YH6332	3HRV075	71B5/B14	7112	
	11.6	274	250	240.89	5890	1.3						

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV性能參數 Performance Parameter

P_{in} [kW]	n_2 [r/min]	M_{2max} [Nm]	i 公称 Nominal	i 实际 Actual	F_{r2} [N]	f_s					
0.37	14.0	228	200	200.66	5540	1.3	3HRV075	YH6332	3HRV075	71B5/B14	7112
	18.5	172	150	151.20	5040	2.0					
	22	143	125	125.95	4750	2.1					
	28	113	100	99.22	4380	2.1					
	37	86	75	75.45	4000	2.3					
	45	71	60	62.43	3750	4.2					
	57	56	50	49.18	3470	4.3					
	9.3	343	150	151.20	6500	1.0	3HRV075	YH7124	3HRV075	71B5/B14	7124
	11.1	286	125	125.95	5980	1.0					
	14.1	225	100	99.22	5520	1.1					
	18.6	171	75	75.45	5040	1.2					
	22	142	60	62.43	4730	2.1					
	28	112	50	49.18	4370	2.1					
	24	138	60	59.44	4660	2.5	2HRV075	YH7124	2HRV075	71B5/B14	7124
	29	112	50	48.18	4340	3.1					
	35	93	40	40.13	4080	3.2	3HRV075	YH8016	3HRV075	80B5/B14	8016
	14.4	221	60	62.43	5480	1.4					
	18.3	174	50	49.18	5060	1.4	2HRV075	YH8016	2HRV075	80B5/B14	8016
	15.1	215	60	59.44	5390	1.6					
	18.7	174	50	48.18	5030	2.0					
	22	145	40	40.13	4730	2.1					
	30	109	30	30.24	4310	3.2					
	36	91	25	25.19	4050	3.3					
	45	72	20	19.84	3740	3.3					
	60	55	15	15.09	3410	3.7					
	9.5	335	300	295.18	7990	1.5	3HRV090	YH6332	3HRV090	71B5/B14	7112
	11.6	274	250	240.89	7470	1.8					
	14.0	228	200	200.66	7030	2.1					
	18.5	172	150	151.20	6390	2.9					
	22	143	125	125.95	6010	3.4					
	28	113	100	99.22	5550	3.4					
	37	86	75	75.45	5070	3.5					
	4.7	671	300	295.18	8300	0.75	3HRV090	YH7124	3HRV090	71B5/B14	7124
	5.8	547	250	240.89	8300	0.91					
	7.0	456	200	200.66	8300	1.1					
	9.3	343	150	151.20	8050	1.5					
	11.1	286	125	125.95	7580	1.7					
	14.1	225	100	99.22	7000	1.7					
	18.6	171	75	75.45	6390	1.8					
	22	142	60	62.43	6000	3.4					

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV性能參數 Performance Parameter

P_{in} [kW]	n_2 [r/min]	M_{2max} [Nm]	i 公称 Nominal	i 实际 Actual	F_{r2} [N]	f_s					
0.37	28	112	50	49.18	5540	3.4	3HRV090	YH7124	3HRV090	71B5/B14	7124
	24	137	60	59.04	5890	3.6	2HRV090	YH7124	2HRV090	71B5/B14	7124
	29	112	50	48.18	5500	4.5					
	6.0	534	150	151.20	8300	0.94					
	7.1	445	125	125.95	8300	1.1					
	9.1	351	100	99.22	8110	1.1	3HRV090	YH8016	3HRV090	80B5/B14	8016
	11.9	267	75	75.45	7400	1.1					
	14.4	221	60	62.43	6950	2.2					
	18.3	174	50	49.18	6420	2.2					
	15.2	213	60	59.04	6820	2.3					
	18.7	174	50	48.18	6370	2.9	2HRV090	YH8016	2HRV090	80B5/B14	8016
	22	145	40	40.13	6000	3.3					
	9.5	336	300	296.10	8880	2.2					
	11.5	277	250	244.29	8330	2.7	3HRV110	YH6332	3HRV110	71B5/B14	7112
	13.6	234	200	206.29	7870	3.2					
	18.3	174	150	153.33	7130	4.3					
	4.7	673	300	296.10	10000	1.1					
	5.7	555	250	244.29	10000	1.4					
	6.8	469	200	206.29	9920	1.6					
	9.1	348	150	153.33	8980	2.2	3HRV110	YH7124	3HRV110	71B5/B14	7124
	10.8	294	125	129.48	8490	2.5					
	13.5	235	100	103.64	7880	2.8					
	18.5	172	75	75.55	7090	3.0					
	4.4	729	200	206.29	10000	1.0					
	5.9	542	150	153.33	10000	1.4					
	7.0	458	125	129.48	9840	1.6					
	8.7	366	100	103.64	9130	1.8	3HRV110	YH8016	3HRV110	71B5/B14	8016
	11.9	267	75	75.55	8220	1.9					
	14.0	227	60	64.18	7780	3.3					
	17.5	182	50	51.37	7230	3.6					
0.55	15.2	214	60	59.22	7580	3.5					
	18.4	176	50	48.86	7110	4.2	2HRV110	YH8016	2HRV110	80B5/B14	8016
	45	105	60	62.36	2400	1.2	3HRV050	YH7122	3HRV050	71B5/B14	7122
	53	88	50	52.36	2270	1.1					
	35	138	40	40.09	2610	0.94					
	48	101	30	29.33	2350	1.3					
	58	83	25	24.07	2200	1.6	2HRV050	YH8014	2HRV050	80B5/B14	8014
	69	70	20	20.21	2080	1.4					
	94	51	15	14.92	1880	1.6					
	112	43	12.5	12.47	1770	3.0					

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV性能參數 Performance Parameter

P_{in} [kW]	n_2 [r/min]	M_{2max} [Nm]	i 公称 Nominal	i 实际 Actual	F_{r2} [N]	f_s					
0.55	134	36	10	10.47	1670	2.8	2HRV050 YH8014	2HRV050 80B5/B14	8014		
	181	27	7.5	7.73	1510	3.0					
	37	129	25	24.07	2550	1.0	2HRV050 YH8026	2HRV050 80B5/B14	8026		
	45	109	20	20.21	2410	0.92					
	60	80	15	14.92	2180	1.0					
	72	67	12.5	12.47	2050	1.9					
	86	56	10	10.47	1930	1.8					
	116	42	7.5	7.73	1750	1.9					
	23	206	125	122.22	3440	0.87	3HRV063 YH7122	3HRV063 71B5/B14	7122		
	28	171	100	101.27	3230	0.88					
	38	124	75	73.33	2900	0.9					
	44	107	60	63.33	2760	1.7					
	53	89	50	52.48	2590	1.7					
	23	209	60	60.50	3430	0.96	2HRV063 YH8014	2HRV063 80B5/B14	8014		
	29	168	50	48.71	3190	1.2					
	36	136	40	39.29	2970	1.3					
	46	105	30	30.31	2720	1.9					
	57	84	25	24.44	2530	2.1					
	69	70	20	20.25	2380	2.1					
	95	51	15	14.67	2130	2.2					
	110	44	12.5	12.67	2030	4.1					
	133	36	10	10.50	1910	4.1					
	184	26	7.5	7.60	1710	4.2					
	23	216	40	39.29	3440	0.85	2HRV063 YH8026	2HRV063 80B5/B14	8026		
	30	163	30	30.31	3150	1.2					
	37	131	25	24.44	2930	1.4					
	44	109	20	20.25	2760	1.4					
	61	79	15	14.67	2470	4.4					
	71	68	12.54	12.67	2360	2.6					
	86	56	10	10.50	2210	2.7					
	118	41	7.5	7.60	1990	2.7					
	11.6	407	250	240.89	5890	0.86	3HRV075 YH7122	3HRV075 71B5/B14	7122		
	14.0	339	200	200.66	5540	0.9					
	18.5	255	150	151.20	5040	1.4					
	22	213	125	125.95	4750	1.4					
	28	168	100	99.22	4380	1.4					
	37	127	75	75.45	4000	1.6					
	45	105	60	62.43	3750	2.8					
	57	83	50	49.18	3470	2.9					
	18.6	255	75	75.45	5040	0.8	3HRV075 YH8014	3HRV075 80B5/B14	8014		

