ZDR系列高精度行星减速机

PLANETARY GEAR BOX

中大力德

中大力德 实现自动化应用的无限可能

电机驱动 微特电机
精密减速器

▲ **总公司** 宁波中大力德智能传动股份有限公司

▲ **子公司** 宁波中大创远精密设备有限公司

▲ **子公司** 佛山中大力德驱动科技有限公司

宁波中大力德智能传动股份有限公司始创于1998年，是一家集电机驱动、微特电机、精密减速器、机器人结构本体及一体化智能执行单元的研发、制造、销售、服务于一体的国家高新技术企业。公司注册资本15117万元，分、子公司9家，员工1800余人，2017年8月在深交所主板上市，股票代码：002896。

公司系国家级高新技术企业，主导和参与起草国家标准12项，行业标准5项；授权专利107项，其中发明专利14项。拥有机械工业精密齿轮减速电机工程研究中心、浙江省级高新技术企业研究开发中心、浙江省级企业技术中心。

公司立足于智能化、自动化装备核心零部件设计和制造，为客户提供智能驱动解决方案。公司产品以其差异化和高性价比优势，广泛应用于工作母机、数控设备、工业机器人、智能物流、新能源、食品、包装、纺织、电子、医疗、通讯、农牧等机械装备领域。在替代进口产品的基础上，逐步参与国际竞争。

Ningbo Zhongda Leader Intelligent Transmission Co., Ltd. was founded in 1998. It is an electromechanical automation enterprise integrating R&D, manufacturing, sales and service of motor drives, micro motors, precision reducers and integrated products. It has 9 branches and subsidiaries, over 1,800 employees, and a registered capital of 151.17 million yuan. In August 2017, it was listed on the A- shares of the Shenzhen Stock Exchange (stock code 002896).

The company is a national-level high-tech enterprise, leading and participating in the drafting of 10 national standards and 5 industry standards, maintaining 107 patents and 11 invention patents. It's owning a Zhejiang-level enterprise R&D center.

The company is based on intelligent and automation equipment core component manufacturers and design solution providers. With its differentiated and cost-effective advantages, the company's products are widely used in industrial robots, intelligent logistics, new energy, machine tools and other fields, as well as special machinery and equipment for food, packaging, textiles, electronics, and medical treatment. On the basis of realizing domestic substitution of imported products, gradually participate in international competition.nd medical treatment. On the basis of realizing domestic substitution of imported products, gradually participate in international competition.

ZDR系列减速机
ZDR SERIES GEAR BOX

系列号、机型标识说明 Type And Model Number

ZDR减速机 ZDR Reducers	伺服电机 Servo Motor

78 ① ZDR ② 20 ③ ( ) ④ (S) ⑤ - 750 ⑥ T1 ⑦ □ ⑧

①	减速机机座号:ZDR:52,78,98,125	Gear head frame size:ZDR:52,78,98,125
②	减速机系列代号:ZDR:斜齿精密型	Gear head series code: ZDR:Oblique tooth precision
③	减速比:ZDR:单级3,5,7,9,10; 两级15,20,25,35,45,81	Gear Ratio: ZDR: Single Stage 3,5,7,9,10; Two Stages 15,20,25,35,45,81

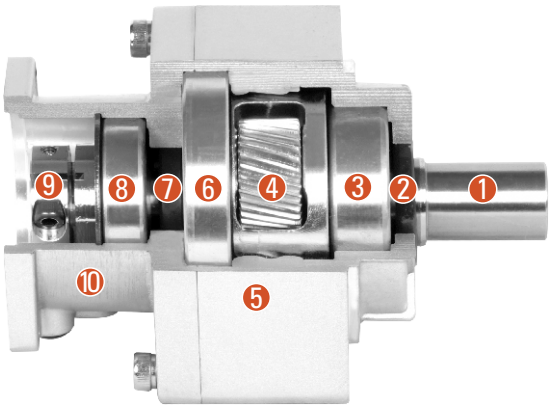
④ 精度 Amount of backlash

机型号 Reducer Type No.	级数 Stage	标准型P2(省略) Standard Type	精密型P1 Low-blacklash Type	高精密型P0 High Precision Type
52ZDR	1	12分arc-min	10分arc-min	3分arc-min
	2	15分arc-min	12分arc-min	5分arc-min
78ZDR	1	8分arc-min	5分arc-min	3分arc-min
	2	12分arc-min	8分arc-min	5分arc-min
98ZDR	1	8分arc-min	5分arc-min	3分arc-min
	2	12分arc-min	8分arc-min	5分arc-min
125ZDR	1	8分arc-min	5分arc-min	3分arc-min
	2	12分arc-min	8分arc-min	5分arc-min

⑤	输出轴型式 S:整体锁紧(省略)(无论马达是否有键槽都可使用，但"D"字型不适用) S1:带锁紧环锁紧(无论马达是否有键槽都可使用，但"D"字型不适用) S2:带键槽锁紧(输入轴带键) K:带键槽 A:其他适配器(请与本公司联系)	nput shaft type S:Overall locking(Omission)(regardless whether the motor with keyway can use it. But D Cut can't use) S1:Locking with locking ring(regardless whether the motor with keyway can use it. But D Cut can't use) S2:Locking with keyway (input shaft with key) K:With keyway A:Other type (please contact with us)
⑥	适用伺服马达功率(W)	Applicable servo motor power (W)
⑦	伺服马达厂家名称(P33)	Manufacturer name of servo motor (P33)
⑧	伺服马达型号	Model of servo motor

ZDR减速比、机型号
ZDR REDUCTION RATIO & TYPE NUMBER

剖视图 Sectional Drawing



① 输出轴 Output shaft
② 油封 Seal for the output shaft
③ 输出轴前轴承 Bearing for the output shaft
④ 行星轮 Planetary gear
⑤ 前盖 Front cover
⑥ 输出轴后轴承 Bearing for the output shaft
⑦ 油封 Seal for the input shaft
⑧ 输入轴轴承 Bearing for the input shaft
⑨ 精密装夹系统 Precision clamping system
⑩ 后盖 Rear cover

输入转速为3000rpm时 When Input Speed is 3000rpm

减速比Reduction Ratio / 马达功率Motor Power(W)	单级减速 1 Stage Reduction			两级减速 2 Stage Reduction					
	1/3	1/5	1/9	1/15	1/20	1/25	1/35	1/45	1/81
50W	52			52					98
100W								98	125
200W		78		78			98	125	
400W									
750W				98					
1000W	98			125					
1500W									
2000W									
2500W	125			–					
3000W									
3500W									
4000W			–						
4500W									
5000W									

注1）全部为斜齿轮适用范围 Note1) All corresponding to helical gear

输入转速为2000rpm时 When Input Speed is 2000rpm

减速比Reduction Ratio / 马达功率Motor Power(W)	单级减速 1 Stage Reduction			两级减速 2 Stage Reduction					
	1/3	1/5	1/9	1/15	1/20	1/25	1/35	1/45	1/81
50W	52			52					
100W									
200W		78		78				98	
400W									
750W				98					
1000W	98			125					
1500W									
2000W		125		–					
2500W									
3000W			–						
3500W									

注1）全部为斜齿轮适用范围
Note1) All corresponding to helical gear

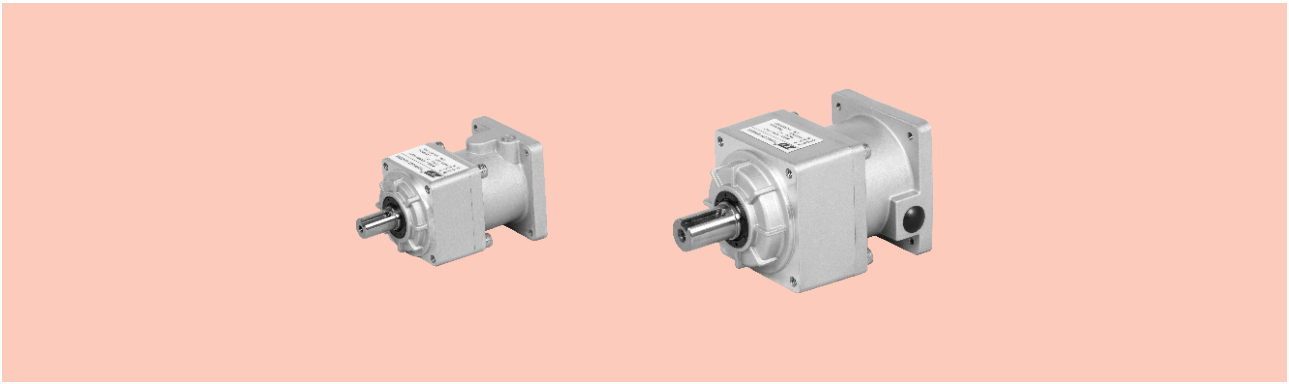
※以下为限扭矩机种:
52: 1/5减速(100W)
78: 1/81减速(50W)
98: 1/3减速(1500W)、1/45减速(200W)
1/81减速(100W)
125:1/3减速(3500W)、1/25减速(750W)

※Torque is limited to the following types:
52: 1/5 reduction(100W)
78: 1/81 reduction(50W)
98: 1/3 reduction(1500W),1/45 reduction(200W)
1/81 reduction(100W)
125:1/3 reduction(3500W),1/25 reduction(250W)

关于润滑油 About Lubricant

• 润滑: 润滑脂	• 更换: 不可	• Lubrication: Grease	• Replacement: Not available

ZDR性能表（输入转速为3,000rpm时）
ZDR PERFORMANCE TABLE (WHEN INPUT SPEED IS 3000RPM)



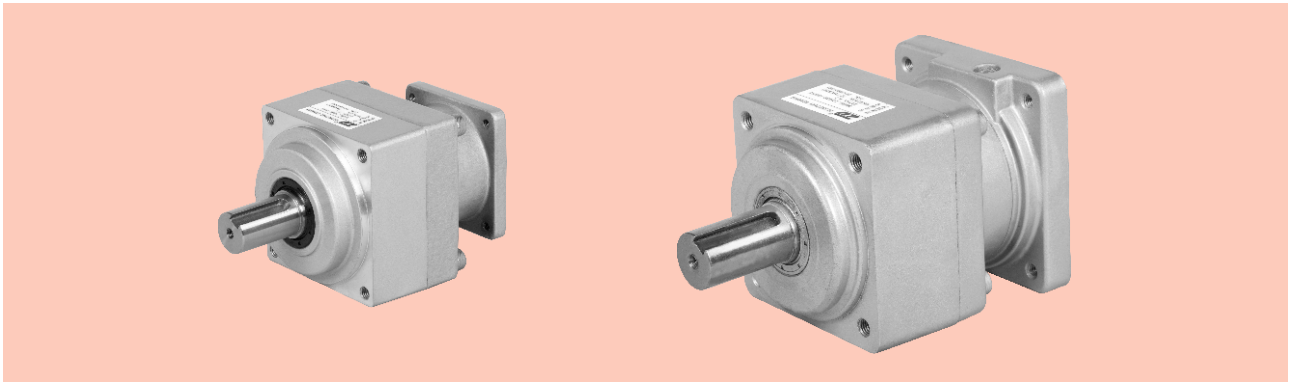
性能表 Performance Table

减速比 Reduction Ratio	系列号 Model				输出轴转速 Outout Shaft Speed	额定输出扭矩 Standard Output Torque	瞬间最大输出扭矩 Instantaneous max.Output Torque	容许径向负荷 Permissible Radial Load	容许轴向负荷 Permissible Axial Load	输入轴换算内部惯性力矩 Internal Moment Ofinertia Of Input Shaftconversion	容许输出扭矩 Permissible Output Torque	瞬间最大容许输出扭矩 Instantaneous Max. Permissible Output Torque
	机座号 Type No.	系列号 Model	减速比 Reduction Ratio	马达功率 Motor	(rpm)	(N.m)	(N.m)	(N)	(N)	($x10^{-4}$ kg.m^2)	(N.m)	(N.m)
1/3	52	ZDR	3	-50	1000	0.255	0.784	392	196	0.0575	3.43	10.3
	52	ZDR	3	-100	1000	0.715	2.06	392	196	0.0575	3.43	10.3
	52	ZDR	3	-200	1000	1.47	4.51	392	196	0.135	3.43	10.3
	52	ZDR	3	-400	1000	3.43	10.3	392	196	0.145	3.43	10.3
	78	ZDR	3	-750	1000	6.37	19.3	784	392	0.913	6.86	20.6
	98	ZDR	3	-1000	1000	7.55	22.8	882	441	2.43	18.3	54.9
	98	ZDR	3	-1500	1000	12.3	37.1	882	441	2.43	18.3	54.9
	98	ZDR	3	-2000	1000	17.2	51.5	882	441	2.43	18.3	54.9
	125	ZDR	3	-2500	1000	19.0	57.2	1370	686	5.55	44.1	132
	125	ZDR	3	-3000	1000	23.7	71.2	1370	686	5.50	44.1	132
	125	ZDR	3	-3500	1000	28.3	85.2	1370	686	5.50	44.1	132
	125	ZDR	3	-4000	1000	33.1	99.0	1370	686	5.78	44.1	132
	125	ZDR	3	-4500	1000	37.7	113	1370	686	5.78	44.1	132
	125	ZDR	3	-5000	1000	42.9	128	1370	686	5.78	44.1	132
1/5	52	ZDR	5	-50	600	0.510	1.47	490	245	0.04	1.57	4.70
	52	ZDR	5	-100	600	1.18	3.72	490	245	0.04	1.57	4.70
	52	ZDR	5	-200	600	2.65	8.04	490	245	0.118	2.84	8.53
	78	ZDR	5	-400	600	5.39	16.2	980	490	0.363	6.57	19.7
	78	ZDR	5	-750	600	10.7	32.1	980	490	0.713	11.5	34.3
	98	ZDR	5	-1000	600	13.4	40.5	1080	539	1.85	23.5	70.6
	98	ZDR	5	-1500	600	21.5	64.4	1080	539	1.85	23.5	70.6
	125	ZDR	5	-2000	600	23.8	71.5	1670	833	3.50	56.8	171
	125	ZDR	5	-2500	600	31.8	95.5	1670	833	3.50	56.8	171
	125	ZDR	5	-3000	600	39.6	119	1670	833	3.48	56.8	171
	125	ZDR	5	-3500	600	47.2	141	1670	833	3.48	56.8	171
	125	ZDR	5	-4000	600	55.3	166	1670	833	3.75	56.8	171
1/9	52	ZDR	9	-50	333	0.921	2.74	588	294	0.035	2.35	7.25
	52	ZDR	9	-100	333	2.25	6.86	588	294	0.035	2.35	7.25
	78	ZDR	9	-200	333	3.72	11.3	1180	588	0.275	9.70	29.2
	78	ZDR	9	-400	333	9.51	28.5	1180	588	0.275	9.70	29.2
	98	ZDR	9	-750	333	18.2	54.7	1470	735	0.650	18.2	54.7
	125	ZDR	9	-1000	333	20.0	60.1	1960	980	2.81	73.5	221
	125	ZDR	9	-1500	333	34.3	103	1960	980	2.81	73.5	221
	125	ZDR	9	-2000	333	48.6	146	1960	980	2.81	73.5	221
	125	ZDR	9	-2500	333	60.8	182	1960	980	2.81	73.5	221
	125	ZDR	9	-3000	333	73.0	219	1960	980	2.77	73.5	221

注1) 输入轴换算惯性力矩仅为减速机的数值，不包括马达的惯性力矩。
注2) 最高输入转速为5000rpm，正常情况下请将转速控制在3000rpm以下。
注3) 容许径向负荷为输出轴中央部的数值。
注4) 全部为斜齿轮适用范围。

Note1) The moment of input shaft conversion is only gained from the reducer, so it does not include moment of inertia of the motor.
Note2) The max. input speed is 5000rpm. Usually set to 3000rpm or less.
Note3) The permissble radial load is indicated on the center of the output shaft.
Note4) All values are within the range corresponding to helical gear.

