



TRANSMISSION PLANETARY

传动行星减速电动机

传动型行星 PLANETARY GEAR MOTOR

- 采用双支撑结构输出轴，使齿轮箱的承载扭力大大提高。

Adopt dual supporting structure for output shaft so that the max torque of gearbox is increased a lot.

- 太阳轮与行星架采用花键联接方式，极大增强了内部齿轮箱承受扭矩，提高了整机的使用寿命。

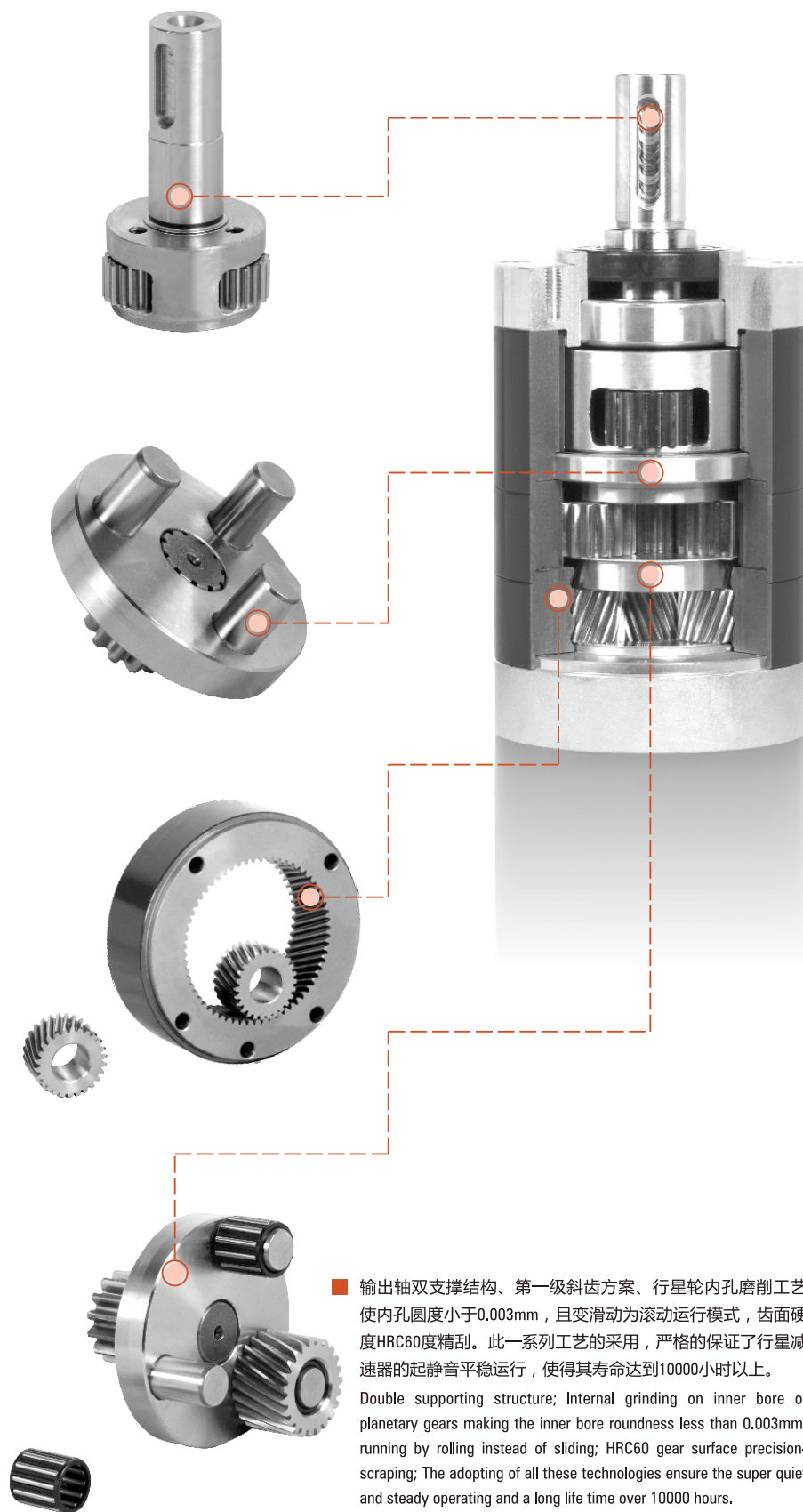
Sun wheel and planetary wheel are connected by spline which increase the max torque of gearbox and lengthen the life.

- 与电机连接的输入级采用斜齿，在高转速状态下，使齿轮箱的传动更加平稳，噪音更低。
- 齿轮箱内齿轮部分采用分段式结构，是齿轮箱的速比分布更广，整机结构设计更灵活。
- 齿轮箱与电机连接采用止口定位，轴向锁紧螺丝，使整机配合更精密，噪音更低。

• We use helical gear at input stage which make the noise low and run smoothly in high speed. • The inner gear ring is separated so that we can make more ratio and the design is flexible. • Gearbox and motor are located by a seam fix by screw in axial which increase the matching precision and reduce noise.