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV性能參數 Performance Parameter

P_{in} [kW]	n_2 [r/min]	M_{2max} [Nm]	i 公称 Nominal	i 实际 Actual	F_{r2} [N]	f_s					
0.55	22	211	60	62.43	4730	1.4	3HRV075	YH8014	3HRV075	80B5/B14	8014
	28	166	50	49.18	4370	1.4					
	24	205	60	59.44	4660	1.7	2HRV075	YH8014	2HRV075	80B5/B14	8014
	29	166	50	48.18	4340	2.1					
	35	139	40	40.13	4080	2.2					
	46	104	30	30.24	3720	3.4					
	56	87	25	25.19	3500	3.5					
	71	68	20	19.84	3230	3.5					
	93	52	15	15.09	2950	3.8					
	14.4	328	60	62.43	5480	0.91	3HRV075	YH8026	3HRV075	80B5/B14	8026
	18.3	258	50	49.18	5060	0.93					
	15.1	319	60	59.44	5390	1.1	2HRV075	YH8026	2HRV075	80B5/B14	8026
	18.7	259	50	48.18	5030	1.4					
	22	215	40	40.13	4730	1.4					
	30	162	30	30.24	4310	2.2					
	36	135	25	25.19	4050	2.2					
	45	107	20	19.84	3740	2.3					
	60	81	15	15.09	3410	2.5					
	9.5	498	300	295.18	7990	1.0	3HRV090	YH7122	3HRV090	71B5/B14	7122
	11.6	407	250	240.89	7470	1.2					
	14.0	339	200	200.66	7030	1.4					
	18.5	255	150	151.20	6390	2.0					
	22	213	125	125.95	6010	2.3					
	28	168	100	99.22	5550	2.3					
	37	127	75	75.45	5070	2.4					
	45	105	60	62.43	4760	4.6	3HRV090	YH8014	3HRV090	80B5/B14	8014
	57	83	50	49.18	4390	4.6					
	9.3	511	150	151.20	8050	1.0					
	11.1	425	125	125.95	7580	1.1					
	14.1	335	100	99.22	7000	1.1					
	18.6	255	75	75.45	6390	1.2					
	22	211	60	62.43	6000	2.3					
	28	166	50	49.18	5540	2.3	2HRV090	YH8014	2HRV090	80B5/B14	8014
	24	204	60	59.04	5890	2.5					
	29	166	50	48.18	5500	3.0					
	35	139	40	40.13	5170	3.5					
	46	104	30	30.24	4710	4.8	3HRV090	YH8026	3HRV090	80B5/B14	8026
	14.4	328	60	62.43	6950	1.5					
	18.3	258	50	49.18	6420	1.5	2HRV090	YH8026	2HRV090	80B5/B14	8026
	15.2	317	60	59.04	6820	1.6					

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV性能參數 Performance Parameter

P _{in} [kW]	n ₂ [r/min]	M _{2max} [Nm]	公称 Nominal	实际 Actual	F ₂ [N]	f _s					
0.55	18.7	259	50	48.18	6370	1.9	2HRV090	YH8026	2HRV090	80B5/B14	8026
	22	215	40	40.13	6000	2.2					
	30	162	30	30.24	5460	3.1					
	36	135	25	25.19	5130	3.5					
	45	107	20	19.84	4740	3.6					
	60	81	15	15.09	4330	3.7					
	9.5	500	300	296.10	8880	1.5	3HRV110	YH7122	3HRV110	71B5/B14	7122
	11.5	412	250	244.29	8330	1.8					
	13.6	348	200	206.29	7870	2.2					
	18.3	259	150	153.33	7130	2.9					
	22	219	125	129.48	6740	3.4					
	27	175	100	103.64	6260	3.7					
	37	128	75	75.55	5630	4.1	3HRV110	YH8014	3HRV110	80B5/B14	8014
	5.7	825	250	244.29	10000	0.91					
	6.8	697	200	206.29	9920	1.1					
	9.1	518	150	153.33	8980	1.4					
	10.8	437	125	129.48	8490	1.7					
	13.5	350	100	103.64	7880	1.9					
	18.5	255	75	75.55	7090	2.0	2HRV110	YH8014	2HRV110	80B5/B14	8014
	22	217	60	64.18	6720	3.5					
	27	173	50	51.37	6240	3.7					
	24	204	60	59.22	6540	3.7					
	29	169	50	48.86	6130	4.4					
	5.9	805	150	153.33	10000	0.93	3HRV110	YH8026	3HRV110	80B5/B14	8026
	7.0	680	125	129.48	9840	1.1					
	8.7	544	100	103.64	9130	1.2					
	11.9	397	75	75.55	8220	1.3					
	14.0	337	60	64.18	7780	2.2					
	17.5	270	50	51.37	7230	2.4					
	15.2	318	60	59.22	7580	2.4	2HRV110	YH8026	2HRV110	80B5/B14	8026
	18.4	262	50	48.86	7110	2.9					
	22	222	40	41.26	6720	3.4					
	29	165	30	30.67	6090	4.6					
0.75	48	138	30	29.33	2350	0.94	2HRV050	YH8024	2HRV050	80B5/B14	8024
	58	113	25	24.07	2200	1.1					
	69	95	20	20.21	2080	1.1					
	94	70	15	14.92	1880	1.1					
	112	59	12.5	12.47	1770	2.2					
	134	49	10	10.47	1670	2.0					
	181	36	7.5	7.73	1510	2.2					

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV性能參數 Performance Parameter

P_{in} [kW]	n_2 [r/min]	M_{2max} [Nm]	i 公称 Nominal	i 实际 Actual	F_{r2} [N]	f_s					
0.75	72	91	12.5	12.47	2050	1.4	2HRV050	YH90S6	2HRV050	90B5/B14	90S6
	86	77	10	10.47	1930	1.3					
	116	57	7.5	7.73	1750	1.4					
	44	146	60	63.33	2760	1.2	3HRV063	YH8012	2HRV063	90B5/B14	8012
	53	121	50	52.48	2590	1.2					
	29	229	50	48.71	3190	0.87	2HRV063	YH8024	2HRV063	80B5/B14	8024
	36	185	40	39.29	2970	0.97					
	46	143	30	30.31	2720	1.4					
	57	115	25	24.44	2530	1.6					
	69	95	20	20.25	2380	1.6					
	95	69	15	14.67	2130	1.6					
	110	60	12.5	12.67	2030	3.0					
	133	49	10	10.50	1910	3.0					
	184	36	7.5	7.60	1710	3.1					
	30	222	30	30.31	3150	0.9	2HRV063	YH90S6	2HRV063	90B5/B14	90S6
	37	179	25	24.44	2930	1.0					
	44	148	20	20.25	2760	1.0					
	61	107	15	14.67	2470	1.0					
	71	93	12.5	12.67	2360	1.9					
	86	77	10	10.50	2210	2.0					
	118	56	7.5	7.60	1990	2.0					
	18.5	348	150	151.20	5040	1.0	3HRV075	YH8012	3HRV075	80B5/B14	8012
	22	290	125	125.95	4750	1.0					
	28	228	100	99.22	4380	1.1					
	37	174	75	75.45	4000	1.2					
	45	144	60	62.43	3750	2.1					
	57	113	50	49.18	3470	2.1					
	22	287	60	62.43	4730	1.0	3HRV075	YH8024	3HRV075	80B5/B14	8024
	28	226	50	49.18	4370	1.1					
	24	280	60	59.44	4660	1.3	2HRV075	YH8024	2HRV075	80B5/B14	8024
	29	227	50	48.18	4340	1.5					
	35	189	40	40.13	4080	1.6					
	46	142	30	30.24	3720	2.5					
	56	119	25	25.19	3500	2.5					
	71	93	20	19.84	3230	2.6					
	93	71	15	15.09	2950	2.8					
	18.7	353	50	48.18	5030	1.0					
	22	294	40	40.13	4730	1.0					
	30	221	30	30.24	4310	1.6					
	36	184	25	25.19	4050	1.6					

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV性能參數 Performance Parameter

P_{in} [kW]	n_2 [r/min]	M_{2max} [Nm]	i 公称 Nominal	i 实际 Actual	F_{r2} [N]	f_s					
0.75	45	145	20	19.84	3740	1.7	2HRV075	YH90S6	2HRV075	90B5/B14	90S6
	60	110	15	15.09	3410	1.8					
	72	91	12.5	12.49	3210	3.3					
	91	72	10	9.84	2960	3.3					
	120	55	7.5	7.48	2700	3.7					
	11.6	555	250	240.89	7470	0.9	3HRV075	YH8012	3HRV075	80B5/B14	8012
	14.0	462	200	200.66	7030	1.0					
	18.5	348	150	151.20	6390	1.4					
	22	290	125	125.95	6010	1.7					
	28	228	100	99.22	5550	1.7					
	37	174	75	75.45	5070	1.7					
	45	144	60	62.43	4760	3.3					
	57	113	50	49.18	4390	3.4	3HRV090	YH8024	3HRV090	80B5/B14	8024
	11.1	580	125	125.95	7580	0.83					
	14.1	457	100	99.22	7000	0.83					
	18.6	247	75	75.45	6390	0.86					
	22	287	60	62.43	6000	1.7					
	28	226	50	49.18	5540	1.7	2HRV090	YH8024	2HRV090	80B5/B14	8024
	24	278	60	59.04	5890	1.8					
	29	227	50	48.18	5500	2.2					
	35	189	40	40.13	5170	2.5					
	46	142	30	30.24	4710	3.5					
	56	119	25	25.19	4430	4.0					
	71	93	20	19.84	4090	4.1	3HRV090	YH90S6	3HRV090	90B5/B14	90S6
	93	71	15	15.09	3730	4.2					
	14.4	447	60	62.43	6950	1.1					
	18.3	352	50	49.18	6420	1.1					
	15.2	432	60	59.04	6820	1.2	2HRV090	YH90S6	2HRV090	90B5/B14	90S6
	18.7	353	50	48.18	6370	1.4					
	22	294	40	40.13	6000	1.6					
	30	221	30	30.24	5460	2.3					
	36	184	25	25.19	5130	2.6					
	45	145	20	19.84	4740	2.6					
	60	110	15	15.09	4330	2.7	3HRV110	YH8012	3HRV110	80B5/B14	8012
	9.5	682	300	296.10	8880	1.1					
	11.5	562	250	244.29	8330	1.3					
	13.6	475	200	206.29	7870	1.6					
	18.3	353	150	153.33	7130	2.1					
	22	298	125	129.48	6740	2.5					
	27	239	100	103.64	6260	2.7					