ZDR性能表（输入转速为3,000rpm时）
ZDR PERFORMANCE TABLE (WHEN INPUT SPEED IS 3000RPM)



性能表 Performance Table

减速比 Reduction Ratio	系列号 Model				输出轴转速 Outout Shaft Speed	额定输出扭矩 Standard Output Torque	瞬间最大输出扭矩 Instantaneous Max.Output Torque	容许径向负荷 Permissible Radial Load	容许轴向负荷 Permissible Axial Load	输入轴换算内部惯性力矩 Internal Moment Ofinertia Of Input Shaftconversion	容许输出扭矩 Permissible Output Torque	瞬间最大容许输出扭矩 Instantaneous Max. Permissible Output Torque
	机座号 Type No.	系列号 Model	减速比 Reduction Ratio	马达功率 Motor	(rpm)	(N.m)	(N.m)	(N)	(N)	($x10^{-4}$ kg.m^2)	(N.m)	(N.m)
1/15	52	ZDR	15	-50	200	1.67	5.00	784	392	0.035	4.02	12.2
	52	ZDR	15	-100	200	3.72	11.4	784	392	0.035	4.02	12.2
	78	ZDR	15	-200	200	6.27	18.8	1470	735	0.300	16.2	48.6
	78	ZDR	15	-400	200	15.8	47.5	1470	735	0.300	16.2	48.6
	98	ZDR	15	-750	200	30.4	91.2	1760	882	0.700	30.4	91.2
	125	ZDR	15	-1000	200	33.3	100	2350	1180	2.80	91.4	274
	125	ZDR	15	-1500	200	57.2	172	2350	1180	2.80	91.4	274
	125	ZDR	15	-2000	200	81.0	243	2350	1180	2.80	91.4	274
1/20	52	ZDR	20	-50	150	2.21	6.63	804	402	0.034	5.00	15.0
	52	ZDR	20	-100	150	5.00	15.0	804	402	0.034	5.00	15.0
	78	ZDR	20	-200	150	8.69	26.1	1570	785	0.294	21.1	63.3
	78	ZDR	20	-400	150	21.1	63.3	1570	785	0.294	21.1	63.3
	98	ZDR	20	-750	150	40.6	122	1910	955	0.690	40.6	122
	125	ZDR	20	-1000	150	44.5	134	2500	1250	2.72	78.4	235
1/25	52	ZDR	25	-50	120	2.74	8.33	882	441	0.0325	4.02	12.2
	52	ZDR	25	-100	120	6.27	19.0	882	441	0.0325	6.27	19.0
	78	ZDR	25	-200	120	11.1	33.3	1670	833	0.288	21.7	64.9
	78	ZDR	25	-400	120	26.4	79.2	1670	833	0.288	26.4	79.2
	98	ZDR	25	-750	120	50.7	152	2060	1030	0.680	50.7	152
	125	ZDR	25	-1000	120	55.7	167	2650	1320	2.710	65.4	196
1/35	52	ZDR	35	-50	85	3.84	11.5	882	441	0.030	3.84	11.5
	78	ZDR	35	-100	85	7.24	21.7	1670	833	0.065	13.9	41.7
	78	ZDR	35	-200	85	15.5	46.6	1670	833	0.262	15.5	46.6
	98	ZDR	35	-400	85	37.0	111	2060	1030	0.269	37.0	111
	125	ZDR	35	-750	85	71.0	213	3430	1715	0.473	71.0	213
1/45	78	ZDR	45	-50	66	3.86	11.6	1670	833	0.0285	9.50	28.6
	78	ZDR	45	-100	66	9.31	28.0	1670	833	0.0285	9.50	28.6
	98	ZDR	45	-200	66	21.1	63.5	2060	1030	0.0256	28.3	85.2
	125	ZDR	45	-400	66	47.5	142.5	3520	1760	0.245	57.0	171
	125	ZDR	45	-750	66	91.3	274	3520	1760	1.770	91.3	274
1/81	78	ZDR	81	-50	37	7.02	20.8	1670	833	0.027	9.70	29.2
	98	ZDR	81	-100	37	14.0	42.0	2060	1030	0.030	17.8	53.5
	125	ZDR	81	-200	37	36.1	108.3	3530	1765	0.240	43.3	129.9

注1) 输入轴换算惯性力矩仅为减速机的数值，不包括马达的惯性力矩。
注2) 最高输入转速为5000rpm，正常情况下请将转速控制在3000rpm以下。
注3) 容许径向负荷为输出轴中央部的数值。
注4) 全部为斜齿轮适用范围。

Note1) The moment of input shaft conversion is only gained from the reducer, so it does not include moment of inertia of the motor.
Note2) The max. input speed is 5000rpm. Usually set to 3000rpm or less.
Note3) The permissble radial load is indicated on the center of the output shaft.
Note4) All values are within the range corresponding to helical gear.

ZDR性能表（输入转速为2,000rpm时）
ZDR PERFORMANCE TABLE (WHEN INPUT SPEED IS 2000RPM)

性能表 Performance Table

标准型、P1(精密型)、P2(高精密型)均为相同的规格 The same specification applies to all of standard type, P1(low backlash), and P2(high precision type).

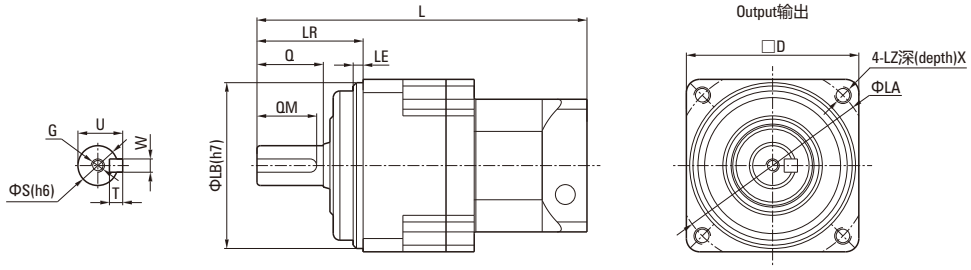
减速比 Reduction Ratio	系列号 Model				输出轴转速 Outout Shaft Speed	额定输出扭矩 Standard Output Torque	瞬间最大输出扭矩 Instantaneous Max.Output Torque	容许径向负荷 Permissible Radial Load	容许轴向负荷 Permissible Axial Load	输入轴换算内部惯性力矩 Internal Moment Ofinertia Of Input Shaftconversion	容许输出扭矩 Permissible Output Torque	瞬间最大容许输出扭矩 Instantaneous Max. Permissible Output Torque
	机座号 Type No.	系列号 Model	减速比 Reduction Ratio	马达功率 Motor	(rpm)	(N.m)	(N.m)	(N)	(N)	($x10^{-4}$ kg.m^2)	(N.m)	(N.m)
1/3	52	ZDR	3	-50	666	0.477	1.43	450	225	0.0575	3.43	10.3
	52	ZDR	3	-100	666	1.05	3.15	450	225	0.135	3.43	10.3
	52	ZDR	3	-200	666	2.48	7.45	450	225	0.145	3.43	10.3
	78	ZDR	3	-400	666	5.01	15.0	900	450	0.913	6.86	20.6
	98	ZDR	3	-750	666	8.73	26.2	1010	505	2.43	18.3	54.9
	98	ZDR	3	-1000	666	12.3	37.1	1010	505	2.43	18.3	54.9
	98	ZDR	3	-1500	666	18.3	54.9	1010	505	2.43	18.3	54.9
	125	ZDR	3	-2000	666	23.7	71.2	1570	785	5.50	44.1	132
	125	ZDR	3	-2500	666	30.8	92.5	1570	785	5.50	44.1	132
	125	ZDR	3	-3000	666	37.7	113	1570	785	5.50	44.1	132
	125	ZDR	3	-3500	666	44.1	132	1570	785	5.78	44.1	132
1/5	52	ZDR	5	-50	400	0.795	2.39	560	280	0.040	1.57	4.70
	52	ZDR	5	-100	400	1.57	4.70	560	280	0.118	1.57	4.70
	78	ZDR	5	-200	400	3.82	11.5	1120	560	0.363	6.57	19.7
	78	ZDR	5	-400	400	8.35	25.1	1120	560	0.713	11.5	34.3
	98	ZDR	5	-750	400	15.5	46.5	1230	615	1.85	23.5	70.6
	98	ZDR	5	-1000	400	21.5	64.4	1230	615	1.85	23.5	70.6
	125	ZDR	5	-1500	400	27.8	83.5	1900	950	3.50	56.8	171
	125	ZDR	5	-2000	400	39.6	119	1900	950	3.48	56.8	171
	125	ZDR	5	-2500	400	51.4	154	1900	950	3.75	56.8	171
1/9	52	ZDR	9	-50	222	1.57	4.72	670	335	0.035	2.35	7.25
	78	ZDR	9	-100	222	2.35	7.04	1340	670	0.275	9.70	29.2
	78	ZDR	9	-200	222	6.64	19.9	1340	670	0.275	9.70	29.2
	98	ZDR	9	-400	222	14.0	41.9	1680	840	0.650	18.2	54.7
	125	ZDR	9	-750	222	23.6	70.9	2240	1120	2.81	73.5	221
	125	ZDR	9	-1000	222	34.3	103	2240	1120	2.81	73.5	221
	125	ZDR	9	-1500	222	53.7	161	2240	1120	2.81	73.5	221
	125	ZDR	9	-2000	222	73.0	219	2240	1120	2.77	73.5	221
1/15	52	ZDR	15	-50	133	2.62	7.87	882	441	0.035	4.02	12.2
	78	ZDR	15	-100	133	3.91	11.7	1670	833	0.300	16.2	48.6
	78	ZDR	15	-200	133	11.1	33.2	1670	833	0.300	16.2	48.6
	98	ZDR	15	-400	133	23.3	69.8	2020	1010	0.700	30.4	91.2
	125	ZDR	15	-750	133	39.4	118	2650	1320	2.80	91.4	274
	125	ZDR	15	-1000	133	57.2	172	2650	1320	2.80	91.4	274
	125	ZDR	15	-1500	133	91.3	274	2650	1320	2.80	91.4	274
1/20	52	ZDR	20	-50	100	3.50	10.5	910	455	0.034	5.00	15.0
	78	ZDR	20	-100	100	5.73	17.2	1790	895	0.294	21.1	63.3
	78	ZDR	20	-200	100	14.8	44.4	1790	895	0.294	21.1	63.3
	98	ZDR	20	-400	100	31.0	93.1	2180	1090	0.294	40.6	122
1/25	52	ZDR	25	-50	80.0	4.37	13.1	882	441	0.0325	6.27	19.0
	78	ZDR	25	-100	80.0	7.16	21.5	1670	833	0.288	21.7	64.9
	78	ZDR	25	-200	80.0	18.5	55.4	1670	833	0.288	21.7	64.9
	98	ZDR	25	-400	80.0	38.8	116	2060	1030	0.680	50.7	152
	125	ZDR	25	-750	80.0	65.4	196	2650	1320	1.88	65.4	196
1/35	78	ZDR	35	-50	57.0	4.43	13.3	1900	950	0.262	15.5	46.6
	78	ZDR	35	-100	57.0	12.7	38.1	1900	950	0.262	15.5	46.6
	98	ZDR	35	-200	57.0	22.0	66.0	2340	1170	0.269	37.0	111
1/45	78	ZDR	45	-50	44.4	5.80	17.4	1670	833	0.0285	9.50	28.6
	98	ZDR	45	-100	44.4	14.0	42.1	2060	1030	0.0285	28.3	85.2
	98	ZDR	45	-200	44.4	28.3	85.2	2060	1030	0.0285	28.3	85.2
1/81	78	ZDR	81	-50	24.6	9.70	29.2	1670	833	0.0270	9.70	29.2
	98	ZDR	81	-100	24.6	17.8	53.5	2060	1030	0.0300	17.8	53.5

注1) 输入轴换算惯性力矩仅为减速机的数值，不包括马达的惯性力矩。
注2) 容许径向负荷为输出轴中央部的数值。
注3) 全部为斜齿轮适用范围。

Note1) The moment of input shaft conversion is only gained from the reducer, so it does not include moment of inertia of the motor.
Note2) The permissble radial load is indicated on the center of the output shaft.
Note3) All values are within the range corresponding to helical gear.

ZDR同芯轴型减速机尺寸表
DIMENSIONAL TABLE FOR ZDR CONCENTRIC SHAFT REDUCER

机械参数 Dimensions



尺寸表 Dimensional Table

型号 Type				全长 Total Length L			输出轴 Output Shaft							法兰 Flange					
机座号 Type No.	系列号 Model	减速比 Reduction Ratio	马达功率 Motor	松下电器生产 Panasonic-made MSMA	安川电机生产 Yaskawa-made SGMASH SGMSH	三菱电机生产 Mitsubishi-made HC-KFS HC-RFS	LR	S	Q	QM	G	W×U	T	D	LB	LE	LA	LZ	X
52	ZDR	3·5·9	50	99.5			32	12	20	18	M4(depth)12	4×13.5	4	52	50	3	60	M5	12
52	ZDR	15·20·25·35	50	110															
52	ZDR	3·5·9	100	99.5															
52	ZDR	15·20·25	100	110															
52	ZDR	3·5	200	104.5															
52	ZDR	3	400																
78	ZDR	45·81	50	142			50	19	30	26	M5(depth)15	6×21.5	6	80	70	3	90	M6	20
78	ZDR	35	100	150															
78	ZDR	45	100	142															
78	ZDR	9	200	139.5															
78	ZDR	15·20·25·35	200	150															
78	ZDR	5·9	400	139.5															
78	ZDR	15·20·25	400	150															
78	ZDR	3·5	750	143.5															
98	ZDR	81	100	158			61	24	40	35	M6(depth)20	8×27	7	100	90	5	115	M8	20
98	ZDR	45	200	165															
98	ZDR	35	400																
98	ZDR	9	750	158.5															
98	ZDR	15·20·25	750	171															
98	ZDR	3.5	1000	177															
98	ZDR	3.5	1500																
98	ZDR	3	2000																
125	ZDR	81	200	210			75	32	55	52	M10(depth)20	10×35	8	125	110	5	135	M10	20
125	ZDR	45	400																
125	ZDR	35	750																
125	ZDR	45	750	235															
125	ZDR	9	1000	215															
125	ZDR	15·25	1000	235															
125	ZDR	9	1500	215															
125	ZDR	15	1500	235															
125	ZDR	5·9	2000	215															
125	ZDR	15	2000	235															
125	ZDR	3·5·9	2500	215	-	-													
125	ZDR	3·5·9	3000	215	225	-													
125	ZDR	3.5	3500	215	-	225													
125	ZDR	3.5	4000	225	225	-													
125	ZDR	3	4500	225	-	-													
125	ZDR	3	5000	225															

注1) 基准系列(马达对应表记载系列)以外的马达，请咨询。(因为根据马达安装的不同法兰尺寸可能不同)
注2) 输出轴旋转方向与马达输入旋转方向相同。
注3) 全部为斜齿轮适用范围。
Note1) Please inquire to us if motor model isn't standard (Matching motor list). (The flange dimension may be different if motor assension is different.)
Note2) Rotation of the output shaft is in the same direction as that of motor input.
Note3) All values are within the range corresponding to helical gear.

50W尺寸图与性能表
50W DIMENSIONAL DRAWING & PERFORMANCE TABLE

性能表 Performance Table (输入转速为3,000rpm时 When Input Speed Is 3000rpm)

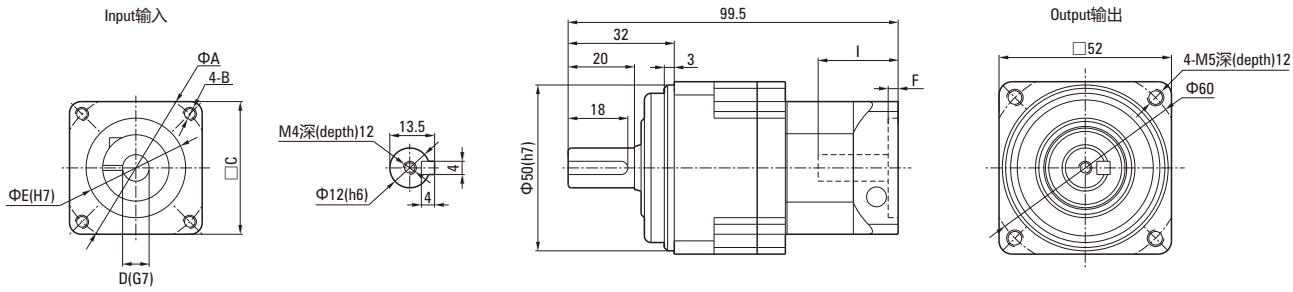
额定输入马达功率 Rated Input Motor	减速比 Reduction Ratio	系列号 Model				输出轴转速 Outout Shaft Speed	额定输出扭矩 Standard Output Torque	瞬间最大输出扭矩 Instantaneous Max.Output Torque	容许径向负荷 Permissible Radial Load	容许轴向负荷 Permissible Axial Load	输入轴换算内部惯性力矩 Internal Moment Ofinertia Of Input Shaftconversion	容许输出扭矩 Permissible Output Torque	瞬间最大容许输出扭矩 Instantaneous Max. Permissible Output Torque
		机座号 Type No.	系列号 Model	减速比 Reduction Ratio	马达功率 Motor	(rpm)	(N.m)	(N.m)	(N)	(N)	($x10^{-4}$ kg.m^2)	(N.m)	(N.m)
50W	1/3	52	ZDR	3	50	1000	0.255	0.784	392	196	0.0575	3.43	10.3
	1/5	52	ZDR	5	50	600	0.510	1.47	490	245	0.0400	1.57	4.70
	1/9	52	ZDR	9	50	333	0.921	2.74	588	294	0.0350	2.35	7.25
	1/15	52	ZDR	15	50	200	1.67	5.00	784	392	0.0350	4.02	12.2
	1/20	52	ZDR	20	50	150	2.21	6.63	804	402	0.0340	5.00	15.0
	1/25	52	ZDR	25	50	120	2.74	8.33	882	441	0.0325	4.02	12.2
	1/35	52	ZDR	35	50	85	3.84	11.5	882	441	0.0300	3.84	11.5
	1/45	78	ZDR	45	50	66	3.86	11.6	1670	833	0.0285	9.50	28.6
	1/81	78	ZDR	81	50	37	7.02	20.8	1670	833	0.0270	9.70	29.2

注1) 安装基准系列(马达适用表记载系列)以外的马达时，每次都是与我们联系。(法兰尺寸可能不同)
注2) 输入轴换算惯性力矩仅为减速机的数值，不包括马达的惯性力矩。
注3) 最高输入转速为5000rpm。正常情况下请转速控制在3000rpm以下。
注4) 容许径向负荷表示输出轴中央部位的值。
注5) 全部为斜齿轮适用范围。
注6) 马达的安装顺序请参照P.31。
注7) 输出轴旋转方向与马达输入旋转方向相同。

Note1) In case of attachment to a motor beyond the standard models(motor matching series), contact us. (How to measure dimensions of the flange may be changed in some cases.)
Note2) The moment of inertia of input shaft conversion is only gained from the reducer, so it does not include moment of inertia of the motor.
Note3) The max. input speed is 5000rpm, and usually set to 3000rpm or less.
Note4) The permissible radial load is indicated on the center of the output shaft.
Note5) All values are within the range corresponding to helical gear.
Note6) For motor assembly procedure, see page 31.
Note7) Rotation of the output shaft is in the same direction as motor.