- 行星轮内孔采用滚针保持架，用滚动摩擦代替滑动摩擦，使齿轮箱的寿命更加长。

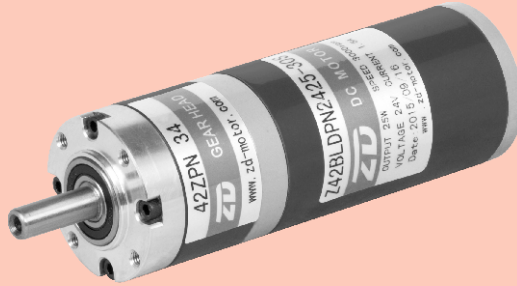
We use rolling pin holder inside planetary wheel. we use rolling friction instead of sliding grinding so the life of gearbox is much longer.



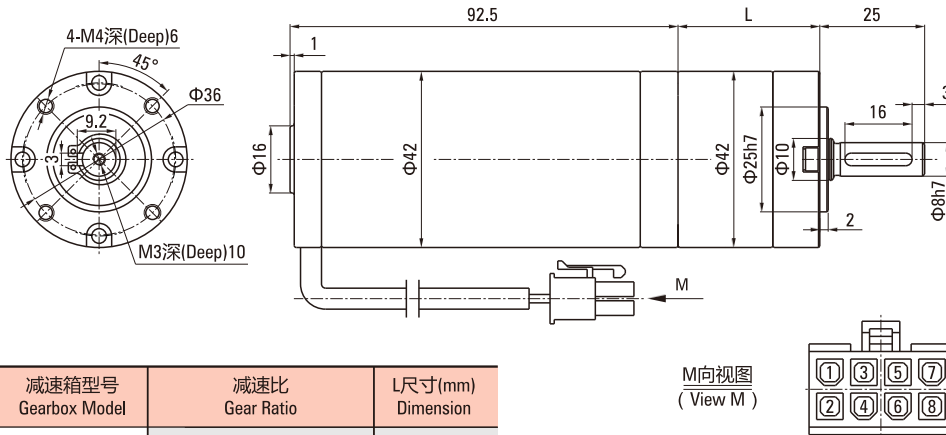
- 输出轴双支撑结构、第一级斜齿方案、行星轮内孔磨削工艺使内孔圆度小于0.003mm，且变滑动为滚动运行模式，齿面硬度HRC60度精刮。此一系列工艺的采用，严格的保证了行星减速器的起静音平稳运行，使得其寿命达到10000小时以上。

Double supporting structure; Internal grinding on inner bore of planetary gears making the inner bore roundness less than 0.003mm; running by rolling instead of sliding; HRC60 gear surface precision-scraping; The adopting of all these technologies ensure the super quiet and steady operating and a long life time over 10000 hours.

■ ZPNΦ42 BRUSHLESS无刷



■ 外径42直流无刷行星减速电机外形图纸 Outside Diameter 42 DC Brushless Motor



电机型号 Motor Type	减速箱型号 Gearbox Model	减速比 Gear Ratio	L尺寸(mm) Dimension
Z42BLDPN	42PN□	3.65~8.63	33.8
		13.53~58.22	47.4
		67.08~392.98	61.0

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

■ 无刷直流电机技术参数 BLDC Motor Technical Data

电机型号 Motor Type	电压 Voltage V	额定功率 Rated Power W	额定电流 Rated Current A	额定转速 Rated Speed RPM	额定力矩 Rated Torque N.m	防护等级 Grade Protection IP
Z42BLDPN2440-30S	24	40	2.4	3000	0.127	20

■ 无刷直流行星减速电机技术参数 BLDC Planetary Gear Motor Technical Data-Z42BLDPN2440-30S

减速比 Ratio	3.65	5.36	6.55	8.63	13.53	18.92	24.65	28.05	33.92	44.69	58.22	67.08	81.11
输出轴转速 r/min Output shaft speed	822	560	458	348	222	159	122	107	88	67	52	45	37
允许力矩 N.m Allowable torque	0.42	0.61	0.75	0.99	1.40	1.95	2.54	2.89	3.50	4.61	6.00	6.24	7.54
减速级数 Reduction stage	1	1	1	1	2	2	2	2	2	2	2	3	3
减速比 Ratio	91.36	102.88	118.98	127.74	145.36	165.64	191.56	231.61	301.68	392.98			
输出轴转速 r/min Output shaft speed	33	29	25	23	21	18	16	13	10	8			
允许力矩 N.m Allowable torque	8.49	9.55	11.06	11.87	13.51	15.0	15.0	15.0	15.0	15.0			
减速级数 Reduction stage	3	3	3	3	3	3	3	3	3	3			