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV性能參數 Performance Parameter

P_2 [kW]	n_2 [r/min]	M_{2max} [Nm]	i 公称 Nominal	i 实际 Actual	F_2 [N]	f_s					
0.75	37	174	75	75.55	5630	3.0	3HRV110	YH8012	3HRV110	80B5/B14	8012
	9.1	706	150	153.33	8980	1.1	3HRV110	YH8024	3HRV110	80B5/B14	8024
	10.8	596	125	129.48	8490	1.3					
	13.5	477	100	103.64	7880	1.4					
	18.5	348	75	75.55	7090	1.5					
	22	296	60	64.18	6720	2.5					
	27	237	50	51.37	6240	2.7					
	24	279	60	59.22	6540	2.7	2HRV110	YH8024	2HRV110	80B5/B14	8024
	29	230	50	48.86	6130	3.3					
	34	194	40	41.26	5800	3.9					
	8.7	742	100	103.64	9130	0.88	3HRV110	YH90S6	3HRV110	90B5/B14	90S6
	11.9	541	75	75.55	8220	0.96					
	14.0	460	60	64.18	7780	1.6					
	17.5	368	50	51.37	7230	1.8					
	15.2	434	60	59.22	7580	1.7	2HRV110	YH90S6	2HRV110	90B5/B14	90S6
	18.4	358	50	48.86	7110	2.1					
	22	302	40	41.26	6720	2.5					
	29	225	30	30.67	6090	3.3					
	35	190	25	25.90	5750	4.0					
	43	152	20	20.73	5340	4.3					
1.1	112	86	12.5	12.47	1770	1.5	2HRV050	YH90S4	2HRV050	90B5/B14	90S4
	134	72	10	10.47	1670	1.4					
	181	53	7.5	7.73	1510	1.5					
	72	134	12.5	12.47	2050	0.97	2HRV050	YH90L6	2HRV050	90B5/B14	90L6
	86	112	10	10.47	1930	0.89					
	116	83	7.5	7.73	1750	0.96					
	46	209	30	30.31	2720	0.96	2HRV063	YH90S4	2HRV063	90B5/B14	90S4
	57	169	25	24.44	2530	1.1					
	69	140	20	20.25	2380	1.1					
	95	101	15	14.67	2130	1.1					
	110	87	12.5	12.67	2030	2.1					
	133	72	10	10.50	1910	2.1					
	184	52	7.5	7.60	1710	2.1					
	71	136	12.5	12.67	2360	1.3	2HRV063	YH90L6	2HRV063	90B5/B14	90L6
	86	113	10	10.50	2210	1.3					
	118	82	7.5	7.60	1990	1.3					
	45	211	60	62.43	3750	1.4	3HRV075	YH8022	2HRV075	80B5/B14	8022
	57	166	50	49.18	3470	1.4					
	24	410	60	59.44	4660	0.85	2HRV075	YH90S4	2HRV075	80B5/B14	90S4
	29	333	50	48.18	4340	1.1					

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV性能參數 Performance Parameter

P_{in} [kW]	n_2 [r/min]	M_{2max} [Nm]	i 公称 Nominal	i 实际 Actual	F_{r2} [N]	f_s			
1.1	35	277	40	40.13	4080	1.1	2HRV075	YH90S4	2HRV075 80B5/B14 90S4
	46	209	30	30.24	3720	1.7			
	56	174	25	25.19	3500	1.7			
	71	137	20	19.84	3230	1.8			
	93	104	15	15.09	2950	1.9			
	112	86	12.5	12.49	2770	3.5			
	142	68	10	9.84	2550	3.5			
	187	52	7.5	7.48	2330	3.9			
	30	325	30	30.24	4310	1.1	2HRV075	YH90L6	2HRV075 90B5/B14 90L6
	36	271	25	25.19	4050	1.1			
	45	213	10	19.84	3740	1.1			
	60	162	15	15.09	3410	1.2			
	72	134	12.5	12.49	3210	2.2			
	91	106	10	9.84	2960	2.3			
	120	80	7.5	7.48	2700	2.5			
	18.5	511	150	151.20	6390	1.0	3HRV090	YH8022	3HRV090 80B5/B14 8022
	22	425	125	125.95	6010	1.1			
	28	335	100	99.22	5550	1.1			
	37	255	75	75.45	5070	1.2			
	45	211	60	62.43	4760	2.3			
	57	166	50	49.18	4390	2.3			
	22	422	60	62.43	6000	1.1			
	28	332	50	49.18	5540	1.1	2HRV090	YH90S4	2HRV090 90B5/B14 90S4
	24	408	60	59.04	5890	1.2			
	29	333	50	48.18	5500	1.5			
	35	277	40	40.13	5170	1.7			
	46	209	30	30.24	4710	2.4			
	56	174	25	25.19	4430	2.8			
	71	137	20	19.84	4090	2.8			
	93	104	15	15.09	3730	2.9	2HRV090	YH90L6	2HRV090 90B5/B14 90L6
	15.2	634	60	59.04	6820	0.8			
	18.7	517	50	48.18	6370	0.97			
	22	431	40	40.13	6000	1.1			
	30	325	30	30.24	5460	1.5			
	36	271	25	25.19	5130	1.8			
	45	213	20	19.84	4740	1.8			
	60	162	15	15.09	4330	1.9			
	72	134	12.5	12.49	4060	3.6			
	91	106	10	9.84	3750	3.6			
	120	80	7.5	7.48	3420	3.7			

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV性能參數 Performance Parameter

P_{in} [kW]	n_2 [r/min]	M_{2max} [Nm]	i 公称 Nominal	i 实际 Actual	F_{r2} [N]	f_s			
1.1	11.5	825	250	244.29	8330	0.91	3HRV110	YH8022	3HRV110 80B5/B14 8022
	13.6	697	200	206.29	7870	1.1			
	18.3	518	150	153.33	7130	1.4			
	22	437	125	129.48	6740	1.7			
	27	350	100	103.64	6260	1.9			
	37	255	75	75.55	5630	2.0			
	44	217	60	64.18	5330	3.5			
	55	173	50	51.37	4950	3.7			
	10.8	874	125	129.48	8490	0.86	3HRV110	YH90S4	3HRV110 90B5/B14 90S4
	13.5	700	100	103.64	7880	0.93			
	18.5	510	75	75.55	7090	1.0			
	22	433	60	64.18	6720	1.7			
	27	347	50	51.37	6240	1.9			
	24	409	60	59.22	6540	1.8	2HRV110	YH90S4	2HRV110 90B5/B14 90S4
	29	337	50	48.86	6130	2.2			
	34	285	40	41.26	5800	2.6			
	46	212	30	30.67	5250	3.5			
	54	179	25	25.90	4960	4.2			
	68	143	20	20.73	4610	4.5	3HRV110	YH90L6	3HRV110 90B5/B14 90L6
	14.0	674	60	64.18	7780	1.1			
	17.5	540	50	51.37	7230	1.2	2HRV110	YH90L6	2HRV110 90B5/B14 90L6
	15.2	636	60	59.22	7580	1.2			
	18.4	525	50	48.86	7110	1.4			
	22	443	40	41.26	6720	1.7			
	29	329	30	30.67	6090	2.3			
	35	278	25	25.90	5750	2.7			
	43	223	20	20.73	5340	2.9			
	60	162	15	15.11	4810	3.2			
	112	117	12.5	12.47	1770	1.1	2HRV110	YH90L4	2HRV110 90B5/B14 90L4
	134	99	10	10.47	1670	1.0			
	181	73	7.5	7.73	1510	1.1			
1.5	57	230	25	24.44	2530	0.8	2HRV063	YH90L4	2HRV063 90B5/B14 90L4
	69	191	20	20.25	2380	0.8			
	95	138	15	14.67	2130	0.8			
	110	119	12.5	12.67	2030	1.5			
	133	99	10	10.50	1910	1.5			
	184	72	7.5	7.60	1710	1.5			
	45	287	60	62.43	3750	1.0	3HRV075	YH90S2	3HRV075 90B5/B14 90S2
	57	226	50	49.18	3470	1.1			
	29	454	50	48.18	4340	0.77			
	29	454	50	48.18	4340	0.77	2HRV075	YH90L4	2HRV075 90B5/B14 90L4