尺寸表 Dimensions

● 52ZDR3·5·9-50



● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

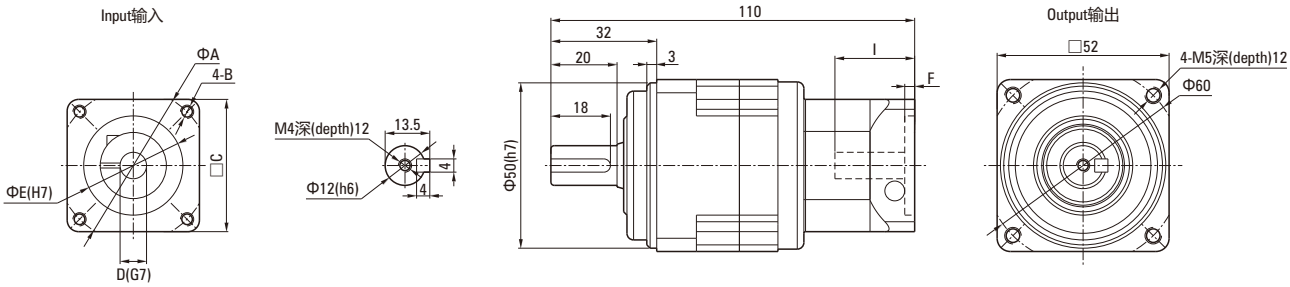
马达种类 Motor Type	A	B	C	D	E	F	I
T1	45	M3深(depth)6.5	40	8	30	4	26
T2	46	M4深(depth)6.5	40	6	30	4	26
T3	46	M4深(depth)6.5	40	8	30	4	26

- 概略重量0.55kg
  Rough weight 0.55kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

50W尺寸图与性能表
50W DIMENSIONAL DRAWING & PERFORMANCE TABLE

尺寸表 Dimensions

● 52ZDR15·20·25·35·50

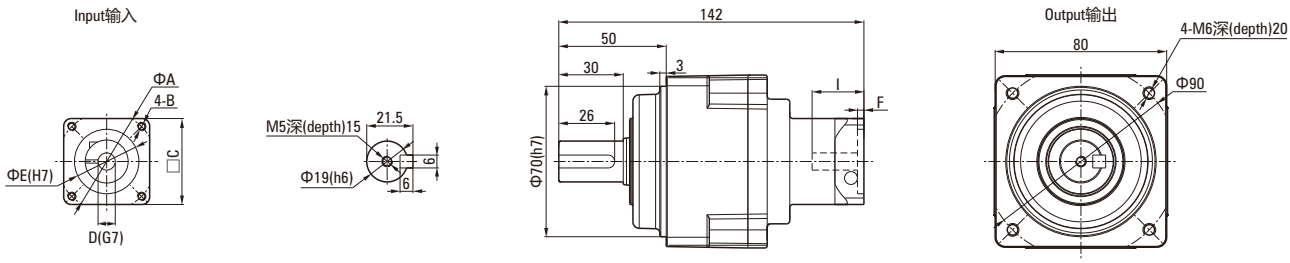


● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	45	M3深(depth)6.5	40	8	30	4	26
T2	46	M4深(depth)6.5	40	6	30	4	26
T3	46	M4深(depth)6.5	40	8	30	4	26

- 概略重量0.7kg
  Rough weight 0.7kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

● 78ZDR45·81-50



● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	45	M3深(depth)6.5	40	8	30	4	26
T2	46	M4深(depth)6.5	40	6	30	4	26
T3	46	M4深(depth)6.5	40	8	30	4	26

- 概略重量1.7kg
  Rough weight 1.7kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

100W尺寸图与性能表
100W DIMENSIONAL DRAWING & PERFORMANCE TABLE

性能表 Performance Table (输入转速为3,000rpm时 When Input Speed Is 3000rpm)

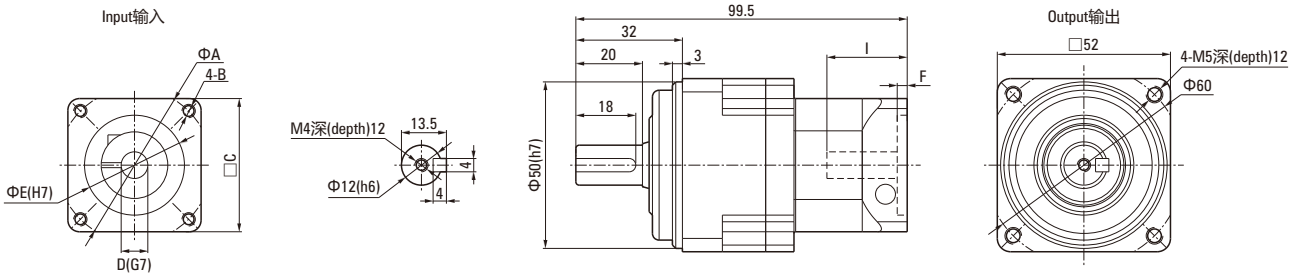
额定输入马达功率 Rated Input Motor	减速比 Reduction Ratio	系列号 Model				输出轴转速 Outout Shaft Speed	额定输出扭矩 Standard Output Torque	瞬间最大输出扭矩 Instantaneous Max.Output Torque	容许径向负荷 Permissible Radial Load	容许轴向负荷 Permissible Axial Load	输入轴换算内部惯性力矩 Internal Moment Ofinertia Of Input Shaftconversion	容许输出扭矩 Permissible Output Torque	瞬间最大容许输出扭矩 Instantaneous Max. Permissible Output Torque
		机座号 Type No.	系列号 Model	减速比 Reduction Ratio	马达功率 Motor	(rpm)	(N.m)	(N.m)	(N)	(N)	($x10^{-4}$ kg.m^2)	(N.m)	(N.m)
100W	1/3	52	ZDR	3	100	1000	0.715	2.06	392	196	0.0575	3.43	10.3
	1/5	52	ZDR	5	100	600	1.18	3.72	490	245	0.0400	1.57	4.70
	1/9	52	ZDR	9	100	333	2.25	6.86	588	294	0.0350	2.35	7.25
	1/15	52	ZDR	15	100	200	3.72	11.4	784	392	0.0350	4.02	12.2
	1/20	52	ZDR	20	100	150	5.00	15.0	804	402	0.0340	5.00	15.0
	1/25	52	ZDR	25	100	120	6.27	19.0	882	441	0.0325	6.27	19.0
	1/35	78	ZDR	35	100	85	7.24	21.7	1670	833	0.0650	13.9	41.7
	1/45	78	ZDR	45	100	66	9.31	28.0	1670	833	0.0285	9.50	28.6
	1/81	98	ZDR	81	100	37	14.0	42.0	2060	1030	0.0300	17.8	53.5

注1) 安装基准系列(马达适用表记载系列)以外的马达时，每次都是与我们联系。(法兰尺寸可能不同)
注2) 输入轴换算惯性力矩仅为减速机的数值，不包括马达的惯性力矩。
注3) 最高输入转速为5000rpm。正常情况下请转速控制在3000rpm以下。
注4) 容许径向负荷表示输出轴中央部位的值。
注5) 全部为斜齿轮适用范围。
注6) 马达的安装顺序请参照P.31。
注7) 输出轴旋转方向与马达输入旋转方向相同。

Note1) In case of attachment to a motor beyond the standard models(motor matching series), contact us. (How to measure dimensions of the flange may be changed in some cases.)
Note2) The moment of inertia of input shaft conversion is only gained from the reducer, so it does not include moment of inertia of the motor.
Note3) The max. input speed is 5000rpm, and usually set to 3000rpm or less.
Note4) The permissible radial load is indicated on the center of the output shaft.
Note5) All values are within the range corresponding to helical gear.
Note6) For motor assembly procedure, see page 31.
Note7) Rotation of the output shaft is in the same direction as motor.

尺寸表 Dimensions

● 52ZDR3·5·9-100

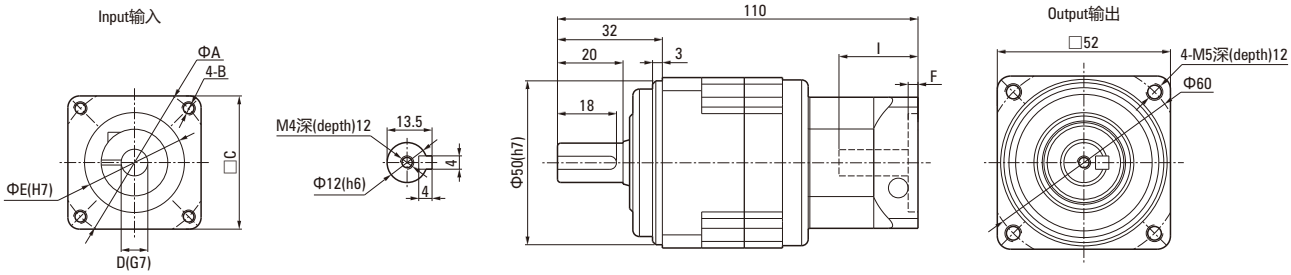


● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	45	M3深(depth)6.5	40	8	30	4	26
T2	46	M4深(depth)6.5	40	8	30	4	26
T3	46	M4深(depth)6.5	40	8	30	4	26

- 概略重量0.55kg
  Rough weight 0.55kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

● 52ZDR15·20·25-100



● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

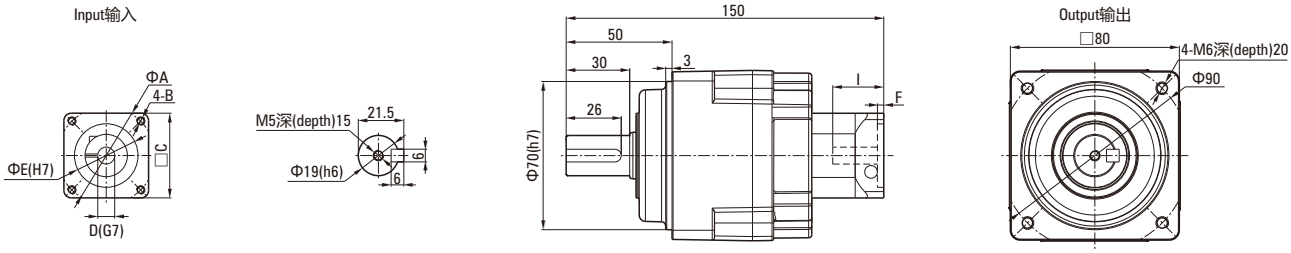
马达种类 Motor Type	A	B	C	D	E	F	I
T1	45	M3深(depth)6.5	40	8	30	4	26
T2	46	M4深(depth)6.5	40	8	30	4	26
T3	46	M4深(depth)6.5	40	8	30	4	26

- 概略重量0.7kg
  Rough weight 0.7kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

100W尺寸图与性能表
100W DIMENSIONAL DRAWING & PERFORMANCE TABLE

尺寸表 Dimensions

● 78ZDR35-100

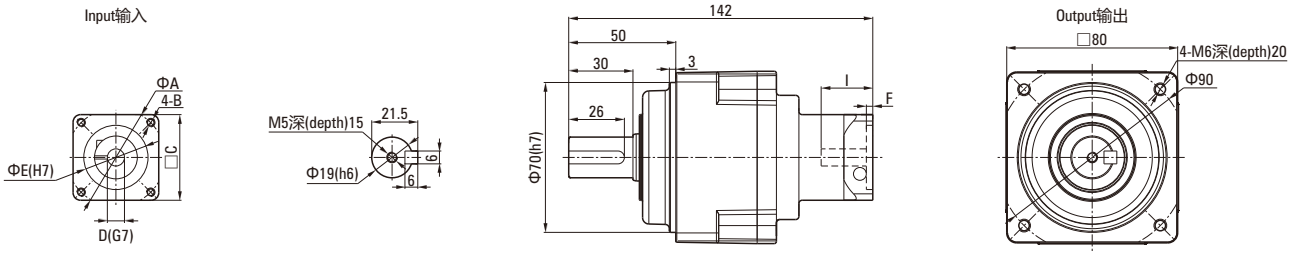


● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	45	M3深(depth)6.5	40	8	30	4	26
T2	46	M4深(depth)6.5	40	8	30	4	26
T3	46	M4深(depth)6.5	40	8	30	4	26

- 概略重量2.0kg
  Rough weight 2.0kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

● 78ZDR45-100

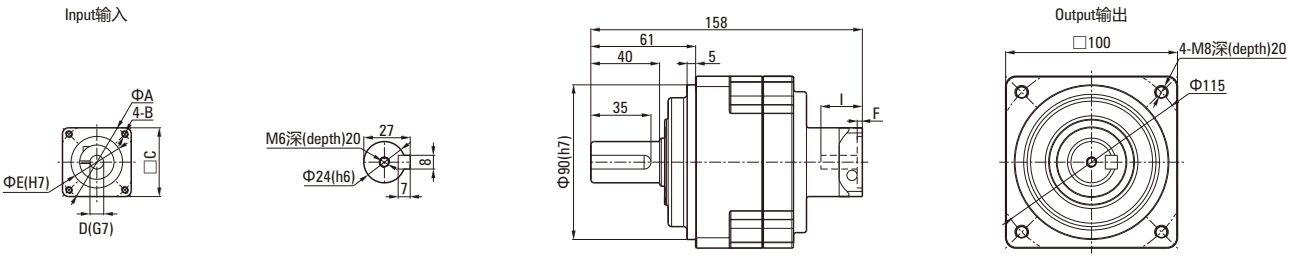


● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	45	M3深(depth)6.5	40	8	30	4	26
T2	46	M4深(depth)6.5	40	8	30	4	26
T3	46	M4深(depth)6.5	40	8	30	4	26

- 概略重量1.7kg
  Rough weight 1.7kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

● 98ZDR81-100



● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	45	M3深(depth)6.5	40	8	30	4	26
T2	46	M4深(depth)6.5	40	8	30	4	26
T3	46	M4深(depth)6.5	40	8	30	4	26

- 概略重量3.0kg
  Rough weight 3.0kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

200W尺寸图与性能表
200W DIMENSIONAL DRAWING & PERFORMANCE TABLE

性能表 Performance Table (输入转速为3,000rpm时 When Input Speed Is 3000rpm)

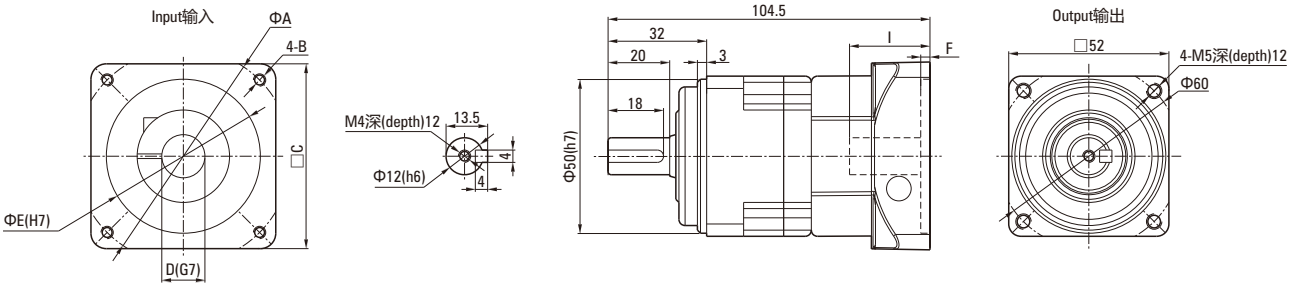
额定输入马达功率 Rated Input Motor	减速比 Reduction Ratio	系列号 Model				输出轴转速 Outout Shaft Speed	额定输出扭矩 Standard Output Torque	瞬间最大输出扭矩 Instantaneous Max.Output Torque	容许径向负荷 Permissible Radial Load	容许轴向负荷 Permissible Axial Load	输入轴换算内部惯性力矩 Internal Moment Ofinertia Of Input Shaftconversion	容许输出扭矩 Permissible Output Torque	瞬间最大容许输出扭矩 Instantaneous Max. Permissible Output Torque
		机座号 Type No.	系列号 Model	减速比 Reduction Ratio	马达功率 Motor	(rpm)	(N.m)	(N.m)	(N)	(N)	($x10^{-4}$ kg.m^2)	(N.m)	(N.m)
200W	1/3	52	ZDR	3	200	1000	1.47	4.51	392	196	0.135	3.43	10.3
	1/5	52	ZDR	5	200	600	2.65	8.04	490	245	0.118	2.84	8.53
	1/9	78	ZDR	9	200	333	3.72	11.3	1180	588	0.275	9.70	29.2
	1/15	78	ZDR	15	200	200	6.27	18.8	1470	735	0.300	16.2	48.6
	1/20	78	ZDR	20	200	150	8.69	26.1	1570	785	0.294	21.1	63.3
	1/25	78	ZDR	25	200	120	11.1	33.3	1670	833	0.288	21.7	64.9
	1/35	78	ZDR	35	200	85	15.5	46.6	1670	833	0.262	15.5	46.6
	1/45	98	ZDR	45	200	66	21.1	63.5	2060	1030	0.0256	28.3	85.2
	1/81	125	ZDR	81	200	37	36.1	108.3	3530	1765	0.240	43.3	129.9

注1) 安装基准系列(马达适用表记载系列)以外的马达时，每次都是与我们联系。(法兰尺寸可能不同)
注2) 输入轴换算惯性力矩仅为减速机的数值，不包括马达的惯性力矩。
注3) 最高输入转速为5000rpm。正常情况下请转速控制在3000rpm以下。
注4) 容许径向负荷表示输出轴中央部位的值。
注5) 全部为斜齿轮适用范围。
注6) 马达的安装顺序请参照P.31。
注7) 输出轴旋转方向与马达输入旋转方向相同。

Note1) In case of attachment to a motor beyond the standard models(motor matching series), contact us. (How to measure dimensions of the flange may be changed in some cases.)
Note2) The moment of inertia of input shaft conversion is only gained from the reducer, so it does not include moment of inertia of the motor.
Note3) The max. input speed is 5000rpm, and usually set to 3000rpm or less.
Note4) The permissible radial load is indicated on the center of the output shaft.
Note5) All values are within the range corresponding to helical gear.
Note6) For motor assembly procedure, see page 31.
Note7) Rotation of the output shaft is in the same direction as motor.