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV性能參數 Performance Parameter

P_{1n} [kW]	n_2 [r/min]	M_{2max} [Nm]	i 公称 Nominal	i 实际 Actual	F_{r2} [N]	f_s				
1.5	35	378	40	40.13	4080	0.79	2HRV075	YH90L4	2HRV075 90B5/B14	90L4
	46	285	30	30.24	3720	1.2				
	56	237	25	25.19	3500	1.3				
	71	187	20	19.84	3230	1.3				
	93	142	15	15.09	2950	1.4				
	112	118	12.5	12.49	2770	2.6				
	142	93	10	9.84	2550	2.6				
	187	70	7.5	7.48	2330	2.8				
	45	291	20	19.84	3740	0.83	2HRV075	YH100L6	2HRV075 100B5/B14	100L6
	60	221	15	15.09	3410	0.91				
	72	183	12.5	12.49	3210	1.6				
	91	144	10	9.84	2960	1.7				
	120	110	7.5	7.48	2700	1.8				
	22	580	125	125.95	6010	0.83	3HRV090	YH90S2	3HRV090 90B5/B14	90S2
	28	457	100	99.22	5550	0.85				
	37	347	75	75.45	5070	0.86				
	45	287	60	62.43	4760	1.7				
	57	226	50	49.18	4390	1.7				
	24	556	60	59.04	5890	0.9	2HRV090	YH90L4	2HRV090 90B5/B14	90L4
	29	454	50	48.18	5500	1.1				
	35	378	40	40.13	5170	1.3				
	46	285	30	30.24	4710	1.8				
	56	237	25	25.19	4430	2.0				
	71	187	20	19.84	4090	2.0				
	93	142	15	15.09	3730	2.1				
	112	118	12.5	12.49	3510	4.1				
	142	93	10	9.84	3240	4.1	2HRV090	YH100L4	2HRV090 100B5/B14	100L6
	187	70	7.5	7.48	2950	4.3				
	30	443	30	30.24	5460	1.1				
	36	369	25	25.19	5130	1.3				
	45	291	20	19.84	4740	1.3				
	60	221	15	15.09	4330	1.4				
	72	183	12.5	12.49	4060	2.6				
	91	144	10	9.84	3750	2.6				
	120	110	7.5	7.48	3420	2.7	3HRV110	YH90S2	3HRV110 90B5/B14	90S2
	18.3	706	150	153.33	7130	1.1				
	22	596	125	129.48	6740	1.3				
	27	477	100	103.64	6260	1.4				
	37	348	75	75.55	5630	1.5				
	44	296	60	64.18	5330	2.5				

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV性能參數 Performance Parameter

P_{in} [kW]	n_2 [r/min]	M_{2max} [Nm]	i 公称 Nominal	i 实际 Actual	F_{r2} [N]	f_s					
1.5	55	237	50	51.37	4950	2.7	3HRV110	YH90S2	3HRV110	90B5/B14	90S2
	22	591	60	64.18	6720	1.3	3HRV110	YH90L4	3HRV110	90B5/B14	90L4
	27	473	50	51.37	6240	1.4					
	24	557	60	59.22	6540	1.3					
	29	460	50	48.86	6130	1.6					
	34	388	40	41.26	5800	1.9					
	46	289	30	30.67	5250	2.6	2HRV110	YH90L4	2HRV110	90B5/B14	90L4
	54	244	25	25.90	4960	3.1					
	68	195	20	20.73	4610	3.3					
	93	142	15	15.11	4150	3.7					
	15.2	867	60	59.22	7580	0.86					
	18.4	715	50	48.86	7110	1.0					
	22	604	40	41.26	6720	1.2					
	29	449	30	30.67	6090	1.7					
	35	379	25	25.90	5750	2.0	2HRV110	YH100L6	2HRV110	100B5/B14	100L6
	43	304	20	20.73	5340	2.1					
	60	221	16	15.11	4810	2.4					
	70	188	12.5	12.84	4550	4.0					
	88	150	10	10.27	4220	4.3					
	120	110	7.5	7.49	3800	4.7					
2.2	46	418	30	30.24	3720	0.84					
	56	348	25	25.19	3500	0.86					
	71	274	20	19.84	3230	0.88	2HRV075	YH100L1-4	2HRV075	100B5/B14	100L1-4
	93	208	15	15.09	2950	0.96					
	112	172	12.5	12.49	2770	1.7					
	142	136	10	9.84	2550	1.8					
	187	103	7.5	7.48	2330	1.9					
	72	268	12.5	12.49	3210	1.1					
	91	211	10	9.84	2960	1.1	2HRV075	YH112M6	2HRV075	112B5/B14	112M6
	120	161	7.5	7.48	2700	1.2					
	45	422	60	62.43	4760	1.1	3HRV090	YH90L2	3HRV090	90B5/B14	90L2
	57	332	50	49.18	4390	1.1					
	35	554	40	40.13	5170	0.87					
	46	418	30	30.24	4710	1.2					
	56	348	25	25.19	4430	1.4					
	71	274	20	19.84	4090	1.4	2HRV090	YH100L1-4	2HRV090	100B5/B14	100L1-4
	93	208	15	15.09	3730	1.4					
	112	172	12.5	12.49	3510	2.8					
	142	136	10	9.84	3240	2.8					
	187	103	7.5	7.48	2950	2.9					

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV性能參數 Performance Parameter

i										
P _{in}	n ₂	M _{2max}	公称	实际	F ₁₂	f _s				
[kW]	[r/min]	[Nm]	Nominal	Actual	[N]					
2.2	36	541	25	25.19	5130	0.9	2HRV090 YH112M6	2HRV090 112B5/B14	112M6	
	45	426	20	19.84	4740	0.9				
	60	324	15	15.09	4330	0.93				
	72	268	12.5	12.49	4060	1.8				
	91	211	10	9.84	3750	1.8				
	120	161	7.5	7.48	3420	1.9				
	22	874	125	129.48	6740	0.86	3HRV110 YH90L2	3HRV110 90B5/B14	90L2	
	27	700	100	103.64	6260	0.93				
	37	510	75	75.55	5630	1.0				
	44	433	60	64.18	5330	1.7				
	55	347	50	51.37	4950	1.9				
	24	818	60	59.22	6540	0.92	2HRV110 YH100L1-4	2HRV110 100B5/B14	100L1-4	
	29	675	50	48.86	6130	1.1				
	34	570	40	41.26	5800	1.3				
	46	423	30	30.67	5250	1.8				
	54	358	25	25.90	4960	2.1				
	68	286	20	20.73	4610	2.3				
	93	209	15	15.11	4150	2.5				
	109	177	12.5	12.84	3930	4.2				
	136	142	10	10.27	3650	4.6				
	187	103	7.5	7.49	3280	5.0				
	29	659	30	30.67	6090	1.1	2HRV110 YH112M6	2HRV110 112B5/B14	112M6	
	35	556	25	25.90	5750	1.3				
	43	445	20	20.73	5340	1.5				
	60	325	15	15.11	4810	1.6				
	70	276	12.5	12.84	4550	2.7				
	88	221	10	10.27	4220	2.9				
	120	161	7.5	7.49	3800	3.2				
	3.0	112	235	12.5	12.49	2770	1.3	2HRV075 YH100L2-4	2HRV075 100B5/B14	100L2-4
142		185	10	9.84	2550	1.3				
187		141	7.5	7.48	2330	1.4				
46		569	30	30.24	4710	0.9	2HRV090 YH100L2-4	2HRV090 100B5/B14	100L2-4	
56		474	25	25.19	4430	1.0				
71		374	20	19.84	4090	1.0				
93		284	15	15.09	3730	1.1				
112		235	12.5	12.49	3510	2.0				
142		185	10	9.84	3240	2.1				
187		141	7.5	7.48	2950	2.1				
44		591	60	64.18	5330	1.3	3HRV110 YH100L2	3HRV110 100B5/B14	100L2	
55	473	50	51.37	4950	1.4					

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV性能參數 Performance Parameter

P_{in} [kW]	n_2 [r/min]	M_{2max} [Nm]	i 公称 Nominal	i 实际 Actual	F_{r2} [N]	f_s			
3.0	34	777	40	41.26	5800	0.97	2HRV110 YH100L2-4	2HRV110 100B5/B14	100L2-4
	46	577	30	30.67	5250	1.3			
	54	488	25	25.90	4960	1.5			
	68	390	20	20.73	4610	1.7			
	93	284	15	15.11	4150	1.8			
	109	242	12.5	12.84	3930	3.1			
	136	193	10	10.27	3650	3.4			
	187	141	7.5	7.49	3280	3.7			
	35	759	25	25.90	5750	1.0	2HRV110 YH132S6	2HRV110 132B5	132S6
	43	607	20	20.73	5340	1.1			
	60	443	15	15.11	4810	1.2			
	70	376	12.5	12.84	4550	2.0			
	88	301	10	10.27	4220	2.2			
	120	219	7.5	7.49	3800	2.4			
	112	314	12.5	12.49	2770	0.96	2HRV075 YH112M4	2HRV075 112B5/B14	112M4
	142	247	10	9.84	2550	1.0			
	187	188	7.5	7.48	2330	1.1			
	112	314	12.5	12.49	3510	1.5	2HRV090 YH112M4	2HRV090 112B5/B14	112M4
	142	247	10	9.84	3240	1.5			
	187	188	7.5	7.48	2950	1.6			
4.0	46	770	30	30.67	5250	1.0	2HRV110 YH112M4	2HRV110 112B5/B14	112M4
	54	650	25	25.90	4960	1.2			
	68	520	20	20.73	4610	1.2			
	93	379	15	15.11	4150	1.4			
	109	322	12.5	12.84	3930	2.3			
	136	258	10	10.27	3650	2.5			
	187	188	7.5	7.49	3280	2.8			
	68	716	20	20.73	4610	0.9	2HRV110 YH132S4	2HRV110 132B5	132S4
5.5	93	522	15	15.11	4150	1.0			
	109	443	12.5	12.84	3930	1.7			
	136	354	10	10.27	3650	1.8			
	187	259	7.5	7.49	3280	2.0			

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV性能參數 Performance Parameter

HRV..HS性能參數 / Performance parameter

$n_1=1400\text{r/min}$

$M_{2\max}$ [Nm]	n_2 [r/min]	i 公称 Nominal	i 实际 Actual	P_{2n} [kW]	F_2 [N]	F_1 [N]	
130	4.8	300	291.79	0.07	4100	400	3HRV050..HS
130	5.7	250	244.29	0.09	4100	400	
130	7.0	200	200.44	0.11	4100	400	
130	9.5	150	146.67	0.14	4000	400	
130	11.6	125	120.34	0.18	3770	400	
100	13.9	100	101.04	0.16	3560	400	
80	18.8	75	74.62	0.17	3220	400	
130	22	60	62.36	0.34	3030	400	
100	27	50	52.36	0.31	2860	400	2HRV050..HS
130	24	60	58.36	0.35	2960	400	
130	29	50	48.86	0.42	2790	400	
130	35	40	40.09	0.52	2610	400	
130	48	30	29.33	0.71	2350	400	
130	58	25	24.07	0.86	2200	400	
100	69	20	20.21	0.79	2080	400	
80	94	15	14.92	0.85	1880	400	
130	112	12.5	12.47	1.7	1770	400	3HRV063..HS
100	134	10	10.47	1.5	1670	400	
80	181	7.5	7.73	1.6	1510	400	
200	4.6	300	302.50	0.11	4800	400	
200	5.7	250	243.57	0.13	4800	400	
180	7.1	200	196.43	0.15	4800	400	
200	9.2	150	151.56	0.21	4650	400	
180	11.5	125	122.22	0.24	4330	400	
150	13.8	100	101.27	0.24	4070	400	2HRV063..HS
110	19.1	75	73.33	0.24	3650	400	
180	22	60	63.33	0.46	3480	400	
150	27	50	52.48	0.47	3270	400	
200	23	60	60.50	0.53	3430	530	
200	29	50	48.71	0.65	3190	530	
180	36	40	39.29	0.73	2970	530	
200	46	30	30.31	1.1	2720	530	
180	57	25	24.44	1.2	2530	530	2HRV063..HS
150	69	20	20.25	1.2	2380	530	
110	95	15	14.67	1.2	2130	530	
180	110	12.5	12.67	2.3	2030	530	
150	133	10	10.50	2.3	1910	530	
110	184	7.5	7.60	2.3	1710	530	

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV性能參數 Performance Parameter

M_{2max} [Nm]	n_2 [r/min]	i 公称 Nominal	i 实际 Actual	P_{2n} [kW]	F_{r2} [N]	F_{r1} [N]	
350	4.7	300	297.21	0.19	6500	560	3HRV075..HS
350	5.8	250	240.86	0.24	6500	560	
300	7.0	200	200.66	0.24	6500	560	
350	9.3	150	151.20	0.38	6500	560	
300	11.1	125	125.95	0.39	5980	560	
240	14.1	100	99.22	0.39	5520	560	
200	18.6	75	75.45	0.43	5040	560	
300	22	60	62.43	0.78	4730	560	
240	28	50	49.18	0.79	4370	560	
350	24	60	59.44	0.94	4660	860	2HRV075..HS
350	29	50	48.18	1.2	4340	860	
300	35	40	40.13	1.2	4080	860	
350	46	30	30.24	1.8	3720	860	
300	56	25	25.19	1.9	3500	860	
240	71	20	19.84	1.9	3230	860	
200	93	15	15.09	2.1	2950	860	
300	112	12.5	12.49	3.8	2770	860	
240	142	10	9.84	3.9	2550	860	
200	187	7.5	7.48	4.3	2330	860	
500	4.7	300	295.18	0.27	8300	560	3HRV090..HS
500	5.8	250	240.89	0.34	8300	560	
480	7.0	200	200.66	0.39	8300	560	
500	9.3	150	151.20	0.54	8050	560	
480	11.1	125	125.95	0.62	7580	560	
380	14.1	100	99.22	0.62	7000	560	
300	18.6	75	75.45	0.65	6390	560	
480	22	60	62.43	1.3	6000	560	
380	28	50	49.18	1.3	5540	560	
500	24	60	59.04	1.3	5890	1260	2HRV090..HS
500	29	50	48.18	1.7	5500	1260	
480	35	40	40.13	1.9	5170	1260	
500	46	30	30.24	2.6	4710	1260	
480	56	25	25.19	3.0	4430	1260	
380	71	20	19.84	3.1	4090	1260	
300	93	15	15.09	3.2	3730	1260	
480	112	12.5	12.49	6.1	3510	1260	
380	142	10	9.84	6.2	3240	1260	
300	187	7.5	7.48	6.4	2950	1260	

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

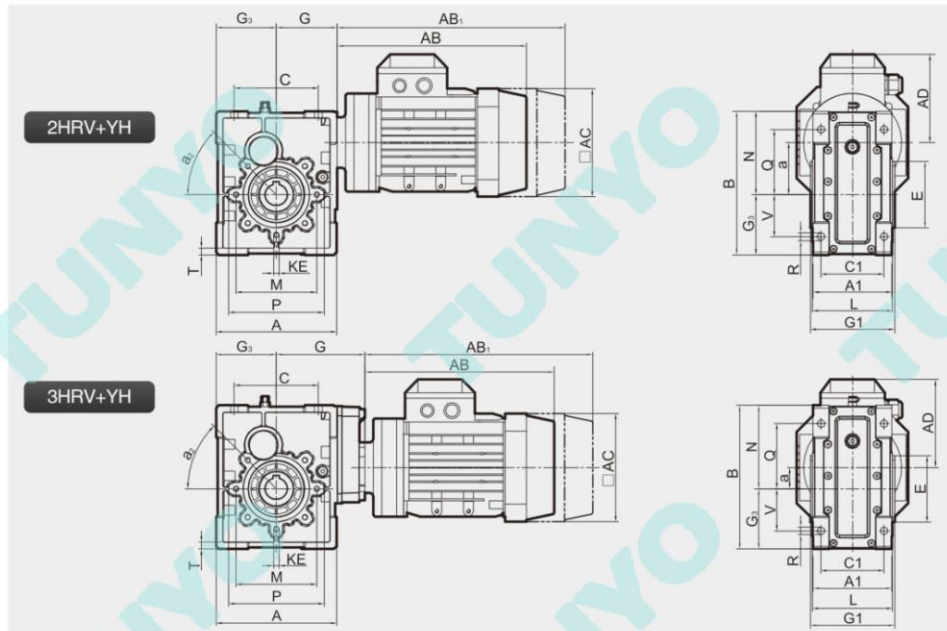
HRV性能參數 Performance Parameter

M _{2max} [Nm]	n ₂ [r/min]	i 公称 Nominal	i 实际 Actual	P _{2in} [kW]	F _{r2} [N]	F _{r1} [N]	
750	4.7	300	296.10	0.40	10000	740	3HRV110..HS
750	5.7	250	244.29	0.50	10000	740	
750	6.8	200	206.29	0.59	9920	740	
750	9.1	150	153.33	0.80	8980	740	
750	10.8	125	129.48	0.94	8490	740	
650	13.5	100	103.64	1.0	7880	740	
520	18.5	75	75.55	1.1	7090	740	
750	22	60	64.18	1.9	6720	740	
650	27	50	51.37	2.1	6240	740	
750	24	60	59.22	2.0	6540	1490	2HRV110..HS
750	29	50	48.86	2.4	6130	1490	
750	34	40	41.26	2.9	5800	1490	
750	46	30	30.67	3.9	5250	1490	
750	54	25	25.90	4.6	4960	1490	
650	68	20	20.73	5.0	4610	1490	
520	93	15	15.11	5.5	4150	1490	
750	109	12.5	12.84	9.3	3930	1490	
650	136	10	10.27	10.1	3650	1490	
520	187	7.5	7.49	11.1	3280	1490	

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV
050-110
準雙曲面減速機
Hypoid Gear Reducer
HRV+YH一體電機
減速比1:5~300