尺寸表 Dimensions

● 52ZDR3·5-200

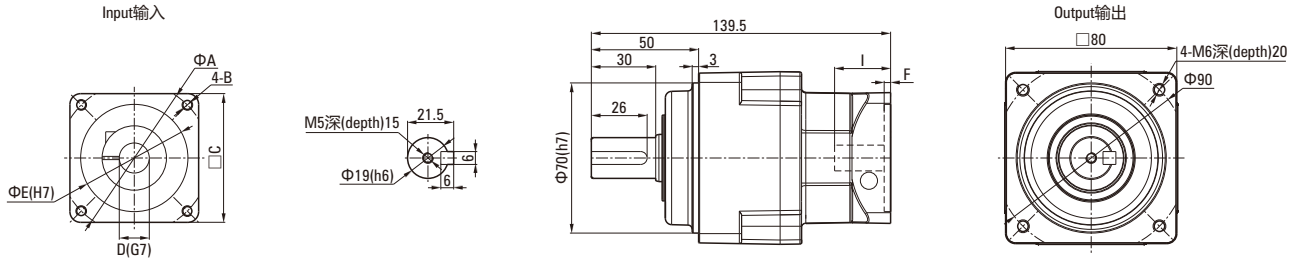


● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	70	M4深(depth)10	60	11	50	4	30
T2	70	M5深(depth)10	60	14	50	4	30
T3	70	M5深(depth)10	60	14	50	4	30

- 概略重量0.72kg
  Rough weight 0.72kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

● 78ZDR9-200



● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

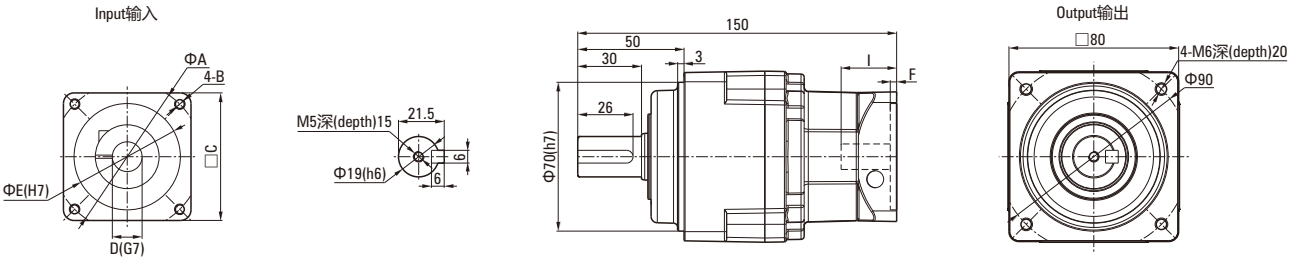
马达种类 Motor Type	A	B	C	D	E	F	I
T1	70	M4深(depth)10	60	11	50	4	30
T2	70	M5深(depth)10	60	14	50	4	30
T3	70	M5深(depth)10	60	14	50	4	30

- 概略重量1.7kg
  Rough weight 1.7kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

200W尺寸图与性能表
200W DIMENSIONAL DRAWING & PERFORMANCE TABLE

尺寸表 Dimensions

● 78ZDR15·20·25·35·200

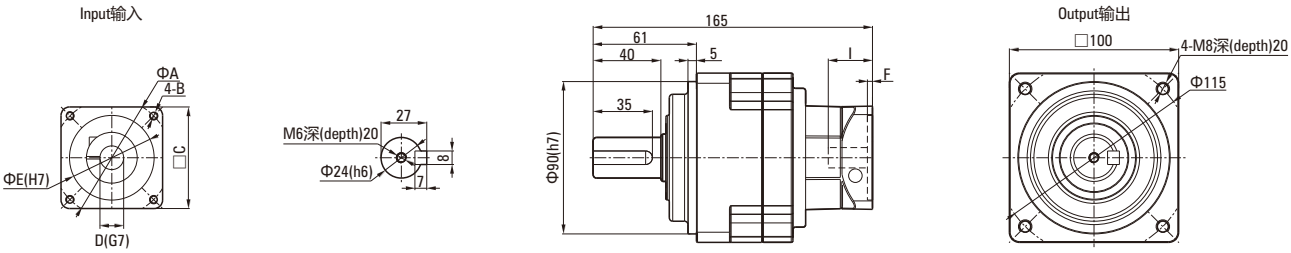


● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	70	M4深(depth)10	60	11	50	4	30
T2	70	M5深(depth)10	60	14	50	4	30
T3	70	M5深(depth)10	60	14	50	4	30

- 概略重量2.1kg
  Rough weight 2.1kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

● 98ZDR45-200

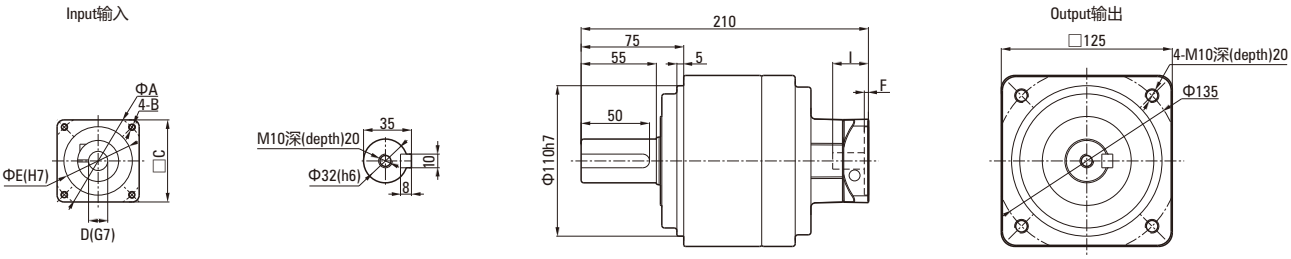


● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	70	M4深(depth)10	60	11	50	4	30
T2	70	M5深(depth)10	60	14	50	4	30
T3	70	M5深(depth)10	60	14	50	4	30

- 概略重量3.2kg
  Rough weight 3.2kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

● 125ZDR81-200



● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	70	M4深(depth)10	60	11	50	4	30
T2	70	M5深(depth)10	60	14	50	4	30
T3	70	M5深(depth)10	60	14	50	4	30

- 概略重量3.0kg
  Rough weight 3.0kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

400W尺寸图与性能表
400W DIMENSIONAL DRAWING & PERFORMANCE TABLE

性能表 Performance Table (输入转速为3,000rpm时 When Input Speed Is 3000rpm)

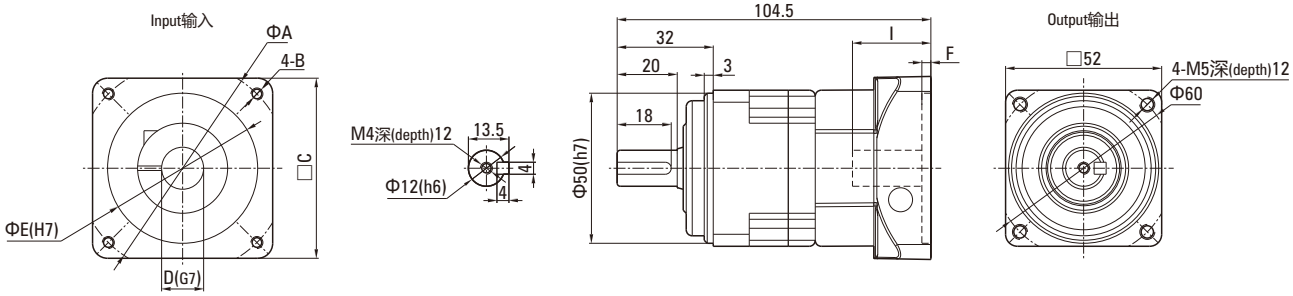
额定输入马达功率 Rated Input Motor	减速比 Reduction Ratio	系列号 Model				输出轴转速 Outout Shaft Speed	额定输出扭矩 Standard Output Torque	瞬间最大输出扭矩 Instantaneous Max.Output Torque	容许径向负荷 Permissible Radial Load	容许轴向负荷 Permissible Axial Load	输入轴换算内部惯性力矩 Internal Moment Ofinertia Of Input Shaftconversion	容许输出扭矩 Permissible Output Torque	瞬间最大容许输出扭矩 Instantaneous Max. Permissible Output Torque
		机座号 Type No.	系列号 Model	减速比 Reduction Ratio	马达功率 Motor								
						(rpm)	(N.m)	(N.m)	(N)	(N)	($x10^{-4}$ kg.m^2)	(N.m)	(N.m)
400W	1/3	52	ZDR	3	400	1000	3.43	10.3	392	196	0.145	3.43	10.3
	1/5	78	ZDR	5	400	600	5.39	16.2	980	490	0.363	6.57	19.7
	1/9	78	ZDR	9	400	333	9.51	28.5	1180	588	0.275	9.70	29.2
	1/15	78	ZDR	15	400	200	15.8	47.5	1470	735	0.300	16.2	48.6
	1/20	78	ZDR	20	400	150	21.1	63.3	1570	785	0.294	21.1	63.3
	1/25	78	ZDR	25	400	120	26.4	79.2	1670	833	0.288	26.4	79.2
	1/35	98	ZDR	35	400	85	37.0	111	2060	1030	0.269	37.0	111
	1/45	125	ZDR	45	400	66	47.5	142.5	3520	1760	0.245	57	171

注1) 安装基准系列(马达适用表记载系列)以外的马达时，每次都是与我们联系。(法兰尺寸可能不同)
注2) 输入轴换算惯性力矩仅为减速机的数值，不包括马达的惯性力矩。
注3) 最高输入转速为5000rpm。正常情况下请转速控制在3000rpm以下。
注4) 容许径向负荷表示输出轴中央部位的值。
注5) 全部为斜齿轮适用范围。
注6) 马达的安装顺序请参照P.31。
注7) 输出轴旋转方向与马达输入旋转方向相同。

Note1) In case of attachment to a motor beyond the standard models(motor matching series), contact us. (How to measure dimensions of the flange may be changed in some cases.)
Note2) The moment of inertia of input shaft conversion is only gained from the reducer, so it does not include moment of inertia of the motor.
Note3) The max. input speed is 5000rpm, and usually set to 3000rpm or less.
Note4) The permissible radial load is indicated on the center of the output shaft.
Note5) All values are within the range corresponding to helical gear.
Note6) For motor assembly procedure, see page 31.
Note7) Rotation of the output shaft is in the same direction as motor.

尺寸表 Dimensions

● 52ZDR3-400

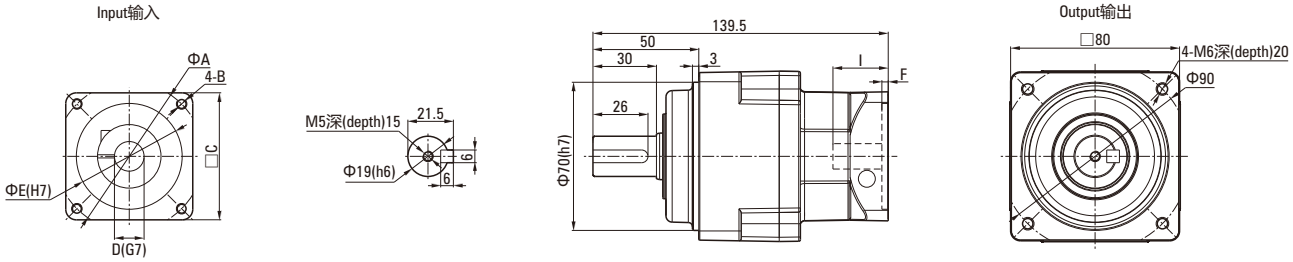


● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	70	M4深(depth)10	60	14	50	4	30
T2	70	M5深(depth)10	60	14	50	4	30
T3	70	M5深(depth)10	60	14	50	4	30

- 概略重量0.71kg
  Rough weight 0.71kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

● 78ZDR5·9-400



● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

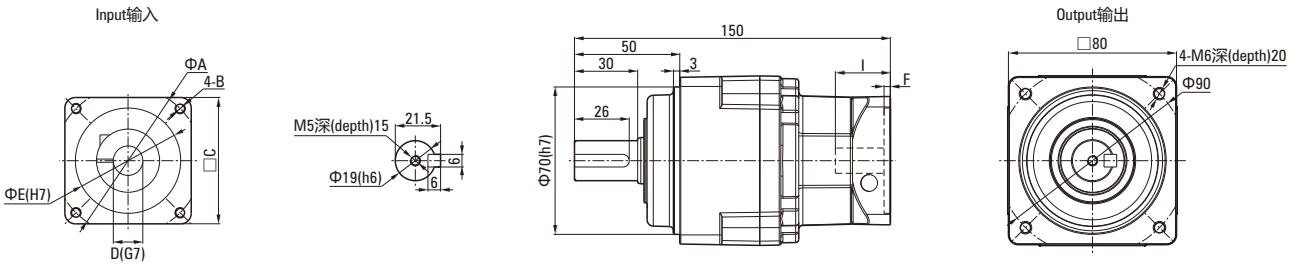
马达种类 Motor Type	A	B	C	D	E	F	I
T1	70	M4深(depth)10	60	14	50	4	30
T2	70	M5深(depth)10	60	14	50	4	30
T3	70	M5深(depth)10	60	14	50	4	30

- 概略重量1.7kg
  Rough weight 1.7kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

400W尺寸图与性能表
400W DIMENSIONAL DRAWING & PERFORMANCE TABLE

尺寸表 Dimensions

● 78ZDR15·20·25-400

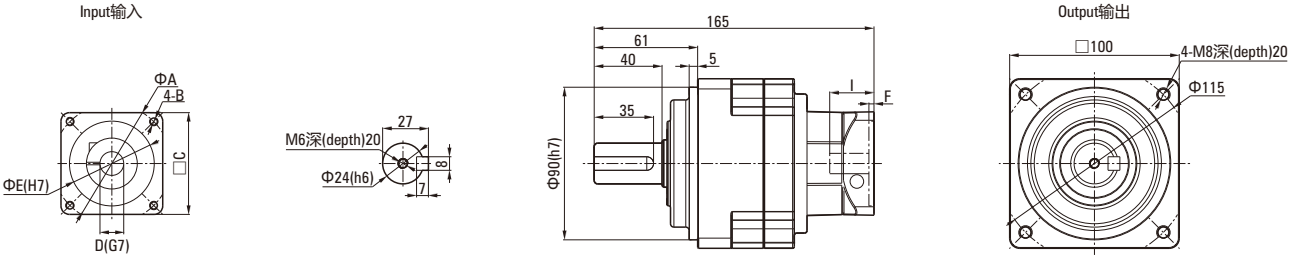


● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	70	M4深(depth)10	60	14	50	4	30
T2	70	M5深(depth)10	60	14	50	4	30
T3	70	M5深(depth)10	60	14	50	4	30

- 概略重量2.1kg
  Rough weight 2.1kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

● 98ZDR35-400

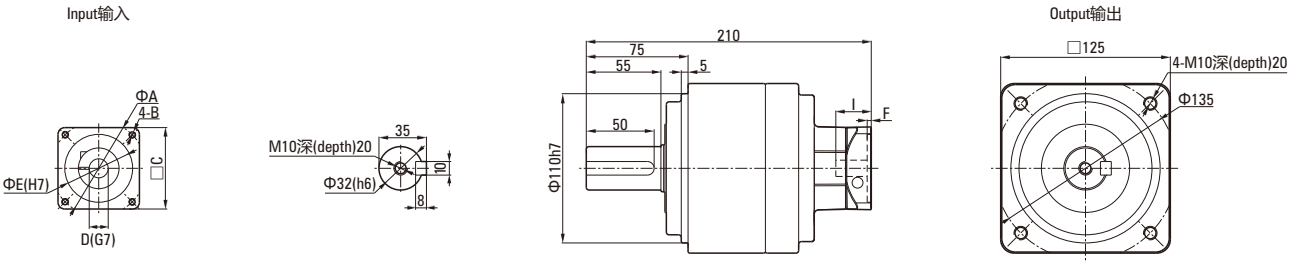


● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	70	M4深(depth)10	60	14	50	4	30
T2	70	M5深(depth)10	60	14	50	4	30
T3	70	M5深(depth)10	60	14	50	4	30

- 概略重量3.2kg
  Rough weight 3.2kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

● 125ZDR45-400



● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	70	M4深(depth)10	60	14	50	4	30
T2	70	M5深(depth)10	60	14	50	4	30
T3	70	M5深(depth)10	60	14	50	4	30

- 概略重量7.2kg
  Rough weight 7.2kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

750W尺寸图与性能表
750W DIMENSIONAL DRAWING & PERFORMANCE TABLE

性能表 Performance Table (输入转速为3,000rpm时 When Input Speed Is 3000rpm)

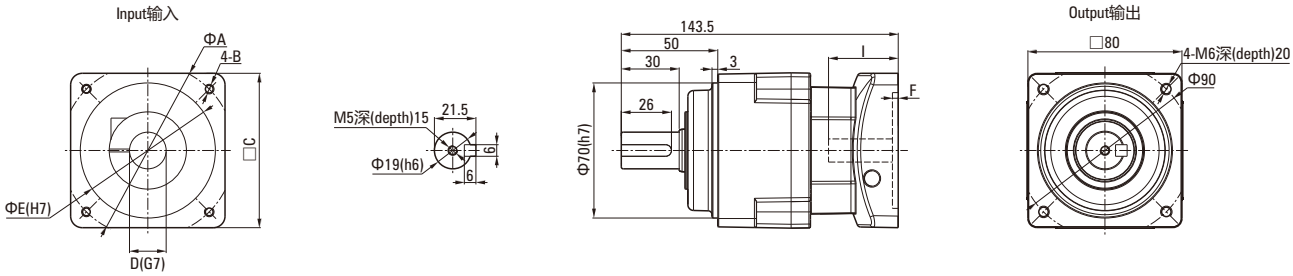
额定输入马达功率 Rated Input Motor	减速比 Reduction Ratio	系列号 Model				输出轴转速 Outout Shaft Speed	额定输出扭矩 Standard Output Torque	瞬间最大输出扭矩 Instantaneous Max.Output Torque	容许径向负荷 Permissible Radial Load	容许轴向负荷 Permissible Axial Load	输入轴换算内部惯性力矩 Internal Moment Ofinertia Of Input Shaftconversion	容许输出扭矩 Permissible Output Torque	瞬间最大容许输出扭矩 Instantaneous Max. Permissible Output Torque
		机座号 Type No.	系列号 Model	减速比 Reduction Ratio	马达功率 Motor	(rpm)	(N.m)	(N.m)	(N)	(N)	($x10^{-4}$ kg.m^2)	(N.m)	(N.m)
750W	1/3	78	ZDR	3	750	1000	6.37	19.3	784	392	0.913	6.86	20.6
	1/5	78	ZDR	5	750	600	10.7	32.1	980	490	0.713	11.5	34.3
	1/9	98	ZDR	9	750	333	18.2	54.7	1470	735	0.650	18.2	54.7
	1/15	98	ZDR	15	750	200	30.4	91.2	1760	882	0.700	30.4	91.2
	1/20	98	ZDR	20	750	150	40.6	122	1910	955	0.690	40.6	122
	1/25	98	ZDR	25	750	120	50.7	152	2060	1030	0.680	50.7	152
	1/35	125	ZDR	35	750	85	71.0	213	3430	1715	0.473	71.0	213
	1/45	125	ZDR	45	750	66	91.3	274	3520	1760	1.77	91.3	274

注1) 安装基准系列(马达适用表记载系列)以外的马达时，每次都是与我们联系。(法兰尺寸可能不同)
注2) 输入轴换算惯性力矩仅为减速机的数值，不包括马达的惯性力矩。
注3) 最高输入转速为5000rpm。正常情况下请转速控制在3000rpm以下。
注4) 容许径向负荷表示输出轴中央部位的值。
注5) 全部为斜齿轮适用范围。
注6) 马达的安装顺序请参照P.31。
注7) 输出轴旋转方向与马达输入旋转方向相同。

Note1) In case of attachment to a motor beyond the standard models(motor matching series), contact us. (How to measure dimensions of the flange may be changed in some cases.)
Note2) The moment of inertia of input shaft conversion is only gained from the reducer, so it does not include moment of inertia of the motor.
Note3) The max. input speed is 5000rpm, and usually set to 3000rpm or less.
Note4) The permissible radial load is indicated on the center of the output shaft.
Note5) All values are within the range corresponding to helical gear.
Note6) For motor assembly procedure, see page 31.
Note7) Rotation of the output shaft is in the same direction as motor.

尺寸表 Dimensions

● 78ZDR3·5-750

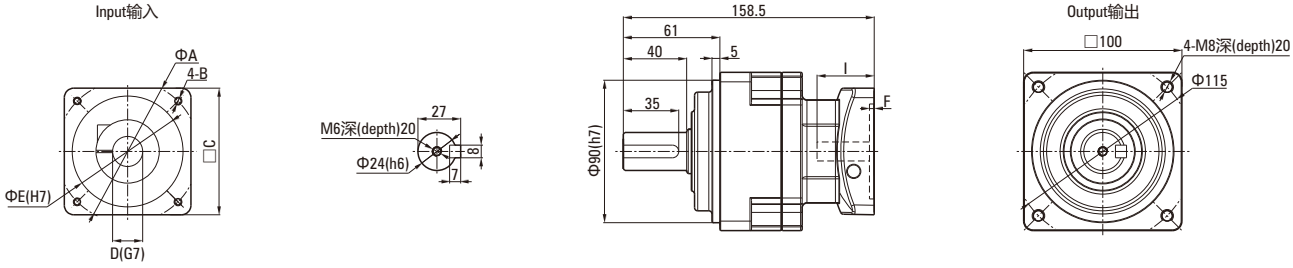


● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	90	M5深(depth)10	80	19	70	4	40
T2	90	M6深(depth)10	80	16	70	4	40
T3	90	M6深(depth)10	80	19	70	4	40

- 概略重量2.1kg
  Rough weight 2.1kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

● 98ZDR9-750



● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	90	M5深(depth)10	80	19	70	4	40
T2	90	M6深(depth)10	80	16	70	4	40
T3	90	M6深(depth)10	80	19	70	4	40

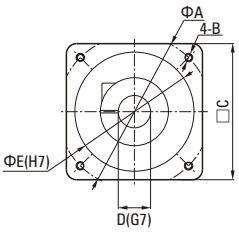
- 概略重量3.4kg
  Rough weight 3.4kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

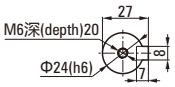
750W尺寸图与性能表
750W DIMENSIONAL DRAWING & PERFORMANCE TABLE

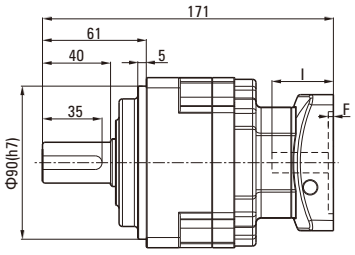
尺寸表 Dimensions

● 98ZDR15·20·25·750

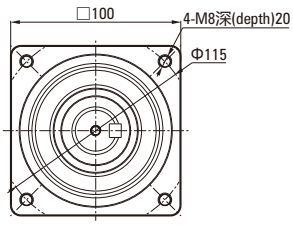
Input输入







Output输出



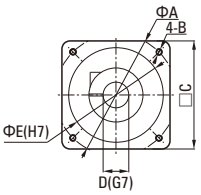
● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

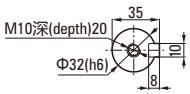
马达种类 Motor Type	A	B	C	D	E	F	I
T1	90	M5深(depth)10	80	19	70	4	40
T2	90	M6深(depth)10	80	16	70	4	40
T3	90	M6深(depth)10	80	19	70	4	40

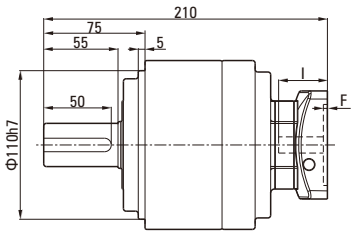
- 概略重量3.8kg
  Rough weight 3.8kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

● 125ZDR35-750

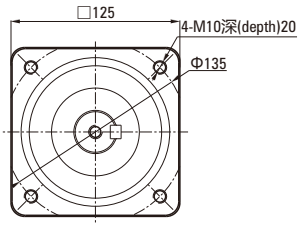
Input输入







Output输出



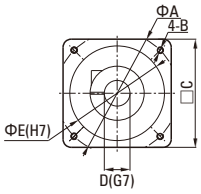
● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

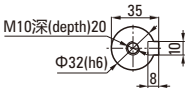
马达种类 Motor Type	A	B	C	D	E	F	I
T1	90	M5深(depth)10	80	19	70	4	40
T2	90	M6深(depth)10	80	16	70	4	40
T3	90	M6深(depth)10	80	19	70	4	40

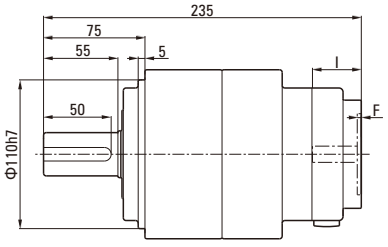
- 概略重量7.2kg
  Rough weight 7.2kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

● 125ZDR45-750

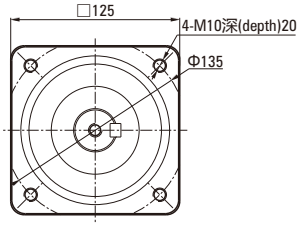
Input输入







Output输出



● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	90	M5深(depth)10	80	19	70	4	40
T2	90	M6深(depth)10	80	16	70	4	40
T3	90	M6深(depth)10	80	19	70	4	40

- 概略重量12.0kg
  Rough weight 12.0kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

1000W尺寸图与性能表
1000W DIMENSIONAL DRAWING & PERFORMANCE TABLE

性能表 Performance Table (输入转速为3,000rpm时 When Input Speed Is 3000rpm)

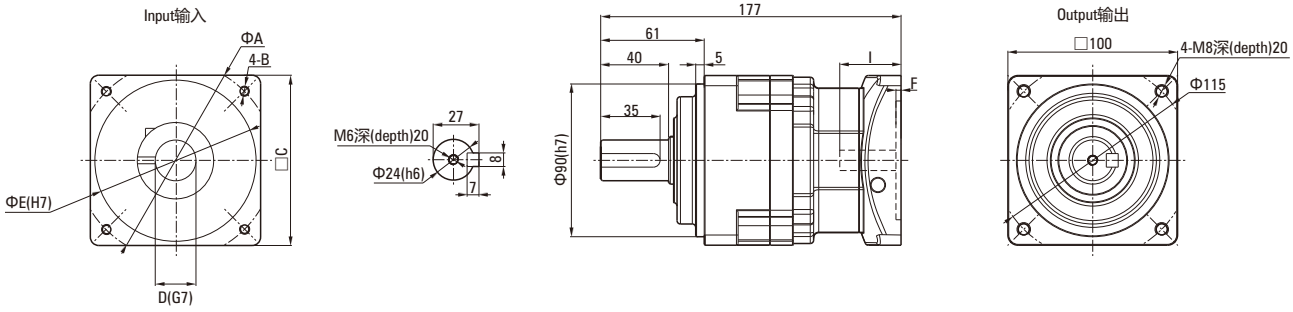
额定输入马达功率 Rated Input Motor	减速比 Reduction Ratio	系列号 Model				输出轴转速 Outout Shaft Speed	额定输出扭矩 Standard Output Torque	瞬间最大输出扭矩 Instantaneous Max.Output Torque	容许径向负荷 Permissible Radial Load	容许轴向负荷 Permissible Axial Load	输入轴换算内部惯性力矩 Internal Moment Ofinertia Of Input Shaftconversion	容许输出扭矩 Permissible Output Torque	瞬间最大容许输出扭矩 Instantaneous Max. Permissible Output Torque
		机座号 Type No.	系列号 Model	减速比 Reduction Ratio	马达功率 Motor	(rpm)	(N.m)	(N.m)	(N)	(N)	($x10^{-4}$ kg.m^2)	(N.m)	(N.m)
1000W	1/3	98	ZDR	3	1000	1000	7.55	22.8	882	441	2.43	18.3	54.9
	1/5	98	ZDR	5	1000	600	13.4	40.5	1080	539	1.85	23.5	70.6
	1/9	125	ZDR	9	1000	333	20.2	60.1	1960	980	2.81	73.5	221
	1/15	125	ZDR	15	1000	200	33.3	100	2350	1180	2.80	91.4	274
	1/20	125	ZDR	20	1000	150	44.5	134	2500	1250	2.72	78.4	235
	1/25	125	ZDR	25	1000	120	55.7	167	2650	1320	2.71	65.4	196

注1) 安装基准系列(马达适用表记载系列)以外的马达时，每次都是与我们联系。(法兰尺寸可能不同)
注2) 输入轴换算惯性力矩仅为减速机的数值，不包括马达的惯性力矩。
注3) 最高输入转速为5000rpm。正常情况下请转速控制在3000rpm以下。
注4) 容许径向负荷表示输出轴中央部位的值。
注5) 全部为斜齿轮适用范围。
注6) 马达的安装顺序请参照P.31。
注7) 输出轴旋转方向与马达输入旋转方向相同。

Note1) In case of attachment to a motor beyond the standard models(motor matching series), contact us. (How to measure dimensions of the flange may be changed in some cases.)
Note2) The moment of inertia of input shaft conversion is only gained from the reducer, so it does not include moment of inertia of the motor.
Note3) The max. input speed is 5000rpm, and usually set to 3000rpm or less.
Note4) The permissible radial load is indicated on the center of the output shaft.
Note5) All values are within the range corresponding to helical gear.
Note6) For motor assembly procedure, see page 31.
Note7) Rotation of the output shaft is in the same direction as motor.

尺寸表 Dimensions

● 98ZDR3·5-1000



● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

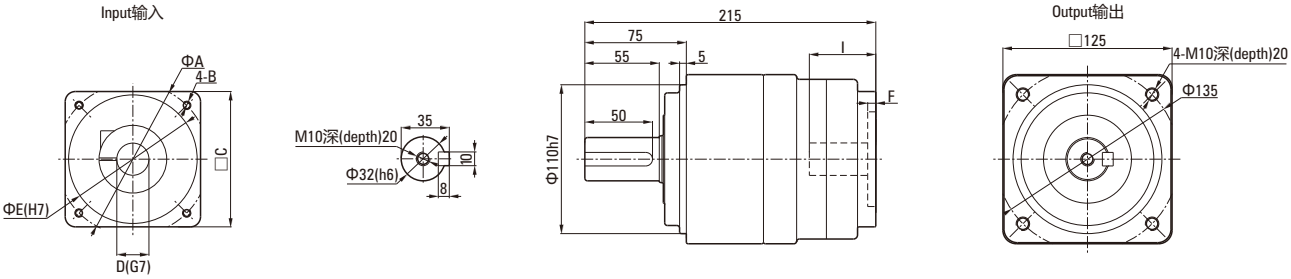
马达种类 Motor Type	A	B	C	D	E	F	I
T1	100	M6深(depth)15	90	19	80	4	55
T2	115	M6深(depth)15	100	24	95	4	55
T3	115	M8深(depth)15	100	24	95	4	55

- 概略重量3.9kg
  Rough weight 3.9kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

1000W尺寸图与性能表
1000W DIMENSIONAL DRAWING & PERFORMANCE TABLE

尺寸表 Dimensions

● 125ZDR9-1000

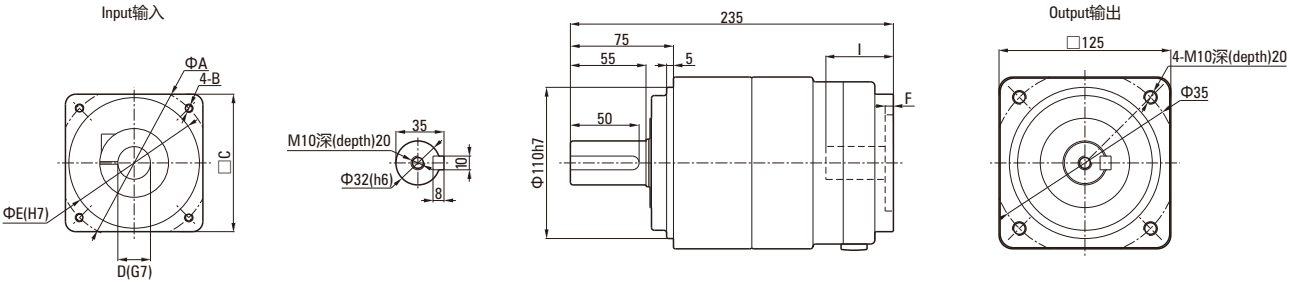


● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	100	M6深(depth)15	90	19	80	4	55
T2	115	M6深(depth)15	100	24	95	4	55
T3	115	M8深(depth)15	100	24	95	4	55

- 概略重量11.0kg
  Rough weight 11.0kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

● 125ZDR15·25-1000



● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	100	M6深(depth)15	90	19	80	4	55
T2	115	M6深(depth)15	100	24	95	4	55
T3	115	M8深(depth)15	100	24	95	4	55

- 概略重量12.0kg
  Rough weight 12.0kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

1500W尺寸图与性能表
1500W DIMENSIONAL DRAWING & PERFORMANCE TABLE

性能表 Performance Table (输入转速为3,000rpm时 When Input Speed Is 3000rpm)