HRV+YH外形尺寸 Outline Dimension

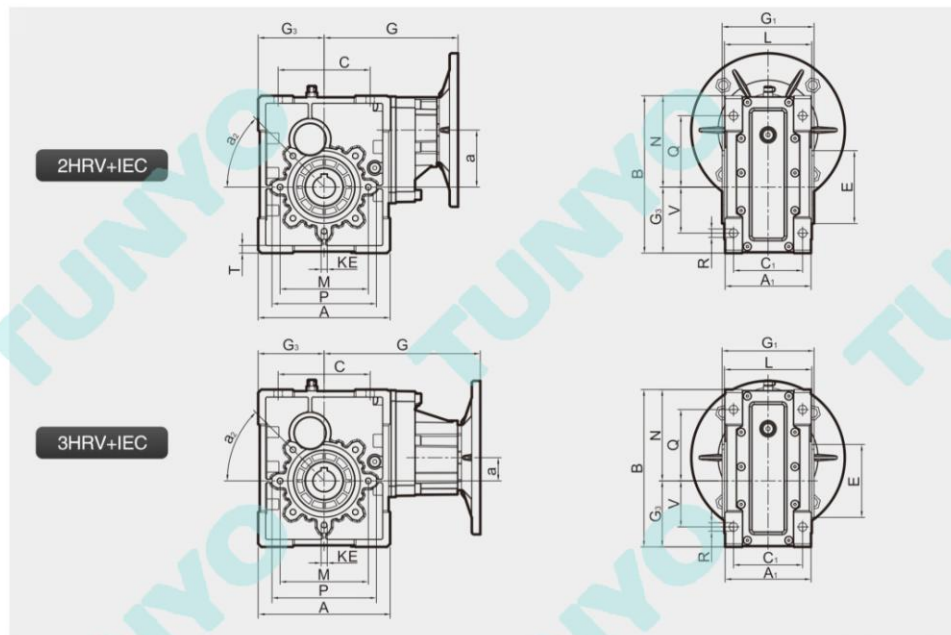


HRV	C	A	B	G	G ₃	a	C ₁	KE	a ₂	L	G ₁	M	E ₁₆	A ₁	R	P	Q	N	T	V
2HRV050	80	120	155	61	60	57	70	4-M8*12	45°	87	92	85	70	85	8.5	100	75	95	7	40
3HRV050	80	120	155	95	60	21.5	70	4-M8*12	45°	87	92	85	70	85	8.5	100	75	95	7	40
2HRV063	100	144	174	72	72	64.5	85	7-M8*14	45°	106	112	95	80	103	8.5	110	80	102	9	50
3HRV063	100	144	174	106	72	29	85	7-M8*14	45°	106	112	95	80	103	8.5	110	80	102	9	50
2HRV075	120	172	205	87	86	74.5	90	7-M8*16	45°	114	120	115	95	112	11	140	93	119	10	60
3HRV075	120	172	205	126	86	30.5	90	7-M8*16	45°	114	120	115	95	112	11	140	93	119	10	60
2HRV090	140	206	238	104	103	88	100	7-M10*22	45°	134	140	130	110	130	13	160	102	135	11	70
3HRV090	140	206	238	143	103	44	100	7-M10*22	45°	134	140	130	110	130	13	160	102	135	11	70
2HRV110	170	255	295	127.5	127.5	108	115	7-M10*25	45°	148	155	165	130	144	14	185	125	167.5	16	85
3HRV110	170	255	295	177.5	127.5	52	155	7-M10*25	45°	148	155	165	130	144	14	185	125	167.5	16	85
YH	63		71		80		90S		90L		100		112		132					
AB	211		226		261		285		295		355		373		424					
AB1	266		290		354		370		380		440		453		504					
AC	120		130		145		160		160		185		200		245					
AD	104		109		110		115		115		140		158		178					

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV
050-110
準雙曲面減速機
Hypoid Gear Reducer
HRV+IEC標準電機
減速比1:5~300

HRV+IEC外形尺寸 Outline Dimension



HRV	C	A	B	G	G ₃	a	C ₁	KE	a ₂	L	G ₁	M	E ₁₈	A ₁	R	P	Q	N	T	V	kg
2HRV050	80	120	155	132.5	60	57	70	4-M8×12	45°	87	92	85	70	85	8.5	100	75	95	7	40	4.5
3HRV050	80	120	155	148	60	21.5	70	4-M8×12	45°	87	92	85	70	85	8.5	100	75	95	7	40	5
2HRV063	100	144	174	143.5	72	64.5	85	7-M8×14	45°	106	112	95	80	103	8.5	110	80	102	9	50	6.3
3HRV063	100	144	174	169	72	29	85	7-M8×14	45°	106	112	95	80	103	8.5	110	80	102	9	50	7
2HRV075	120	172	205	174	86	74.5	90	7-M8×16	45°	114	120	115	95	112	11	140	93	119	10	60	9.9
3HRV075	120	172	205	203	86	30.5	90	7-M8×16	45°	114	120	115	95	112	11	140	93	119	10	60	10.9
2HRV090	140	206	238	192	103	88	100	7-M10×22	45°	134	140	130	110	130	13	160	102	135	11	70	13.9
3HRV090	140	206	238	220	103	44	100	7-M10×22	45°	134	140	130	110	130	13	160	102	135	11	70	14.9
2HRV110	170	255	295	241.5	127.5	108	115	7-M10×25	45°	148	155	165	130	144	14	185	125	167.5	16	85	28
3HRV110	170	255	295	271.5	127.5	52	155	7-M10×25	45°	148	155	165	130	144	14	185	125	167.5	16	85	30

注：重量（kg）不包含电机的重量。

Note: Weight(kg) without the weight of motor.

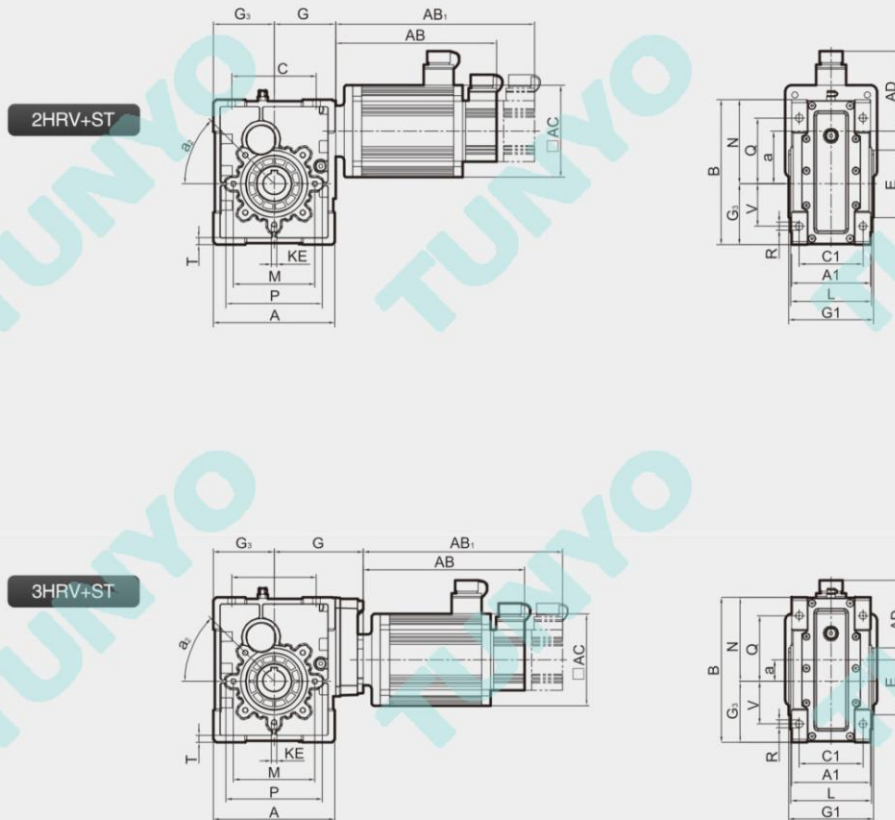
R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV
050-110

準雙曲面減速機
Hypoid Gear Reducer

HRV+ST伺服電機
減速比1:5~300

HRV+ST外形尺寸 Outline Dimension



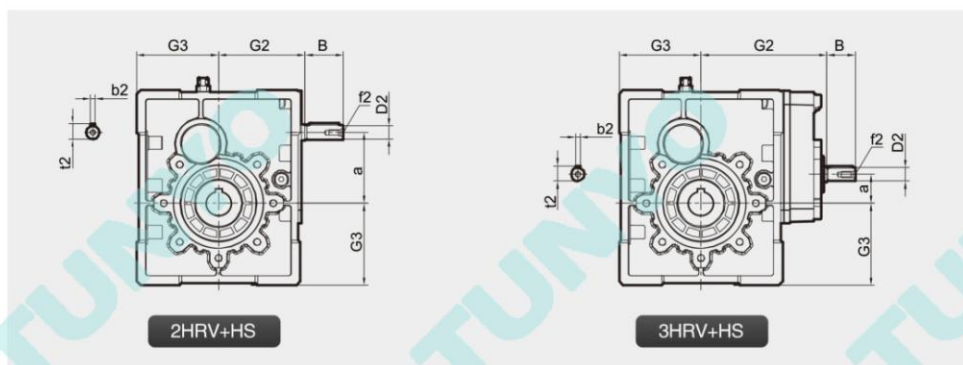
备注:

- 1、电机尺寸请参照东洋对应型号尺寸 Please refer to the corresponding model size of TUNYO for motor size
- 2、其余尺寸参考HRV+YH外形尺寸 The remaining size refer HRV+YH outline dimension