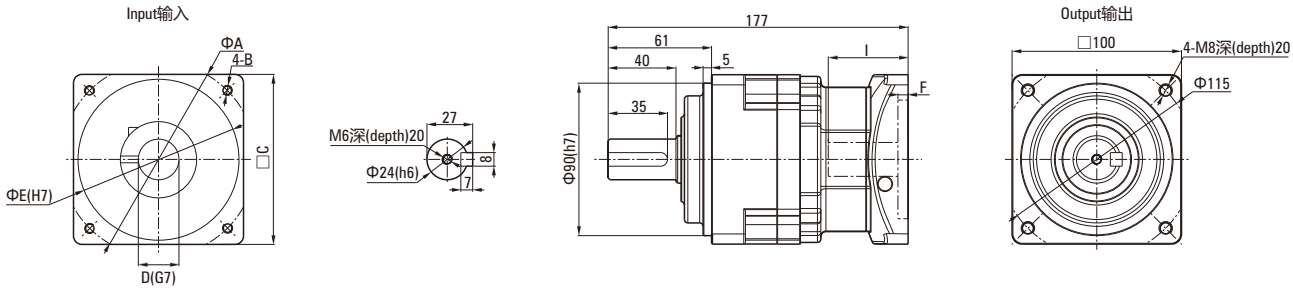
额定输入马达功率 Rated Input Motor	减速比 Reduction Ratio	系列号 Model				输出轴转速 Outout Shaft Speed	额定输出扭矩 Standard Output Torque	瞬间最大输出扭矩 Instantaneous Max.Output Torque	容许径向负荷 Permissible Radial Load	容许轴向负荷 Permissible Axial Load	输入轴换算内部惯性力矩 Internal Moment Ofinertia Of Input Shaftconversion	容许输出扭矩 Permissible Output Torque	瞬间最大容许输出扭矩 Instantaneous Max. Permissible Output Torque
		机座号 Type No.	系列号 Model	减速比 Reduction Ratio	马达功率 Motor								
						(rpm)	(N.m)	(N.m)	(N)	(N)	($x10^{-4}$ kg.m^2)	(N.m)	(N.m)
1500W	1/3	98	ZDR	3	1500	1000	12.3	37.1	882	441	2.43	18.3	54.9
	1/5	98	ZDR	5	1500	600	21.5	64.4	1080	539	1.85	23.5	70.6
	1/9	125	ZDR	9	1500	333	34.3	103	1960	980	2.81	73.5	221
	1/15	125	ZDR	15	1500	200	57.2	172	2350	1180	2.80	91.4	274

注1) 安装基准系列(马达适用表记载系列)以外的马达时，每次都是与我们联系。(法兰尺寸可能不同)
注2) 输入轴换算惯性力矩仅为减速机的数值，不包括马达的惯性力矩。
注3) 最高输入转速为5000rpm。正常情况下请转速控制在3000rpm以下。
注4) 容许径向负荷表示输出轴中央部位的值。
注5) 全部为斜齿轮适用范围。
注6) 马达的安装顺序请参照P.31。
注7) 输出轴旋转方向与马达输入旋转方向相同。

Note1) In case of attachment to a motor beyond the standard models(motor matching series), contact us. (How to measure dimensions of the flange may be changed in some cases.)
Note2) The moment of inertia of input shaft conversion is only gained from the reducer, so it does not include moment of inertia of the motor.
Note3) The max. input speed is 5000rpm, and usually set to 3000rpm or less.
Note4) The permissible radial load is indicated on the center of the output shaft.
Note5) All values are within the range corresponding to helical gear.
Note6) For motor assembly procedure, see page 31.
Note7) Rotation of the output shaft is in the same direction as motor.

尺寸表 Dimensions

● 98ZDR3·5-1500



● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

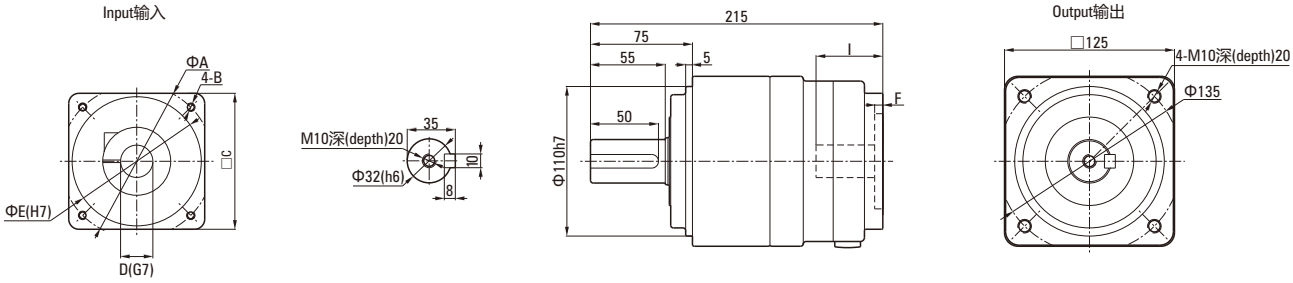
马达种类 Motor Type	A	B	C	D	E	F	I
T1	115	M8深(depth)15	100	19	95	4	55
T2	115	M6深(depth)15	100	24	95	4	55
T3	115	M8深(depth)15	100	24	95	4	55

- 概略重量3.9kg
  Rough weight 3.9kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

1500W尺寸图与性能表
1500W DIMENSIONAL DRAWING & PERFORMANCE TABLE

尺寸表 Dimensions

● 125ZDR9-1500

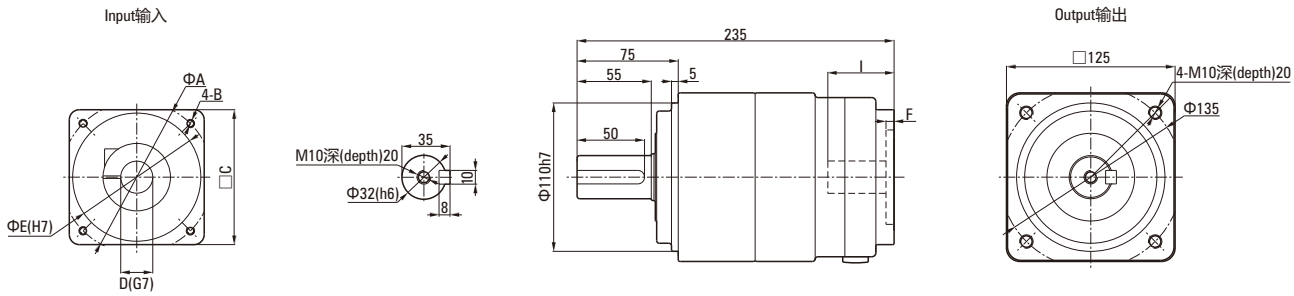


● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	115	M8深(depth)15	100	19	95	4	55
T2	115	M6深(depth)15	100	24	95	4	55
T3	115	M8深(depth)15	100	24	95	4	55

- 概略重量11.5kg
  Rough weight 11.5kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

● 125ZDR15-1500



● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	115	M8深(depth)15	100	19	95	4	55
T2	115	M6深(depth)15	100	24	95	4	55
T3	115	M8深(depth)15	100	24	95	4	55

- 概略重量12.5kg
  Rough weight 12.5kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

2000W尺寸图与性能表
2000W DIMENSIONAL DRAWING & PERFORMANCE TABLE

性能表 Performance Table (输入转速为3,000rpm时 When Input Speed Is 3000rpm)

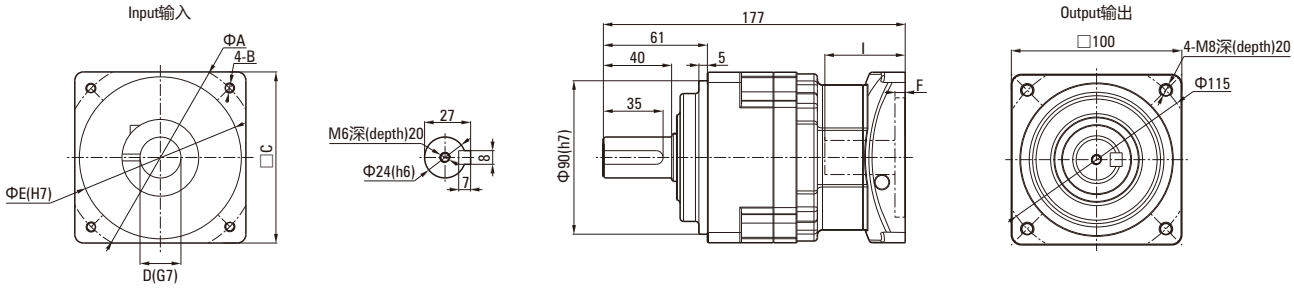
额定输入马达功率 Rated Input Motor	减速比 Reduction Ratio	系列号 Model				输出轴转速 Outout Shaft Speed	额定输出扭矩 Standard Output Torque	瞬间最大输出扭矩 Instantaneous Max.Output Torque	容许径向负荷 Permissible Radial Load	容许轴向负荷 Permissible Axial Load	输入轴换算内部惯性力矩 Internal Moment Ofinertia Of Input Shaftconversion	容许输出扭矩 Permissible Output Torque	瞬间最大容许输出扭矩 Instantaneous Max. Permissible Output Torque
		机座号 Type No.	系列号 Model	减速比 Reduction Ratio	马达功率 Motor	(rpm)	(N.m)	(N.m)	(N)	(N)	($x10^{-4}$ kg.m^2)	(N.m)	(N.m)
2000W	1/3	98	ZDR	3	2000	1000	17.2	51.5	882	441	2.43	18.3	54.9
	1/5	125	ZDR	5	2000	600	23.8	71.5	1670	833	3.50	56.8	171
	1/9	125	ZDR	9	2000	333	48.6	146	1960	980	2.81	73.5	221
	1/15	125	ZDR	15	2000	200	81.0	243	2350	1180	2.80	91.4	274

注1) 安装基准系列(马达适用表记载系列)以外的马达时，每次都是与我们联系。(法兰尺寸可能不同)
注2) 输入轴换算惯性力矩仅为减速机的数值，不包括马达的惯性力矩。
注3) 最高输入转速为5000rpm。正常情况下请转速控制在3000rpm以下。
注4) 容许径向负荷表示输出轴中央部位的值。
注5) 全部为斜齿轮适用范围。
注6) 马达的安装顺序请参照P.31。
注7) 输出轴旋转方向与马达输入旋转方向相同。

Note1) In case of attachment to a motor beyond the standard models(motor matching series), contact us. (How to measure dimensions of the flange may be changed in some cases.)
Note2) The moment of inertia of input shaft conversion is only gained from the reducer, so it does not include moment of inertia of the motor.
Note3) The max. input speed is 5000rpm, and usually set to 3000rpm or less.
Note4) The permissible radial load is indicated on the center of the output shaft.
Note5) All values are within the range corresponding to helical gear.
Note6) For motor assembly procedure, see page 31.
Note7) Rotation of the output shaft is in the same direction as motor.

尺寸表 Dimensions

● 98ZDR3-2000



● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

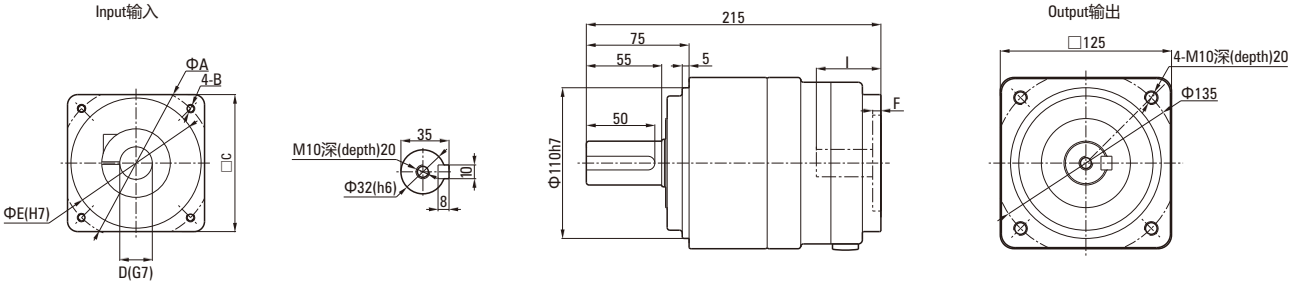
马达种类 Motor Type	A	B	C	D	E	F	I
T1	115	M8深(depth)15	100	19	95	4	55
T2	115	M6深(depth)15	100	24	95	4	55
T3	115	M8深(depth)15	100	24	95	4	55

- 概略重量3.9kg
  Rough weight 3.9kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

2000W尺寸图与性能表
2000W DIMENSIONAL DRAWING & PERFORMANCE TABLE

尺寸表 Dimensions

● 125ZDR5-9-2000

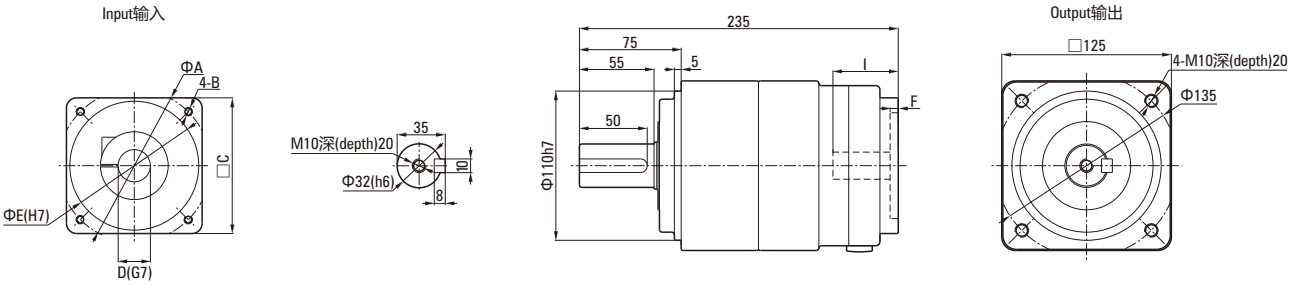


● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	115	M8深(depth)15	100	19	95	4	55
T2	115	M6深(depth)15	100	24	95	4	55
T3	115	M8深(depth)15	100	24	95	4	55

- 概略重量11.5kg
  Rough weight 11.5kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

● 125ZDR15-2000



● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	115	M8深(depth)15	100	19	95	4	55
T2	115	M6深(depth)15	100	24	95	4	55
T3	115	M8深(depth)15	100	24	95	4	55

- 概略重量12.5kg
  Rough weight 12.5kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

2500W尺寸图与性能表
2500W DIMENSIONAL DRAWING & PERFORMANCE TABLE

性能表 Performance Table (输入转速为3,000rpm时 When Input Speed Is 3000rpm)

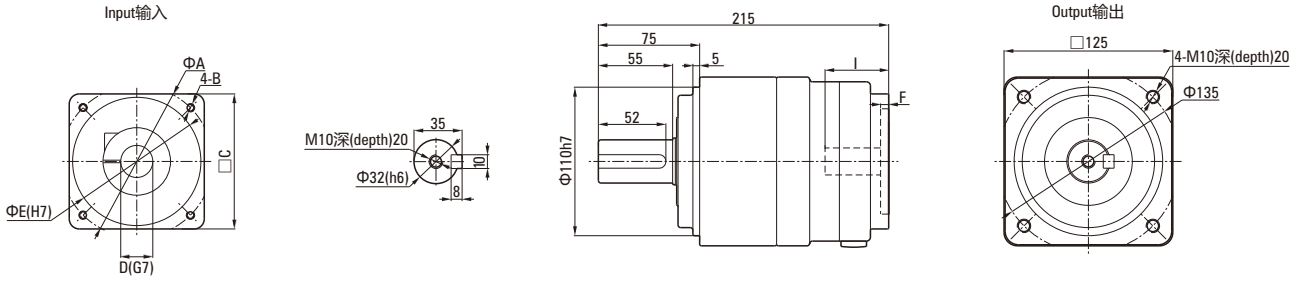
额定输入马达功率 Rated Input Motor	减速比 Reduction Ratio	系列号 Model				输出轴转速 Outout Shaft Speed	额定输出扭矩 Standard Output Torque	瞬间最大输出扭矩 Instantaneous Max.Output Torque	容许径向负荷 Permissible Radial Load	容许轴向负荷 Permissible Axial Load	输入轴换算内部惯性力矩 Internal Moment Ofinertia Of Input Shaftconversion	容许输出扭矩 Permissible Output Torque	瞬间最大容许输出扭矩 Instantaneous Max. Permissible Output Torque
		机座号 Type No.	系列号 Model	减速比 Reduction Ratio	马达功率 Motor								
						(rpm)	(N.m)	(N.m)	(N)	(N)	($x10^{-4}$ kg.m^2)	(N.m)	(N.m)
2500W	1/3	125	ZDR	3	2500	1000	19.0	57.2	1370	686	5.55	44.1	132
	1/5	125	ZDR	5	2500	600	31.8	95.5	1670	833	3.50	56.8	171
	1/9	125	ZDR	9	2500	333	60.8	182	1960	980	2.81	73.5	221

注1) 安装基准系列(马达适用表记载系列)以外的马达时，每次都是与我们联系。(法兰尺寸可能不同)
注2) 输入轴换算惯性力矩仅为减速机的数值，不包括马达的惯性力矩。
注3) 最高输入转速为5000rpm。正常情况下请转速控制在3000rpm以下。
注4) 容许径向负荷表示输出轴中央部位的值。
注5) 全部为斜齿轮适用范围。
注6) 马达的安装顺序请参照P.31。
注7) 输出轴旋转方向与马达输入旋转方向相同。

Note1) In case of attachment to a motor beyond the standard models (motor matching series),contact us. (How to measure dimensions of the flange may be changed in some cases.)
Note2) The moment of inertia of input shaft conversion is only gained from the reducer, so it does not include moment of inertia of the motor.
Note3) The max. input speed is 5000rpm, and usually set to 3000rpm or less.
Note4) The permissible radial load is indicated on the center of the output shaft.
Note5) All values are within the range corresponding to helical gear.
Note6) For motor assembly procedure, see page 31.
Note7) Rotation of the output shaft is in the same direction as motor.