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

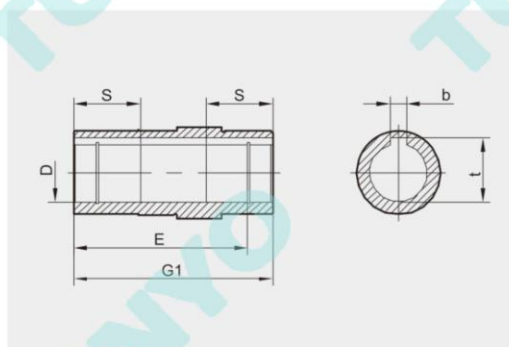
HRV
050-110
準雙曲面減速機
Hypoid Gear Reducer
HRV+HS軸輸入減速機
減速比1:5~300

HRV+HS外形尺寸 Outline Dimension



HRV	B	D ₂ /6	G ₂	G ₃	a	b ₂	t ₂	f ₂
2HRV050	23	11	65	60	57	4	12.5	-
3HRV050	23	11	100	60	21.5	4	12.5	-
2HRV063	30	14	76	72	64.5	5	16	M6
3HRV063	23	11	111	72	29	4	12.5	-
2HRV075	40	16	91	86	74.5	5	18	M6
3HRV075	30	14	132	86	30.5	5	16	M6
2HRV090	40	19	107	103	88	6	21.5	M6
3HRV090	30	14	146	103	44	5	16	M6
2HRV110	50	24	132	127.5	108	8	27	M6
3HRV110	40	19	181	127.5	52	6	21.5	M6

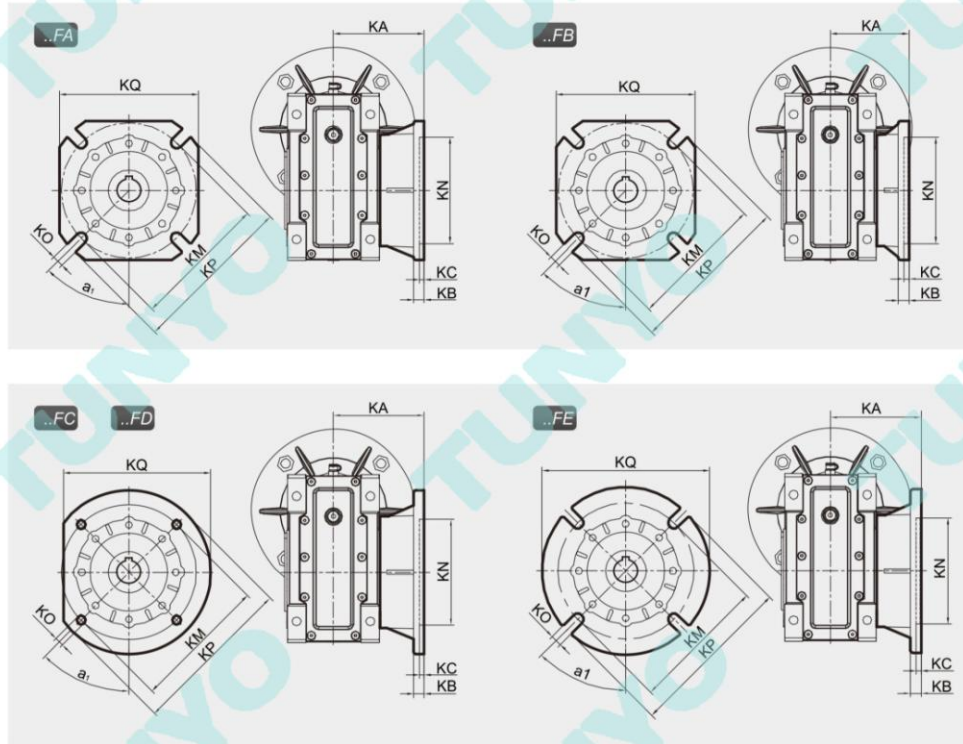
HRV空心輸出軸尺寸 Hollow Output Shaft Dimension



HRV	S	E	G1	D _{h8}	b	t
050	30	77	92	20	6	22.8
				24	8	27.3
063	36	97	112	25	8	28.3
				28	8	31.3
075	40	105	120	28	8	31.3
				30	8	33.3
				35	10	38.3
090	45	122	140	35	10	38.3
				38	10	41.3
110	50	131	155	40	12	43.3
				42	12	45.3

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV+F輸出法蘭尺寸 Output Flange Dimension



HRV	FA								
	a1	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ
050	45°	90	9	5	85	70	11(n=4)	125	110
063	45°	82	10	6	150	115	11(n=4)	180	142
075	45°	111	13	6	165	130	14(n=4)	200	170
090	45°	111	13	6	175	152	14(n=4)	210	200
110	45°	139	15	6	230	170	14(n=8)	280	260

HRV	FB								
	a1	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ
050	45°	120	9	5	85	70	11(n=4)	125	110
063	45°	112	10	6	150	115	11(n=4)	180	142
075	45°	90	13	6	130	110	11(n=4)	160	—
090	45°	122	18	6	215	180	14(n=4)	250	—
110	—	—	—	—	—	—	—	—	—

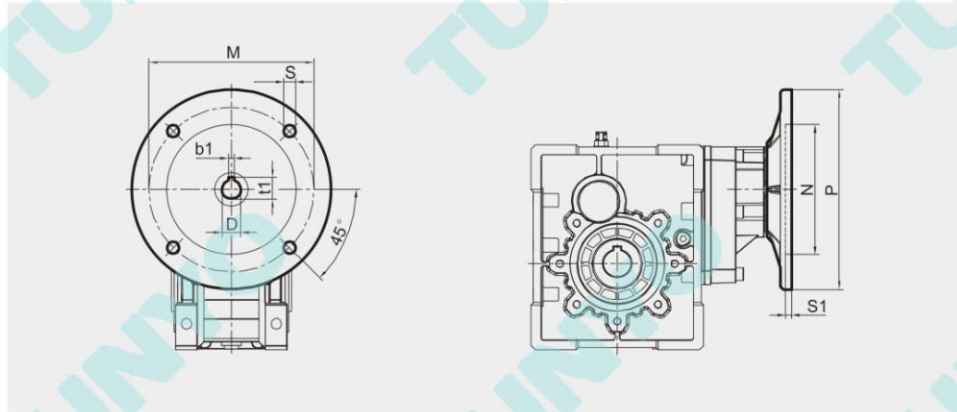
HRV	FC								
	a1	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ
050	45°	89	10	5	130	110	9(n=4)	160	—
063	45°	98	10	5	165	130	11(n=4)	200	—
090	45°	110	17	6	165	130	11(n=4)	200	—

HRV	FD								
	a1	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ
050	45°	72	14.5	5	115	95	11(n=4)	140	—
063	45°	107	10	5	165	130	11(n=4)	200	—
090	45°	151	13	6	175	152	14(n=4)	210	—

HRV	FE								
	a1	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ
050	—	—	—	—	—	—	—	—	—
063	45°	80.5	16.5	5	130	110	11(n=4)	160	—
090	—	—	—	—	—	—	—	—	—

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

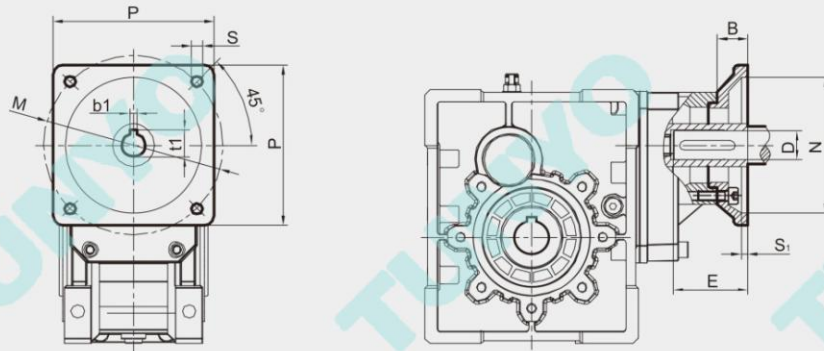
HRV+IEC輸入法蘭尺寸 Input Flange Dimension



HRV	PAM-IEC	N				M				P				S				b1	t1	s1	i(速比/ratio)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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050	63B5	95	-	115	-	140	-	9	-	4	12.8	5	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11</

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

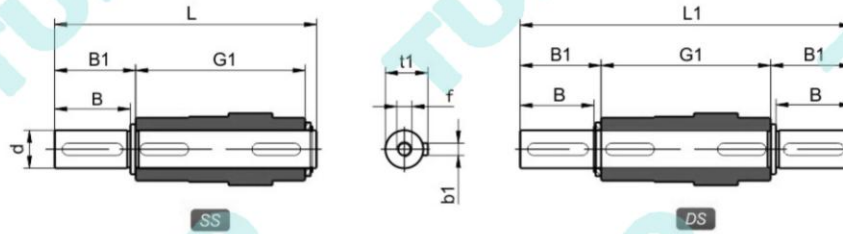
HRV+ST伺服電機輸入法蘭尺寸 Servo Motor Input Flange Dimension