尺寸表 Dimensions

● 125ZDR3·5·9-2500



● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	115	M8深(depth)15	100	19	95	4	55
T2	115	M6深(depth)15	100	24	95	4	55
T3	-	-	-	-	-	-	-

- 概略重量11.5kg
  Rough weight 11.5kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

3000W尺寸图与性能表
3000W DIMENSIONAL DRAWING & PERFORMANCE TABLE

性能表 Performance Table (输入转速为3,000rpm时 When Input Speed Is 3000rpm)

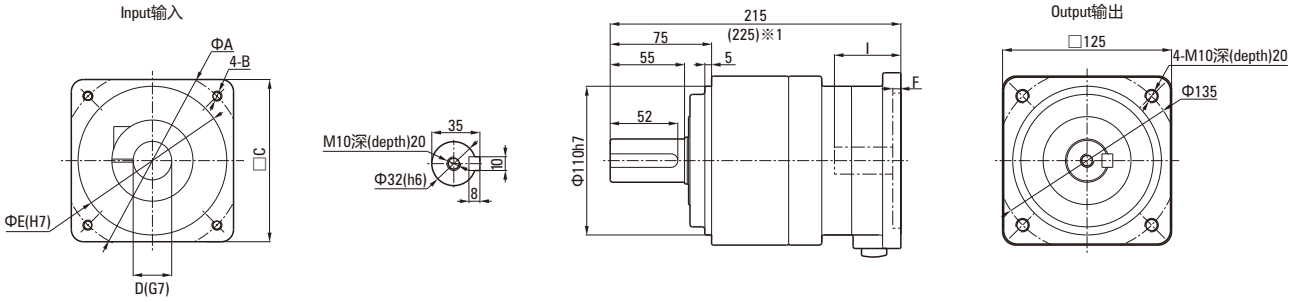
额定输入马达功率 Rated Input Motor	减速比 Reduction Ratio	系列号 Model				输出轴转速 Outout Shaft Speed	额定输出扭矩 Standard Output Torque	瞬间最大输出扭矩 Instantaneous Max.Output Torque	容许径向负荷 Permissible Radial Load	容许轴向负荷 Permissible Axial Load	输入轴换算内部惯性力矩 Internal Moment Ofinertia Of Input Shaftconversion	容许输出扭矩 Permissible Output Torque	瞬间最大容许输出扭矩 Instantaneous Max. Permissible Output Torque
		机座号 Type No.	系列号 Model	减速比 Reduction Ratio	马达功率 Motor								
						(rpm)	(N.m)	(N.m)	(N)	(N)	($x10^{-4}$ kg.m^2)	(N.m)	(N.m)
3000W	1/3	125	ZDR	3	3000	1000	23.7	71.2	1370	686	5.50	44.1	132
	1/5	125	ZDR	5	3000	600	39.6	119	1670	833	3.48	56.8	171
	1/9	125	ZDR	9	3000	333	73.0	219	1960	980	2.77	73.5	221

注1) 安装基准系列(马达适用表记载系列)以外的马达时，每次都是与我们联系。(法兰尺寸可能不同)
注2) 输入轴换算惯性力矩仅为减速机的数值，不包括马达的惯性力矩。
注3) 最高输入转速为5000rpm。正常情况下请转速控制在3000rpm以下。
注4) 容许径向负荷表示输出轴中央部位的值。
注5) 全部为斜齿轮适用范围。
注6) 马达的安装顺序请参照P.31。
注7) 输出轴旋转方向与马达输入旋转方向相同。

Note1) In case of attachment to a motor beyond the standard models (motor matching series),contact us. (How to measure dimensions of the flange may be changed in some cases.)
Note2) The moment of inertia of input shaft conversion is only gained from the reducer, so it does not include moment of inertia of the motor.
Note3) The max. input speed is 5000rpm, and usually set to 3000rpm or less.
Note4) The permissible radial load is indicated on the center of the output shaft.
Note5) All values are within the range corresponding to helical gear.
Note6) For motor assembly procedure, see page 31.
Note7) Rotation of the output shaft is in the same direction as motor.

尺寸表 Dimensions

● 125ZDR3·5·9-3000



● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	130	M8深(depth)15	120	22	110	7	55
T2	145	M8深(depth)15	130	28	110	7	65
T3	-	-	-	-	-	-	-

- 概略重量12.0kg
  Rough weight 12.0kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

3500W尺寸图与性能表
3500W DIMENSIONAL DRAWING & PERFORMANCE TABLE

性能表 Performance Table (输入转速为3,000rpm时 When Input Speed Is 3000rpm)

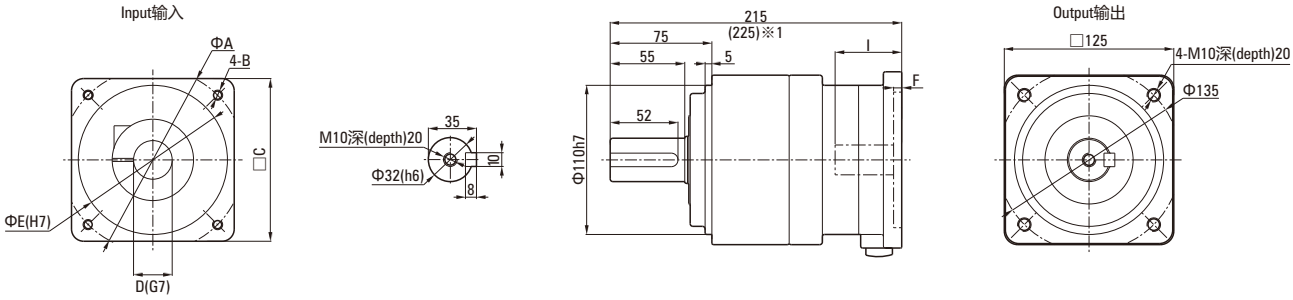
额定输入马达功率 Rated Input Motor	减速比 Reduction Ratio	系列号 Model				输出轴转速 Outout Shaft Speed	额定输出扭矩 Standard Output Torque	瞬间最大输出扭矩 Instantaneous Max.Output Torque	容许径向负荷 Permissible Radial Load	容许轴向负荷 Permissible Axial Load	输入轴换算内部惯性力矩 Internal Moment Ofinertia Of Input Shaftconversion	容许输出扭矩 Permissible Output Torque	瞬间最大容许输出扭矩 Instantaneous Max. Permissible Output Torque
		机座号 Type No.	系列号 Model	减速比 Reduction Ratio	马达功率 Motor								
						(rpm)	(N.m)	(N.m)	(N)	(N)	($x10^{-4}$ kg.m^2)	(N.m)	(N.m)
3500W	1/3	125	ZDR	3	3500	1000	28.3	85.2	1370	686	5.50	44.1	132
	1/5	125	ZDR	5	3500	600	47.2	141	1670	833	3.48	56.8	171

注1) 安装基准系列(马达适用表记载系列)以外的马达时，每次都是与我们联系。(法兰尺寸可能不同)
注2) 输入轴换算惯性力矩仅为减速机的数值，不包括马达的惯性力矩。
注3) 最高输入转速为5000rpm。正常情况下请转速控制在3000rpm以下。
注4) 容许径向负荷表示输出轴中央部位的值。
注5) 全部为斜齿轮适用范围。
注6) 马达的安装顺序请参照P.31。
注7) 输出轴旋转方向与马达输入旋转方向相同。

Note1) In case of attachment to a motor beyond the standard models (motor matching series),contact us. (How to measure dimensions of the flange may be changed in some cases.)
Note2) The moment of inertia of input shaft conversion is only gained from the reducer, so it does not include moment of inertia of the motor.
Note3) The max. input speed is 5000rpm, and usually set to 3000rpm or less.
Note4) The permissible radial load is indicated on the center of the output shaft.
Note5) All values are within the range corresponding to helical gear.
Note6) For motor assembly procedure, see page 31.
Note7) Rotation of the output shaft is in the same direction as motor.

尺寸表 Dimensions

● 125ZDR3·5-3500



● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	130	M8深(depth)15	120	22	110	7	55
T2	-	-	-	-	-	-	-
T3	145	M8深(depth)15	130	28	110	7	65

- 概略重量12.0kg
  Rough weight 12.0kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

4000W尺寸图与性能表
4000W DIMENSIONAL DRAWING & PERFORMANCE TABLE

性能表 Performance Table (输入转速为3,000rpm时 When Input Speed Is 3000rpm)

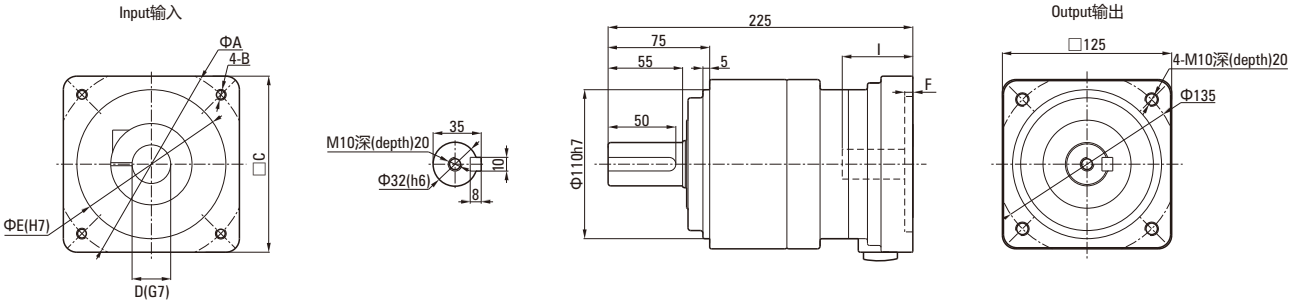
额定输入马达功率 Rated Input Motor	减速比 Reduction Ratio	系列号 Model				输出轴转速 Outout Shaft Speed	额定输出扭矩 Standard Output Torque	瞬间最大输出扭矩 Instantaneous Max.Output Torque	容许径向负荷 Permissible Radial Load	容许轴向负荷 Permissible Axial Load	输入轴换算内部惯性力矩 Internal Moment Ofinertia Of Input Shaftconversion	容许输出扭矩 Permissible Output Torque	瞬间最大容许输出扭矩 Instantaneous Max. Permissible Output Torque
		机座号 Type No.	系列号 Model	减速比 Reduction Ratio	马达功率 Motor								
						(rpm)	(N.m)	(N.m)	(N)	(N)	($x10^{-4}$ kg.m^2)	(N.m)	(N.m)
4000W	1/3	125	ZDR	3	4000	1000	33.1	99.0	1370	686	5.78	44.1	132
	1/5	125	ZDR	5	4000	600	55.3	166	1670	833	3.75	56.8	171

注1) 安装基准系列(马达适用表记载系列)以外的马达时，每次都是与我们联系。(法兰尺寸可能不同)
注2) 输入轴换算惯性力矩仅为减速机的数值，不包括马达的惯性力矩。
注3) 最高输入转速为5000rpm。正常情况下请转速控制在3000rpm以下。
注4) 容许径向负荷表示输出轴中央部位的值。
注5) 全部为斜齿轮适用范围。
注6) 马达的安装顺序请参照P.31。
注7) 输出轴旋转方向与马达输入旋转方向相同。

Note1) In case of attachment to a motor beyond the standard models (motor matching series),contact us. (How to measure dimensions of the flange may be changed in some cases.)
Note2) The moment of inertia of input shaft conversion is only gained from the reducer, so it does not include moment of inertia of the motor.
Note3) The max. input speed is 5000rpm, and usually set to 3000rpm or less.
Note4) The permissible radial load is indicated on the center of the output shaft.
Note5) All values are within the range corresponding to helical gear.
Note6) For motor assembly procedure, see page 31.
Note7) Rotation of the output shaft is in the same direction as motor.

尺寸表 Dimensions

● 125ZDR3·5-4000



● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	145	M8深(depth)15	130	24	110	7	65
T2	145	M8深(depth)15	130	28	110	7	65
T3	-	-	-	-	-	-	-

- 概略重量13.0kg
  Rough weight 13.0kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

4500W尺寸图与性能表
4500W DIMENSIONAL DRAWING & PERFORMANCE TABLE

性能表 Performance Table (输入转速为3,000rpm时 When Input Speed Is 3000rpm)

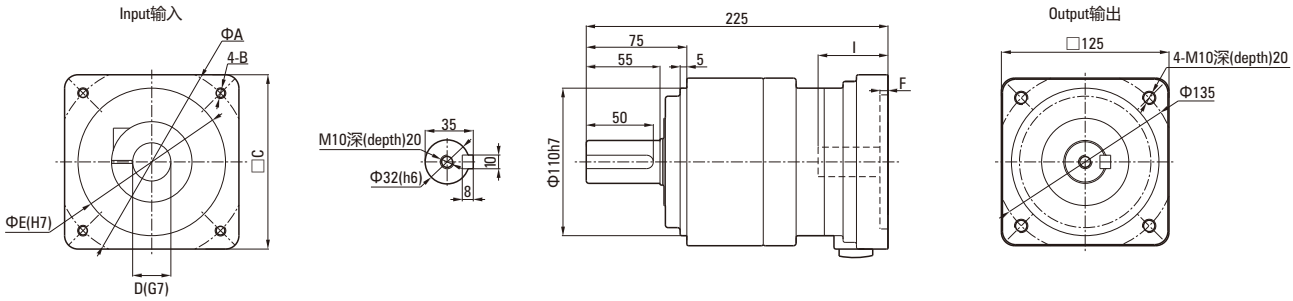
额定输入马达功率 Rated Input Motor	减速比 Reduction Ratio	系列号 Model				输出轴转速 Outout Shaft Speed	额定输出扭矩 Standard Output Torque	瞬间最大输出扭矩 Instantaneous Max.Output Torque	容许径向负荷 Permissible Radial Load	容许轴向负荷 Permissible Axial Load	输入轴换算内部惯性力矩 Internal Moment Ofinertia Of Input Shaftconversion	容许输出扭矩 Permissible Output Torque	瞬间最大容许输出扭矩 Instantaneous Max. Permissible Output Torque
		机座号 Type No.	系列号 Model	减速比 Reduction Ratio	马达功率 Motor								
						(rpm)	(N.m)	(N.m)	(N)	(N)	($x10^{-4}$ kg.m^2)	(N.m)	(N.m)
4500W	1/3	125	ZDR	3	4500	1000	37.7	113	1370	686	5.78	44.1	132

注1) 安装基准系列(马达适用表记载系列)以外的马达时，每次都是与我们联系。(法兰尺寸可能不同)
注2) 输入轴换算惯性力矩仅为减速机的数值，不包括马达的惯性力矩。
注3) 最高输入转速为5000rpm。正常情况下请转速控制在3000rpm以下。
注4) 容许径向负荷表示输出轴中央部位的值。
注5) 全部为斜齿轮适用范围。
注6) 马达的安装顺序请参照P.31。
注7) 输出轴旋转方向与马达输入旋转方向相同。

Note1) In case of attachment to a motor beyond the standard models (motor matching series),contact us. (How to measure dimensions of the flange may be changed in some cases.)
Note2) The moment of inertia of input shaft conversion is only gained from the reducer, so it does not include moment of inertia of the motor.
Note3) The max. input speed is 5000rpm, and usually set to 3000rpm or less.
Note4) The permissible radial load is indicated on the center of the output shaft.
Note5) All values are within the range corresponding to helical gear.
Note6) For motor assembly procedure, see page 31.
Note7) Rotation of the output shaft is in the same direction as motor.

尺寸表 Dimensions

● 125ZDR3-4500



● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	145	M8深(depth)15	130	24	110	7	65
T2	-	-	-	-	-	-	-
T3	-	-	-	-	-	-	-

- 概略重量13.0kg
  Rough weight 13.0kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

5000W尺寸图与性能表
5000W DIMENSIONAL DRAWING & PERFORMANCE TABLE

性能表 Performance Table (输入转速为3,000rpm时 When Input Speed Is 3000rpm)

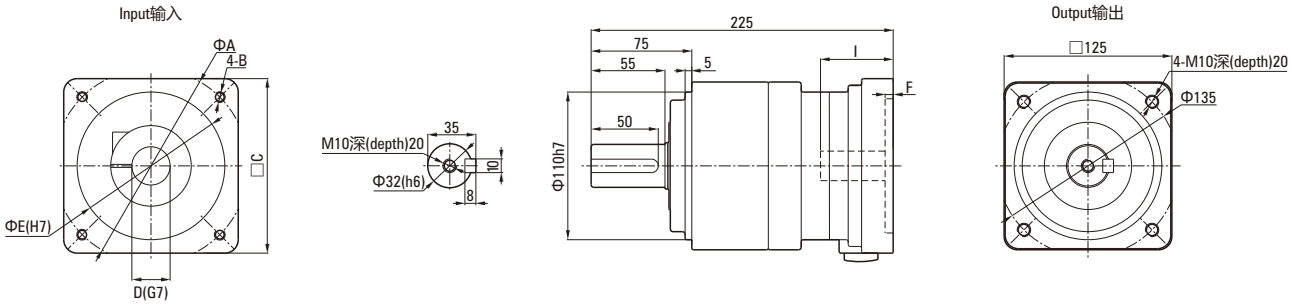
额定输入马达功率 Rated Input Motor	减速比 Reduction Ratio	系列号 Model				输出轴转速 Outout Shaft Speed	额定输出扭矩 Standard Output Torque	瞬间最大输出扭矩 Instantaneous Max.Output Torque	容许径向负荷 Permissible Radial Load	容许轴向负荷 Permissible Axial Load	输入轴换算内部惯性力矩 Internal Moment Ofinertia Of Input Shaftconversion	容许输出扭矩 Permissible Output Torque	瞬间最大容许输出扭矩 Instantaneous Max. Permissible Output Torque
		机座号 Type No.	系列号 Model	减速比 Reduction Ratio	马达功率 Motor								
						(rpm)	(N.m)	(N.m)	(N)	(N)	($x10^{-4}$ kg.m^2)	(N.m)	(N.m)
5000W	1/3	125	ZDR	3	5000	1000	42.9	128	1370	686	5.78	44.1	132

注1) 安装基准系列(马达适用表记载系列)以外的马达时，每次都是与我们联系。(法兰尺寸可能不同)
注2) 输入轴换算惯性力矩仅为减速机的数值，不包括马达的惯性力矩。
注3) 最高输入转速为5000rpm。正常情况下请转速控制在3000rpm以下。
注4) 容许径向负荷表示输出轴中央部位的值。
注5) 全部为斜齿轮适用范围。
注6) 马达的安装顺序请参照P.31。
注7) 输出轴旋转方向与马达输入旋转方向相同。

Note1) In case of attachment to a motor beyond the standard models (motor matching series),contact us. (How to measure dimensions of the flange may be changed in some cases.)
Note2) The moment of inertia of input shaft conversion is only gained from the reducer, so it does not include moment of inertia of the motor.
Note3) The max. input speed is 5000rpm, and usually set to 3000rpm or less.
Note4) The permissible radial load is indicated on the center of the output shaft.
Note5) All values are within the range corresponding to helical gear.
Note6) For motor assembly procedure, see page 31.
Note7) Rotation of the output shaft is in the same direction as motor.

尺寸表 Dimensions

● 125ZDR3-5000



● 法兰部位详细尺寸表 Detailed Flange Dimensions Table (单位Unit:mm)

马达种类 Motor Type	A	B	C	D	E	F	I
T1	145	M8深(depth)15	130	24	110	7	65
T2	145	M8深(depth)15	130	28	110	7	65
T3	145	M8深(depth)15	130	28	110	7	65

- 概略重量13.0kg
  Rough weight 13.0kg
- T1～3的详细情况请参照P.33
  For details of T1～3, see page 33

安装马达的步骤 Assembly Procedure

客户自行安装伺服马达时，请按以下要领进行安装。伺服马达的尺寸多种多样，除指定的产品外，有些马达可能会无法连接法兰，因为，一定要使用您订货时指定的马达。

If a customer personally assembles the servo motor and reducer please use the following tip. The reducer flange to which the servo motor is attached has different dimensions based on the motor specified. Therefore, assembly may be impossible for some motor. Make sure the correct motor is specified before ordering the reducer.

1.**安装无键马达** Spec. In Case Of Assembling A Motor Without Key

①取下橡胶帽，转动输入轴，使螺栓头和紧定螺钉的孔吻合。并确认固定螺栓已松开。
Take off the rubber cap, turn the input shaft, and match the head of the bolt to the hole of the rubber cap. Make sure that the set bolt is loosened.

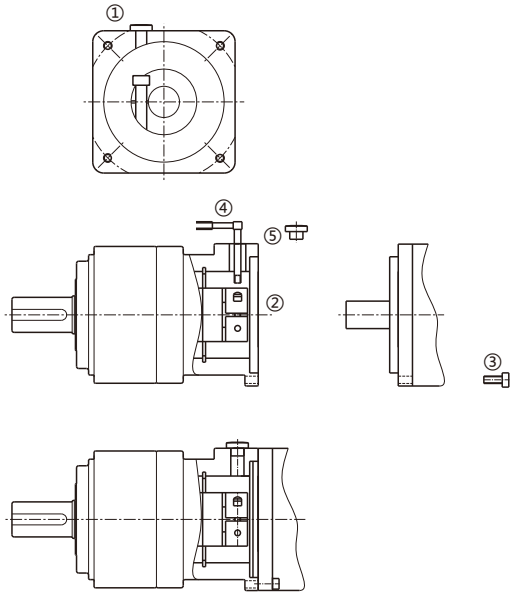
②将马达轴平稳地插入输出轴（请确保不受阻塞地顺畅的插入）。请充分注意不要让马达倾斜插入。
Gradually put the motor shaft into the input shaft (Ensure that it is smoothly put in without iam). Be careful not to be inserted with the motor tilted.

③将马达固定在减速机上，并按指定的扭矩将螺栓拧紧。参考表1
Attach the motor to the reducer and fasten the bolt with designated fastening torque. See table 1.

④使用扭矩扳手等工具，按指定的扭矩将输入轴的固定螺栓拧紧。参考表2
Fasten the set bolt of the input shaft with designated fastening torque wrench, etc. See table 2.

⑤盖上橡胶帽。安装到此结束。
Put on the rubber cap. It is the end of assembling.

● **ZDR 系列示意图**
ZDR Series Schematic Diagram



● 表1 Table1

马达固定螺栓 Motor Combination Bolt	拧紧扭矩 Fastening Torque	
	(N·m)	(kgf·cm)
M3	1.0	10
M4	3.0	30
M5	5.8	60
M6	9.8	100
M8	19.6	200
M10	39.2	400
M12	68.6	700
M16	168	1650

● 表2 Table2

固定螺栓 Combination Bolt	拧紧扭矩 Fastening Torque	
	(N·m)	(kgf·cm)
M3	1.5	15
M4	3.5	35
M5	7.1	71
M6	12	120
M8	30	300
M10	60	612

带键槽式马达的键取下后，可以像上述无键马达一样安装。无需担心会滑动。
You can assemble the motor with keyway like above when take off the key. There is no risk of dislocation.

安装
ASSEMBLY

2.安装带键槽马达 Spec. In Case Of Assembling A Motor With Key

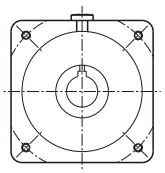
①取下橡胶帽，转动输入轴，使螺栓头和橡胶帽的孔吻合。
Take off the rubber cap, turn the input shaft, and match the head of the bolt to the hole of the rubber cap.

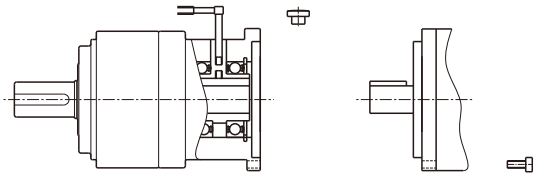
②在马达轴上涂上防烧结剂（二氧化钼等），并将键与键槽对上后平稳地插入输出轴（请确保不受阻塞地顺畅的插入）。请务必注意不要让马达倾斜插入。
Coat carbon formation inhibitors (molybdenum dioxide etc.) onto the motor shaft, match the key slot, and gradually.

③将马达安装在减速机上，并按指定的扭矩将螺栓拧紧。参考表1
Combine the motor with the reducer and fasten with the designated fastening bolt. See table 1

④使用扭矩扳手等工具按指定的扭矩将输入轴的固定螺栓拧紧，并确认键已被压紧。参考表3
For set bolt of the input shaft, fasten using torque wrench with the designated fastening torque with the key firmly pressed. See table 3

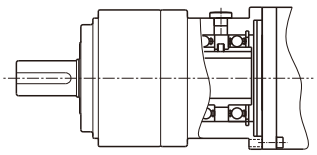
⑤盖上橡胶帽。安装到此结束。 Puton a rubber cap. The is the end.





● 表3 Table3

固定螺栓 Combination Bolt	拧紧扭矩 Fastening Torque	
	(N·m)	(kgf·cm)
M4	2.0	20
M5	4.3	43
M6	7.3	73
M8	16.8	168



减速机的安装 Peducer Assembly

将减速机安装在设备上时，请在确认安装面平坦且无毛刺等后，使用扭矩扳手等工具按指定的扭矩用螺栓将其固定。参考表4
Jointing with reducer in case of jointing a reducer with the device, make sure that the combining side is plane without inconsistency, and when assemble reducer outo equipment, ensuring assembly surface smooth and without burr. See Table 4.

● 表4 Table4

减速机固定螺栓 Reducer Combination Bolt	拧紧扭矩 Fastening Torque	
	(N·m)	(kgf·cm)
M5	5.8	60
M6	9.8	100
M8	19.6	200
M10	39.2	400
M12	68.6	700
M16	16.8	1650

连接输出轴 Connection To The Output Shaft

注意事项 Cautions:

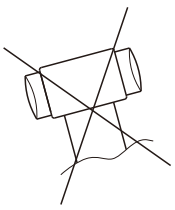
1、在输出轴上安装耦合器、滑轮等时，请勿在输出轴上施加过大的轴向负荷。
When assemble a coupling, pulley, etc. onto the output shaft, make sure that excessive axial load not be given to the output shaft.

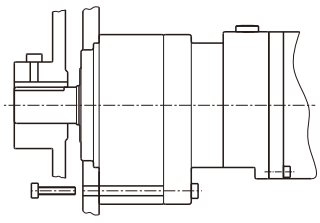
2、请勿使用强力将轴敲入，以免使轴承或减速机内部受到损伤。
In case of strongly hitting the shaft with a hammer, the shaft inlet or the inside of the reducer may be damaged, therefore it shall be prohibited.

3、安装的耦合器等的轴和键槽如有较大松动，可能会导致设备烧毁，安装时请充分注意。
If the shaft or key of a coupling assembled is loosed, it may cause carbonization, so be careful when assembling.

4、安装耦合器等时，请使用固定螺栓来将键固定住。
For assembling of a coupling, fix the key with a set bolt.

5、连接时请充分调校轴心。
Please adjust shaft centre carefully in connecting.





马达对应表（输入转速为3,000RPM时）
MOTOR MATCHING TABLE (WHEN INPUT SPEED IS 3,000RPM)

对应表 Matching Table

生产厂家 Motor Manufacturer	马达系列 Motor Series	马达功率 Motor Power (W)				
		50W	100W	200W	400W	750W
松下电器产业(株) Panasonic	MSM	T1				
	MSMA	T1				
	MSMD	T1				
	MUMA	标准外 Out of standard	标准外 Out of standard	T1		
	MBMK	T1	标准外 Out of standard	T1		
	MUMS	标准外 Out of standard				
(株)安川电机 Yaskawa electric	SGM	T2				
	SGMAH	T2				
	SGMAS	T2				
	SJME	无对象 No subject	T2			
	SGMJV	T3				
	SGMAV	T3				
三菱电机(株) Mitsubishi electric	HC-KF	T3				
	HC-KFS	T3				
	HC-MF	T3				
	HC-MFS	T3				
	HA-ME	T3				
	HC-PQ	T3				无对象 No subject
	HC-KQ	T3				无对象 No subject
	HF-KP	T3				
	HF-MP	T3				
欧姆龙(株) Omrom	R88M-U	T2				
	R88M-W	T2				
	R7M-A	T2				
	R7M-Z	T2				
富士电机机器控制(株) Fuji electric systems	GYS※	T2				
山洋电气(株) Sanyo Denki	P30B	T3				T2
	Q1	T3				标准外 Out of standard
(株)吉恩斯 Keyence	MV	T3				标准外 Out of standard
东芝电机(株) Toshiba machine	VLBSV-Z※	标准外 Out of standard		T3		
	VLBSV-ZA※	标准外 Out of standard		T3		
	VLBSVT	标准外 Out of standard		T3		标准外 Out of standard
多摩川精机(株) Tamagawa seiki	TBL-i※	T3				无对象 No subject
	TBL-ii※	T3				标准外 Out of standard
日机电转(株) Nikki denso	NA50	T1				
	NA70※	T3				无对象 No subject
	NA80※	T3				标准外 Out of standard
(株)三明 Sanmei	TS※	T3				标准外 Out of standard
	SS※	T3				标准外 Out of standard
(株)日立产机系统 Hitachi industrial equipment systems	ADMA	T3				标准外 Out of standard
三木普利 Miki pulley	SA3	T1				

注1)没有油封和尺寸不同时，安装带油封的马达有时需特别订货。
If an oil-seal is not present and the size is different, attachment of the oil-seal may correspond to special order, in some cases.
注2)马达轴为D形轴、锥形时需要特别订货。
If the motor shaft is of D-cut and taper type, it corresponds to a special order.
注3)因马达功率（适用表中带※的马达）与减速比的组合，出现瞬间最大输出扭矩时，产生的轴向力有时会超过伺服马达容许轴向力，因此，需要注意。
Note that thrust power arsing out of instantaneous max, output torque bu the combination of motor capacity (motor of the motor series table) and reduction ratio may exceed permissible thrust power of the servo motor.
注4)标准外有时需要特别订货。欲知详情，请另外与本公司联系。
Out-of-standard may correspond to a special order in some cases, For details, contact us.

马达对应表（输入转速为3,000RPM时）
MOTOR MATCHING TABLE (WHEN INPUT SPEED IS 3,000RPM)

对应表 Matching Table

生产厂家 Motor Manufacturer	马达系列 Motor Series	马达功率 Motor Power (W)								
		1000W	1500W	2000W	2500W	3000W	3500W	4000W	4500W	5000W
松下电器产业(株) Panasonic	MSM	T1								
	MSMA	T1								
(株)安川电机 Yaskawa electric	SGMS	T2			无对象No subject	T2	无对象No subject	T2	无对象No subject	T2
	SGMSH	T2			无对象No subject	T2	无对象No subject	T2	无对象No subject	T2
	SGMSS	T2					无对象No subject	T2	无对象No subject	T2
三菱电机(株) Mitsubishi electric	HC-RF	T3			无对象No subject		T3	无对象No subject		T3
	HC-RFS	T3			无对象No subject		T3	无对象No subject		T3
	HC-RP	T3			无对象No subject		T3	无对象No subject		T3
欧姆龙(株) Omrom	R88M-U	T2			无对象No subject	T2	无对象No subject	T2	无对象No subject	T2
	R88M-W	T2			无对象No subject	T2	无对象No subject	T2	无对象No subject	T2
富士电机机器控制(株) Fuji electric systems	GYS	T3			无对象No subject	T2	无对象No subject	T2	无对象No subject	T2

下列系列马达也可以标准方式适应 Standard Compatibility With The Follwing Motor Series

生产厂家 Motor Manufacturer	马达系列 Motor Series	马达功率 Motor Power (W)
三菱电机(株) Mitsubishi electric	HC-SFS※	500W,1000W,1500W,2000W,3500W
	HF-SP	
(株)安川电机 Yaskawa electric	SGMP	100W,200W,400W,750W,1500
	SGMPH	
	SGMPS	
松下电器产业(株) Panasonic	MQMA	100W,200W,400W
欧姆龙(株) Omrom	R88M-WP	100W,200W,400W,750W,1500W
	R7M-AP	100W,200W,400W,750W
富士电机机器控制(株) Fuji electric systems	GYC	100W,200W,400W
发那科(株) Fanuc	BiS※	200W,400W,500W,750W,1200W

注1)没有油封和尺寸不同时，安装带油封的马达有时需特别订货。 注2)马达轴为D形轴、锥形时需要特别订货。 注3)因马达功率（适用表中带※的马达）与减速比的组合，出现瞬间最大输出扭矩时，产生的轴向力有时会超过伺服马达容许轴向力，因此，需要注意。 注4)标准外有时需要特别订货。欲知详情，请另外与本公司联系。

Note1) If an oil-seal is not present and the size is different, attachment of the oil-seal may correspond to specia order, in some cases. Note2) If the motor shaft is of D-cut and taper type, it corresponds to a special order. Note3) Note that thrust power arsing out of instantaneous max, ouyput torque bu the combination of motor capactith (motor of the motor series table) and reduction ratio may exceed permissible thrust power of the servo motor. Note4) Out-of-standard may correspond to a special order in some cases, For details, contact us.

除上述伺服马达厂家外，本公司减速机还适配以下伺服马达厂家。安装方式请咨询本公司。

Our gearbox can match to servo motor of followings manufacturers,including aboves.Please ask us about the assembly.

神钢电机(株)	日本电产三协	中达电通	路斯特	博世力士乐
FANUC	POCKWELL	山洋	多摩川	基恩斯
东芝机械	日机电装	三明	日立产机系统	三木普利

其他 etc.

CATALOGUE

精密谐波齿轮减速器
PRECISION STRAIN WAVE GEAR REDUCER

中大力德

摆线针轮精密减速器
CYCLOIDAL PIN WHEEL PRECISION REDUCER

中大力德

微型永磁无刷齿轮减速电机
DC BRUSHLESS GEAR MOTOR

中大力德

伺服驱动器 / 无刷驱动器
工业车辆驱动器 / 交流调速器
SERVO DRIVER / BRUSHLESS DRIVER
INDUSTRIAL VEHICLE DRIVER / AC SPEED CONTROLLER

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