HRV	P	B	D _{h7}	E	b1	t1	M	N	S	S1
050	60	35	14	30	5	16.3	70	50	5.5	4
	80	28	19	35	6	21.8	90	70	6	5
	90	30	16	35	5	18.3	100	80	6.5	5
	110	26	19	55	6	21.8	130	95	9	6
	130	32	22	57	6	24.8	145	110	9	6
063	60	40	14	30	5	16.3	70	50	5.5	4
	80	21	19	35	6	21.8	90	70	6	5
	90	21	16	35	5	18.3	100	80	6.5	5
	110	46	19	55	6	21.8	130	95	9	6
	130	40	22	57	6	24.8	145	110	9	6
075	110	47	19	55	6	21.8	130	95	9	6
	130	40	22	57	6	24.8	145	110	9	6
	150	38	28	58	8	31.3	165	130	11	6
	110	47	19	55	6	21.8	130	95	9	6
090	130	40	22	57	6	24.8	145	110	9	6
	150	38	28	58	8	31.3	165	130	11	6
	130	38	22	57	6	24.8	145	110	9	6
110	150	38	28	58	8	31.3	165	130	11	6
	180	38	35	65	10	38.3	200	114.3	13.5	6

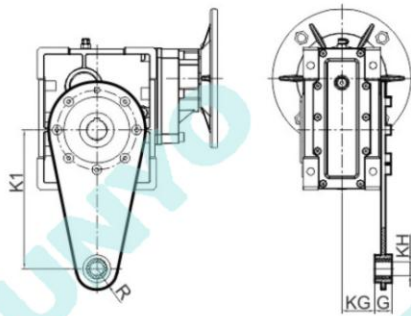
R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

輸出軸 Output Shafts



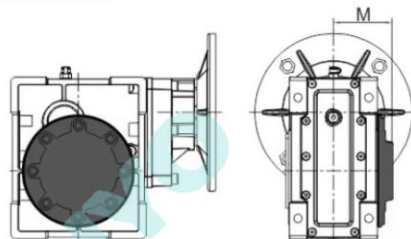
HRV	d_{h6}	B	B1	G1	L	L1	f	b1	t1
050	25	50	53.5	92	153	199	M10×27	8	28
063	25	50	53.5	112	173	219	M10×27	8	28
075	28	60	63.5	120	192	247	M10×27	8	31
090	35	80	84.5	140	234	309	M12×34	10	38
110	42	80	84.5	155	249	324	M16×42	12	45

扭力臂 Torque Arm



HRV	K1	G	KG	KH	R
050	100	14	38.5	10	18
063	150	14	49	10	18
075	200	25	47.5	20	30
090	200	25	57.5	20	30
110	250	30	62	25	35

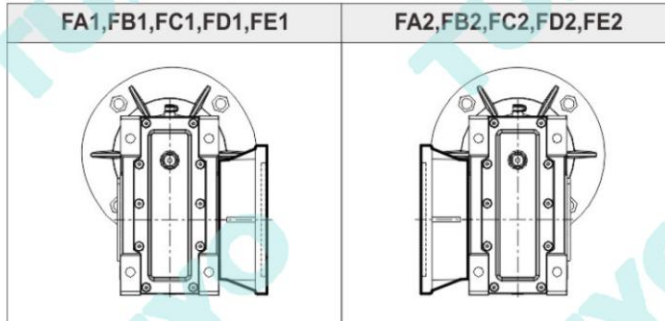
防塵蓋 Cover



HRV	M
050	58
063	69
075	74
090	86
110	94

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

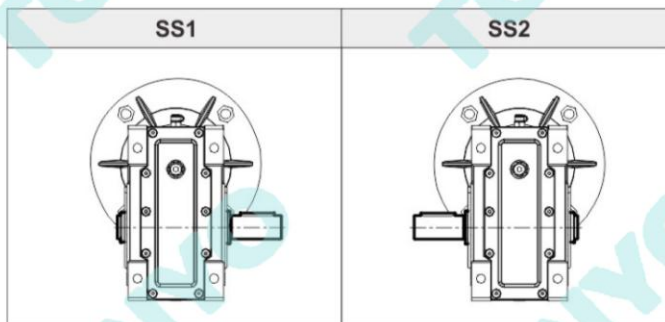
輸出法蘭位置 Position Diagram For Output Flange



如果没有特殊要求，一般
按出厂标准位置如图F..1
方式和B3位置提供。

Unless specified otherwise,
the gear units is supplied
with the flange in pos. F..1
referred to position B3.

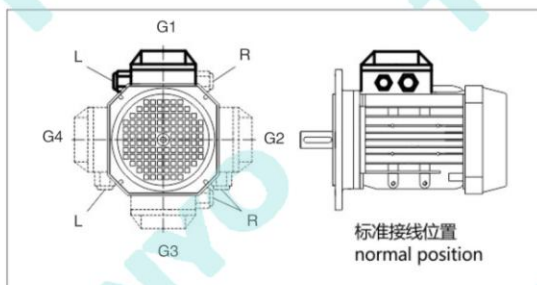
單向輸出軸位置 Position Diagram For Single Output Shaft



如果没有特殊要求，一般
按出厂标准位置如图SS1
方式和B3位置提供。

Unless specified otherwise,
the gear units is supplied
with the flange in pos. SS1
referred to position B3.

電機接線盒方位 Position Of Motor Terminal Box

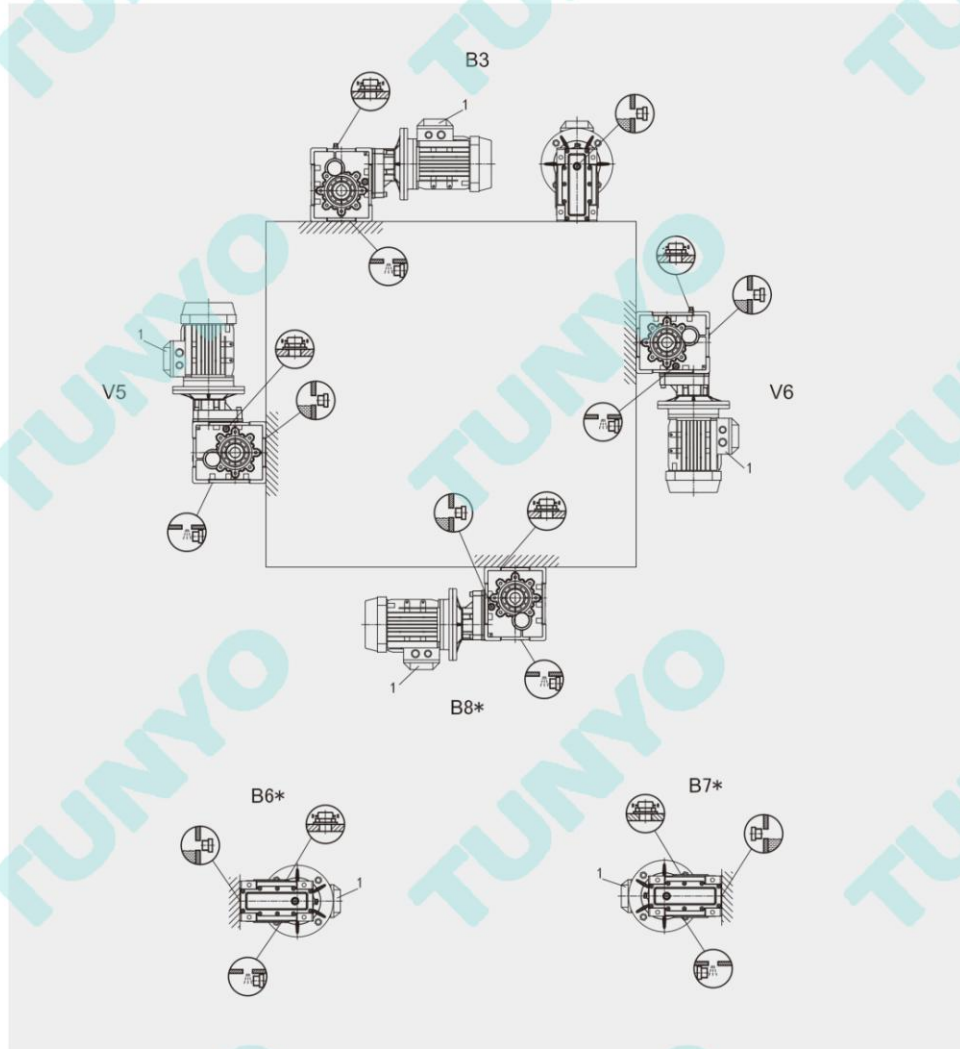


符號釋意 Symbols Used

符号/Symbol	含义/Meaning
	排气阀 Breather valve
	油位塞 Oil level plug
	放油塞 Oil drain plug

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

HRV安裝方位 Mounting Positions



* 表示在此安裝方式，不能僅靠油位塞加注潤滑油，油位需高出油位塞，加注量按表內所示。

It means the lubricant can't be added according to the oil level line plug, but also higher the plug to fill quantity as shown in the table.

R系列HRV準雙曲面減速電機 R Series HRV Hypoid Gear Motor

旋轉方向 Direction Of Rotation



減速機在使用時，電機可正反转輸入使用，推荐使用上圖所示輸入軸旋轉方向為準雙曲面齒輪最佳啮合方向。

The motor can be run either CW or CCW while using with gearbox, the above chart is recommended.

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ISO9001 認 證 取 得
CERTIFICATE OF APPROVAL ISO9001

東 洋 機 電

電話:0769-85269398

傳真:0769-85269528

郵箱:ch@tunyo.com.cn

網址:www.tunyo.com.cn

服務熱綫:400-600-8155

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